

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050922\
 Data File : VL039010.D
 Acq On : 10 May 2022 6:19
 Operator : SY/AP
 Sample : N2696-05DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

Quant Time: May 10 08:09:29 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1032156	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.15	114	2936562	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.05	117	2561650	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.38	95	1899480	9.36	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.60%

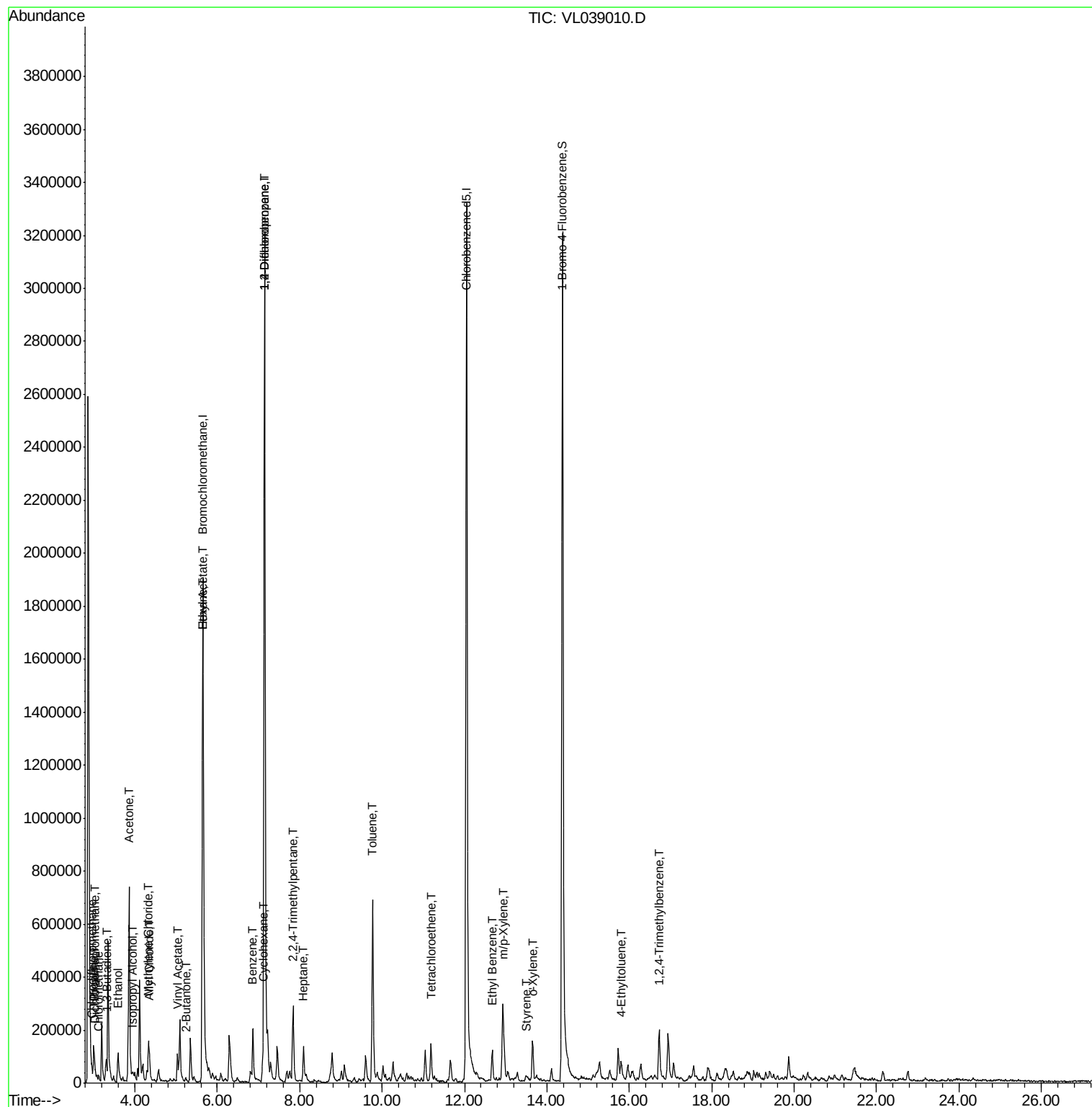
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	17640	0.109	ppbv	97
3) Chlorodifluoromethane	2.96	51	34533	0.270	ppbv #	73
4) Chloromethane	3.13	50	5231	0.082	ppbv	97
9) Propene	3.00	41	65318	1.168	ppbv	94
10) Heptane	8.09	43	67053	0.489	ppbv	98
13) Ethanol	3.58	45	134849	34.068	ppbv	98
15) Acetone	3.86	43	487681	5.009	ppbv #	74
16) 1,3-Butadiene	3.32	39	3280	0.059	ppbv #	1
19) Isopropyl Alcohol	3.95	45	22137	0.478	ppbv #	62
20) Methylene Chloride	4.32	84	52075	1.419	ppbv	97
21) Allyl Chloride	4.35	41	15214	0.229	ppbv #	44
23) Vinyl Acetate	5.03	43	39741	0.516	ppbv #	1
25) Ethyl Acetate	5.66	43	147547	0.633	ppbv #	79
26) Hexane	5.66	57	208111	2.010	ppbv #	40
30) Cyclohexane	7.10	84	16922	0.195	ppbv #	15
34) 2-Butanone	5.23	43	17787	0.119	ppbv #	77
36) Benzene	6.86	78	180710	0.719	ppbv	96
39) 1,2-Dichloropropane	7.15	63	672191	6.874	ppbv #	24
44) 2,2,4-Trimethylpentane	7.84	57	280140	0.635	ppbv #	93
52) Tetrachloroethene	11.18	164	16243	0.181	ppbv	94
53) Toluene	9.77	91	539586	1.916	ppbv	99
58) Ethyl Benzene	12.68	91	114158	0.310	ppbv	89
59) m/p-Xylene	12.93	91	329568	1.047	ppbv	92
60) o-Xylene	13.65	91	129436	0.437	ppbv	93
61) Styrene	13.49	104	7598	0.048	ppbv #	82
72) 4-Ethyltoluene	15.80	105	27014	0.080	ppbv #	53
74) 1,2,4-Trimethylbenzene	16.73	105	150338	0.452	ppbv #	66

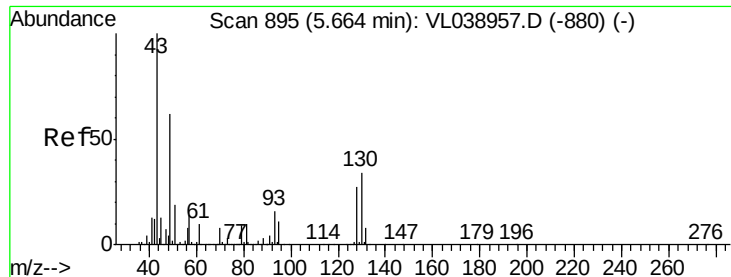
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data File : VL039010.D
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Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA1DL

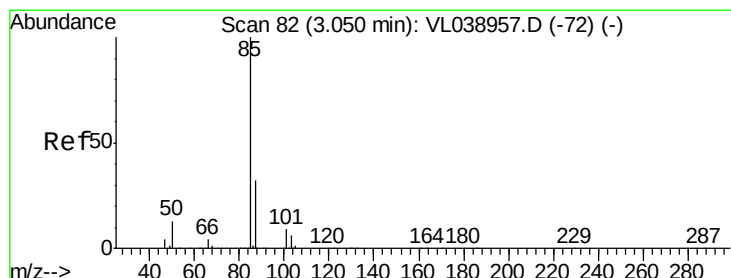
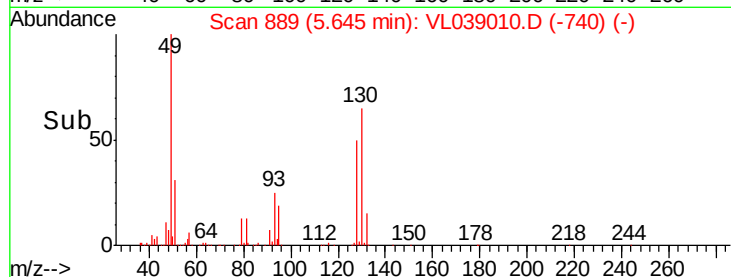
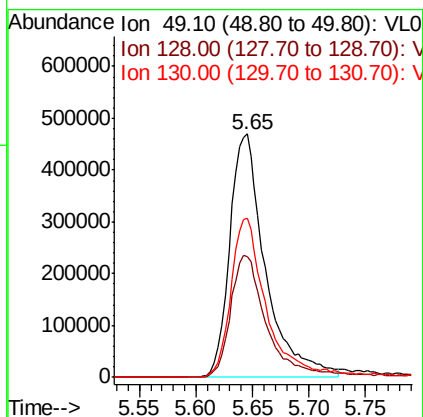
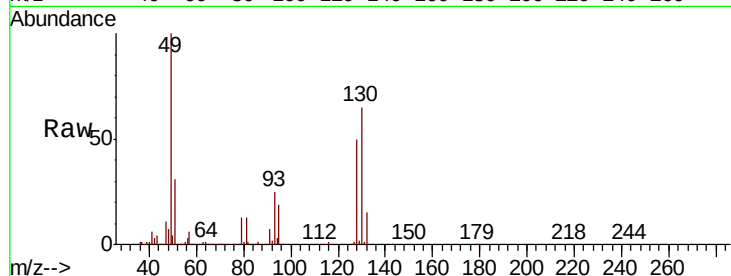
Quant Time: May 10 08:09:29 2022
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
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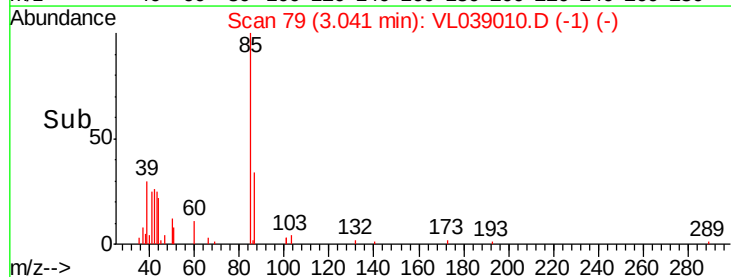
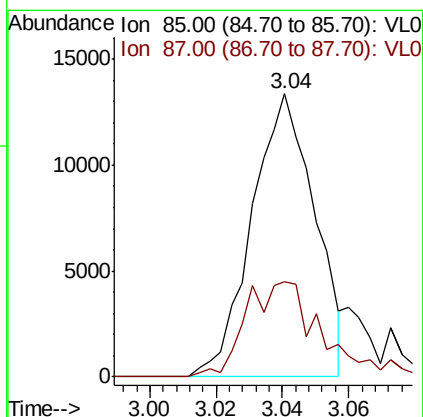
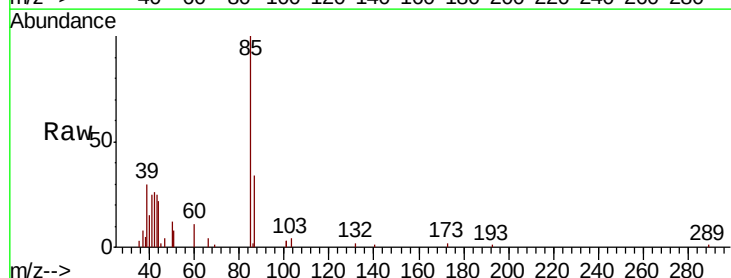
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 10 May 2022 8:19

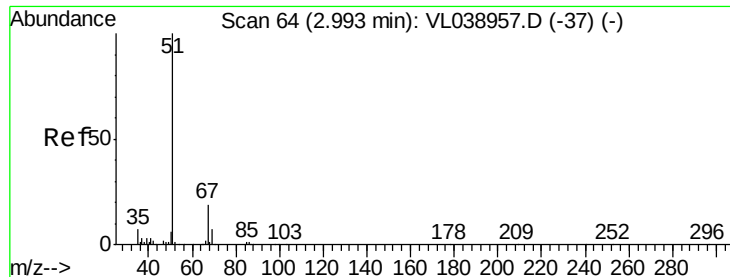
Tot Ion: 49 Resp: 1032156
 Ion Ratio Lower Upper
 49 100
 128 52.9 23.3 69.8
 130 68.0 29.8 89.3



#2
 Dichlorodifluoromethane
 Concen: 0.109 ppbv
 RT: 3.04 min Scan# 79
 Delta R.T. -0.01 min
 Lab File: VL039010.D
 Acq: 10 May 2022 6:19

Tgt Ion: 85 Resp: 17640
 Ion Ratio Lower Upper
 85 100
 87 33.5 25.7 38.5





#3

Chlorodifluoromethane

Concen: 0.270 ppbv

RT: 2.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

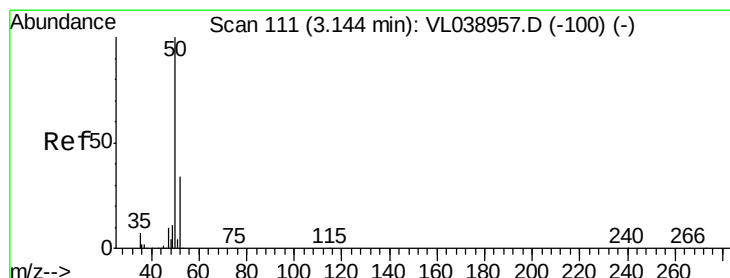
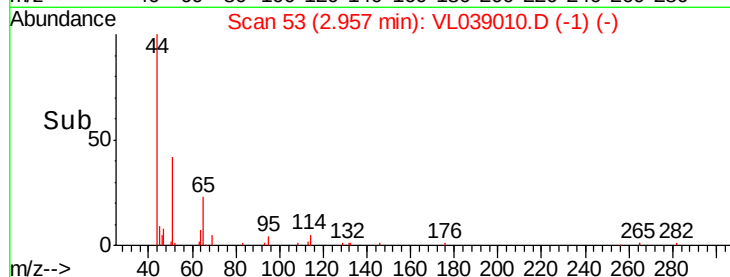
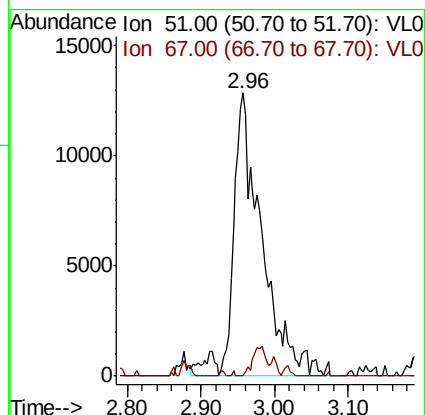
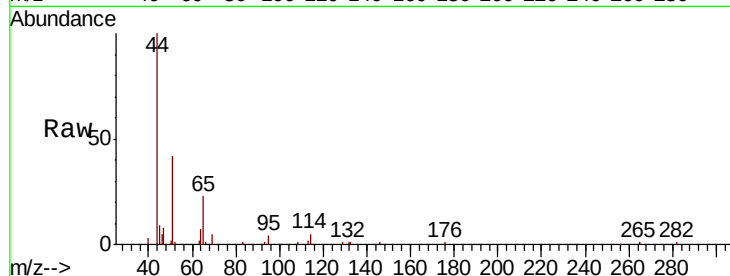
Acq: 10 May 2022 8:19

Tot Ion: 51 Resp: 34533

Ion Ratio Lower Upper

51 100

67 7.3 15.8 23.8#



#4

Chloromethane

Concen: 0.082 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL039010.D

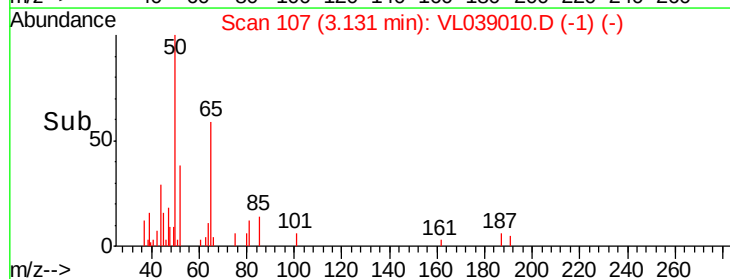
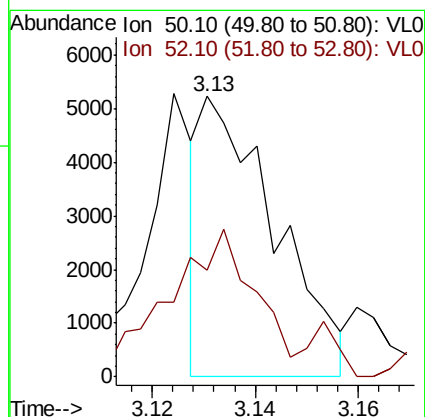
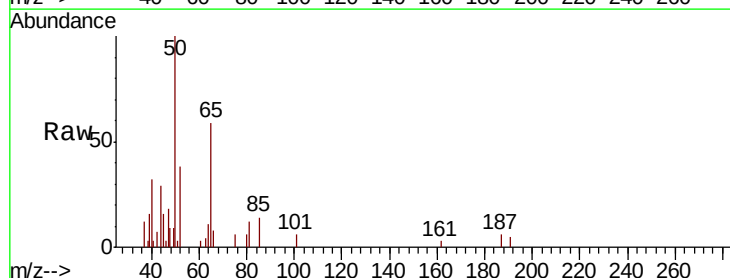
Acq: 10 May 2022 6:19

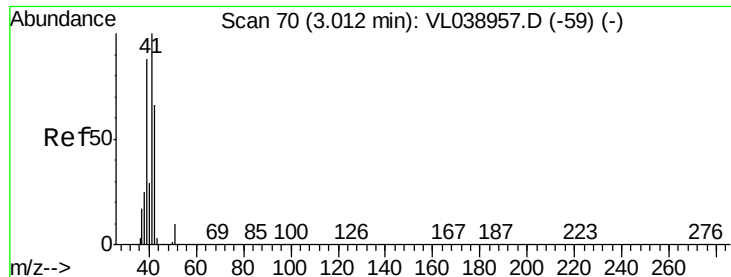
Tgt Ion: 50 Resp: 5231

Ion Ratio Lower Upper

50 100

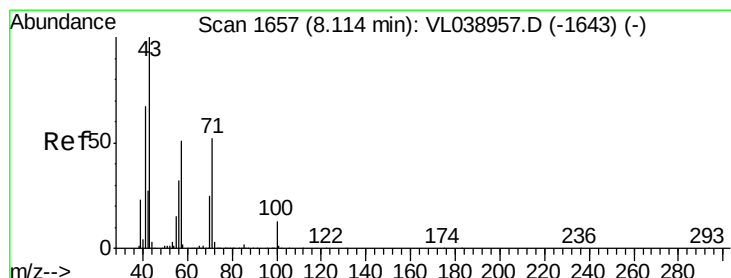
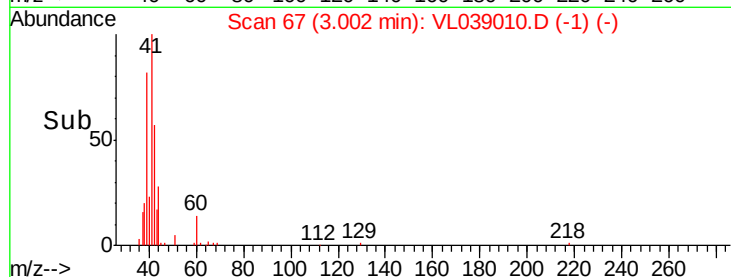
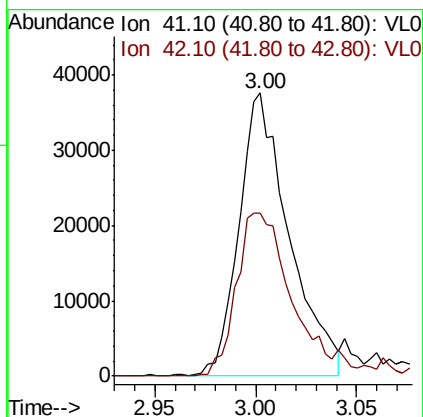
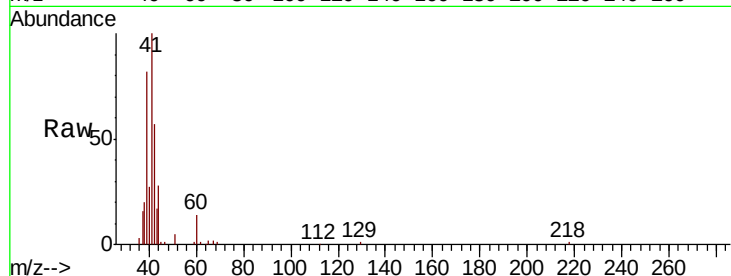
52 32.4 27.3 40.9





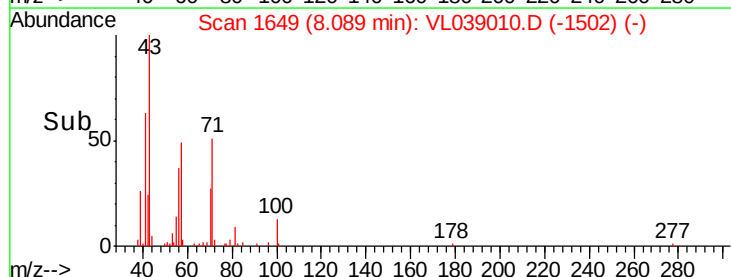
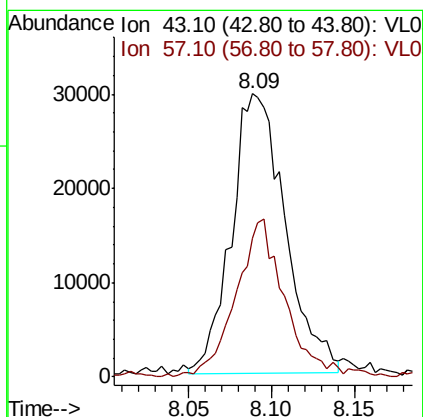
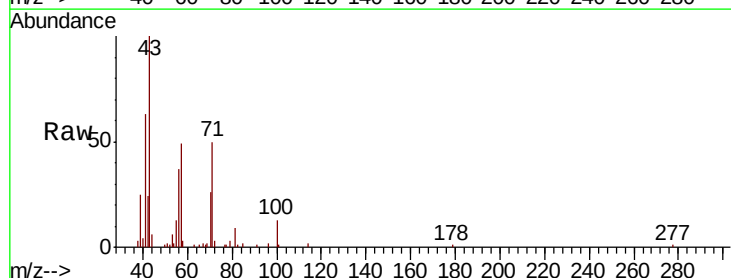
#9
 Propene
 Concen: 1.168 ppbv
 RT: 3.00
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 May 2022 8:19

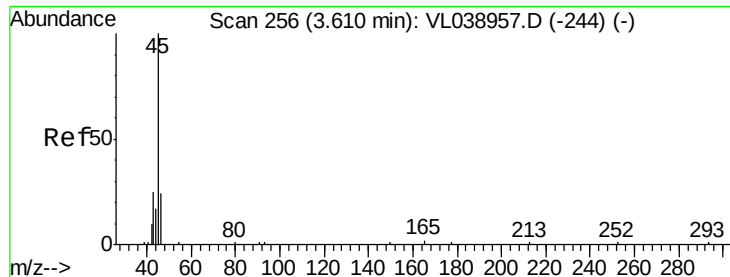
Tot Ion: 41 Resp: 65318
 Ion Ratio Lower Upper
 41 100
 42 67.8 58.3 87.5



#10
 Heptane
 Concen: 0.489 ppbv
 RT: 8.09 min Scan# 1649
 Delta R.T. -0.03 min
 Lab File: VL039010.D
 Acq: 10 May 2022 6:19

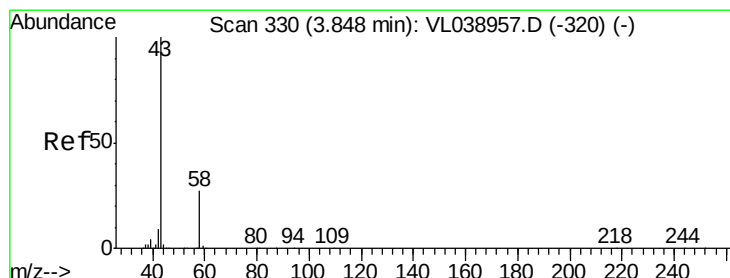
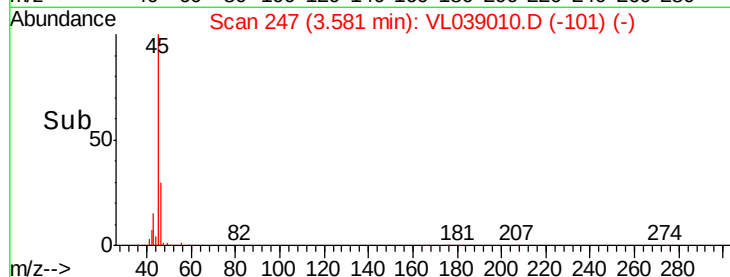
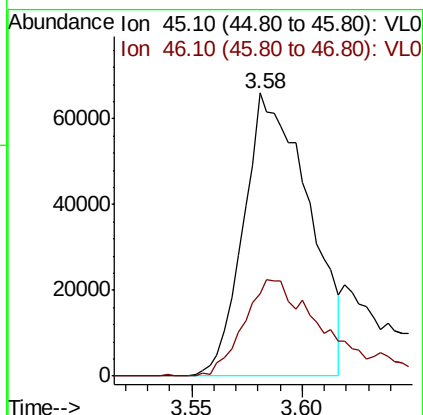
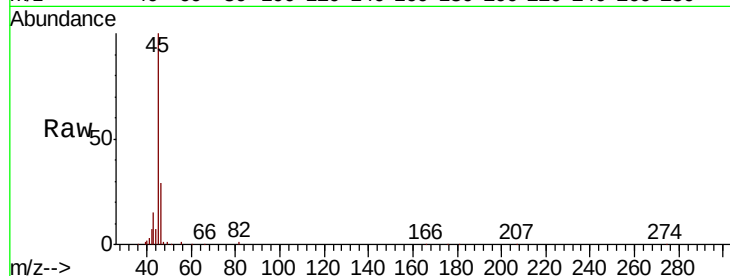
Tgt Ion: 43 Resp: 67053
 Ion Ratio Lower Upper
 43 100
 57 51.7 40.5 60.7





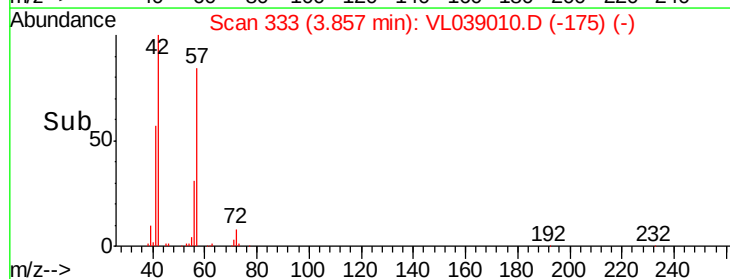
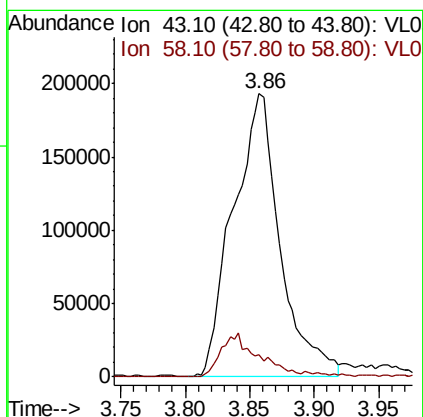
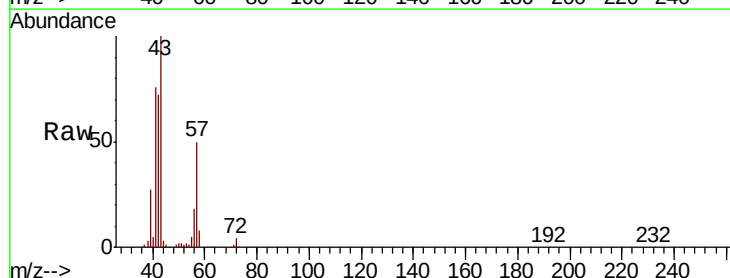
#13
Ethanol
Concen: 34.068 ppbv
RT: 3.58
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 May 2022 6:19

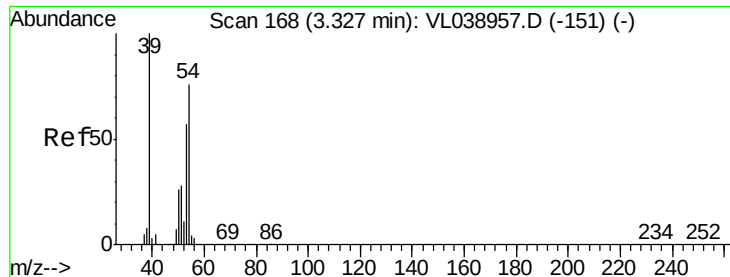
Tot Ion: 45 Resp: 134849
Ion Ratio Lower Upper
45 100
46 46.4 18.0 72.2



#15
Acetone
Concen: 5.009 ppbv
RT: 3.86 min Scan# 333
Delta R.T. 0.01 min
Lab File: VL039010.D
Acq: 10 May 2022 6:19

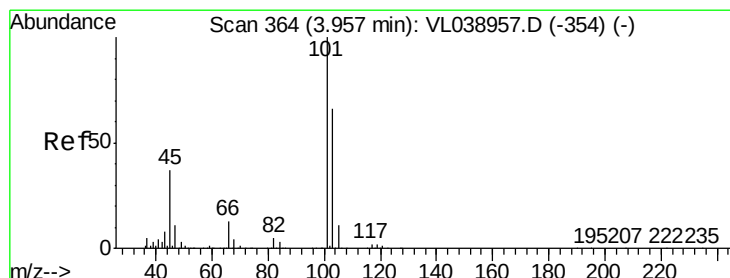
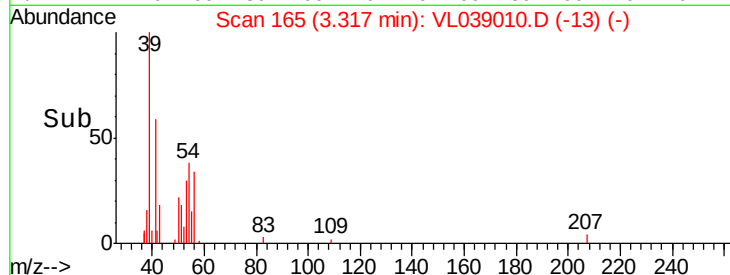
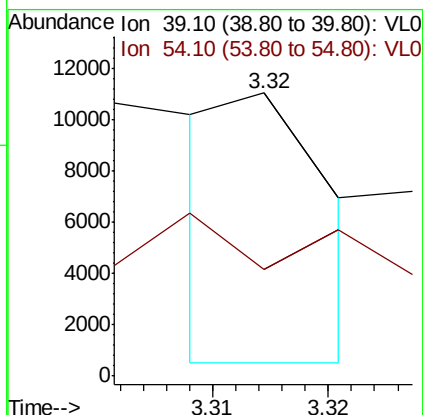
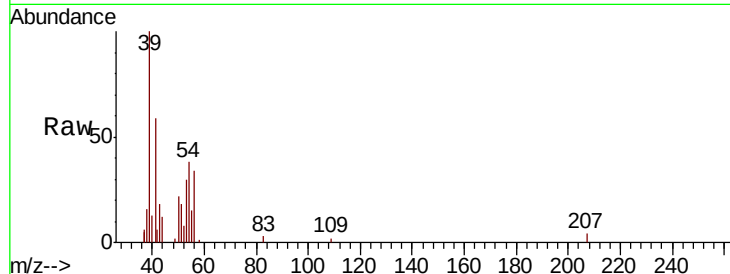
Tgt Ion: 43 Resp: 487681
Ion Ratio Lower Upper
43 100
58 13.4 21.3 31.9#





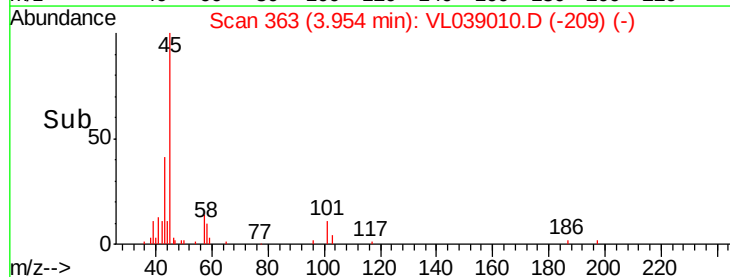
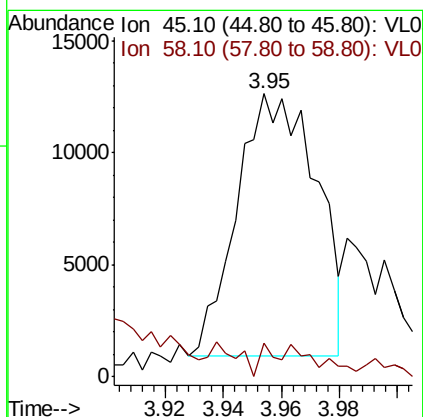
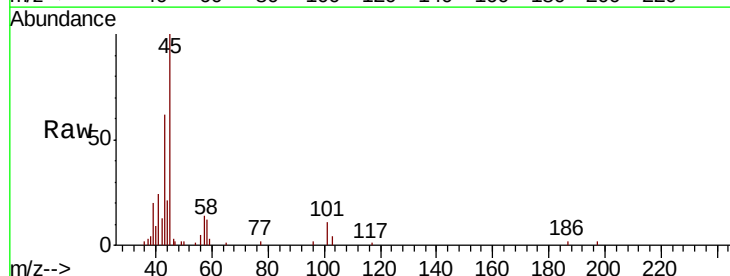
#16
 1,3-Butadiene
 Concen: 0.059 ppbv
 RT: 3.32
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 May 2022 8:19

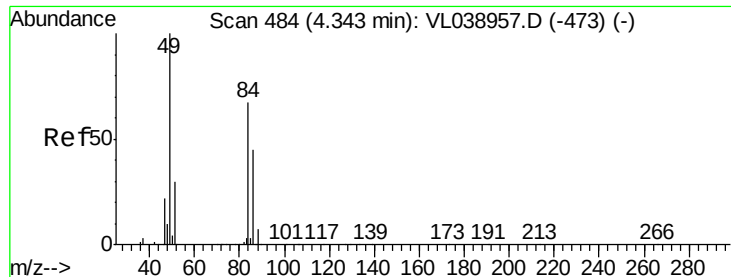
Tot Ion: 39 Resp: 3280
 Ion Ratio Lower Upper
 39 100
 54 377.7 65.2 97.8#



#19
 Isopropyl Alcohol
 Concen: 0.478 ppbv
 RT: 3.95 min Scan# 363
 Delta R.T. -0.00 min
 Lab File: VL039010.D
 Acq: 10 May 2022 6:19

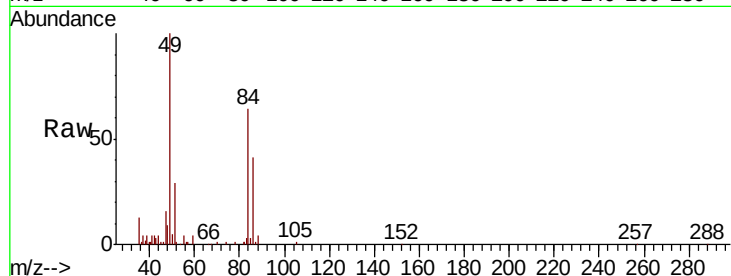
Tgt Ion: 45 Resp: 22137
 Ion Ratio Lower Upper
 45 100
 58 15.6 1.4 2.2#



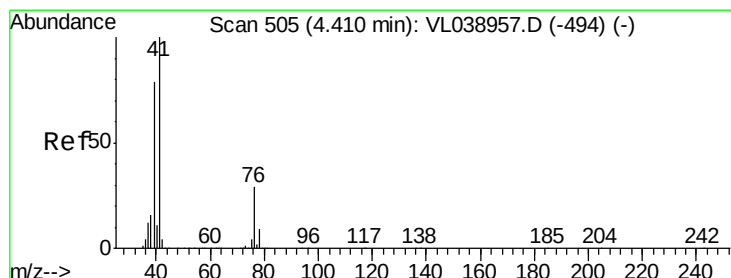
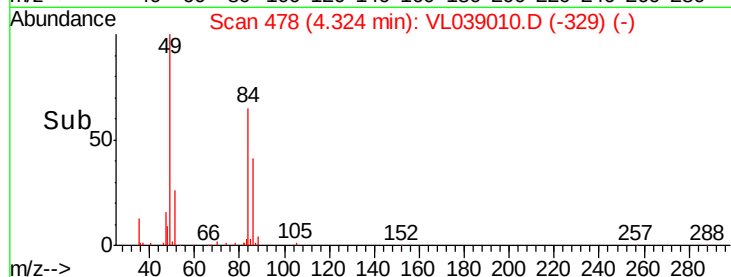
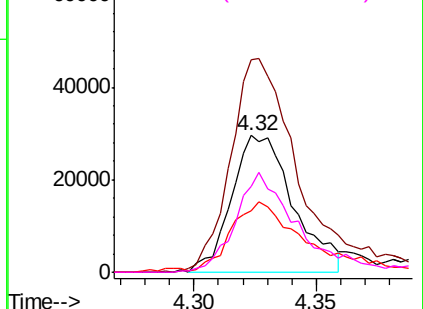


#20
Methylene Chloride
Concen: 1.419 ppbv
RT: 4.32
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 10 May 2022 8:19

Tot Ion:	84	Resp:	52075
Ion	Ratio	Lower	Upper
84	100		
49	153.0	119.9	179.9
51	43.7	35.7	53.5
86	62.0	53.8	80.6

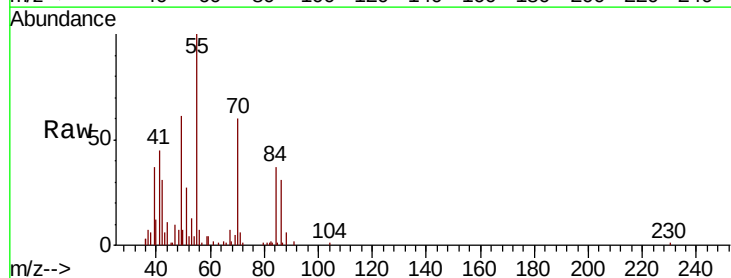


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

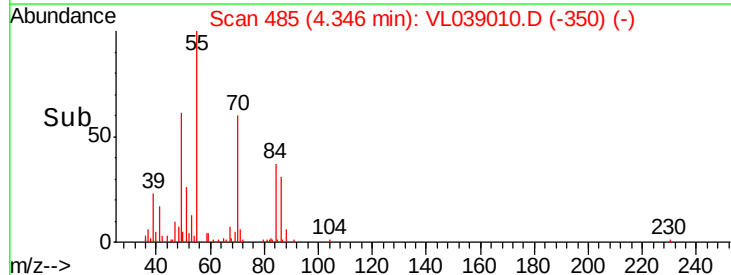
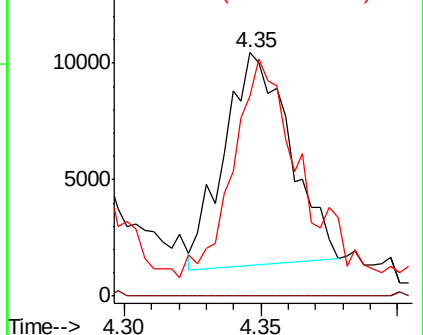


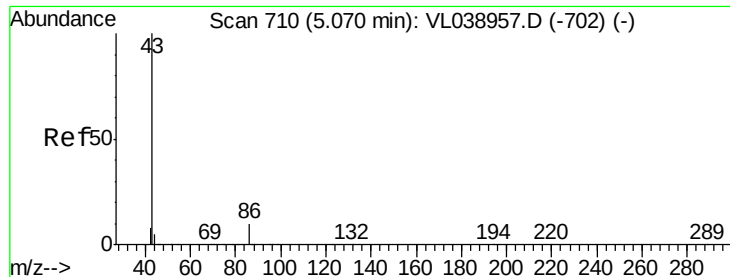
#21
Allyl Chloride
Concen: 0.229 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.06 min
Lab File: VL039010.D
Acq: 10 May 2022 6:19

Tgt Ion:	41	Resp:	15214
Ion	Ratio	Lower	Upper
41	100		
76	0.2	24.2	36.4#
39	129.5	63.8	95.8#



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: 0.516 ppbv

RT: 5.03 Instrument: MSVOA_1

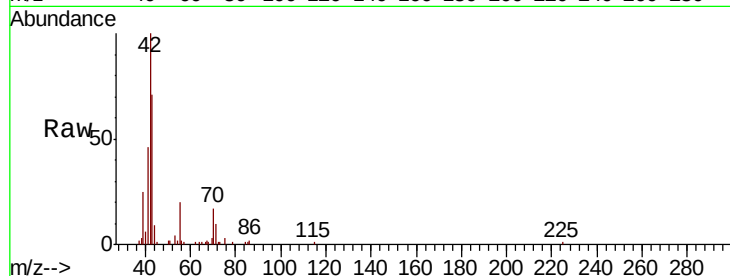
Delta R.T. ClientSampleId:

Lab File: IA1DL

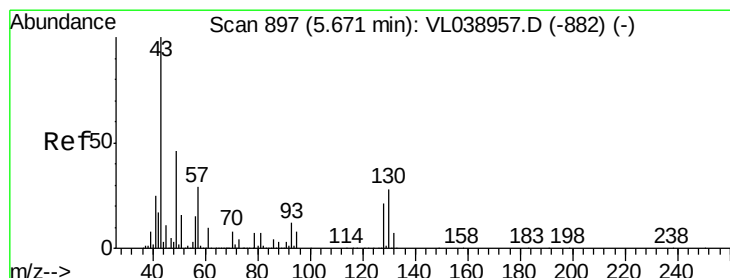
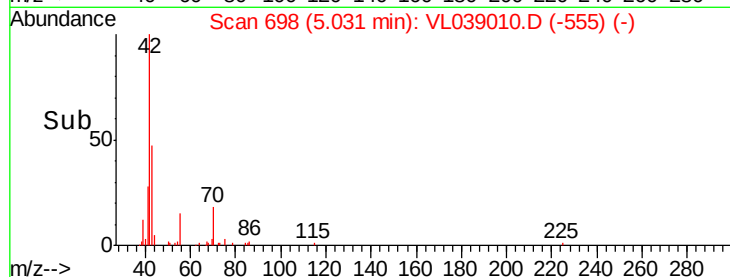
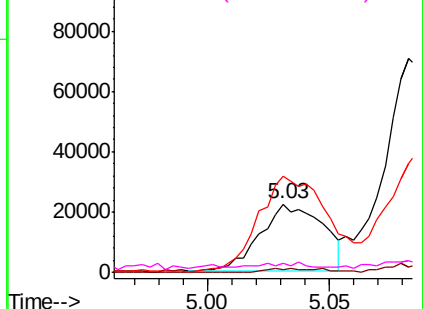
Acq: 10 May 2022 8:19

Tot Ion: 43 Resp: 39741

Ion	Ratio	Lower	Upper
43	100		
86	3.2	6.6	9.8#
42	141.9	8.1	12.1#
44	7.4	3.5	5.3#



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: 0.633 ppbv

RT: 5.66 min Scan# 895

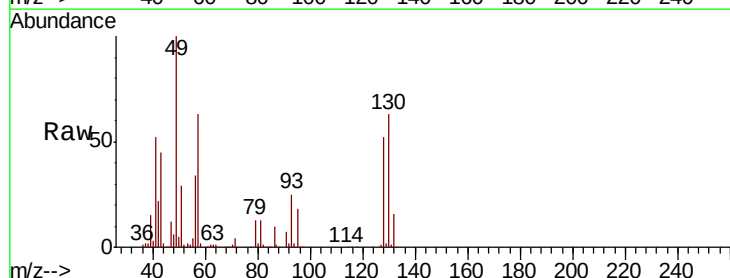
Delta R.T. -0.01 min

Lab File: VL039010.D

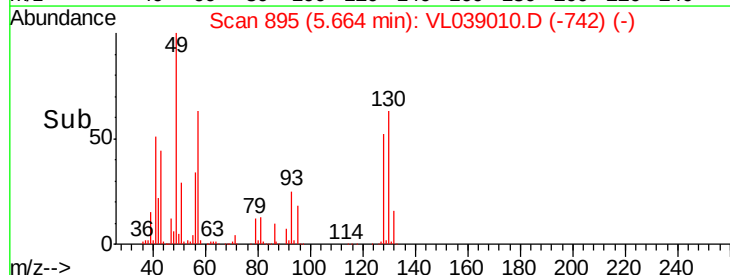
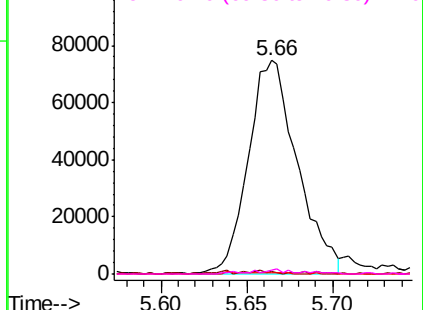
Acq: 10 May 2022 6:19

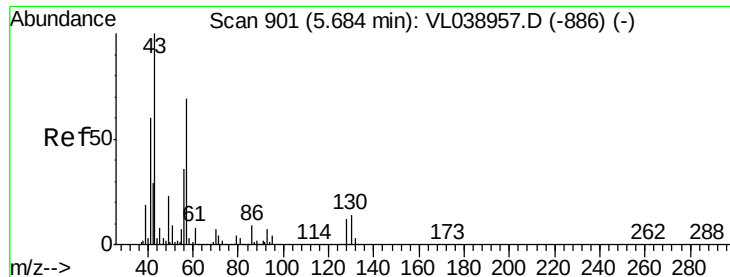
Tgt Ion: 43 Resp: 147547

Ion	Ratio	Lower	Upper
43	100		
45	2.1	8.1	12.1#
61	0.8	7.8	11.6#
70	2.0	5.6	8.4#



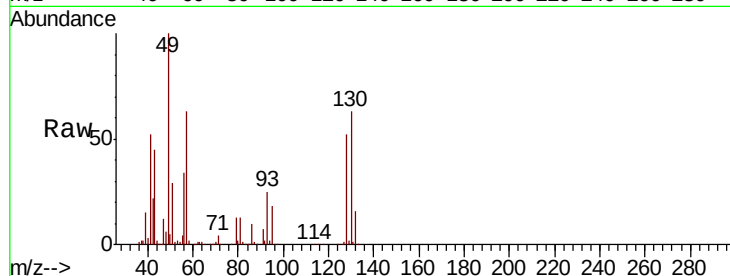
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 45.10 (44.80 to 45.80): VL0
 Ion 61.10 (60.80 to 61.80): VL0
 Ion 70.10 (69.80 to 70.80): VL0



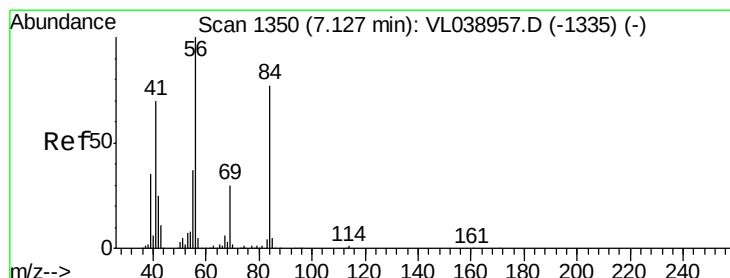
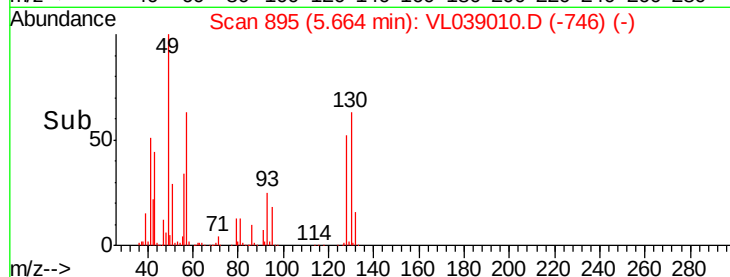
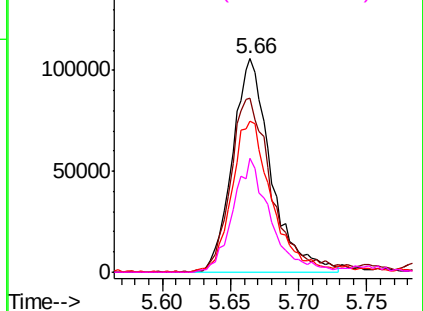


#26
Hexane
Concen: 2.010 ppbv
RT: 5.66
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 May 2022 8:19

Tot Ion:	57	Resp:	208111
Ion	Ratio	Lower	Upper
57	100		
41	91.2	75.2	112.8
43	76.9	190.8	286.2#
56	51.7	43.0	64.6

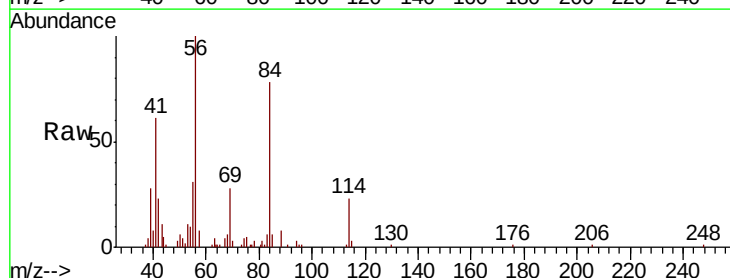


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

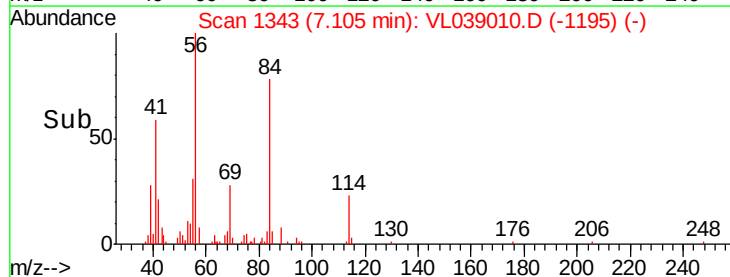
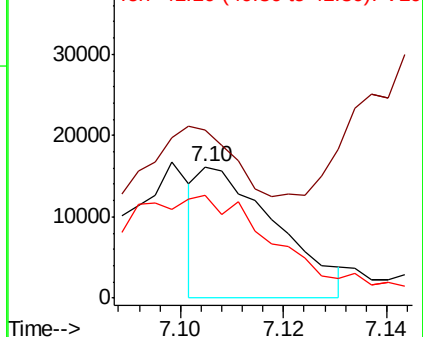


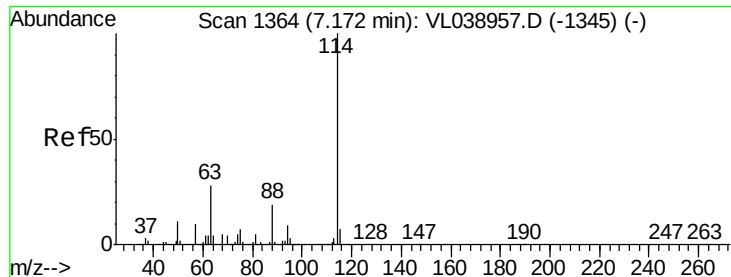
#30
Cyclohexane
Concen: 0.195 ppbv
RT: 7.10 min Scan# 1343
Delta R.T. -0.02 min
Lab File: VL039010.D
Acq: 10 May 2022 6:19

Tgt Ion:	84	Resp:	16922
Ion	Ratio	Lower	Upper
84	100		
56	251.6	115.3	172.9#
41	168.4	72.0	108.0#



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: 7.15 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 10 May 2022 8:19

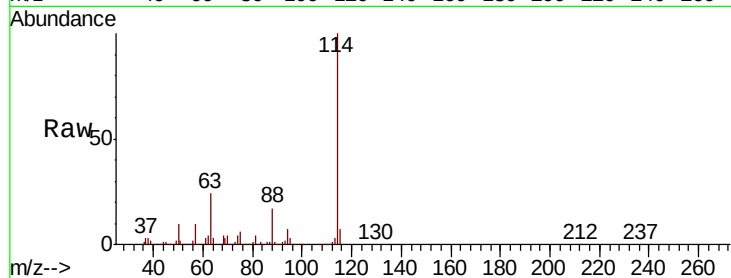
Tot Ion:114 Resp: 2936562

Ion Ratio Lower Upper

114 100

63 24.1 22.6 33.8

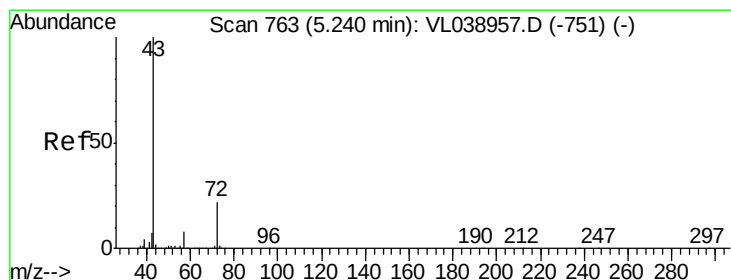
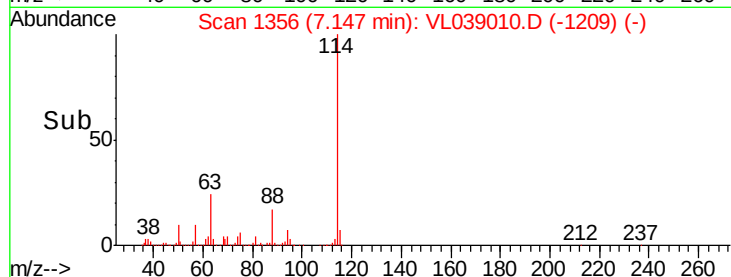
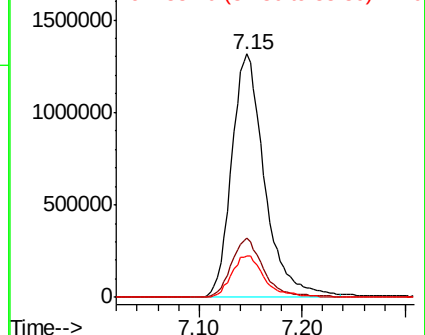
88 17.4 15.4 23.0



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.119 ppbv

RT: 5.23 min Scan# 760

Delta R.T. -0.01 min

Lab File: VL039010.D

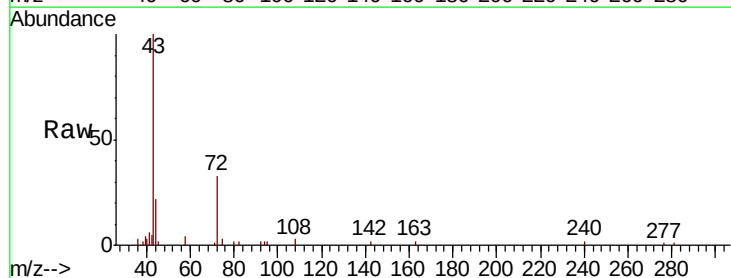
Acq: 10 May 2022 6:19

Tgt Ion: 43 Resp: 17787

Ion Ratio Lower Upper

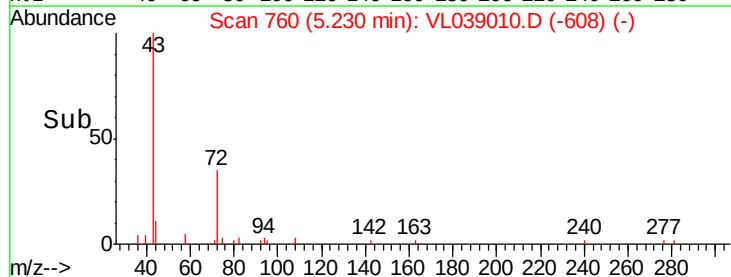
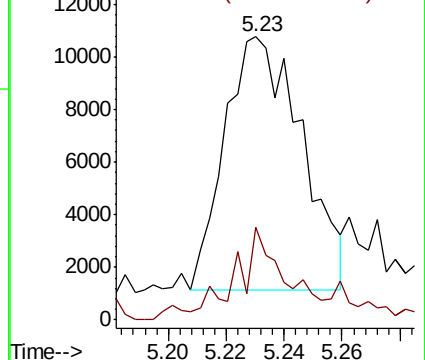
43 100

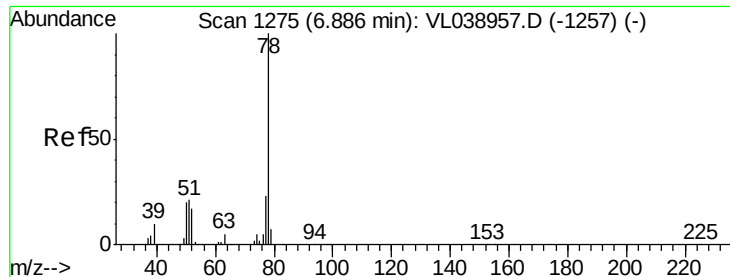
72 33.1 17.8 26.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.719 ppbv

RT: 6.86 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 10 May 2022 6:19

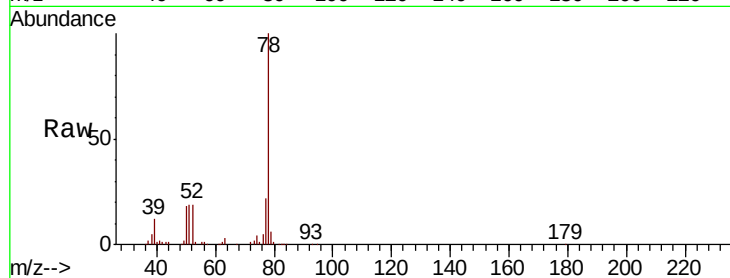
Tot Ion: 78 Resp: 180710

Ion Ratio Lower Upper

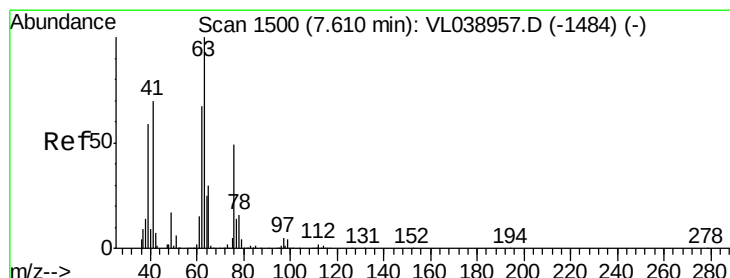
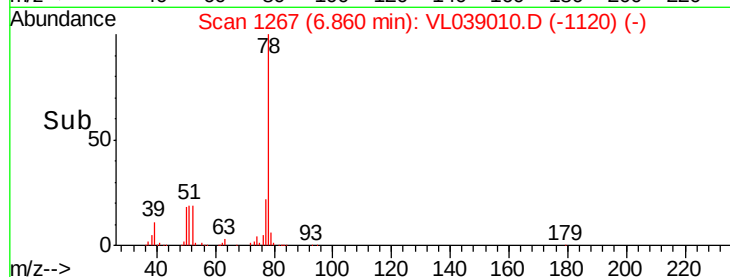
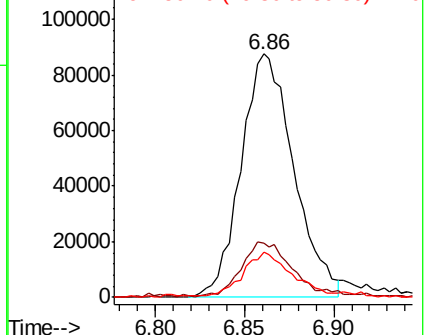
78 100

77 21.4 18.6 28.0

50 17.7 15.6 23.4



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 6.874 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. -0.46 min

Lab File: VL039010.D

Acq: 10 May 2022 6:19

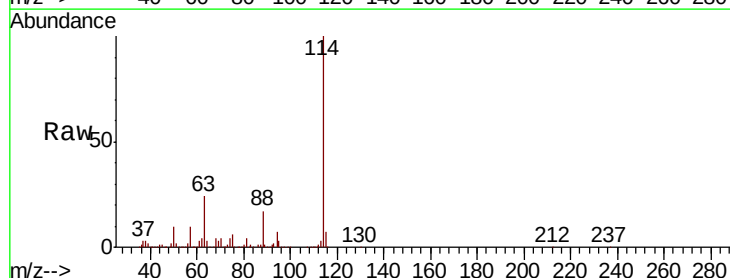
Tgt Ion: 63 Resp: 672191

Ion Ratio Lower Upper

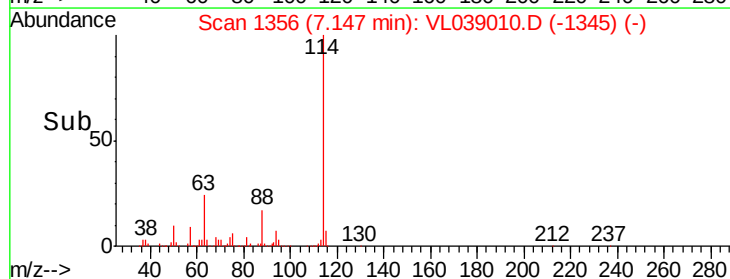
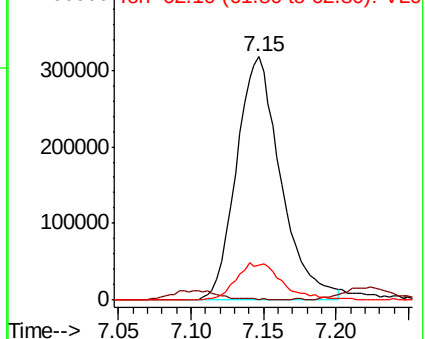
63 100

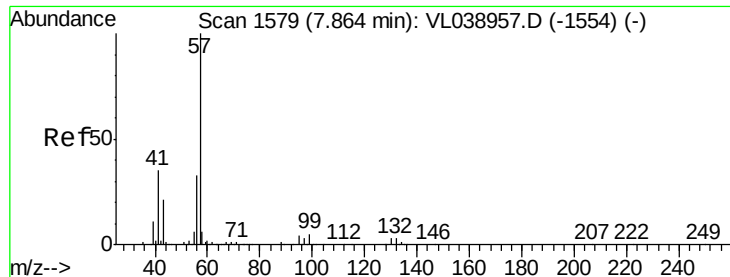
41 0.0 55.9 83.9#

62 14.6 53.8 80.6#



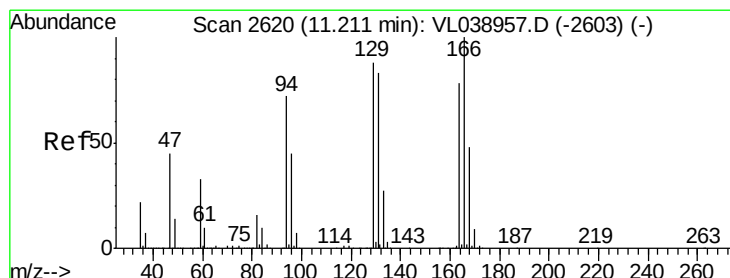
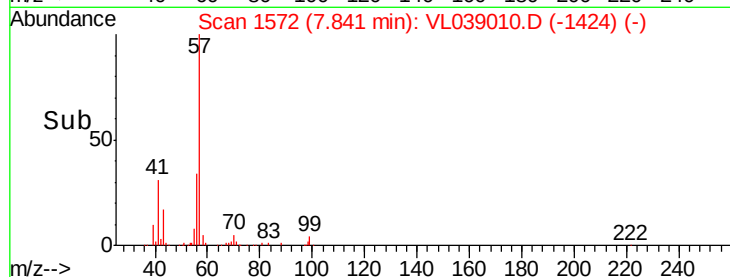
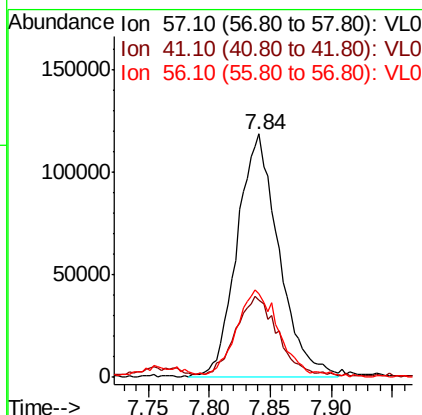
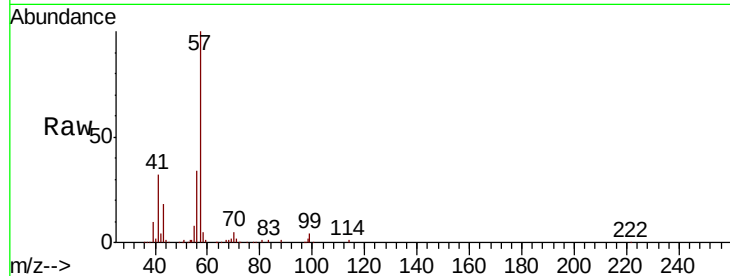
Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0





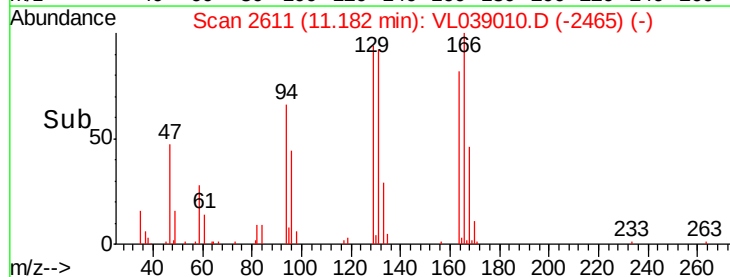
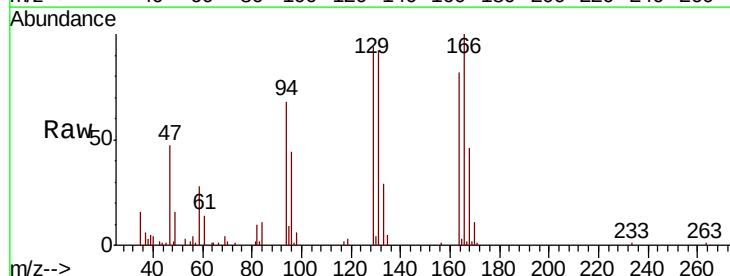
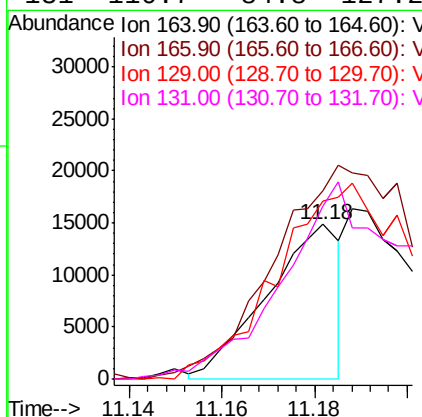
#44
 2,2,4-Trimethylpentane
 Concen: 0.635 ppbv
 RT: 7.84
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 May 2022 8:19

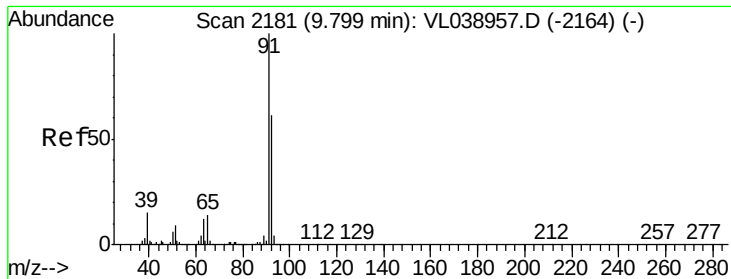
Tot Ion	57	Resp	280140
Ion	Ratio	Lower	Upper
57	100		
41	33.5	26.3	39.5
56	38.2	24.6	37.0



#52
 Tetrachloroethene
 Concen: 0.181 ppbv
 RT: 11.18 min Scan# 2611
 Delta R.T. -0.03 min
 Lab File: VL039010.D
 Acq: 10 May 2022 6:19

Tgt Ion	164	Resp	16243
Ion	Ratio	Lower	Upper
164	100		
166	117.7	102.5	153.7
129	109.5	90.1	135.1
131	110.7	84.8	127.2





#53

Toluene

Concen: 1.916 ppbv

RT: 9.77 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

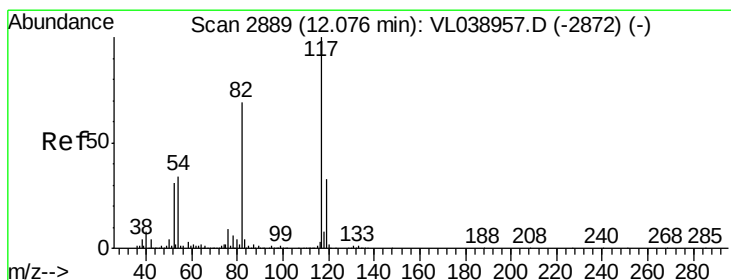
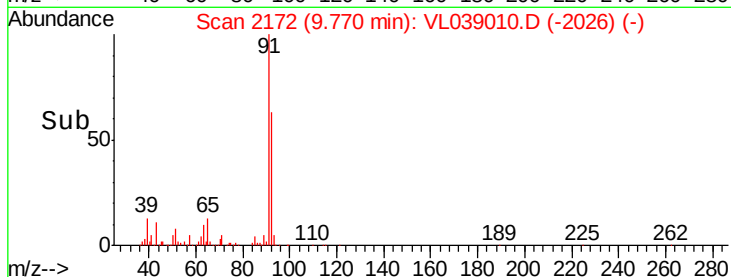
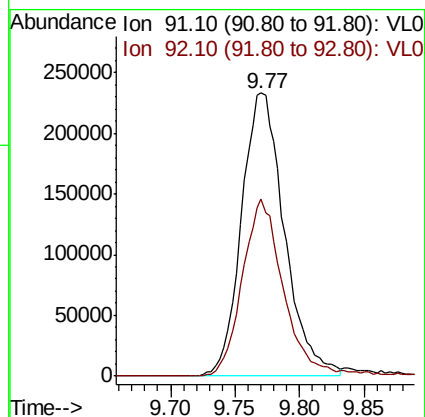
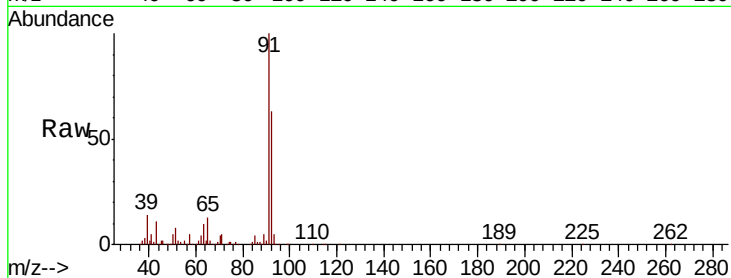
Acq: 10 May 2022 8:19

Tot Ion: 91 Resp: 539586

Ion Ratio Lower Upper

91 100

92 61.1 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.05 min Scan# 2880

Delta R.T. -0.03 min

Lab File: VL039010.D

Acq: 10 May 2022 6:19

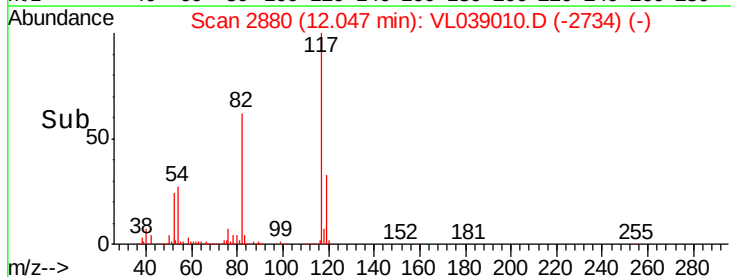
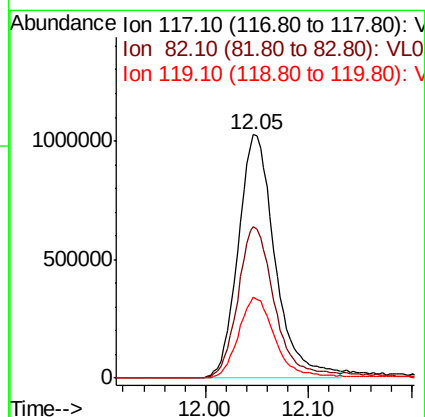
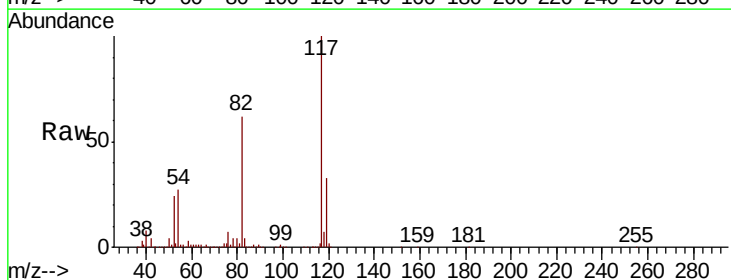
Tgt Ion: 117 Resp: 2561650

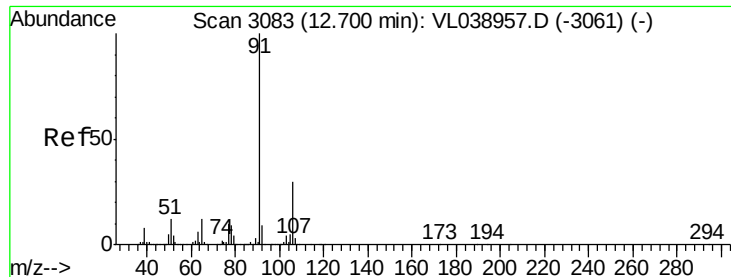
Ion Ratio Lower Upper

117 100

82 65.2 57.0 85.6

119 33.0 27.2 40.8





#58

Ethyl Benzene

Concen: 0.310 ppbv

RT: 12.68

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

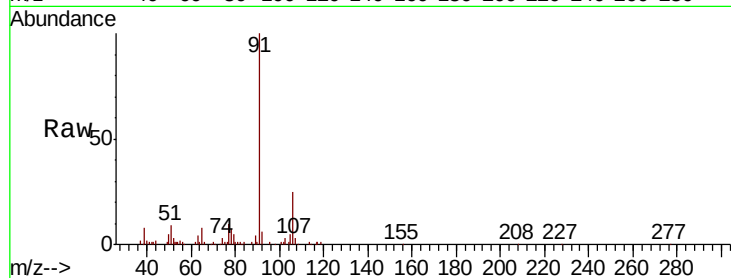
Acq: 10 May 2022 8:19

Tot Ion: 91 Resp: 114158

Ion Ratio Lower Upper

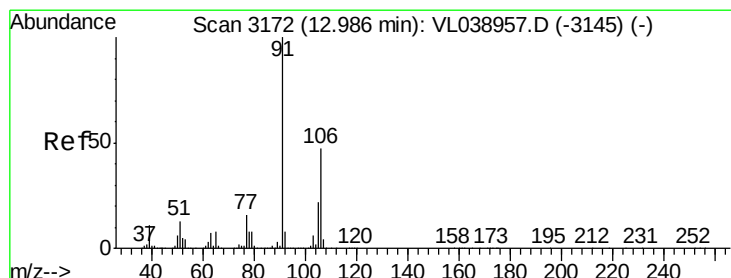
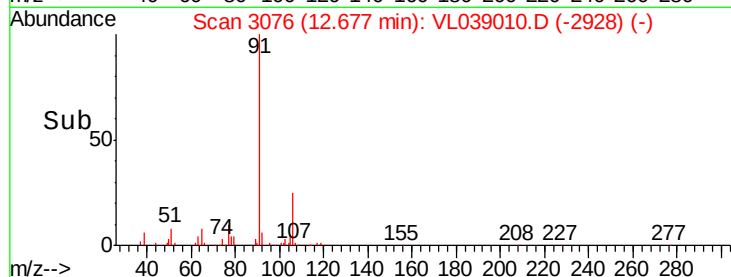
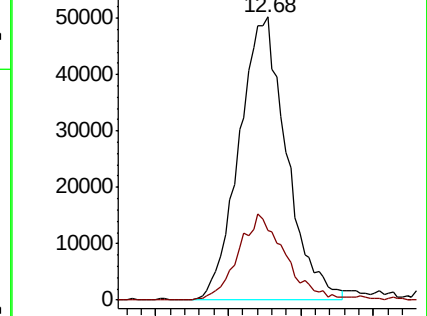
91 100

106 24.6 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 1.047 ppbv

RT: 12.93 min Scan# 3154

Delta R.T. -0.06 min

Lab File: VL039010.D

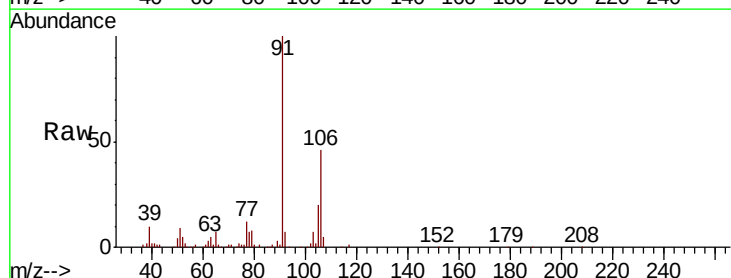
Acq: 10 May 2022 6:19

Tgt Ion: 91 Resp: 329568

Ion Ratio Lower Upper

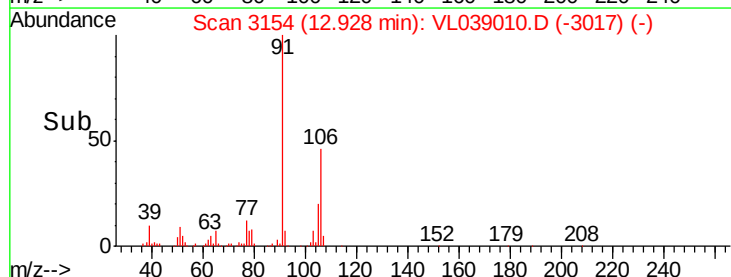
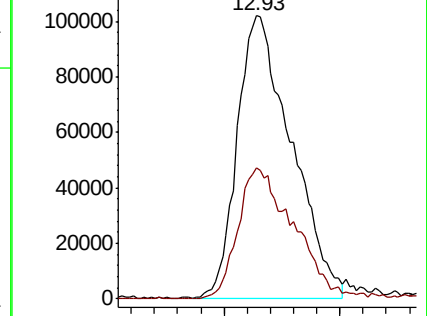
91 100

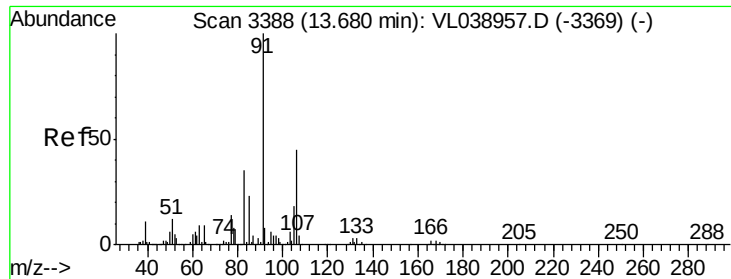
106 48.4 34.6 52.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

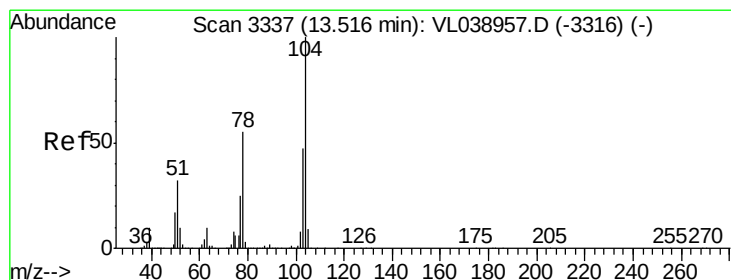
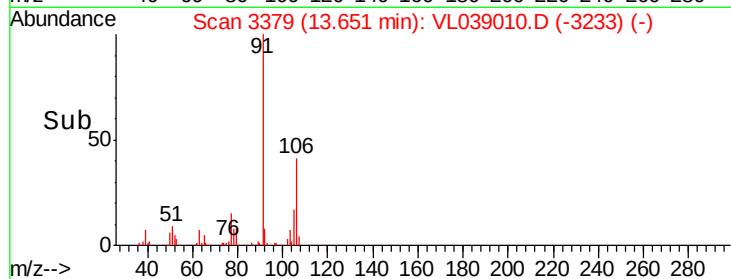
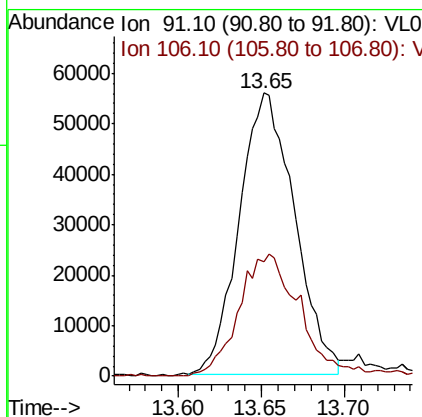
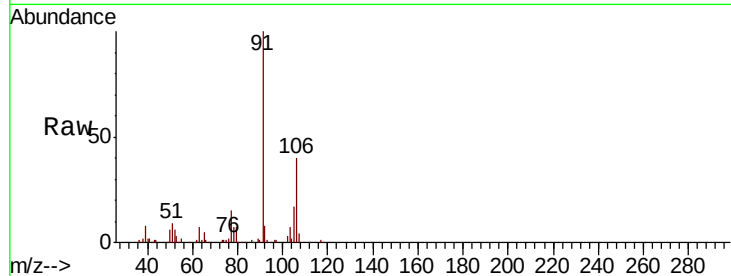
Ion 106.10 (105.80 to 106.80): V





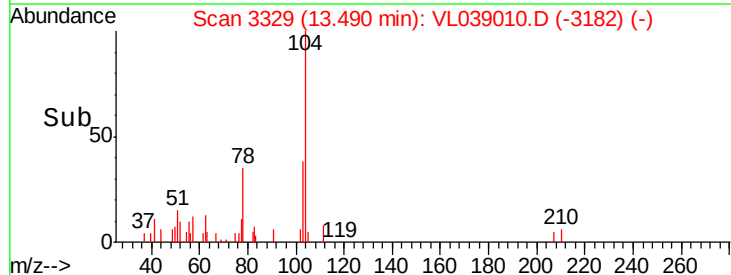
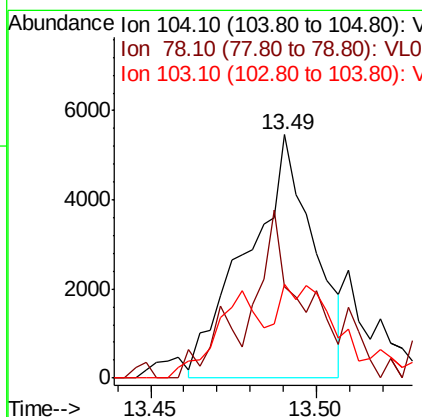
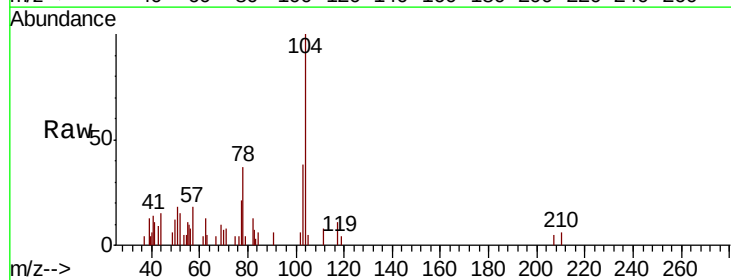
#60
o-Xylene
Concen: 0.437 ppbv
RT: 13.65 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 May 2022 8:19

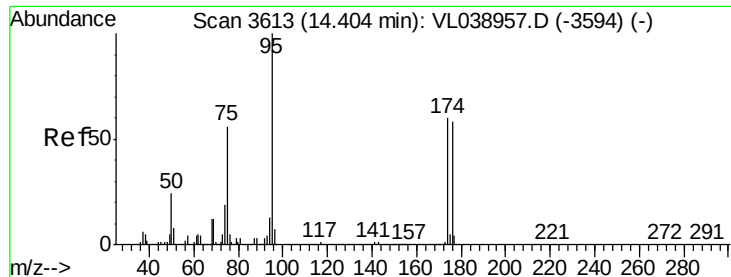
Tot Ion: 91 Resp: 129436
Ion Ratio Lower Upper
91 100
106 48.7 22.2 66.6



#61
Styrene
Concen: 0.048 ppbv
RT: 13.49 min Scan# 3329
Delta R.T. -0.03 min
Lab File: VL039010.D
Acq: 10 May 2022 6:19

Tgt Ion: 104 Resp: 7598
Ion Ratio Lower Upper
104 100
78 71.4 46.4 69.6#
103 61.7 39.3 58.9#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.363 ppbv

RT: 14.38

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 10 May 2022 8:19

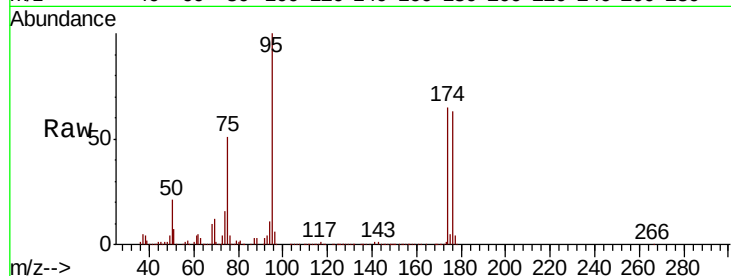
Tot Ion: 95 Resp: 1899480

Ion Ratio Lower Upper

95 100

174 67.1 50.8 76.2

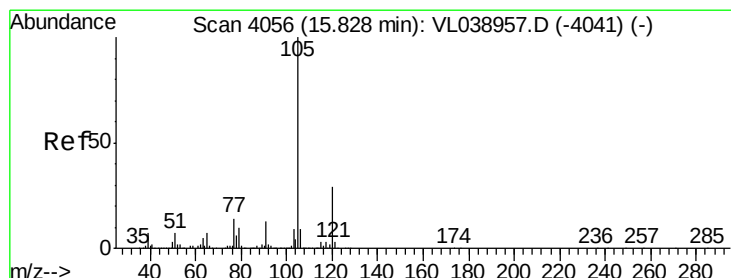
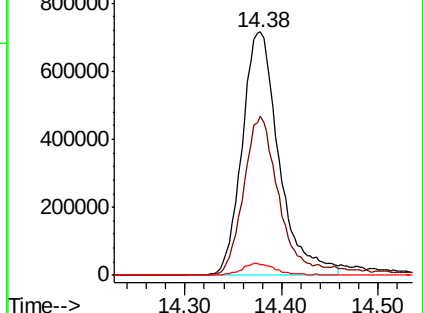
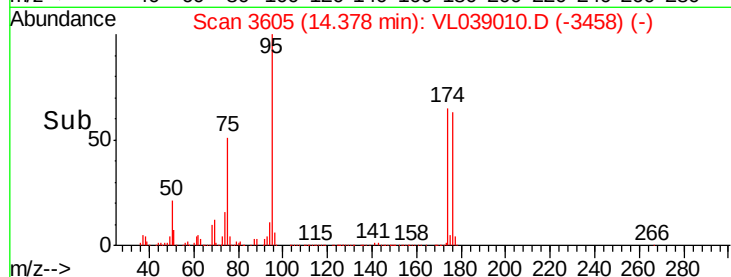
175 4.8 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#72

4-Ethyltoluene

Concen: 0.080 ppbv

RT: 15.80 min Scan# 4047

Delta R.T. -0.03 min

Lab File: VL039010.D

Acq: 10 May 2022 6:19

Tgt Ion: 105 Resp: 27014

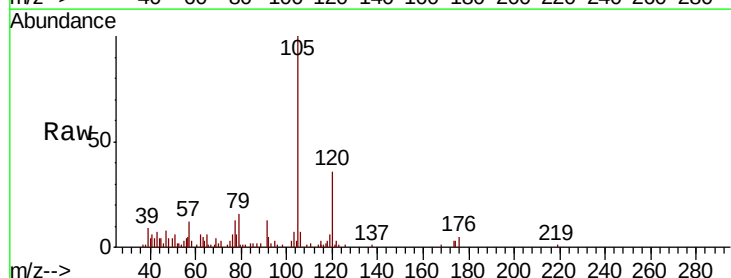
Ion Ratio Lower Upper

105 100

120 60.3 23.4 35.0#

91 0.0 10.6 16.0#

77 0.0 12.5 18.7#

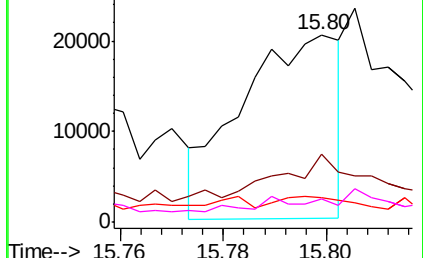
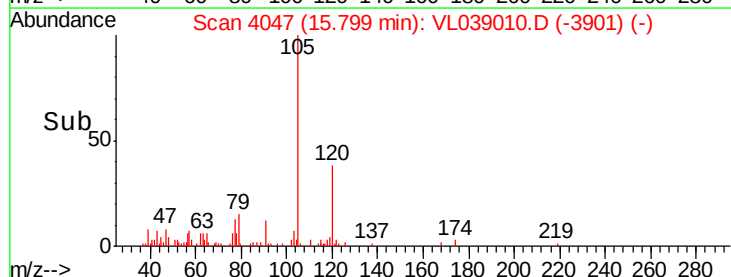


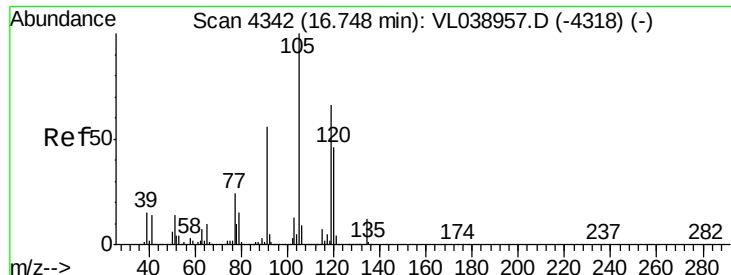
Abundance Ion 105.10 (104.80 to 105.80): V

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





#74
 1,2,4-Trimethylbenzene
 Concen: 0.452 ppbv
 RT: 16.73
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 May 2022 8.19

Tot Ion:	105	Resp:	150338
Ion Ratio		Lower	Upper
105	100		
120	43.4	36.9	55.3
91	9.9	45.0	67.4#
77	12.5	19.2	28.8#

