

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060322\
 Data File : VL039169.D
 Acq On : 4 Jun 2022 1:54
 Operator : SY/AP
 Sample : N3106-04 2X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV4

Quant Time: Jun 04 02:47:33 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	1339338	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3795567	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3421831	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.42	95	2590277	9.16	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	91.60%	

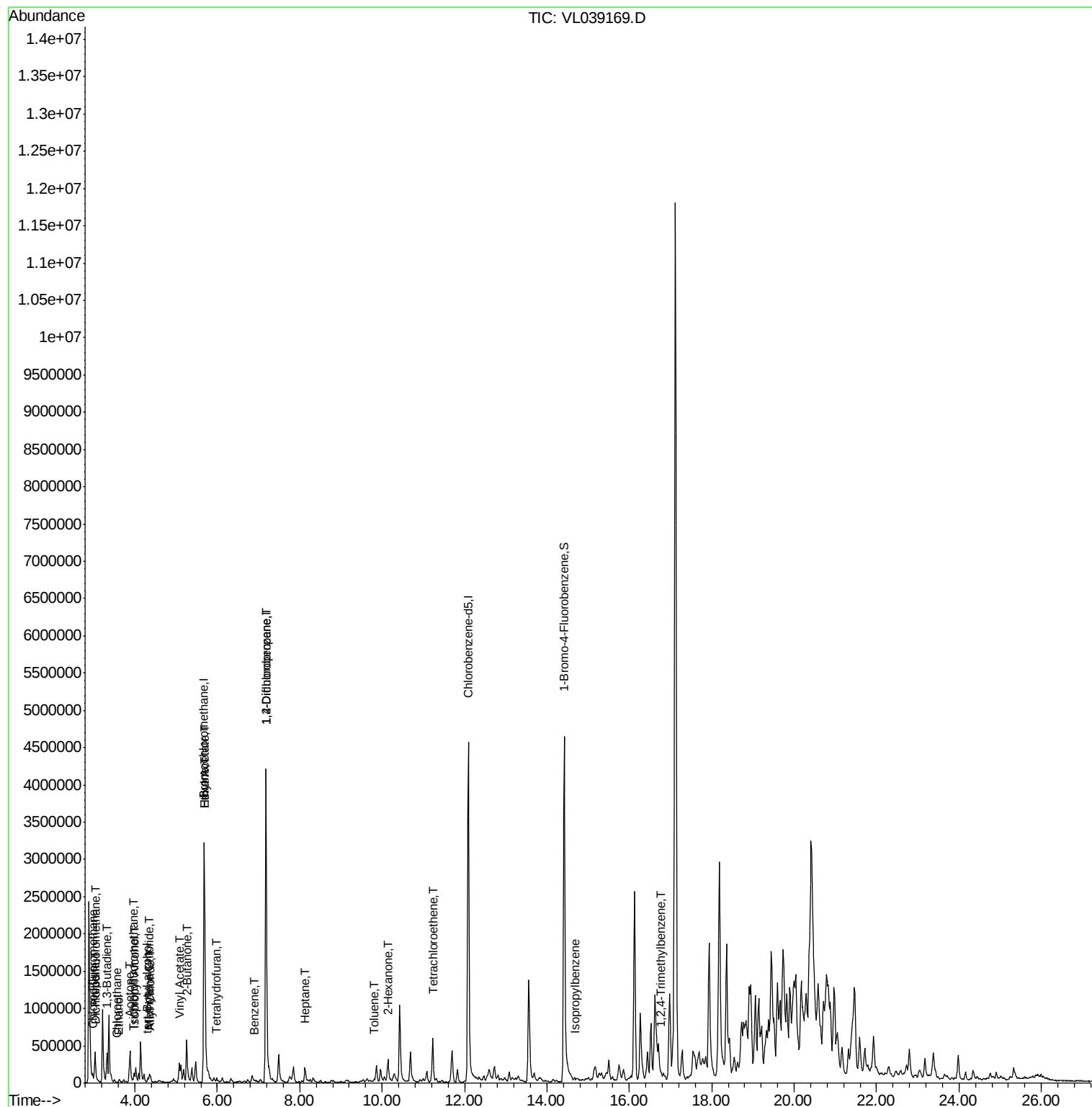
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	25262	0.107	ppbv	96
3) Chlorodifluoromethane	2.97	51	109099	0.640	ppbv #	62
7) Chloroethane	3.56	64	1124	0.039	ppbv #	45
9) Propene	3.03	41	143973	1.938	ppbv #	82
10) Heptane	8.13	43	50760	0.293	ppbv #	28
11) Trichlorofluoromethane	3.96	101	15292	0.072	ppbv	94
13) Ethanol	3.61	45	13680	3.376	ppbv #	100
15) Acetone	3.86	43	163242	1.170	ppbv #	47
16) 1,3-Butadiene	3.32	39	107052	1.427	ppbv #	16
17) tert-Butyl alcohol	4.30	59	6281	0.058	ppbv #	70
19) Isopropyl Alcohol	3.98	45	135822	2.076	ppbv #	92
20) Methylene Chloride	4.35	84	39639	0.674	ppbv #	92
21) Allyl Chloride	4.38	41	5844	0.062	ppbv #	1
23) Vinyl Acetate	5.08	43	302017	2.616	ppbv #	96
25) Ethyl Acetate	5.69	43	398582	1.268	ppbv #	78
26) Hexane	5.69	57	559384	4.048	ppbv #	30
34) 2-Butanone	5.25	43	784054	3.802	ppbv	98
36) Benzene	6.90	78	12553	0.041	ppbv #	80
39) 1,2-Dichloropropane	7.18	63	883218	7.206	ppbv #	24
41) Tetrahydrofuran	5.99	42	4257	0.034	ppbv #	49
51) 2-Hexanone	10.14	43	272779	1.136	ppbv #	95
52) Tetrachloroethene	11.23	164	149794	1.245	ppbv	96
53) Toluene	9.81	91	25474	0.072	ppbv	94
62) Isopropylbenzene	14.68	105	29012	0.050	ppbv #	86
74) 1,2,4-Trimethylbenzene	16.76	105	48642	0.106	ppbv #	65

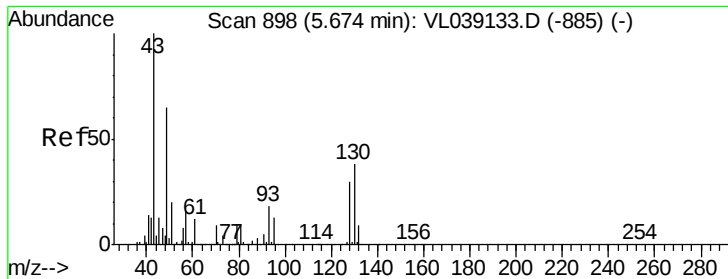
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV4

Acq: 4 Jun 2022 1:54

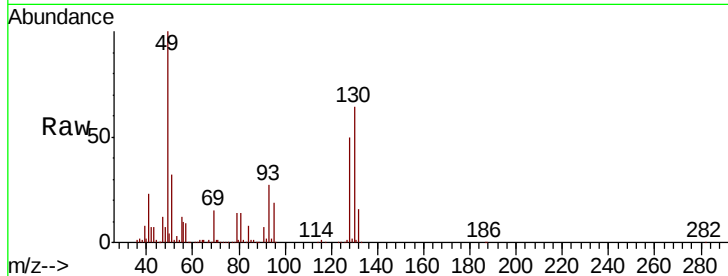
Tot Ion: 49 Resp: 1339338

Ion Ratio Lower Upper

49 100

128 53.8 24.7 74.1

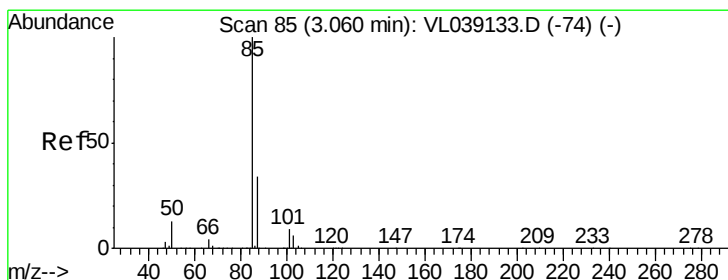
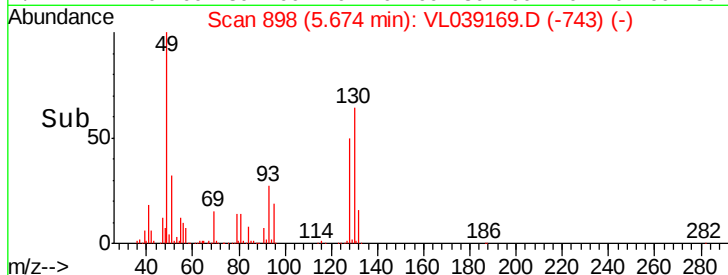
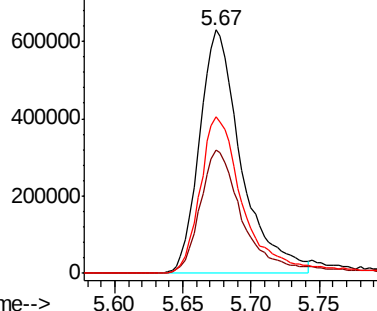
130 69.1 31.4 94.0



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: 0.107 ppbv

RT: 3.06 min Scan# 84

Delta R.T. -0.00 min

Lab File: VL039169.D

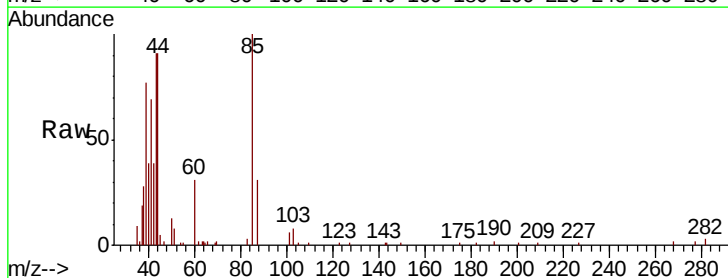
Acq: 4 Jun 2022 1:54

Tgt Ion: 85 Resp: 25262

Ion Ratio Lower Upper

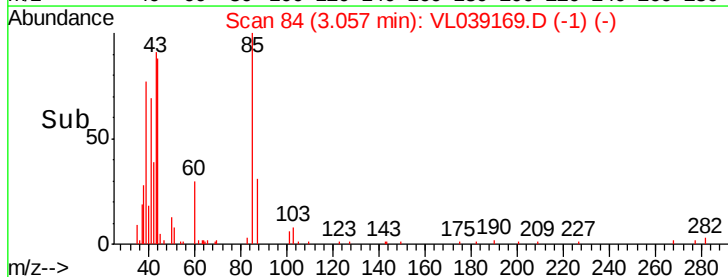
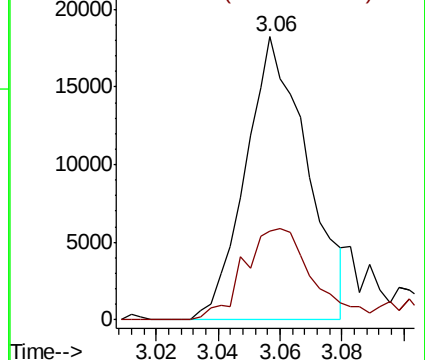
85 100

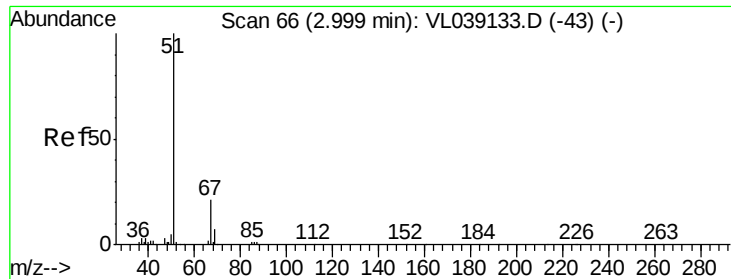
87 31.4 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.640 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

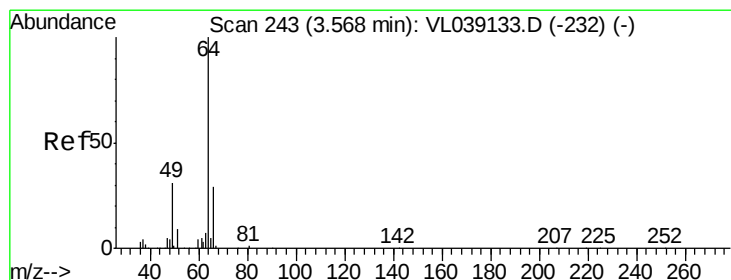
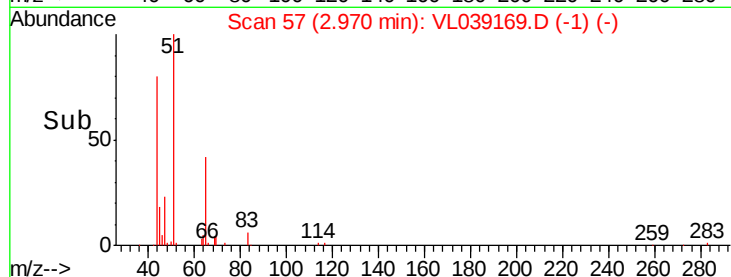
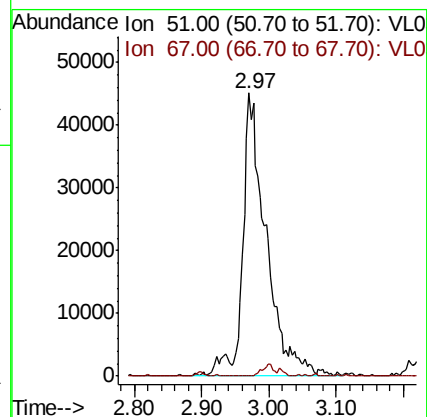
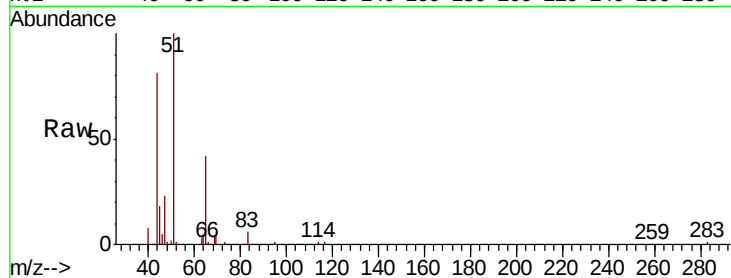
Acq: 4 Jun 2022 1:54 SV4

Tot Ion: 51 Resp: 109099

Ion Ratio Lower Upper

51 100

67 2.8 16.2 24.4#



#7

Chloroethane

Concen: 0.039 ppbv

RT: 3.56 min Scan# 241

Delta R.T. -0.01 min

Lab File: VL039169.D

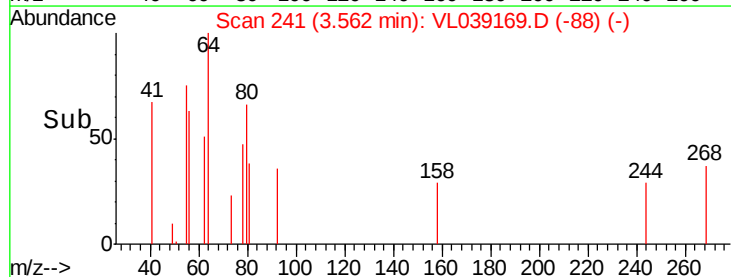
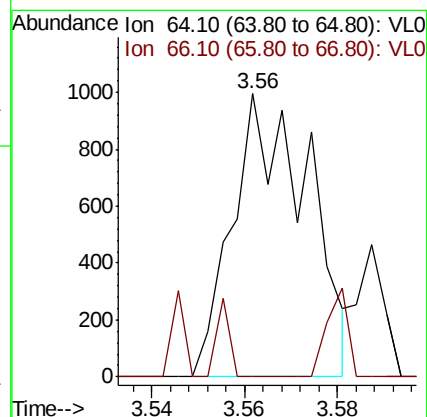
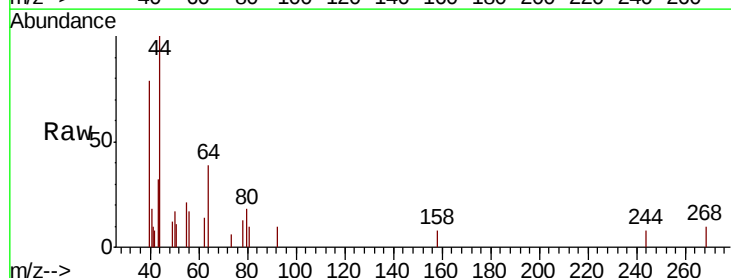
Acq: 4 Jun 2022 1:54

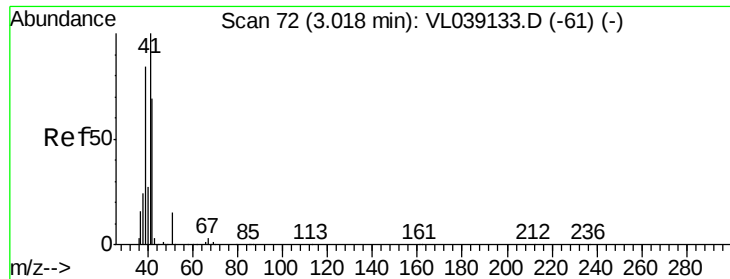
Tgt Ion: 64 Resp: 1124

Ion Ratio Lower Upper

64 100

66 0.0 23.6 35.4#





#9

Propene

Concen: 1.938 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

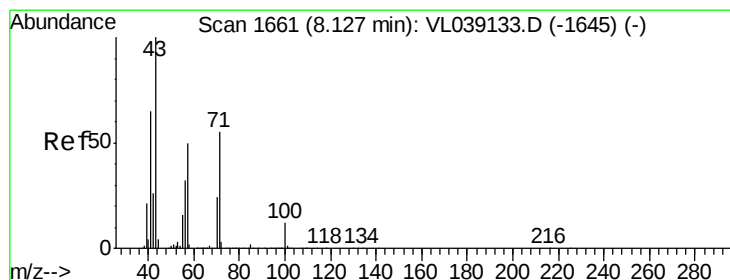
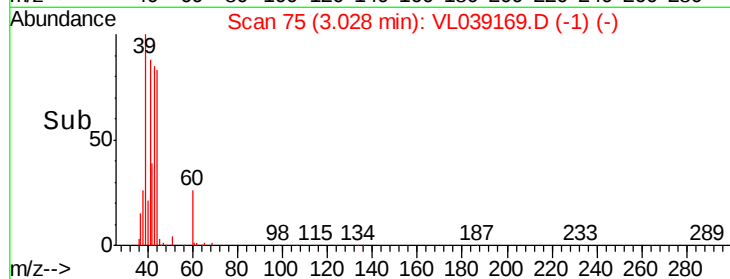
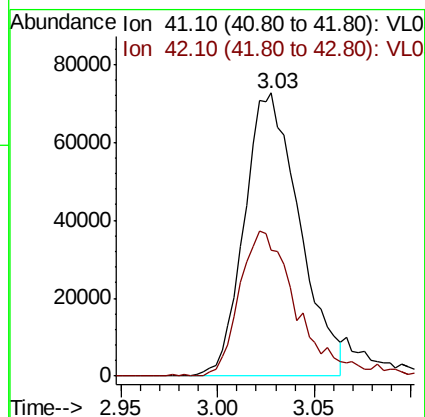
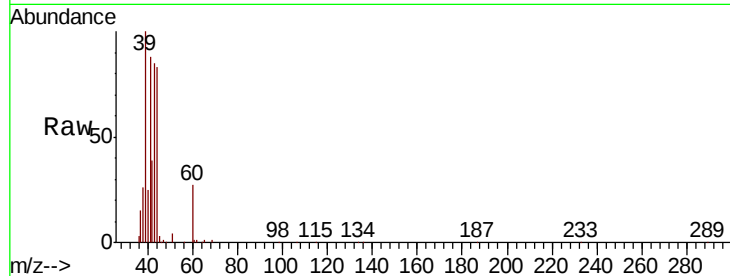
Acq: 4 Jun 2022 1:54 SV4

Tot Ion: 41 Resp: 143973

Ion Ratio Lower Upper

41 100

42 54.3 55.4 83.2#



#10

Heptane

Concen: 0.293 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL039169.D

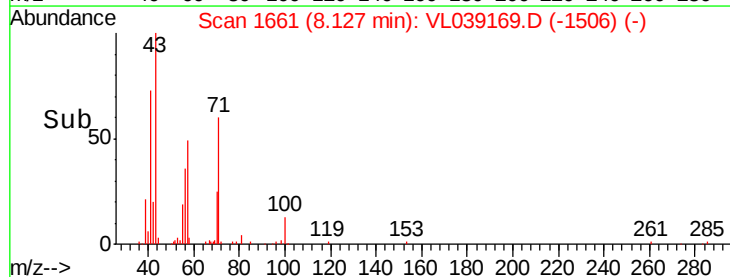
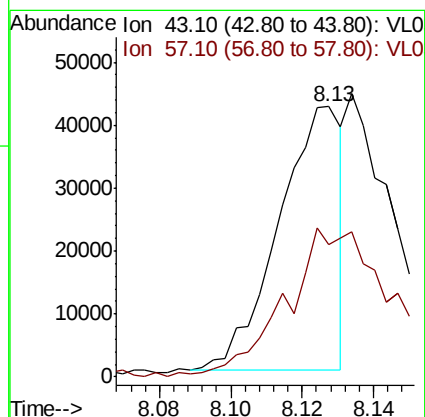
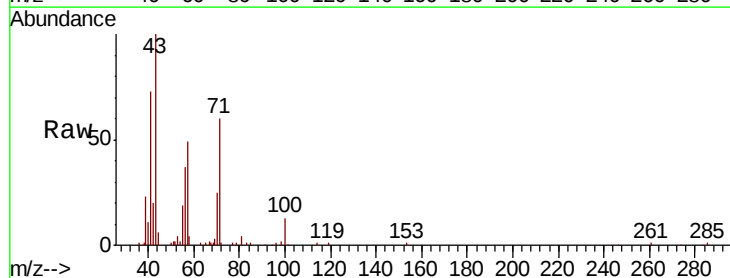
Acq: 4 Jun 2022 1:54

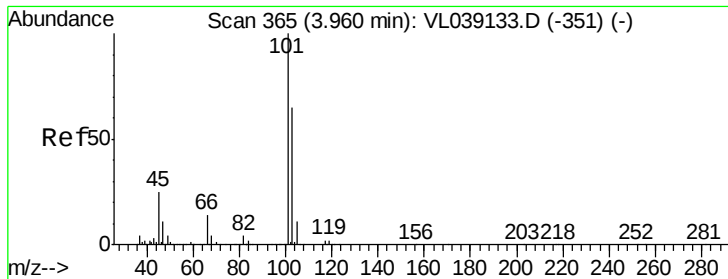
Tgt Ion: 43 Resp: 50760

Ion Ratio Lower Upper

43 100

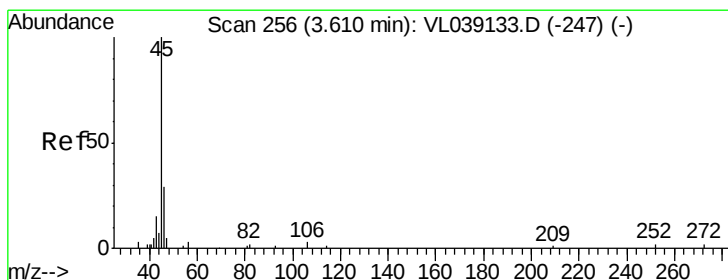
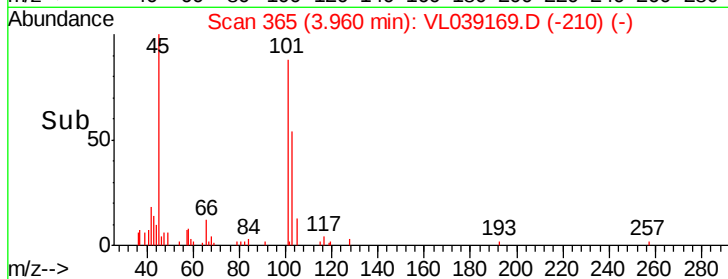
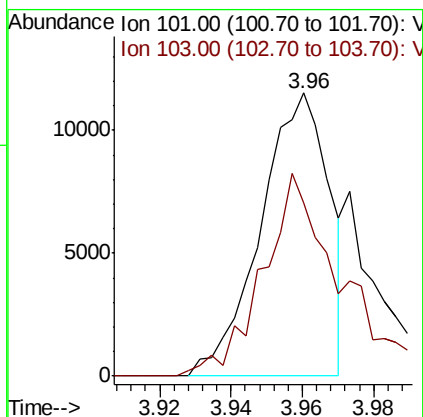
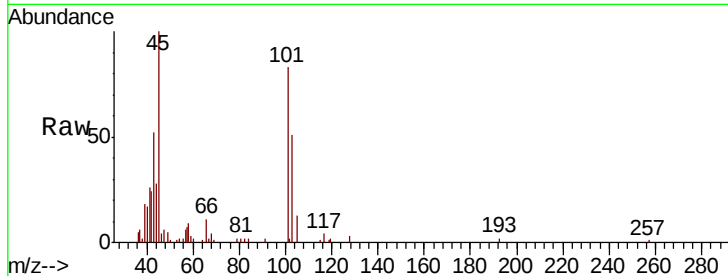
57 102.4 41.4 62.2#





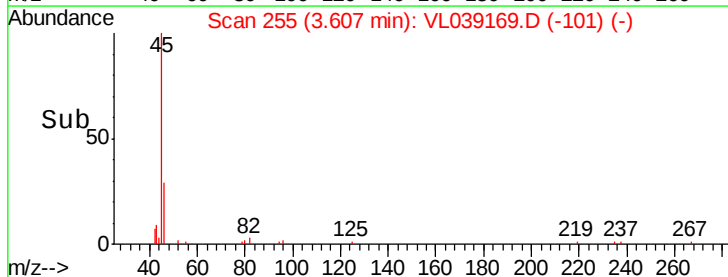
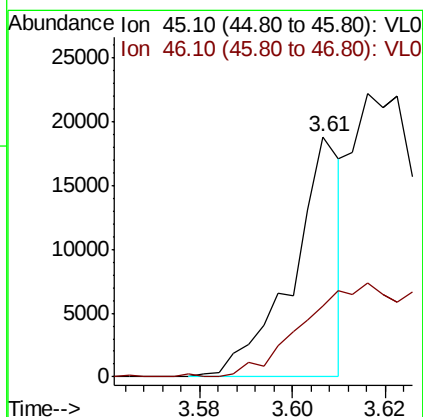
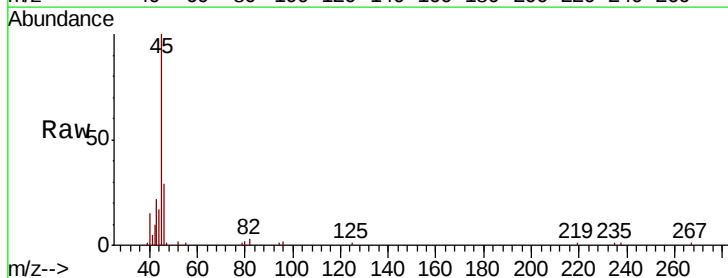
#11
 Trichlorofluoromethane
 Concen: 0.072 ppbv
 RT: 3.96
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 SV4
 Acq: 4 Jun 2022 1:54

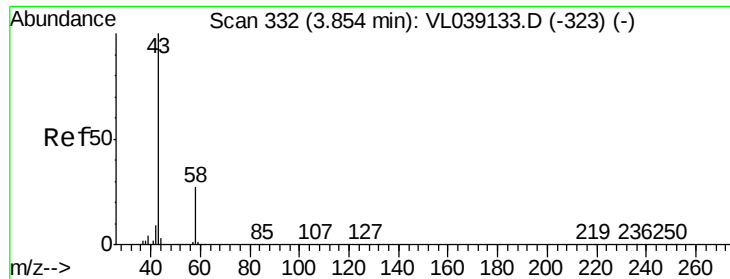
Tot Ion: 101 Resp: 15292
 Ion Ratio Lower Upper
 101 100
 103 59.5 51.7 77.5



#13
 Ethanol
 Concen: 3.376 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. -0.00 min
 Lab File: VL039169.D
 Acq: 4 Jun 2022 1:54

Tgt Ion: 45 Resp: 13680
 Ion Ratio Lower Upper
 45 100
 46 0.0 0.0 0.0





#15

Acetone

Concen: 1.170 ppbv

RT: 3.86 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

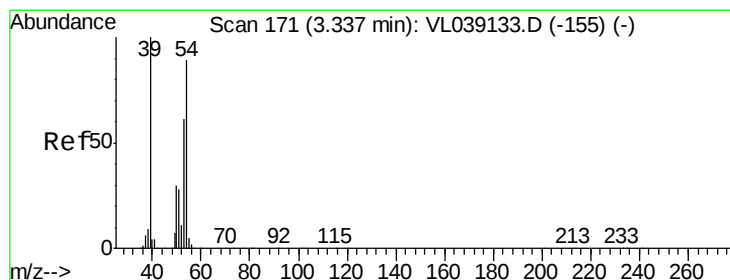
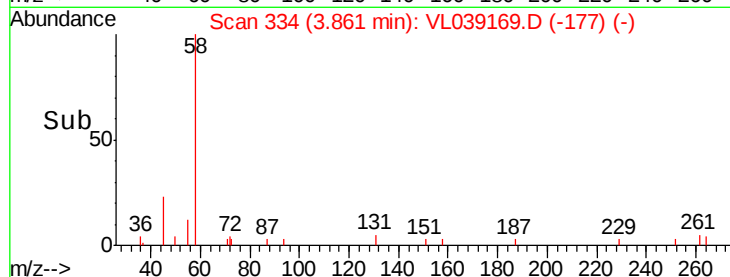
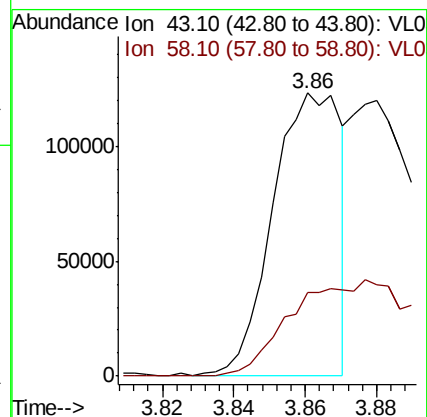
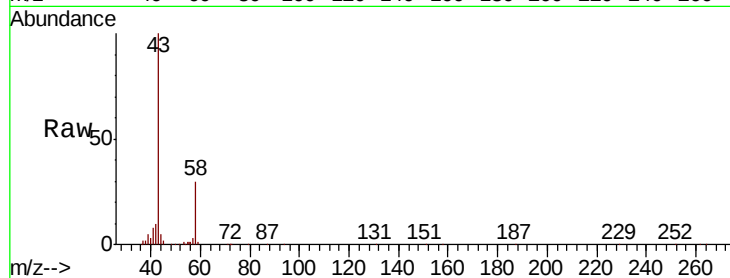
Acq: 4 Jun 2022 1:54 SV4

Tot Ion: 43 Resp: 163242

Ion Ratio Lower Upper

43 100

58 0.0 22.5 33.7#



#16

1,3-Butadiene

Concen: 1.427 ppbv

RT: 3.32 min Scan# 166

Delta R.T. -0.02 min

Lab File: VL039169.D

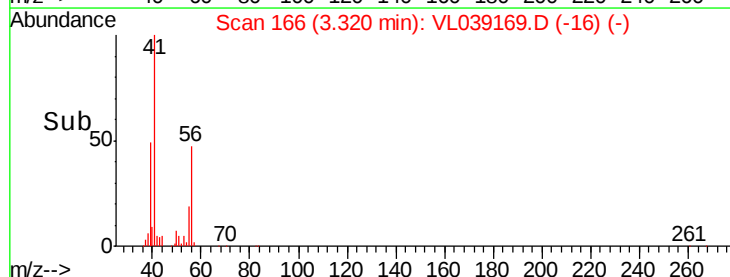
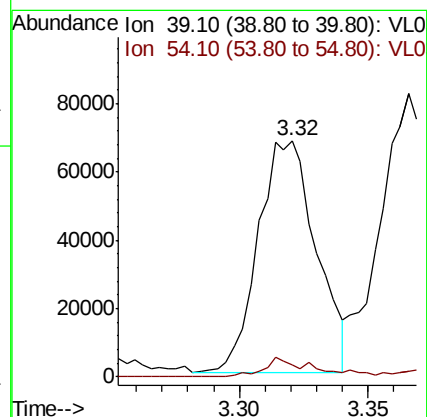
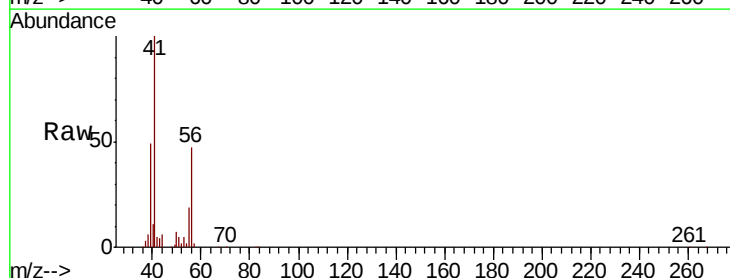
Acq: 4 Jun 2022 1:54

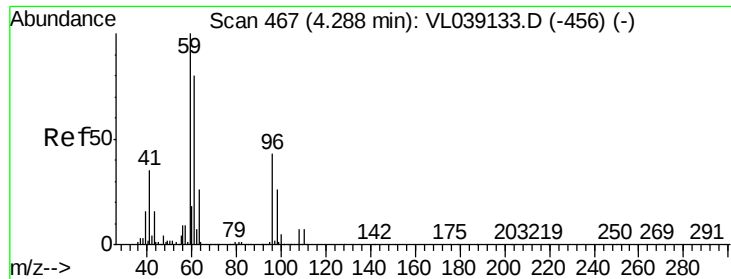
Tgt Ion: 39 Resp: 107052

Ion Ratio Lower Upper

39 100

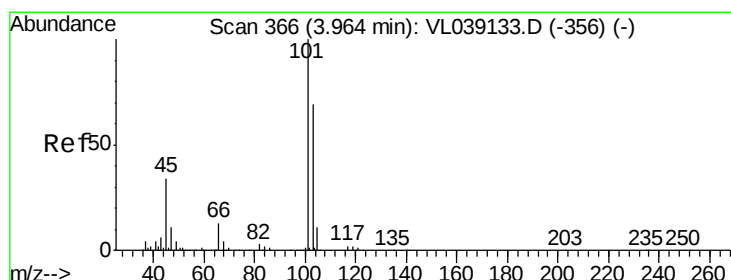
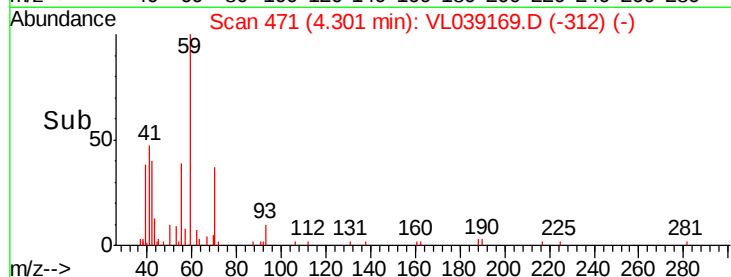
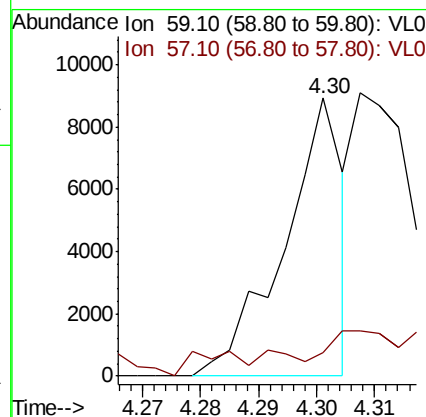
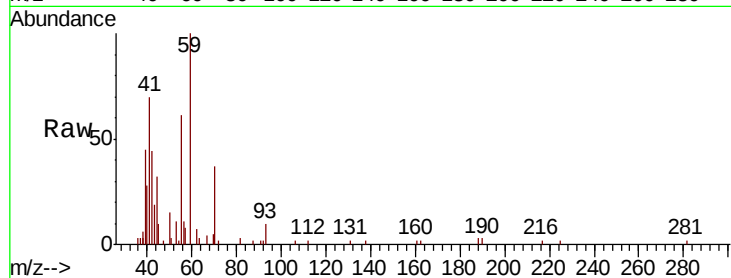
54 6.6 65.8 98.6#





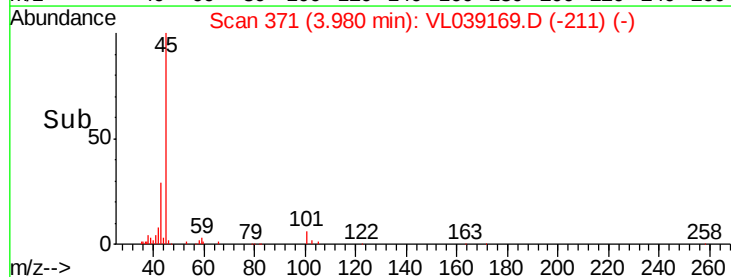
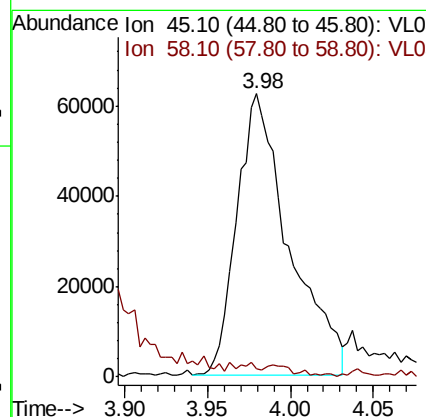
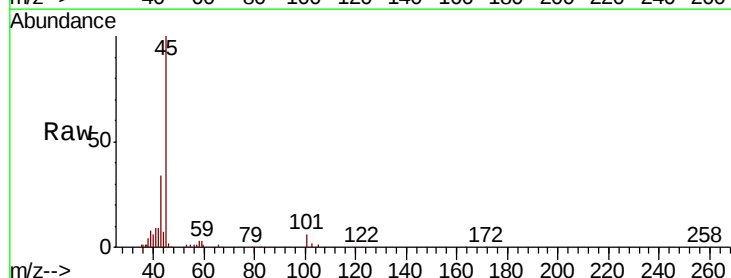
#17
tert-Butyl alcohol
Concen: 0.058 ppbv
RT: 4.30
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV4
Acq: 4 Jun 2022 1:54

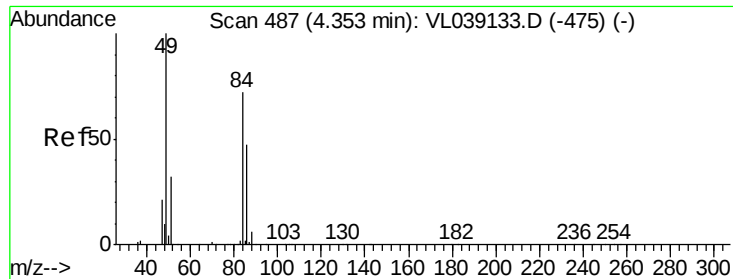
Tot Ion: 59 Resp: 6281
Ion Ratio Lower Upper
59 100
57 0.0 9.1 13.7#



#19
Isopropyl Alcohol
Concen: 2.076 ppbv
RT: 3.98 min Scan# 371
Delta R.T. 0.02 min
Lab File: VL039169.D
Acq: 4 Jun 2022 1:54

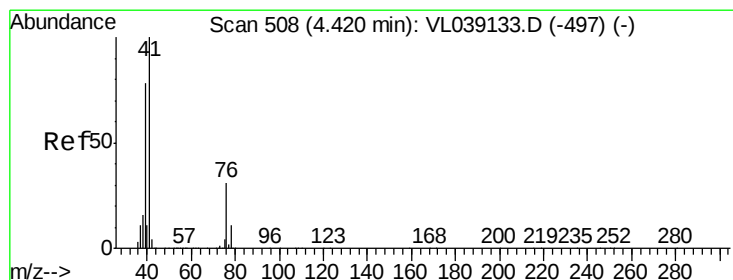
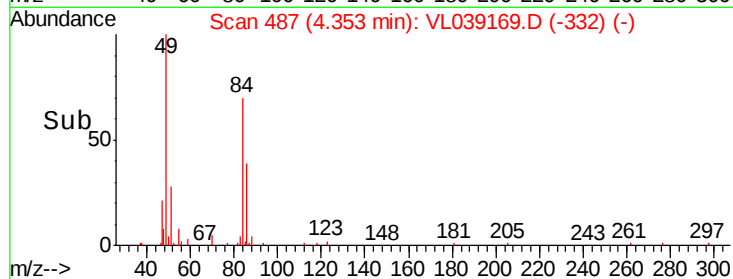
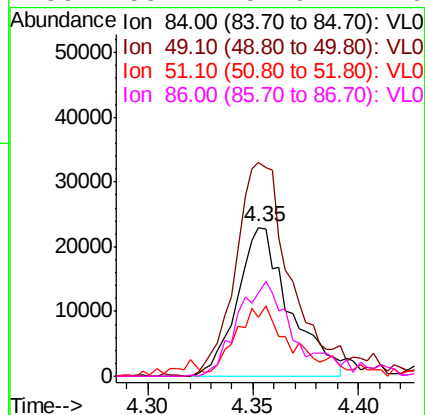
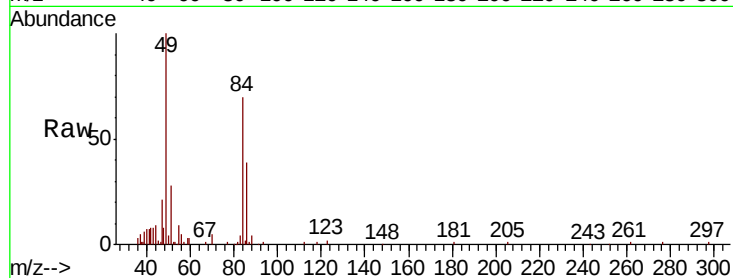
Tgt Ion: 45 Resp: 135822
Ion Ratio Lower Upper
45 100
58 5.1 1.8 2.8#





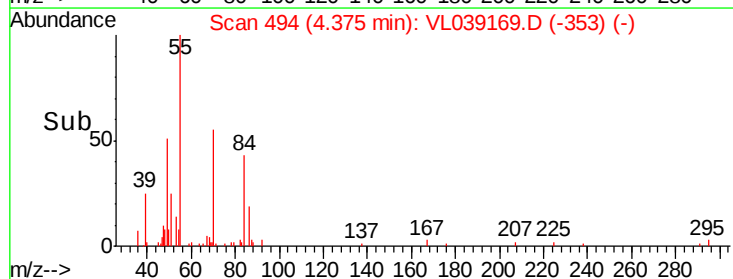
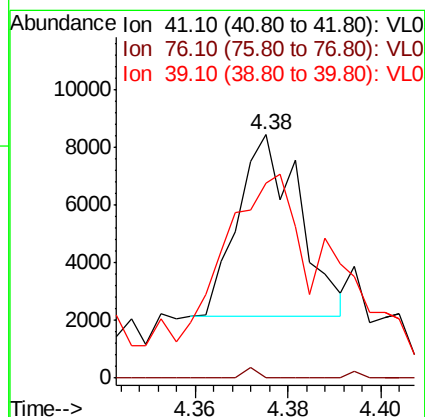
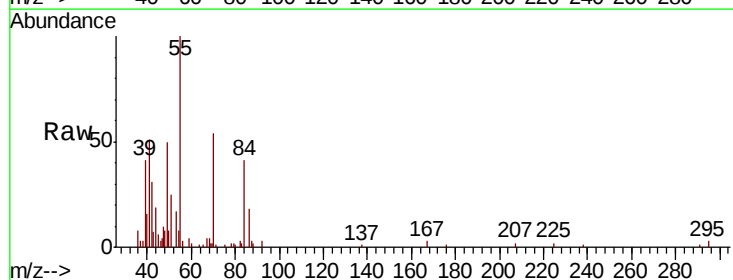
#20
Methvlene Chloride
Concen: 0.674 ppbv
RT: 4.35
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 4 Jun 2022 1:54

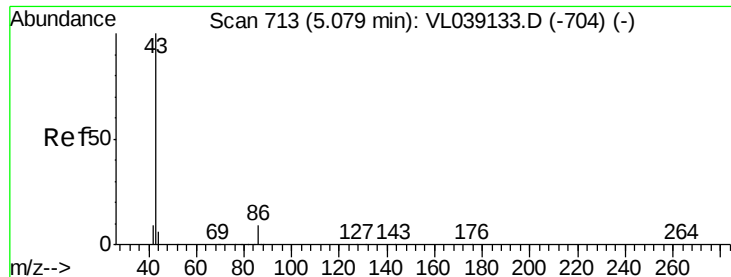
Tot Ion:	84	Resp:	39639
Ion	Ratio	Lower	Upper
84	100		
49	143.8	111.1	166.7
51	33.3	35.3	52.9#
86	55.2	51.9	77.9



#21
Allyl Chloride
Concen: 0.062 ppbv
RT: 4.38 min Scan# 494
Delta R.T. -0.05 min
Lab File: VL039169.D
Acq: 4 Jun 2022 1:54

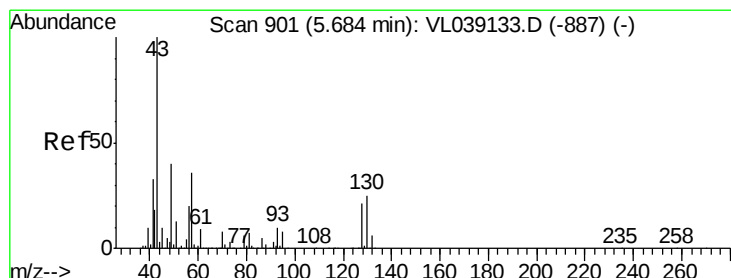
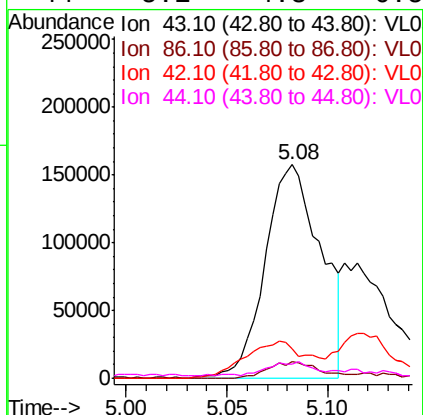
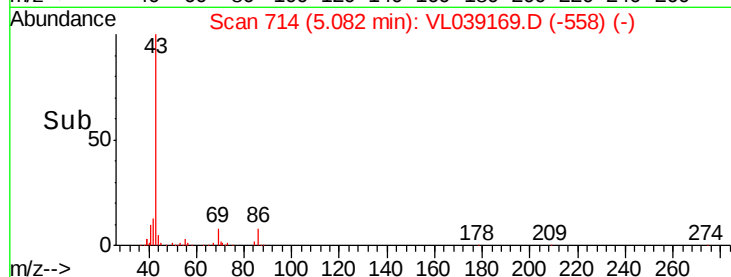
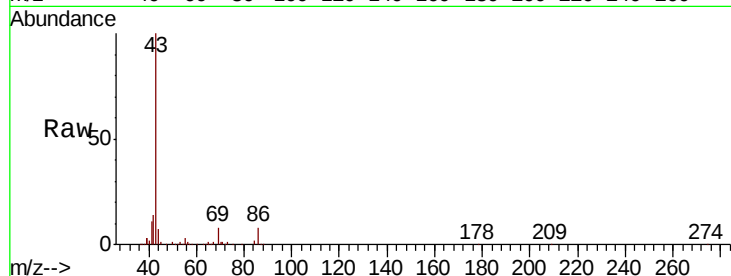
Tgt Ion:	41	Resp:	5844
Ion	Ratio	Lower	Upper
41	100		
76	271.6	24.2	36.2#
39	244.6	62.2	93.2#





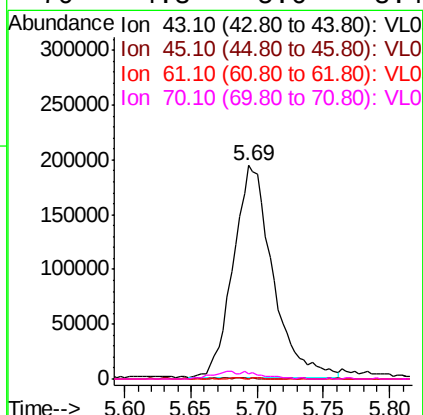
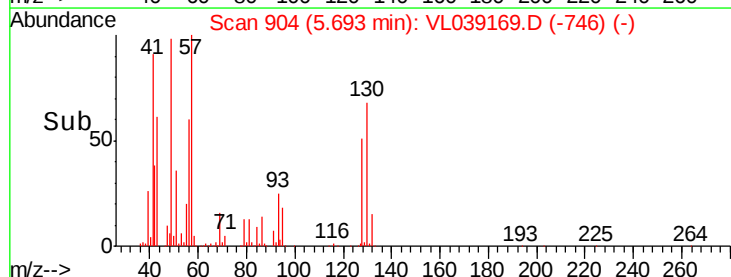
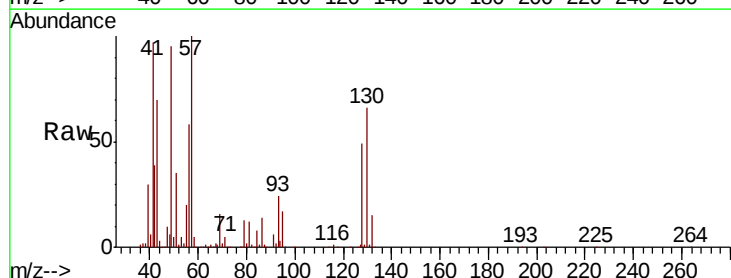
#23
 Vinyl Acetate
 Concen: 2.616 ppbv
 RT: 5.08
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV4
 Acq: 4 Jun 2022 1:54

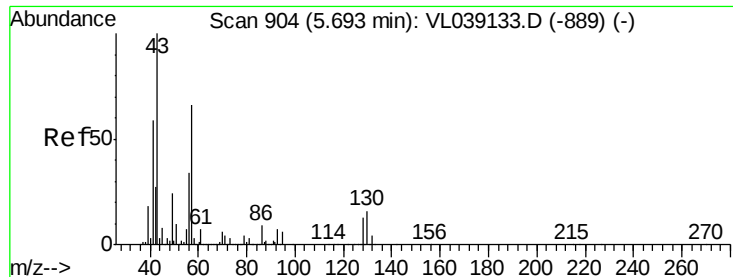
Tot Ion:	43	Resp:	302017
Ion	Ratio	Lower	Upper
43	100		
86	7.7	6.0	9.0
42	13.5	8.2	12.4#
44	5.1	4.3	6.5



#25
 Ethyl Acetate
 Concen: 1.268 ppbv
 RT: 5.69 min Scan# 904
 Delta R.T. 0.01 min
 Lab File: VL039169.D
 Acq: 4 Jun 2022 1:54

Tgt Ion:	43	Resp:	398582
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.2	12.2#
61	0.5	8.4	12.6#
70	4.3	5.6	8.4#





#26

Hexane

Concen: 4.048 ppbv

RT: 5.69 Instrument:

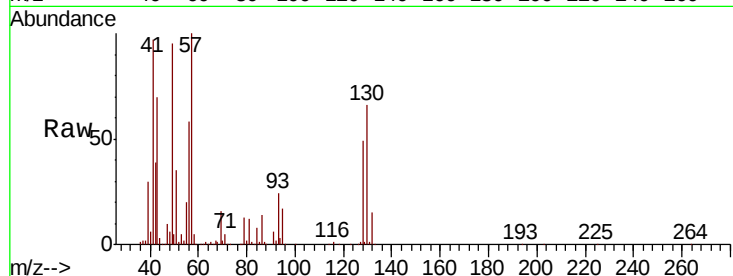
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 4 Jun 2022 1:54 SV4

Tot Ion: 57 Resp: 559384

Ion	Ratio	Lower	Upper
57	100		
41	120.7	72.4	108.6#
43	74.7	187.0	280.6#
56	68.7	41.8	62.6#

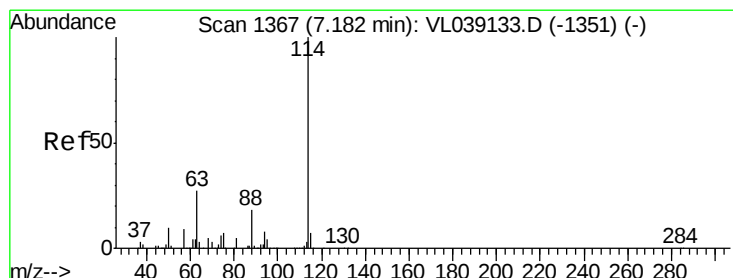
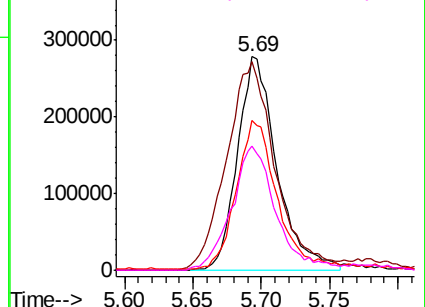
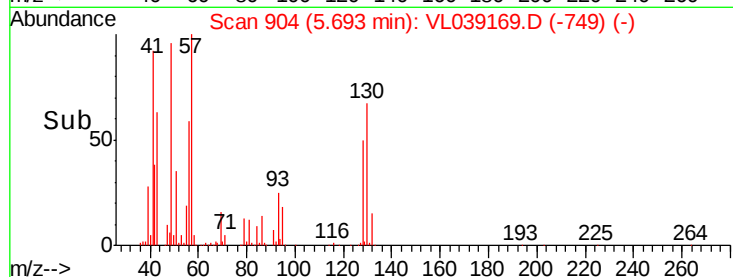


Abundance Ion 57.10 (56.80 to 57.80): VL0

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# 1367

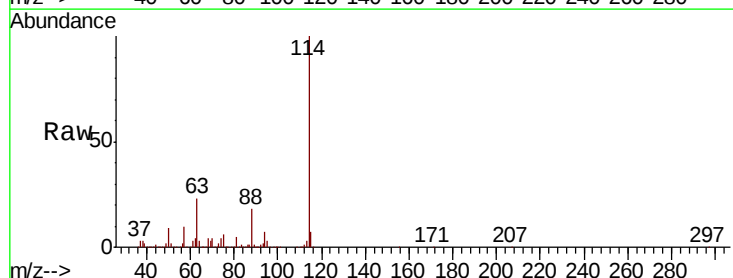
Delta R.T. -0.00 min

Lab File: VL039169.D

Acq: 4 Jun 2022 1:54

Tgt Ion: 114 Resp: 3795567

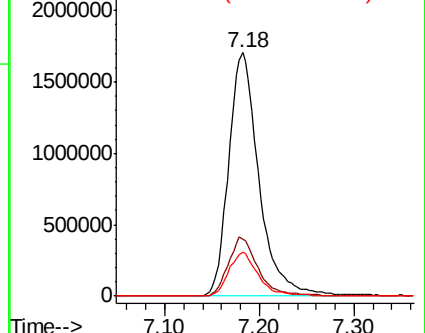
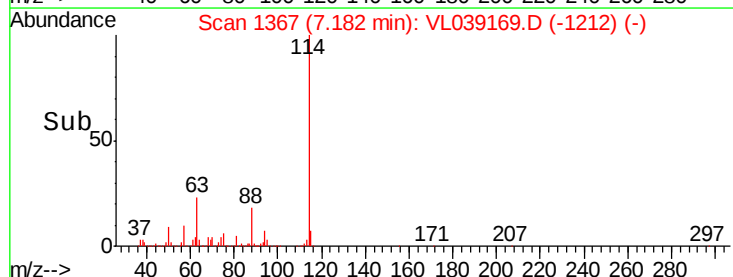
Ion	Ratio	Lower	Upper
114	100		
63	24.0	21.7	32.5
88	17.8	14.8	22.2

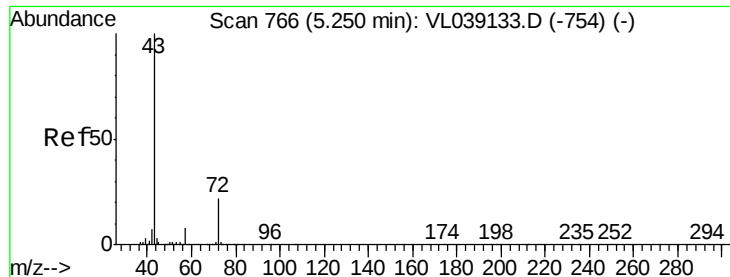


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

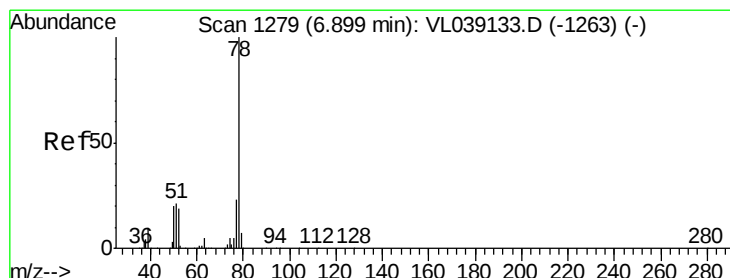
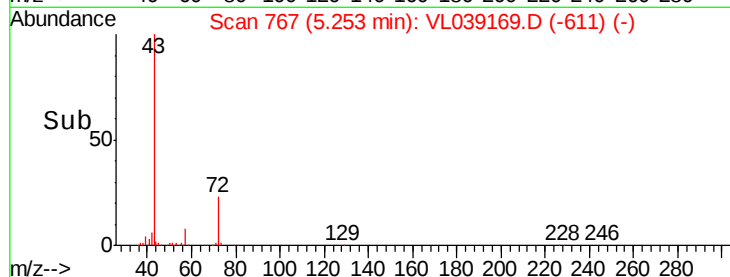
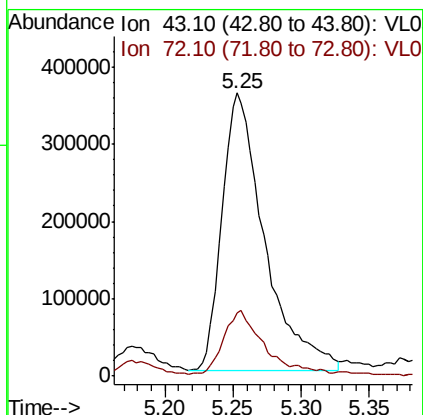
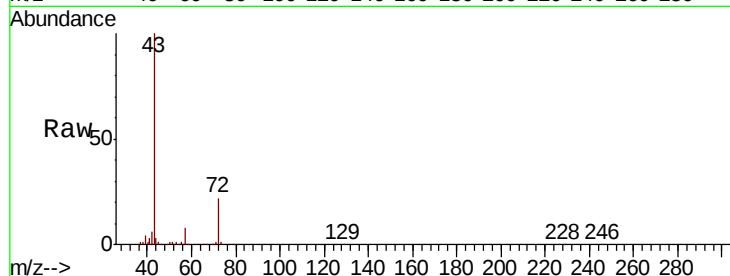
Ion 88.10 (87.80 to 88.80): VL0





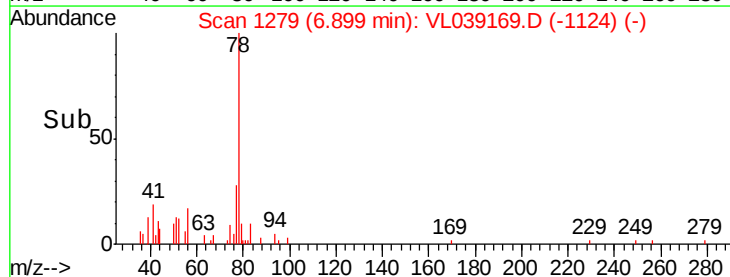
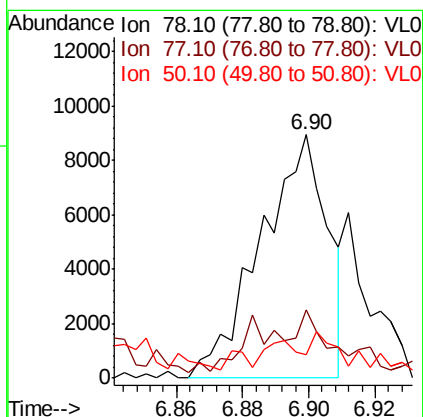
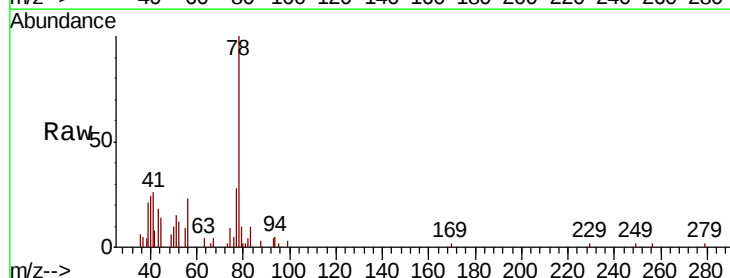
#34
2-Butanone
Concen: 3.802 ppbv
RT: 5.25
Delta R.T.: MSVOA_L
Lab File: ClientSampleId :
Acq: 4 Jun 2022 1:54

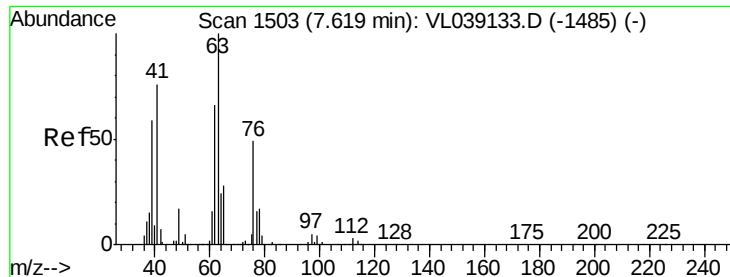
Tot Ion: 43 Resp: 784054
Ion Ratio Lower Upper
43 100
72 23.5 18.2 27.2



#36
Benzene
Concen: 0.041 ppbv
RT: 6.90 min Scan# 1279
Delta R.T.: -0.00 min
Lab File: VL039169.D
Acq: 4 Jun 2022 1:54

Tgt Ion: 78 Resp: 12553
Ion Ratio Lower Upper
78 100
77 25.7 18.6 27.8
50 2.5 15.8 23.8#





#39

1,2-Dichloropropane

Concen: 7.206 ppbv

RT: 7.18 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 4 Jun 2022 1:54 SV4

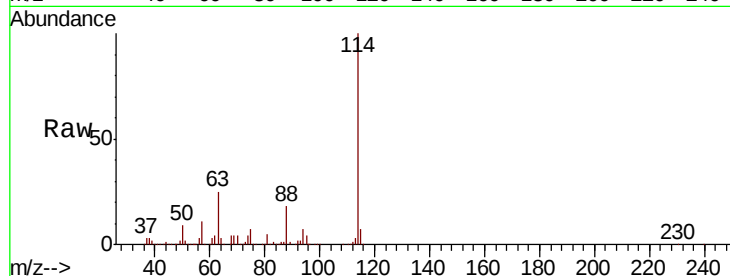
Tot Ion: 63 Resp: 883218

Ion Ratio Lower Upper

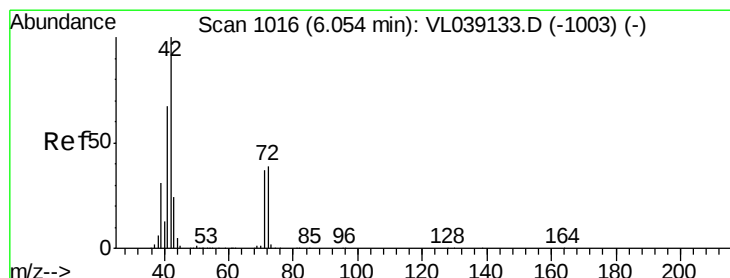
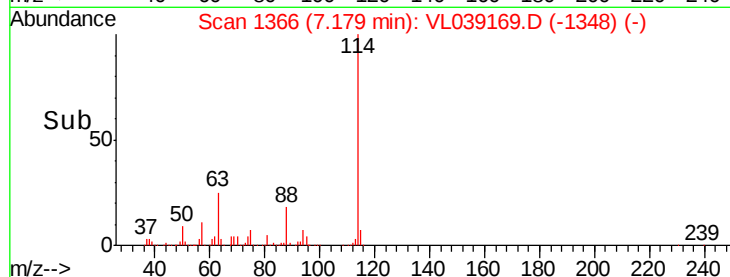
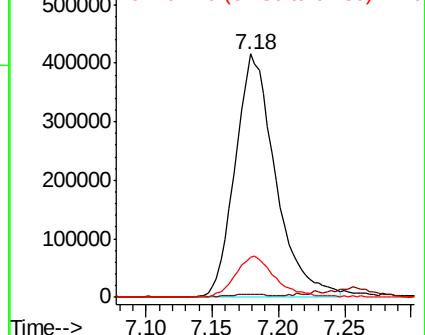
63 100

41 0.9 60.8 91.2#

62 16.4 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



#41

Tetrahydrofuran

Concen: 0.034 ppbv

RT: 5.99 min Scan# 995

Delta R.T. -0.07 min

Lab File: VL039169.D

Acq: 4 Jun 2022 1:54

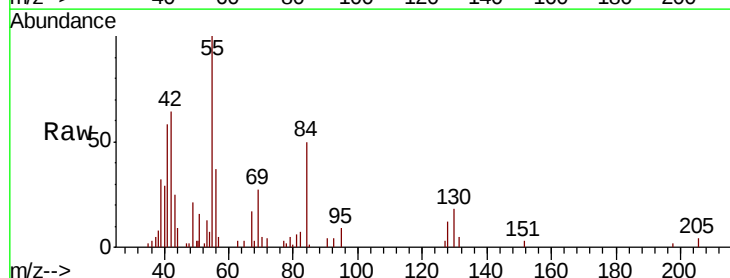
Tgt Ion: 42 Resp: 4257

Ion Ratio Lower Upper

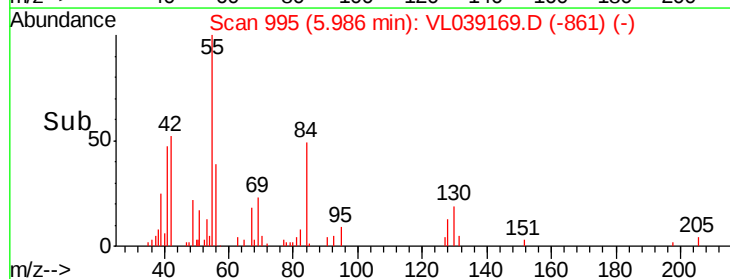
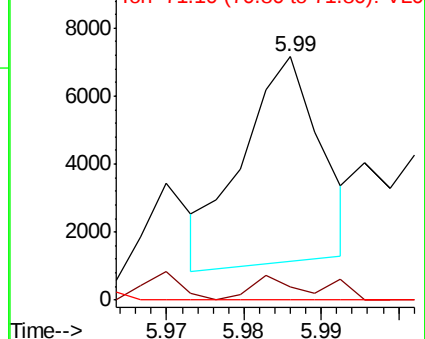
42 100

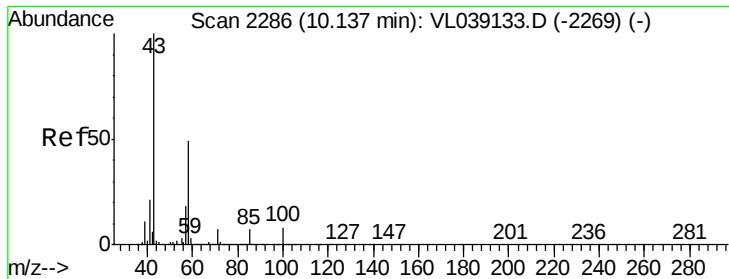
72 16.0 32.0 48.0#

71 0.0 31.1 46.7#



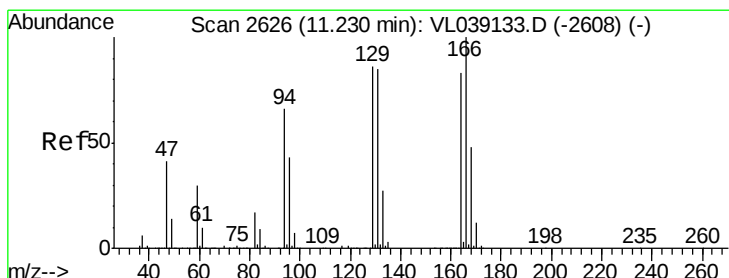
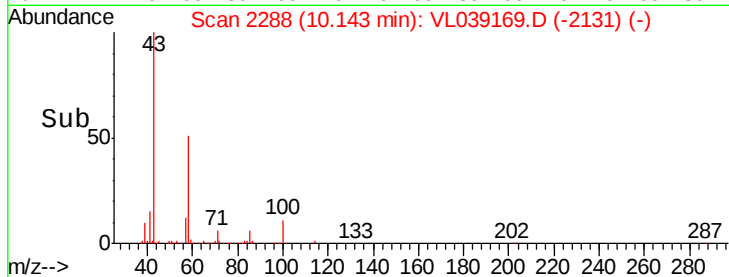
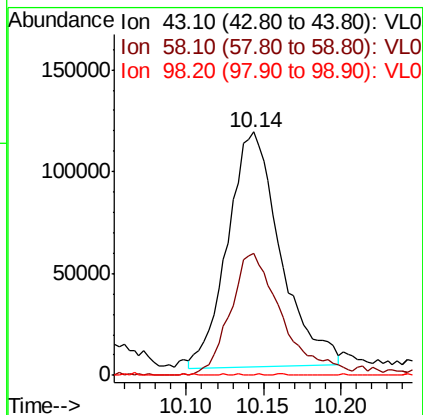
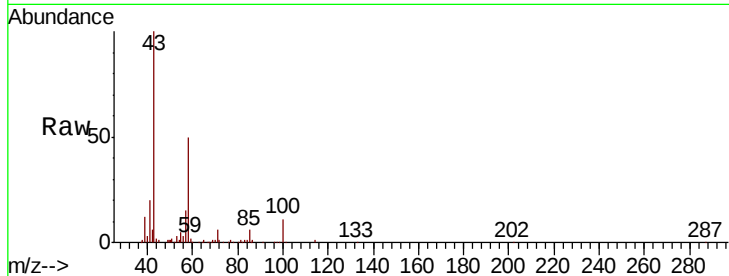
Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0





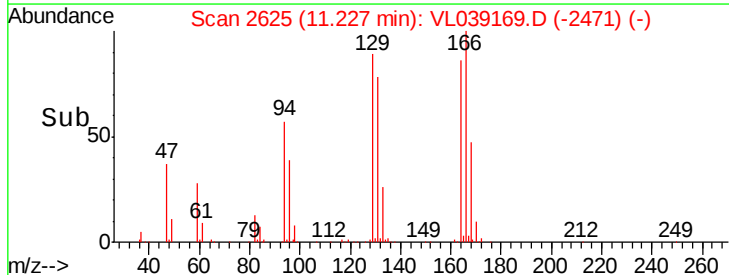
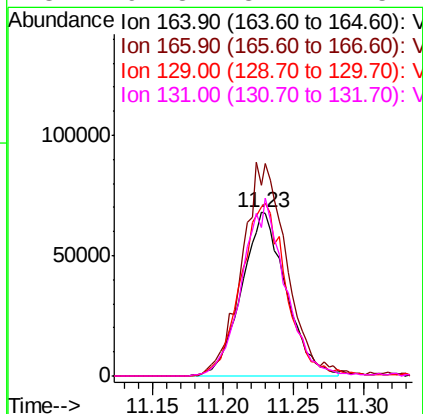
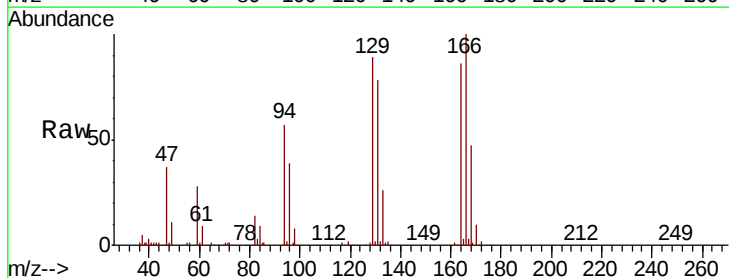
#51
2-Hexanone
Concen: 1.136 ppbv
RT: 10.14
Delta R.T. MSVOA_L
Lab File: ClientSampled :
SV4
Acq: 4 Jun 2022 1:54

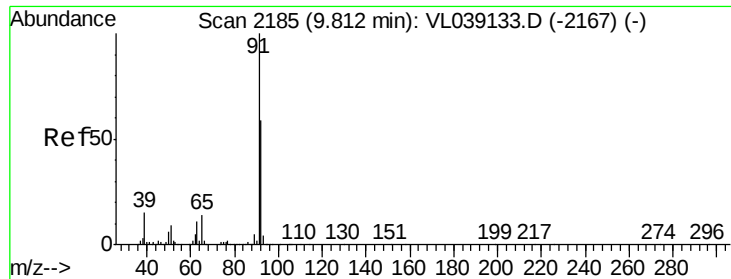
Tot Ion: 43 Resp: 272779
Ion Ratio Lower Upper
43 100
58 53.2 40.0 60.0
98 0.6 0.1 0.1#



#52
Tetrachloroethene
Concen: 1.245 ppbv
RT: 11.23 min Scan# 2625
Delta R.T. -0.00 min
Lab File: VL039169.D
Acq: 4 Jun 2022 1:54

Tgt Ion: 164 Resp: 149794
Ion Ratio Lower Upper
164 100
166 116.7 96.3 144.5
129 103.5 82.5 123.7
131 92.8 82.1 123.1





#53

Toluene

Concen: 0.072 ppbv

RT: 9.81 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV4

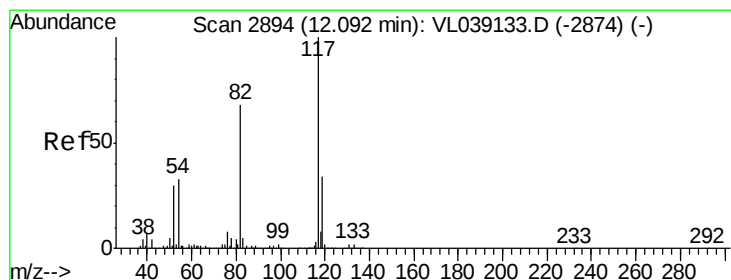
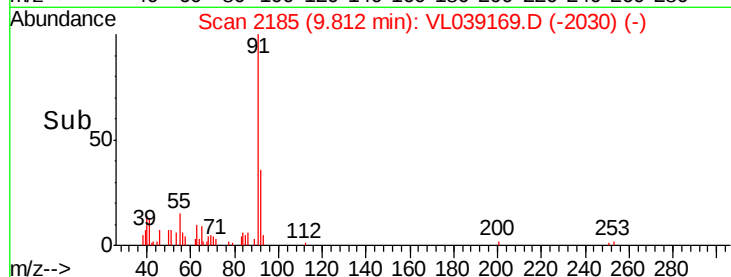
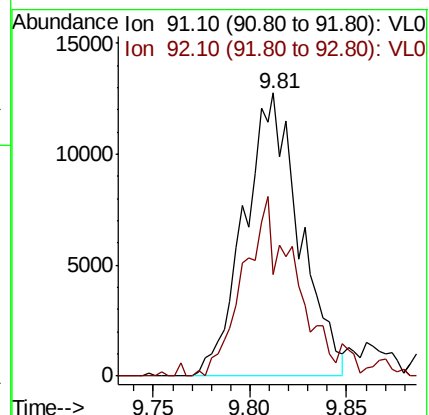
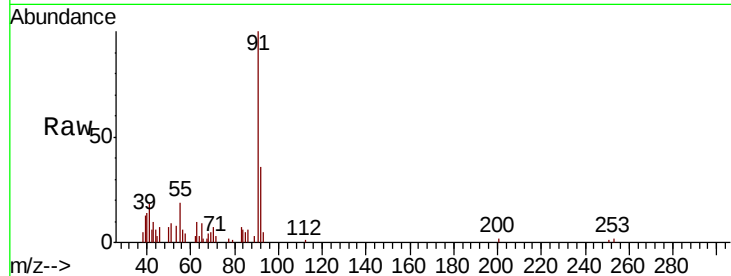
Acq: 4 Jun 2022 1:54

Tot Ion: 91 Resp: 25474

Ion Ratio Lower Upper

91 100

92 64.6 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL039169.D

Acq: 4 Jun 2022 1:54

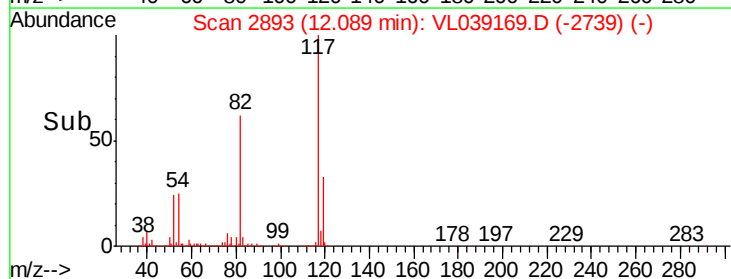
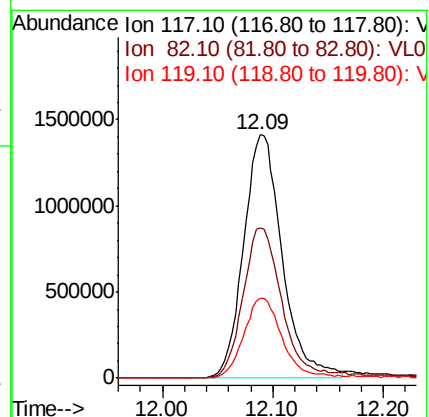
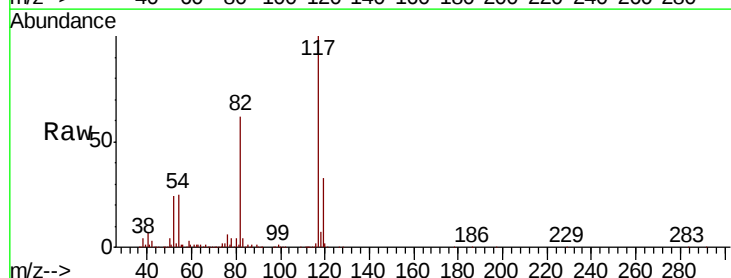
Tgt Ion: 117 Resp: 3421831

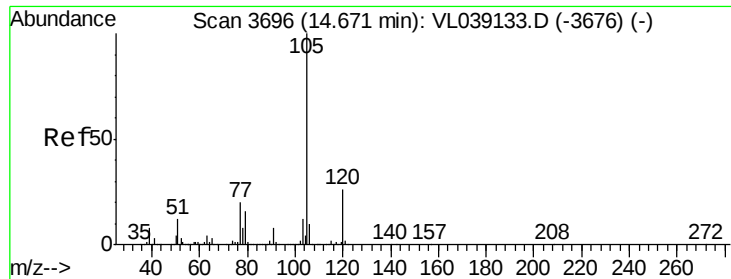
Ion Ratio Lower Upper

117 100

82 64.6 55.1 82.7

119 33.3 24.7 37.1





#62

Isopropylbenzene

Concen: 0.050 ppbv

RT: 14.68

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

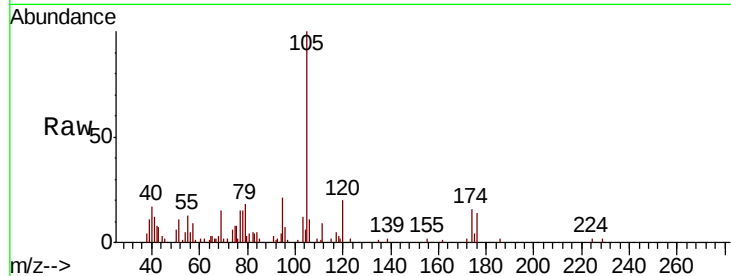
Acq: 4 Jun 2022 1:54

Tot Ion: 105 Resp: 29012

Ion Ratio Lower Upper

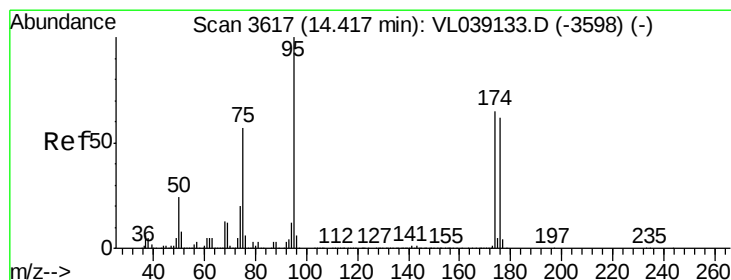
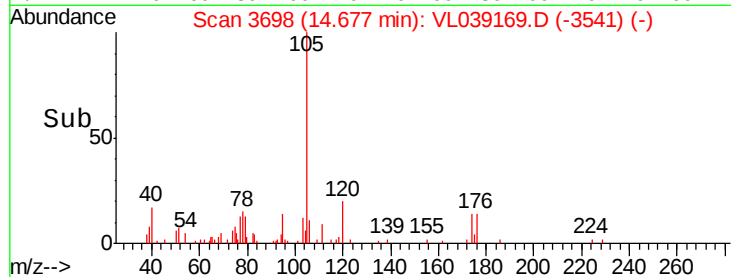
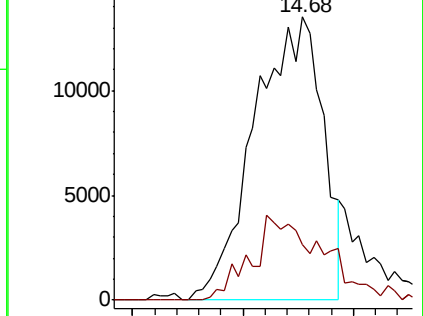
105 100

120 32.6 20.3 30.5#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.156 ppbv

RT: 14.42 min Scan# 3618

Delta R.T. 0.00 min

Lab File: VL039169.D

Acq: 4 Jun 2022 1:54

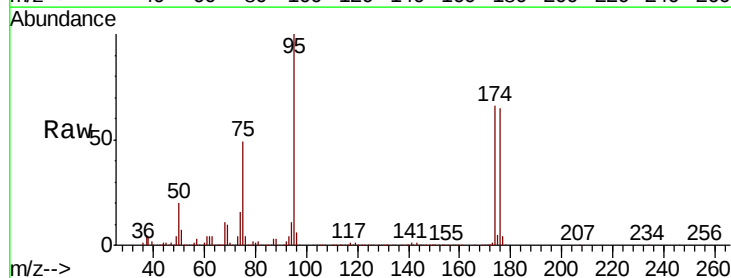
Tgt Ion: 95 Resp: 2590277

Ion Ratio Lower Upper

95 100

174 72.1 53.8 80.8

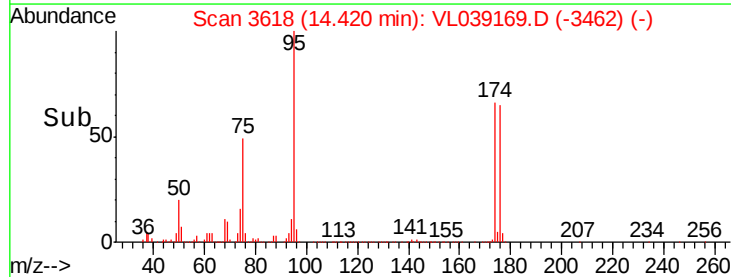
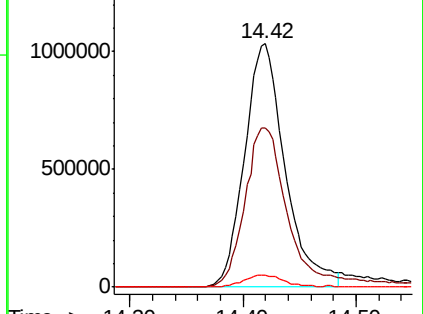
175 5.5 4.1 6.1

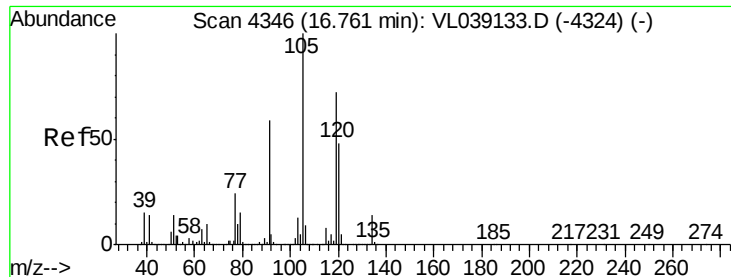


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.106 ppbv
 RT: 16.76
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 SV4
 Acq: 4 Jun 2022 1:34

Tot Ion:	105	Resp:	48642
Ion Ratio	Lower	Upper	
105	100		
120	42.4	38.1	57.1
91	13.0	47.4	71.0#
77	13.7	19.5	29.3#

