

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061322\
 Data File : VL039274.D
 Acq On : 14 Jun 2022 6:05
 Operator : SY/AP
 Sample : N3326-04DL 5X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2DL

Quant Time: Jun 14 08:08:40 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1239442	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2754757	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2228413	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1894478	10.28	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.80%

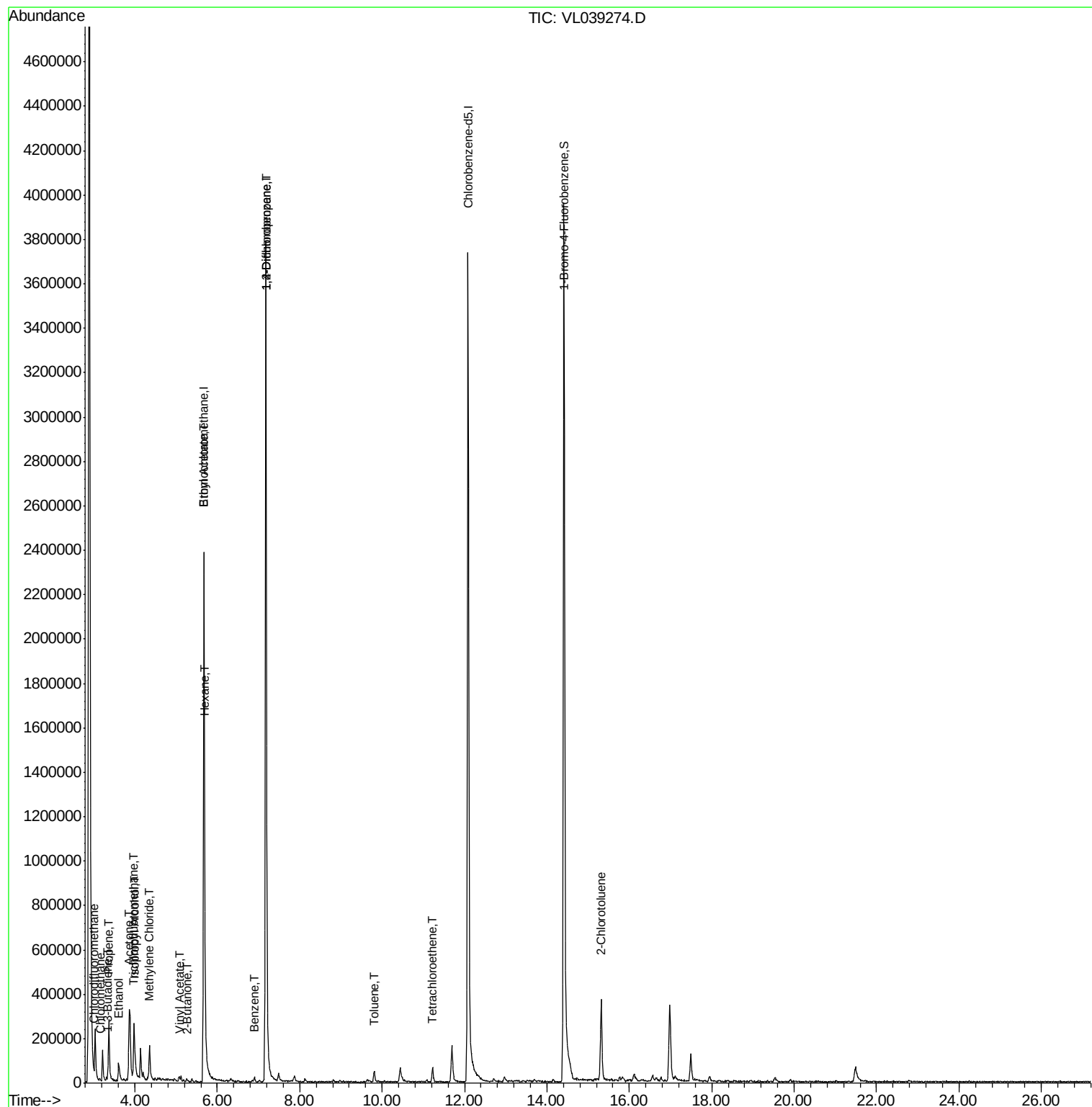
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.00	51	22996	0.146	ppbv #	84
4) Chloromethane	3.15	50	8517	0.105	ppbv #	75
9) Propene	3.36	41	39523	0.575	ppbv	89
11) Trichlorofluoromethane	3.96	101	10235	0.052	ppbv	91
13) Ethanol	3.61	45	57154	15.241	ppbv #	100
15) Acetone	3.86	43	437359	3.387	ppbv	94
16) 1,3-Butadiene	3.33	39	2508	0.036	ppbv #	28
19) Isopropyl Alcohol	3.99	45	124810	2.061	ppbv #	76
20) Methylene Chloride	4.35	84	57343	1.054	ppbv #	93
23) Vinyl Acetate	5.09	43	4274	0.040	ppbv #	50
25) Ethyl Acetate	5.68	43	25576	0.088	ppbv #	65
26) Hexane	5.70	57	20501	0.160	ppbv #	7
34) 2-Butanone	5.25	43	11598	0.077	ppbv #	69
36) Benzene	6.90	78	8889	0.040	ppbv #	64
39) 1,2-Dichloropropane	7.18	63	811772	9.125	ppbv #	25
52) Tetrachloroethene	11.23	164	4529	0.052	ppbv #	35
53) Toluene	9.81	91	29010	0.113	ppbv	90
71) 2-Chlorotoluene	15.32	91	98508	0.342	ppbv #	45

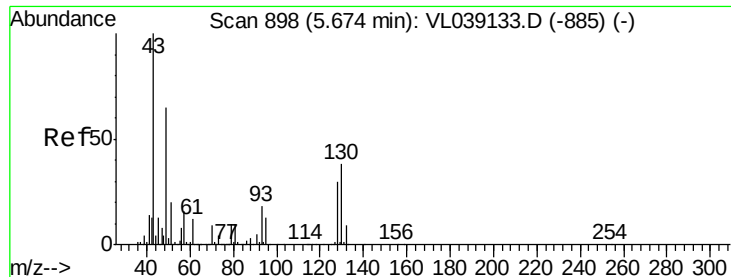
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA_L

Delta R.T. 0.00

Lab File: ClientSampleId: IA2DL

Acq: 14 Jun 2022 8:05

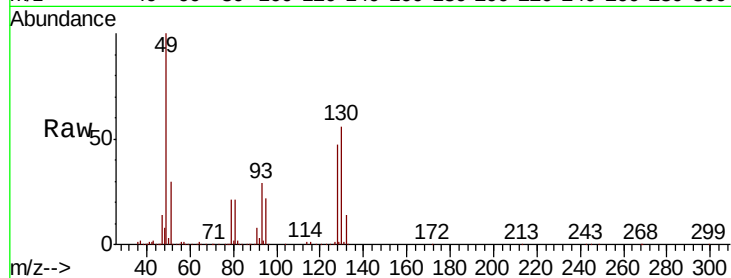
Tot Ion: 49 Resp: 1239442

Ion	Ratio	Lower	Upper
49	100		
128	46.2	24.7	74.1
130	60.9	31.4	94.0

49 100

128 46.2 24.7 74.1

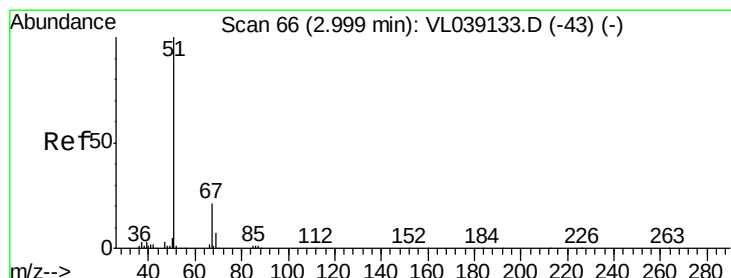
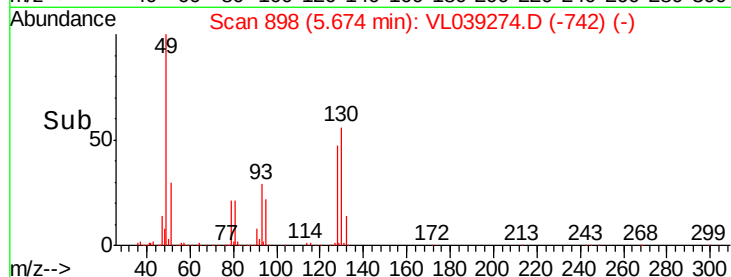
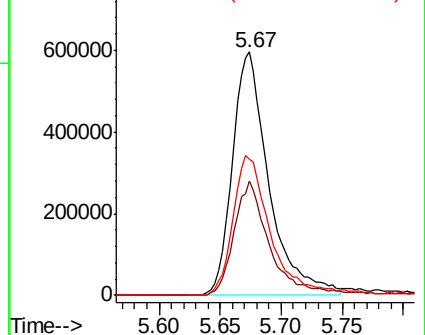
130 60.9 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.146 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.00 min

Lab File: VL039274.D

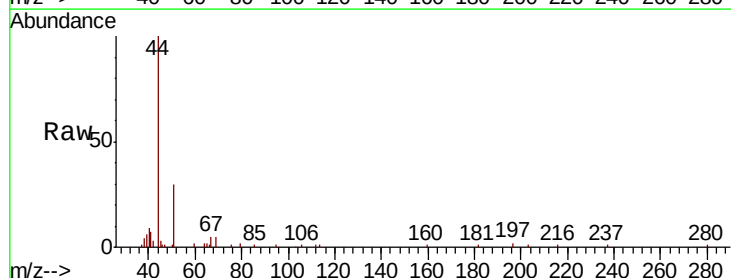
Acq: 14 Jun 2022 6:05

Tgt Ion: 51 Resp: 22996

Ion	Ratio	Lower	Upper
51	100		
67	12.9	16.2	24.4

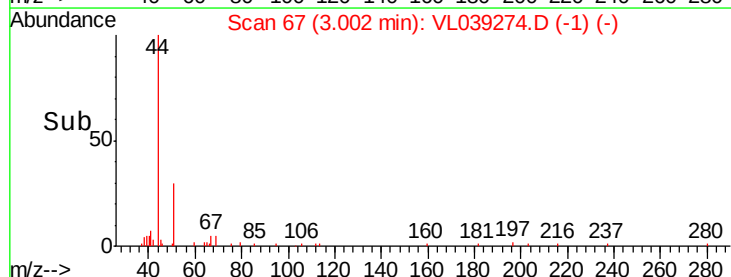
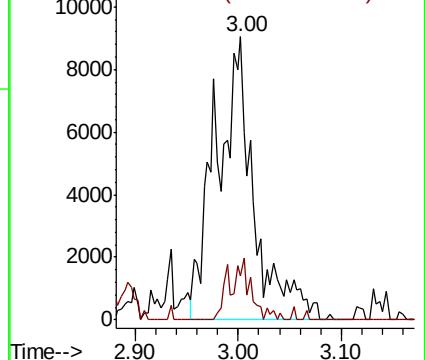
51 100

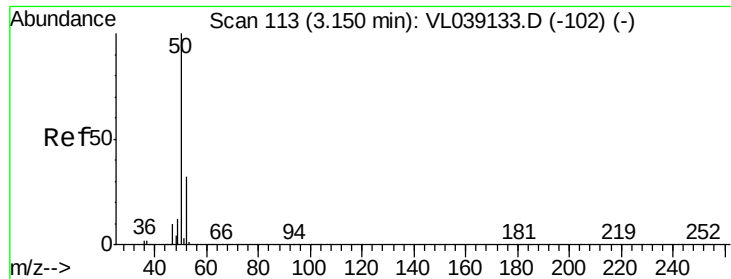
67 12.9 16.2 24.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.105 ppbv

RT: 3.15 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

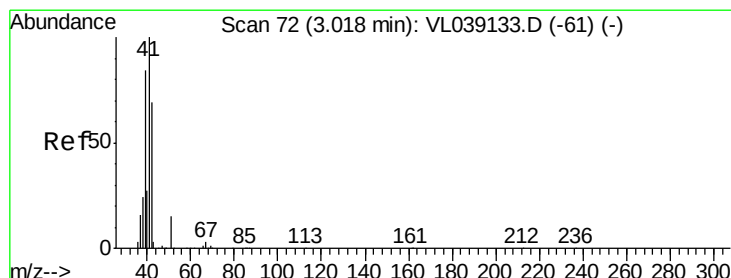
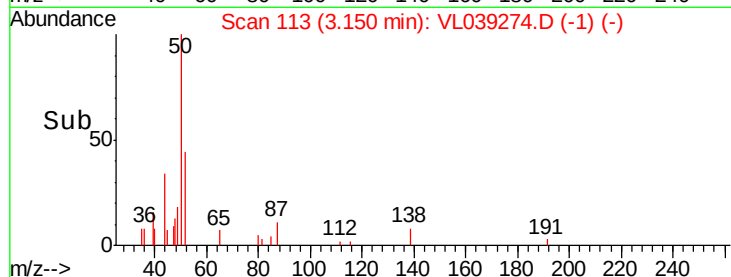
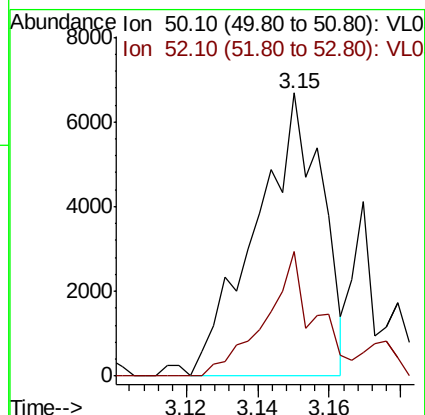
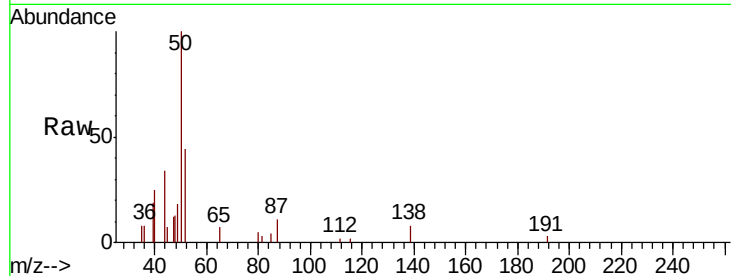
Acq: 14 Jun 2022 6:05

Tot Ion: 50 Resp: 8517

Ion Ratio Lower Upper

50 100

52 46.3 25.9 38.9#



#9

Propene

Concen: 0.575 ppbv

RT: 3.36 min Scan# 179

Delta R.T. 0.34 min

Lab File: VL039274.D

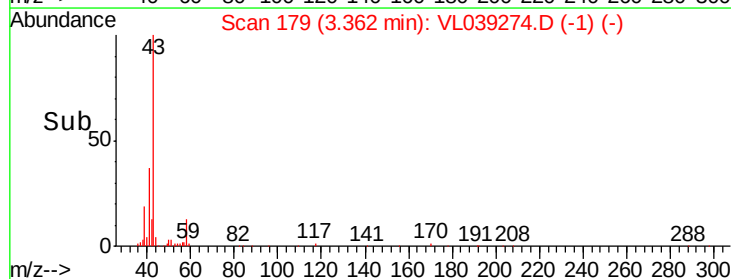
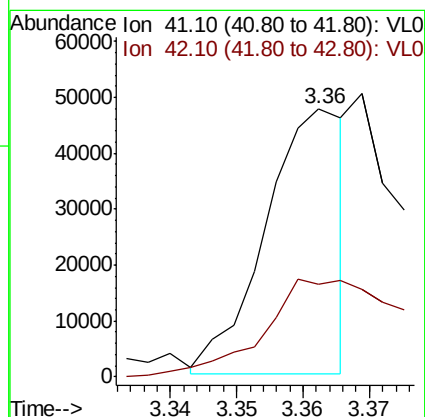
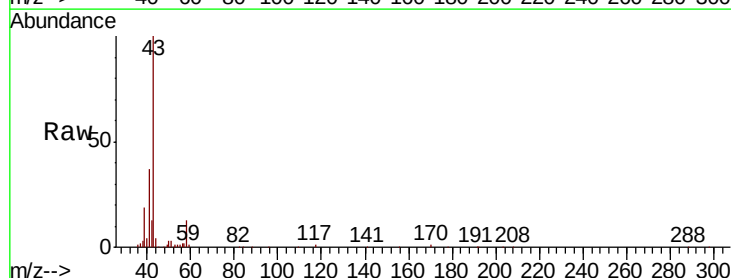
Acq: 14 Jun 2022 6:05

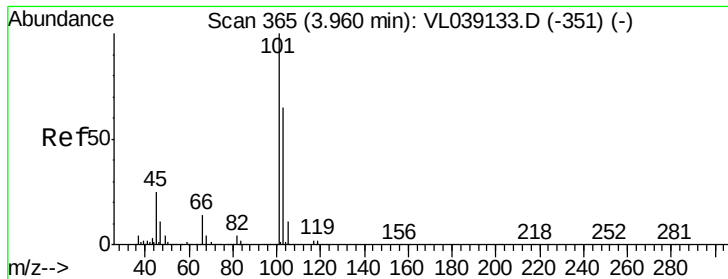
Tgt Ion: 41 Resp: 39523

Ion Ratio Lower Upper

41 100

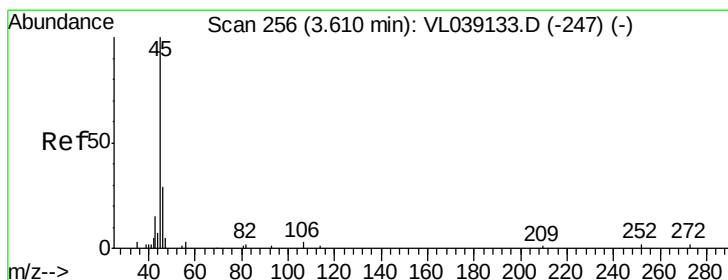
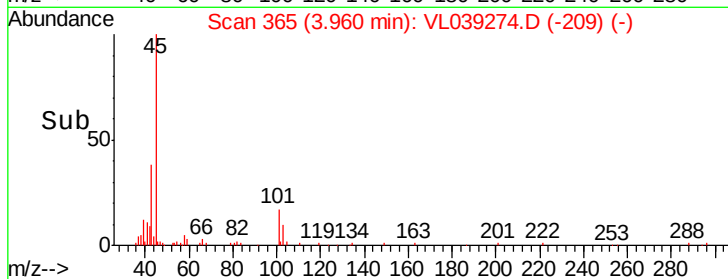
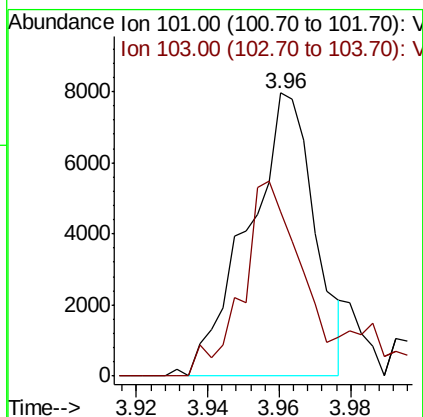
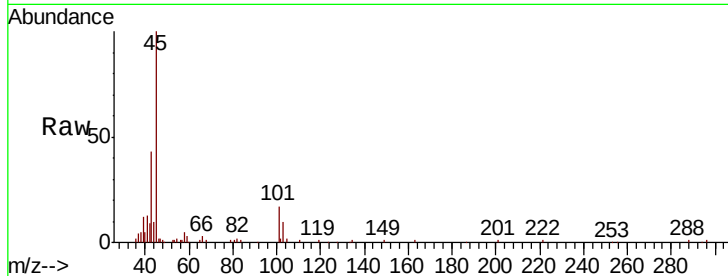
42 78.4 55.4 83.2





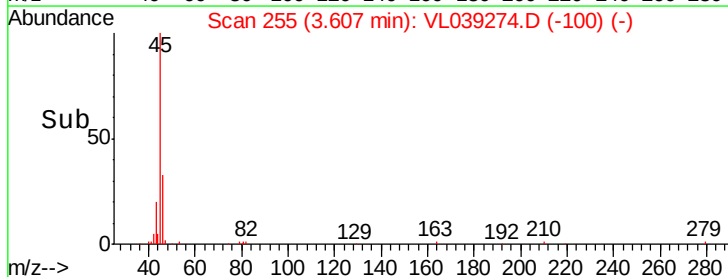
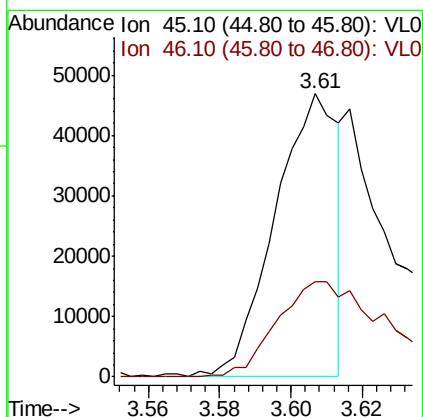
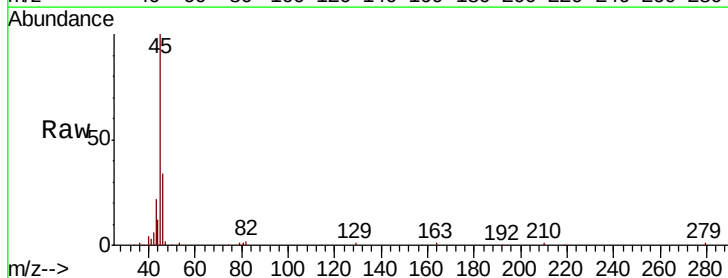
#11
 Trichlorofluoromethane
 Concen: 0.052 ppbv
 RT: 3.96
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 14 Jun 2022 6:05

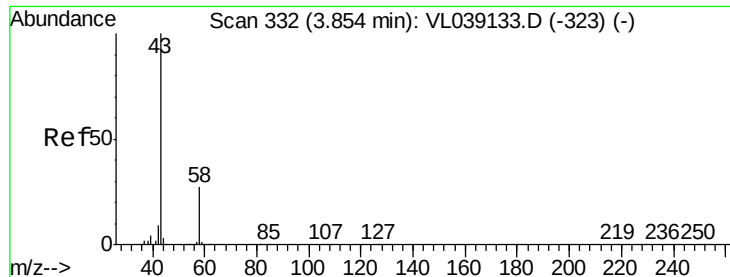
Tot Ion: 101 Resp: 10235
 Ion Ratio Lower Upper
 101 100
 103 57.8 51.7 77.5



#13
 Ethanol
 Concen: 15.241 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. -0.00 min
 Lab File: VL039274.D
 Acq: 14 Jun 2022 6:05

Tgt Ion: 45 Resp: 57154
 Ion Ratio Lower Upper
 45 100
 46 72.3 0.0 0.0#





#15

Acetone

Concen: 3.387 ppbv

RT: 3.86 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

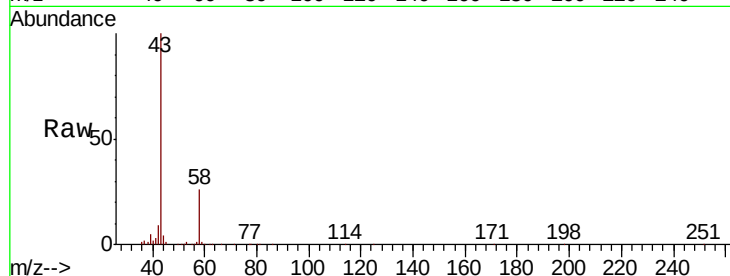
Acq: 14 Jun 2022 8:05

Tot Ion: 43 Resp: 437359

Ion Ratio Lower Upper

43 100

58 24.8 22.5 33.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

250000

200000

150000

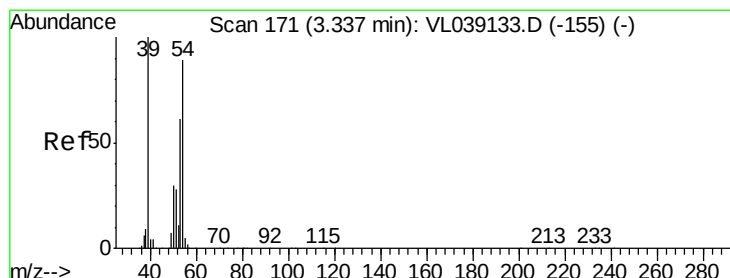
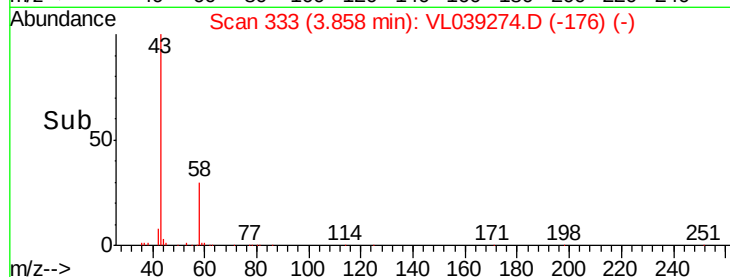
100000

50000

0

3.80 3.85 3.90 3.95

Time-->



#16

1,3-Butadiene

Concen: 0.036 ppbv

RT: 3.33 min Scan# 170

Delta R.T. -0.00 min

Lab File: VL039274.D

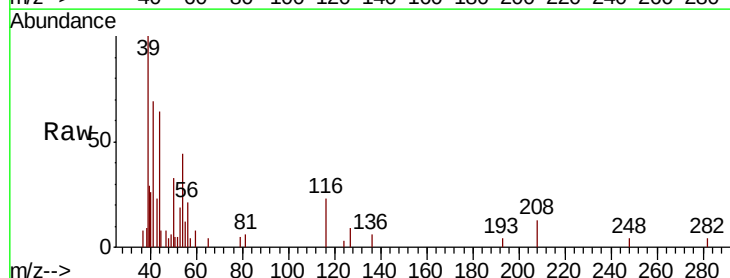
Acq: 14 Jun 2022 6:05

Tgt Ion: 39 Resp: 2508

Ion Ratio Lower Upper

39 100

54 146.3 65.8 98.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

5000

4000

3000

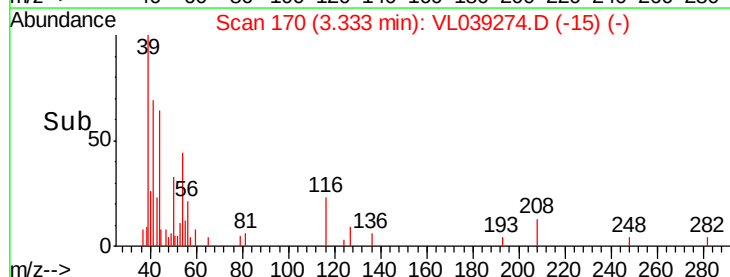
2000

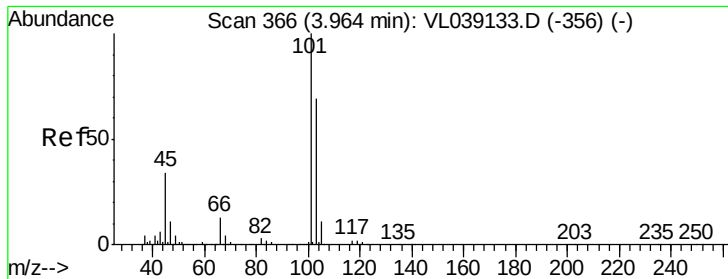
1000

0

3.33 3.33 3.34 3.34

Time-->





#19

Isopropyl Alcohol

Concen: 2.061 ppbv

RT: 3.99 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA2DL

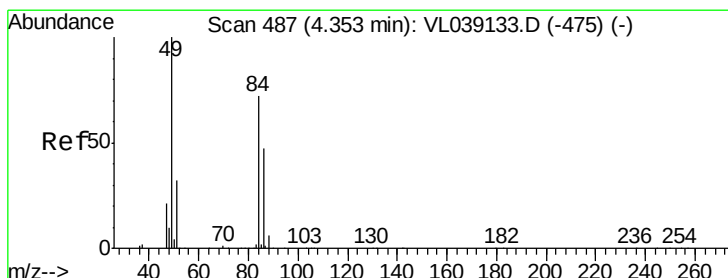
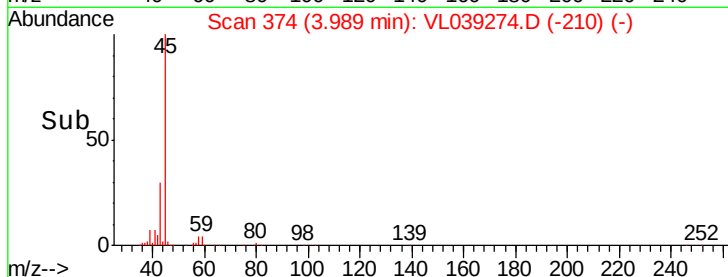
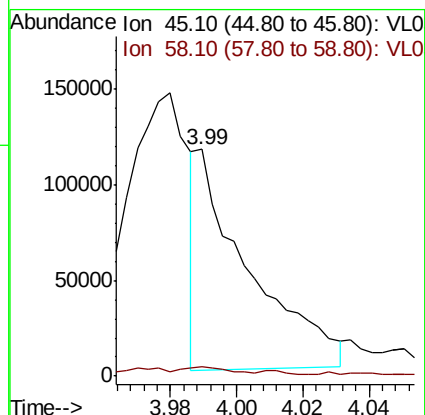
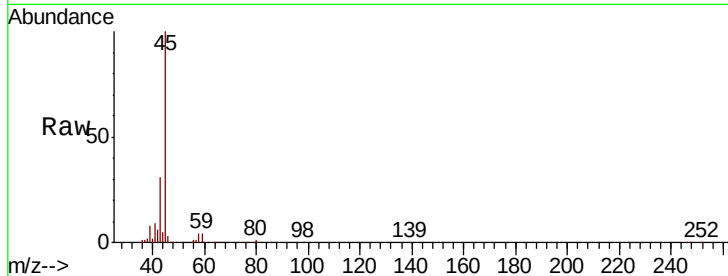
Acq: 14 Jun 2022 8:05

Tot Ion: 45 Resp: 124810

Ion Ratio Lower Upper

45 100

58 10.7 1.8 2.8#



#20

Methylene Chloride

Concen: 1.054 ppbv

RT: 4.35 min Scan# 486

Delta R.T. -0.00 min

Lab File: VL039274.D

Acq: 14 Jun 2022 6:05

Tgt Ion: 84 Resp: 57343

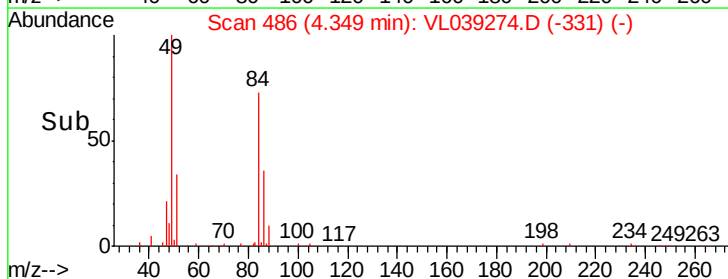
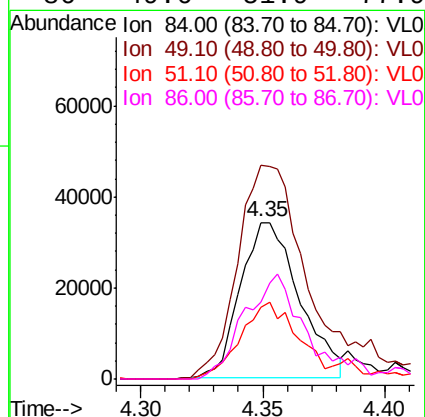
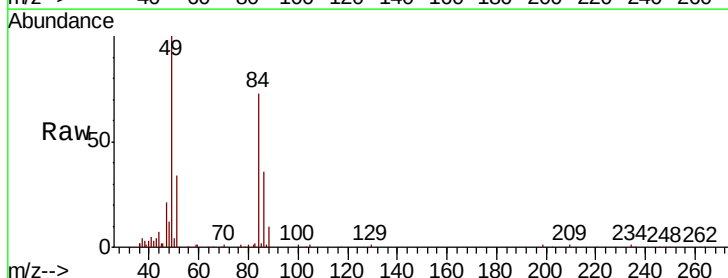
Ion Ratio Lower Upper

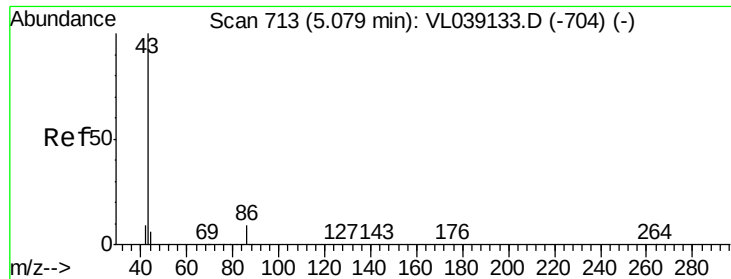
84 100

49 136.7 111.1 166.7

51 46.4 35.3 52.9

86 49.6 51.9 77.9#





#23

Vinyl Acetate

Concen: 0.040 ppbv

RT: 5.09 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Jun 2022 8:05

Tot Ion: 43 Resp: 4274

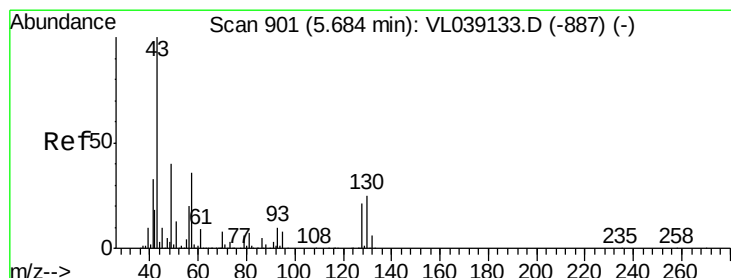
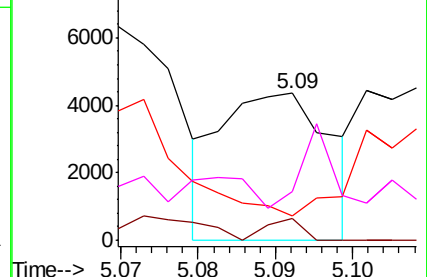
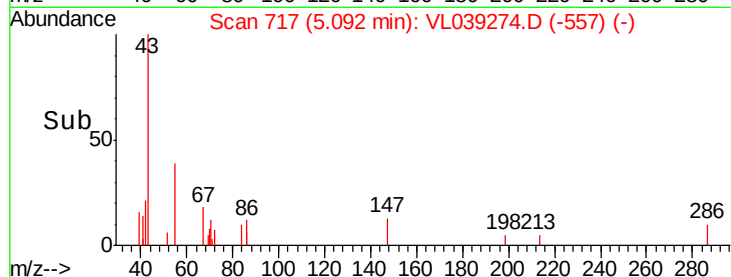
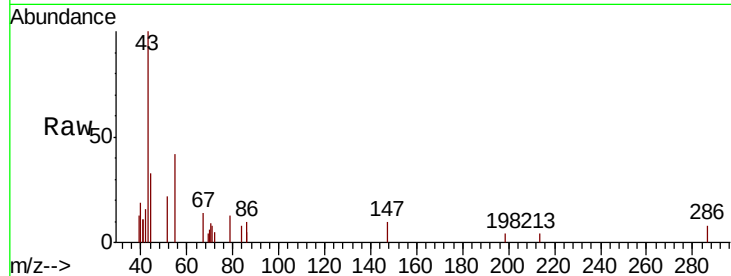
Ion Ratio Lower Upper

43 100

86 46.4 6.0 9.0#

42 0.0 8.2 12.4#

44 8.2 4.3 6.5#



#25

Ethyl Acetate

Concen: 0.088 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL039274.D

Acq: 14 Jun 2022 6:05

Tgt Ion: 43 Resp: 25576

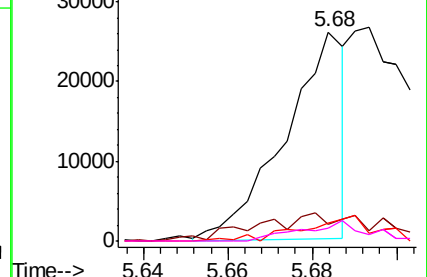
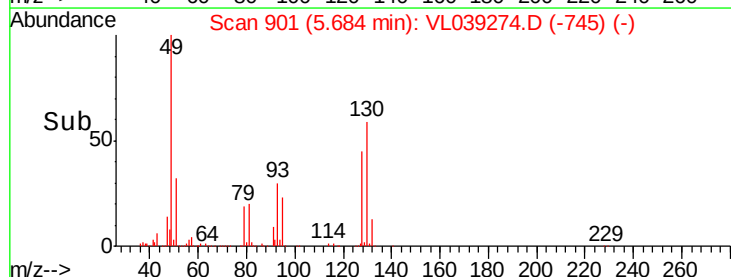
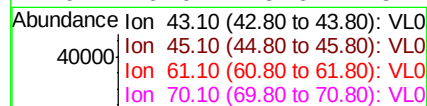
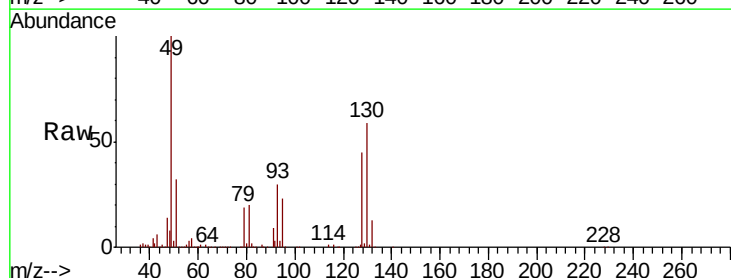
Ion Ratio Lower Upper

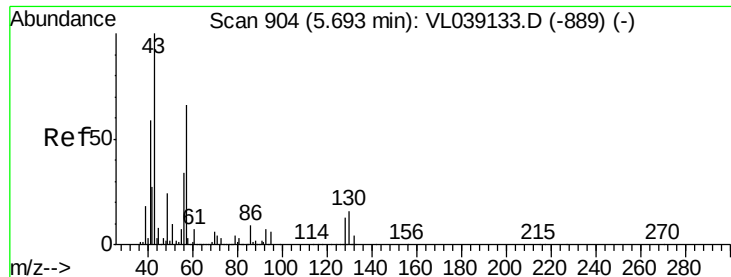
43 100

45 29.4 8.2 12.2#

61 0.0 8.4 12.6#

70 0.0 5.6 8.4#





#26

Hexane

Concen: 0.160 ppbv

RT: 5.70 Instrument:

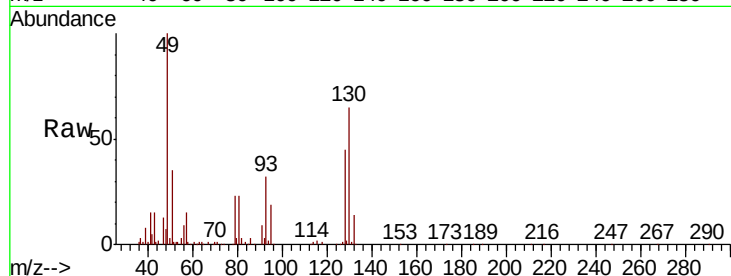
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Jun 2022 8:05

Tot Ion: 57 Resp: 20501

Ion	Ratio	Lower	Upper
57	100		
41	252.0	72.4	108.6#
43	330.1	187.0	280.6#
56	133.1	41.8	62.6#

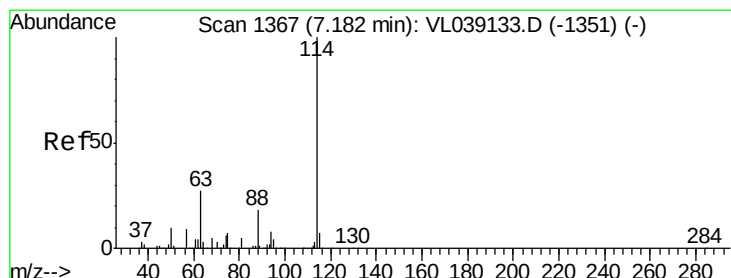
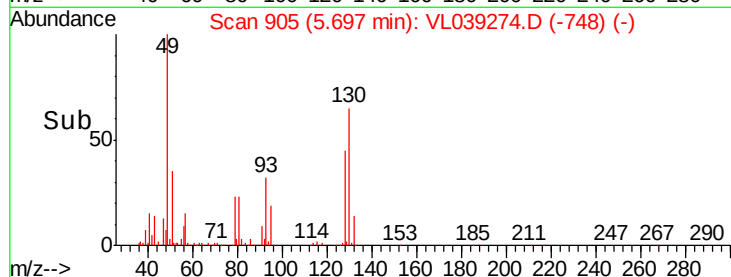
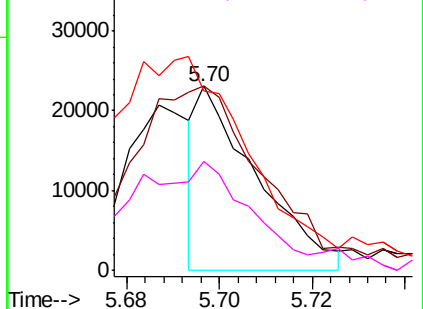


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1366

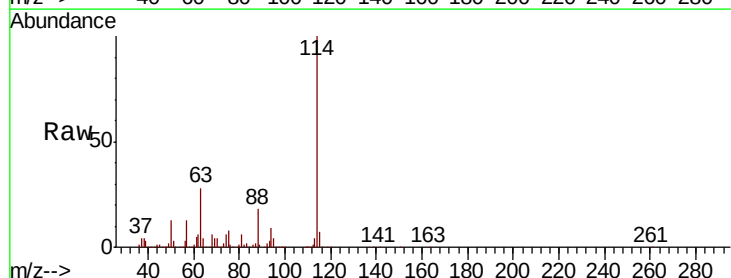
Delta R.T. -0.00 min

Lab File: VL039274.D

Acq: 14 Jun 2022 6:05

Tgt Ion: 114 Resp: 2754757

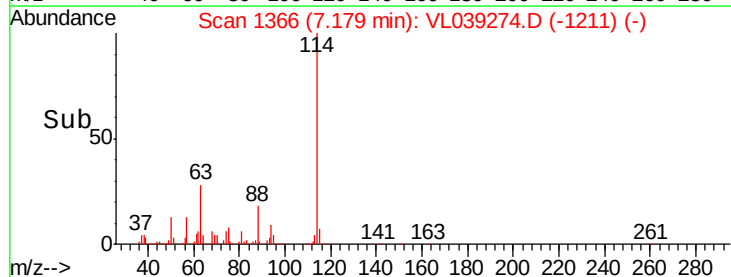
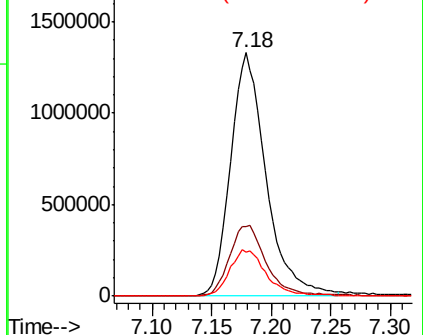
Ion	Ratio	Lower	Upper
114	100		
63	30.4	21.7	32.5
88	20.0	14.8	22.2

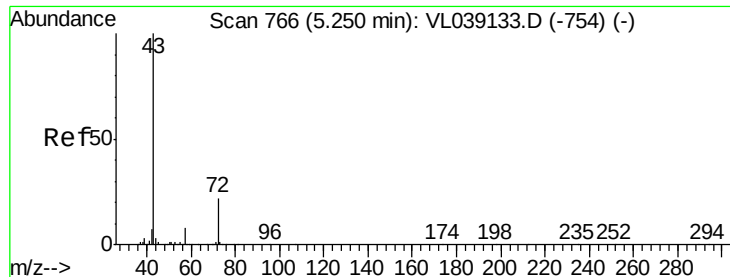


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

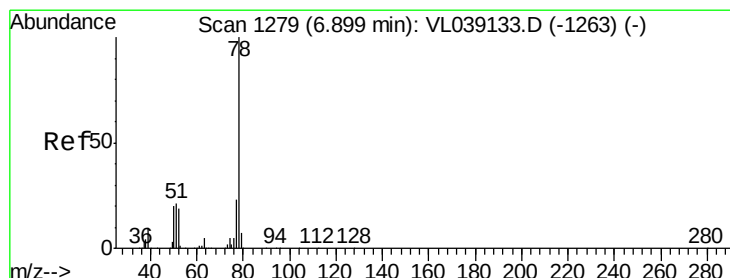
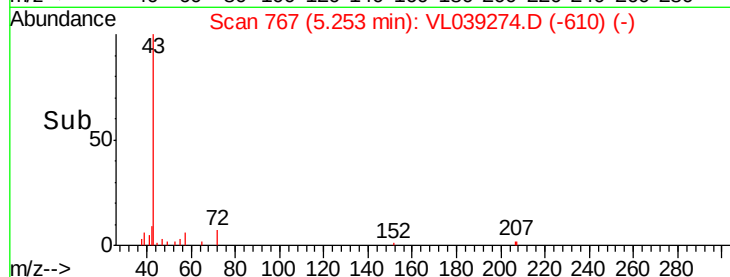
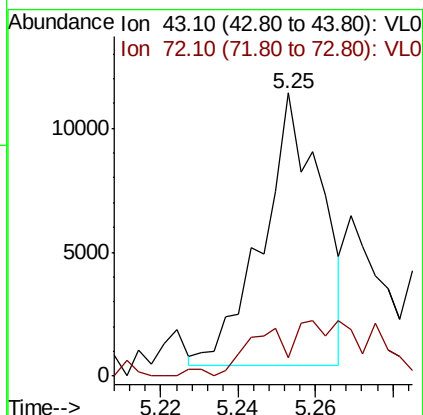
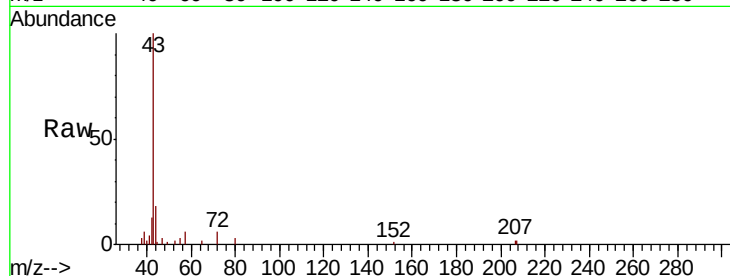
Ion 88.10 (87.80 to 88.80): VL0





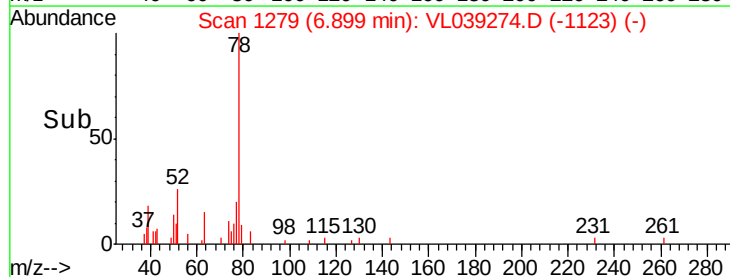
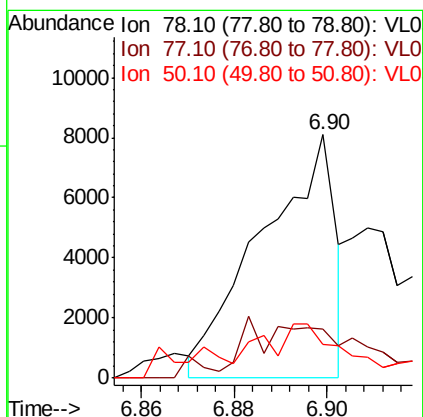
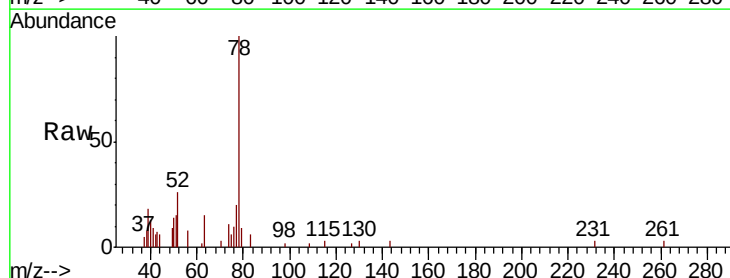
#34
2-Butanone
Concen: 0.077 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 8:05

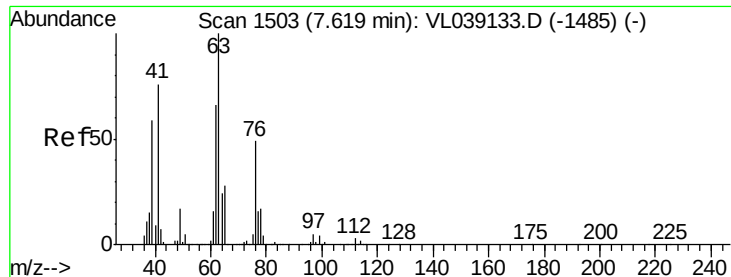
Tot Ion: 43 Resp: 11598
Ion Ratio Lower Upper
43 100
72 37.9 18.2 27.2#



#36
Benzene
Concen: 0.040 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. 0.00 min
Lab File: VL039274.D
Acq: 14 Jun 2022 6:05

Tgt Ion: 78 Resp: 8889
Ion Ratio Lower Upper
78 100
77 7.7 18.6 27.8#
50 0.7 15.8 23.8#





#39

1,2-Dichloropropane

Concen: 9.125 ppbv

RT: 7.18 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 14 Jun 2022 8:05

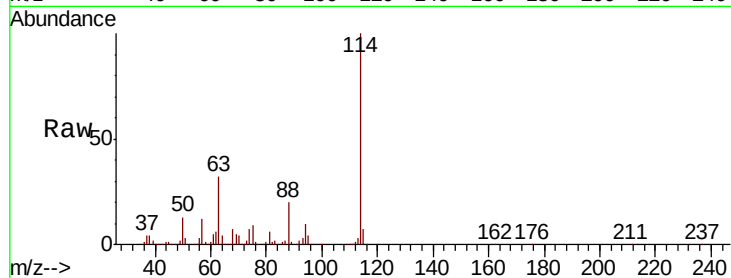
Tot Ion: 63 Resp: 811772

Ion Ratio Lower Upper

63 100

41 0.0 60.8 91.2#

62 18.0 52.9 79.3#

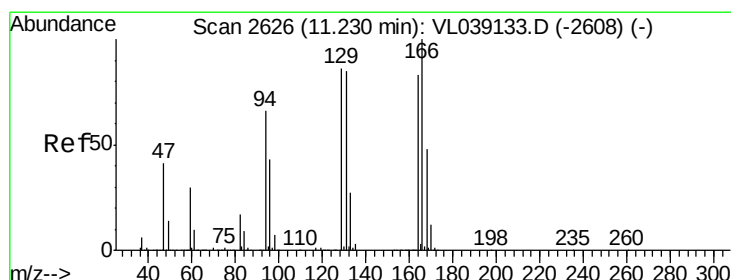
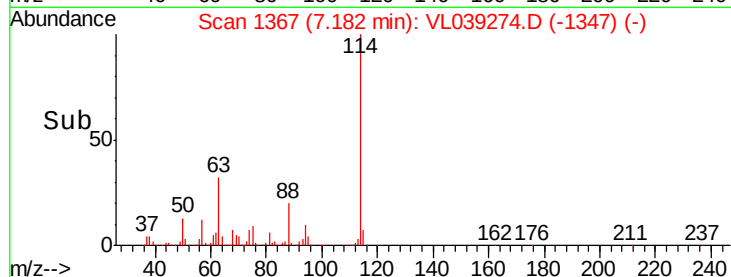
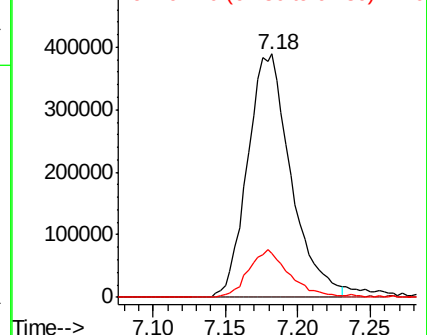


Abundance

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



#52

Tetrachloroethene

Concen: 0.052 ppbv

RT: 11.23 min Scan# 2626

Delta R.T. 0.00 min

Lab File: VL039274.D

Acq: 14 Jun 2022 6:05

Tgt Ion: 164 Resp: 4529

Ion Ratio Lower Upper

164 100

166 0.0 96.3 144.5#

129 26.8 82.5 123.7#

131 99.8 82.1 123.1

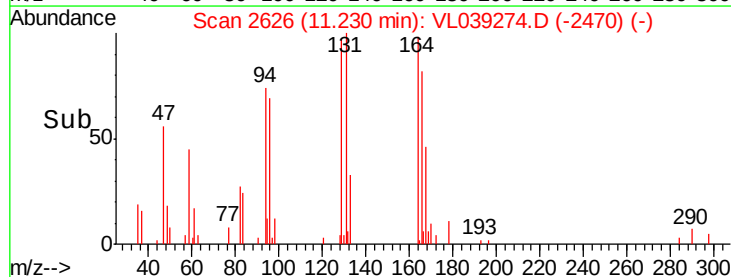
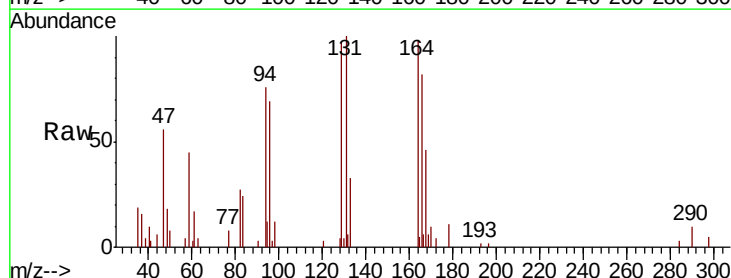
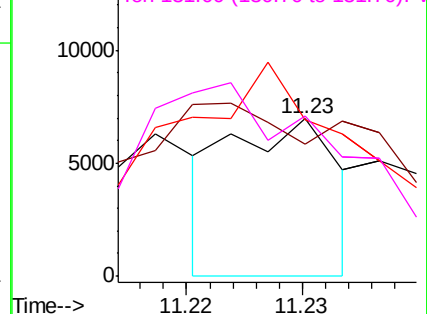
Abundance

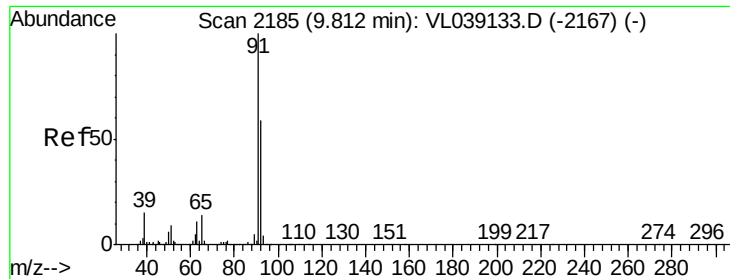
Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.113 ppbv

RT: 9.81 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA2DL

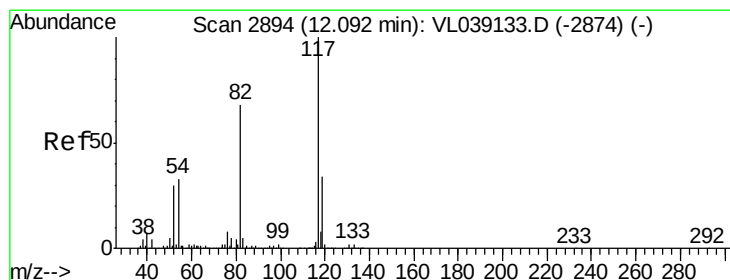
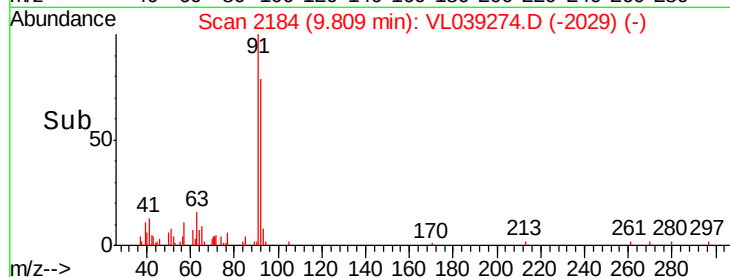
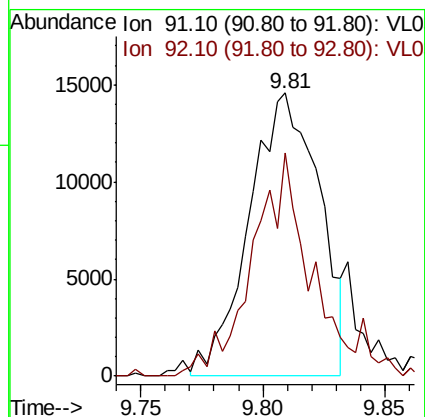
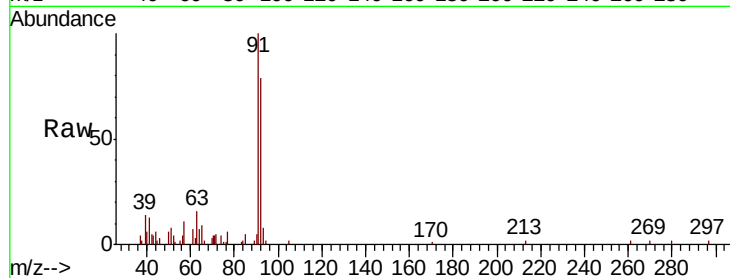
Acq: 14 Jun 2022 8:05

Tot Ion: 91 Resp: 29010

Ion Ratio Lower Upper

91 100

92 67.8 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL039274.D

Acq: 14 Jun 2022 6:05

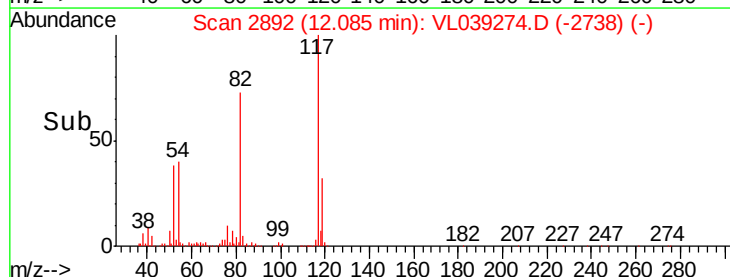
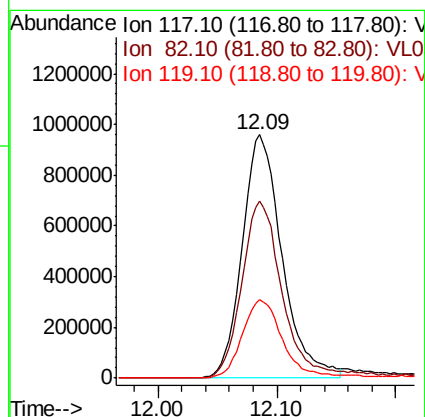
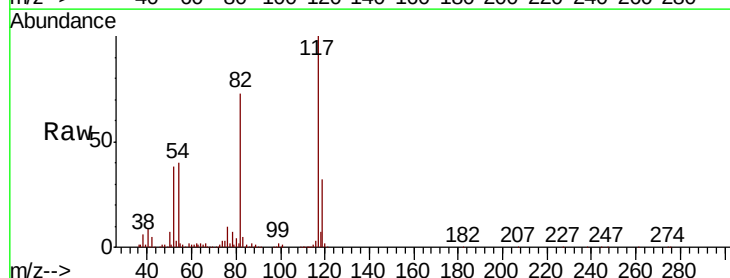
Tgt Ion: 117 Resp: 2228413

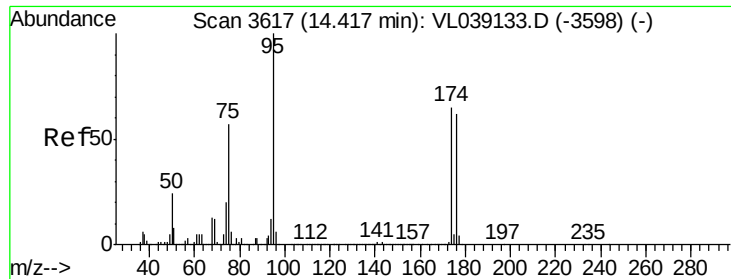
Ion Ratio Lower Upper

117 100

82 75.3 55.1 82.7

119 33.2 24.7 37.1





#68

1-Bromo-4-Fluorobenzene

Concen: 10.283 ppbv

RT: 14.41 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 14 Jun 2022 8:05

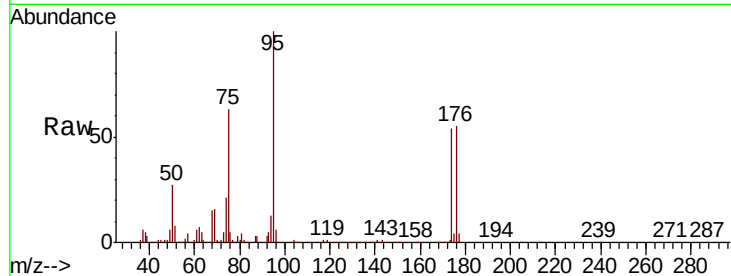
Tot Ion: 95 Resp: 1894478

Ion Ratio Lower Upper

95 100

174 61.3 53.8 80.8

175 4.3 4.1 6.1



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

14.41

800000

600000

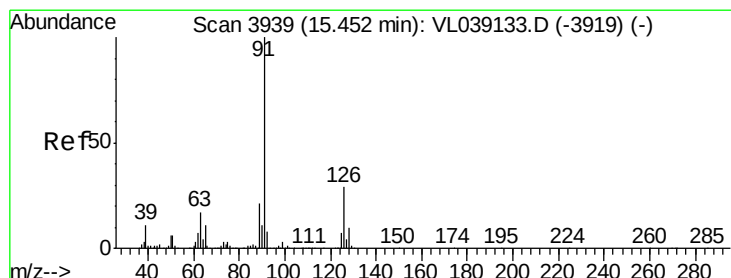
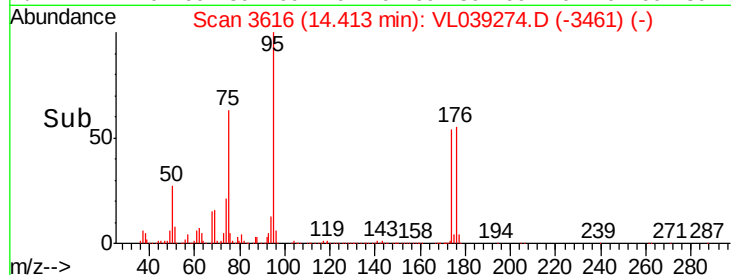
400000

200000

0

Time-->

14.35 14.40 14.45 14.50



#71

2-Chlorotoluene

Concen: 0.342 ppbv

RT: 15.32 min Scan# 3898

Delta R.T. -0.13 min

Lab File: VL039274.D

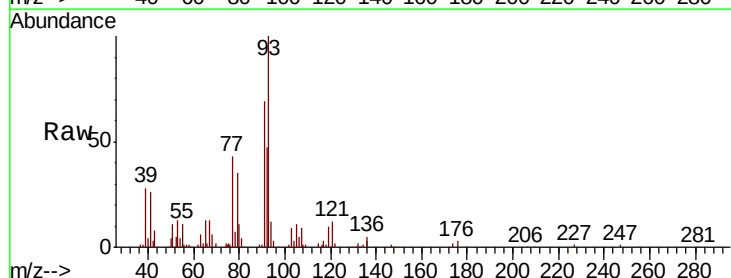
Acq: 14 Jun 2022 6:05

Tgt Ion: 91 Resp: 98508

Ion Ratio Lower Upper

91 100

126 0.2 12.2 48.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

15.32

50000

40000

30000

20000

10000

0

Time-->

15.25 15.30 15.35

