

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060322\
 Data File : VL039161.D
 Acq On : 3 Jun 2022 20:32
 Operator : SY/AP
 Sample : N3106-05DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

Quant Time: Jun 04 00:17:16 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

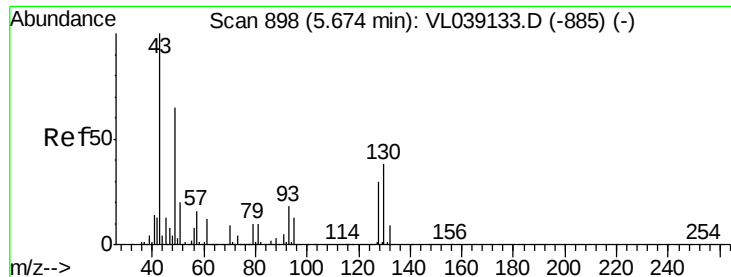
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1177953	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2942647	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2528492	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2053655	9.82	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.20%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	18045	0.087	ppbv 89
3) Chlorodifluoromethane	2.98	51	311148	2.076	ppbv # 58
4) Chloromethane	3.16	50	6853	0.089	ppbv # 77
9) Propene	3.22	41	819162	12.534	ppbv 93
11) Trichlorofluoromethane	3.96	101	5836	0.031	ppbv 94
13) Ethanol	3.61	45	519402	145.732	ppbv # 100
15) Acetone	3.86	43	739644	6.028	ppbv 98
16) 1,3-Butadiene	3.37	39	417916	6.336	ppbv # 10
17) tert-Butyl alcohol	4.30	59	3583	0.038	ppbv # 70
19) Isopropyl Alcohol	3.97	45	1142274	19.848	ppbv 99
20) Methylene Chloride	4.36	84	117500	2.272	ppbv 90
23) Vinyl Acetate	5.08	43	3854	0.038	ppbv # 73
25) Ethyl Acetate	5.69	43	152913	0.553	ppbv # 93
26) Hexane	5.70	57	110775	0.911	ppbv # 68
30) Cyclohexane	7.15	84	4376	0.043	ppbv # 1
31) cis-1,2-Dichloroethene	5.69	61	9793	0.079	ppbv # 33
34) 2-Butanone	5.26	43	100052	0.626	ppbv 95
36) Benzene	6.90	78	51101	0.214	ppbv 98
37) 1,2-Dichloroethane	6.32	62	187568	1.193	ppbv 99
39) 1,2-Dichloropropane	7.19	63	792218	8.337	ppbv # 24
41) Tetrahydrofuran	6.07	42	24824	0.258	ppbv # 26
53) Toluene	9.82	91	160193	0.582	ppbv 95
74) 1,2,4-Trimethylbenzene	16.77	105	12454	0.037	ppbv # 60
75) 1,3-Dichlorobenzene	17.14	146	43760	0.227	ppbv # 1
76) 1,4-Dichlorobenzene	17.14	146	43760	0.228	ppbv # 1

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL060322\  
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Acq On    : 3 Jun 2022 20:32  
Operator  : SY/AP  
Sample    : N3106-05DL 4X  
Misc      : 400mL/MSVOA L  
ALS Vial  : 1 Sample Multiplier: 1
```



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA1DL

Acq: 3 Jun 2022 20:32

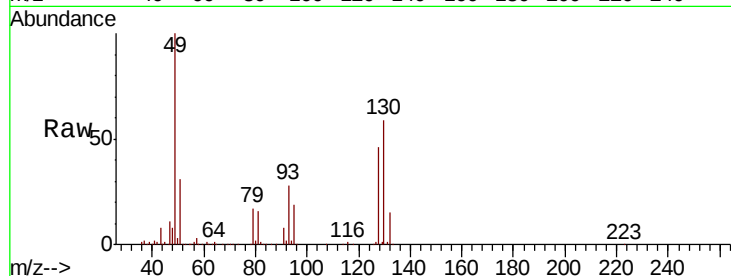
Tot Ion: 49 Resp: 1177953

Ion	Ratio	Lower	Upper
49	100		
128	50.4	24.7	74.1
130	63.5	31.4	94.0

49 100

128 50.4 24.7 74.1

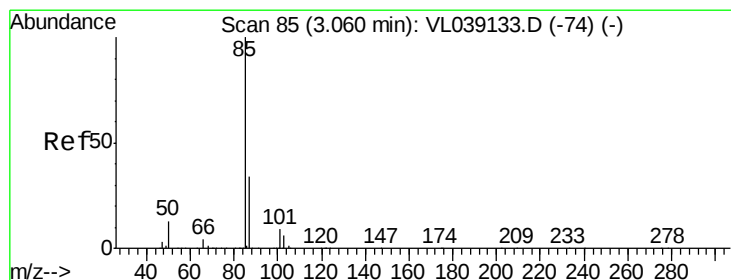
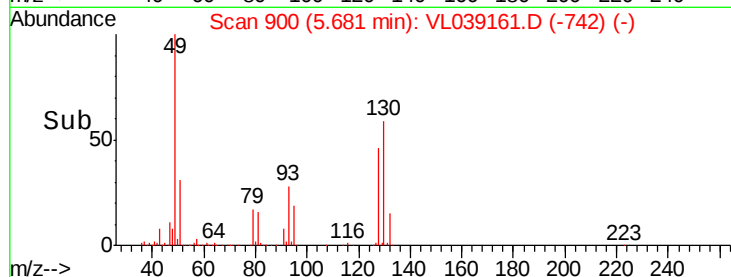
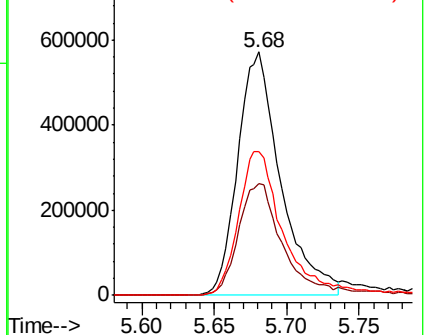
130 63.5 31.4 94.0



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



#2

Dichlorodifluoromethane

Concen: 0.087 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.00 min

Lab File: VL039161.D

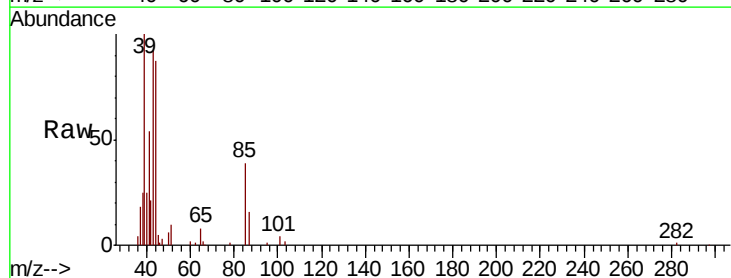
Acq: 3 Jun 2022 20:32

Tgt Ion: 85 Resp: 18045

Ion	Ratio	Lower	Upper
85	100		
87	39.9	26.9	40.3

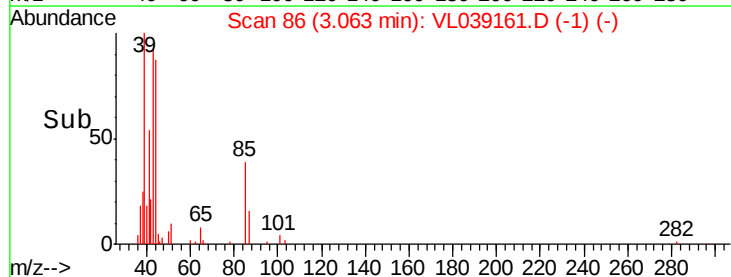
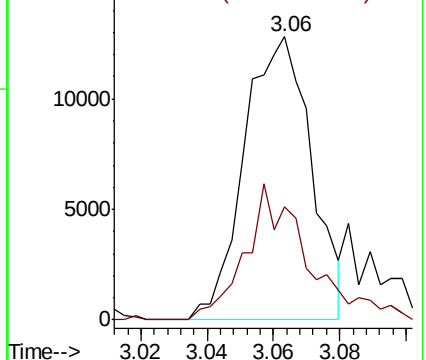
85 100

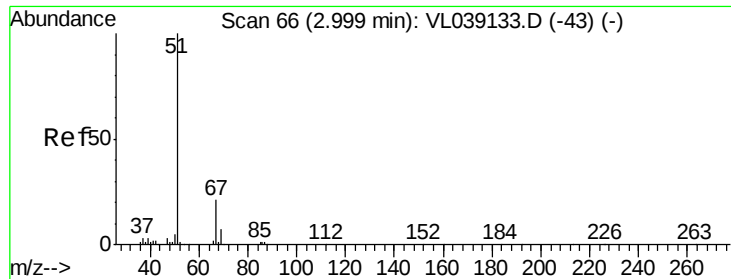
87 39.9 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.076 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: IA1DL

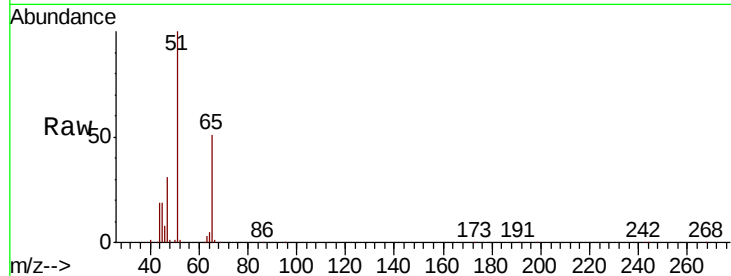
Acq: 3 Jun 2022 20:32

Tot Ion: 51 Resp: 311148

Ion Ratio Lower Upper

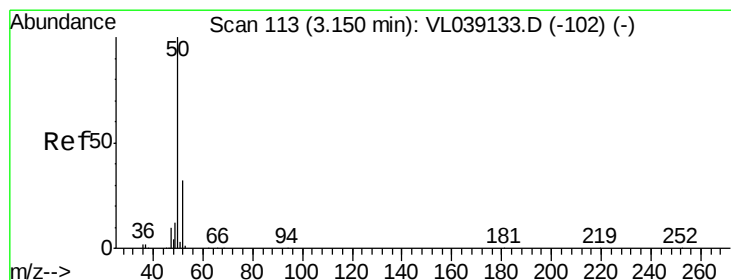
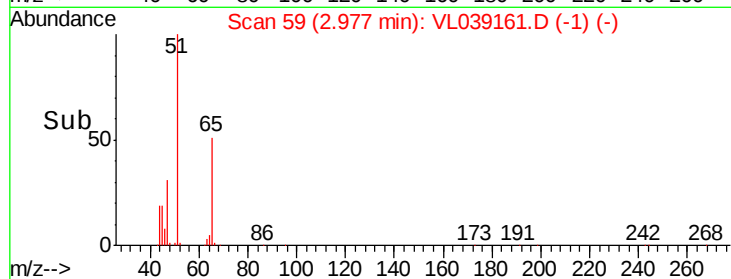
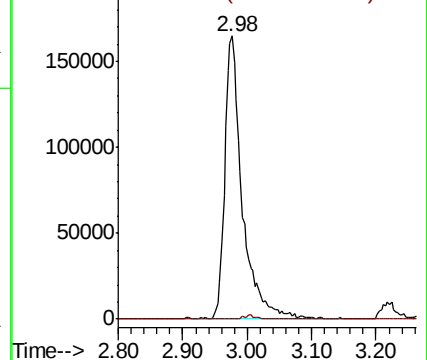
51 100

67 0.8 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: 0.089 ppbv

RT: 3.16 min Scan# 116

Delta R.T. 0.01 min

Lab File: VL039161.D

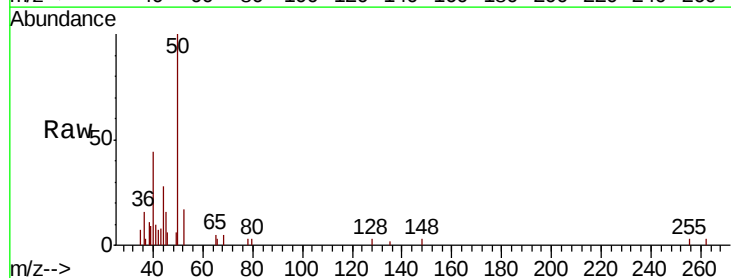
Acq: 3 Jun 2022 20:32

Tgt Ion: 50 Resp: 6853

Ion Ratio Lower Upper

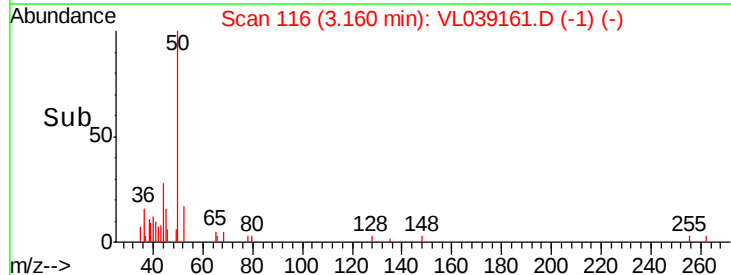
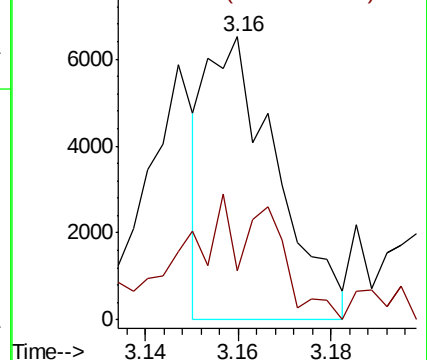
50 100

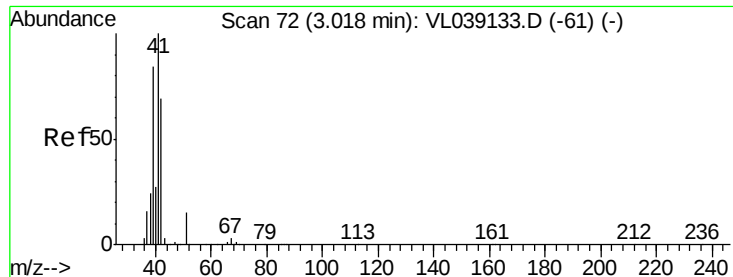
52 19.4 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 12.534 ppbv

RT: 3.22 Instrument: MSVOA_1

Delta R.T. 0.00 min

Lab File: ClientSampleId: IA1DL

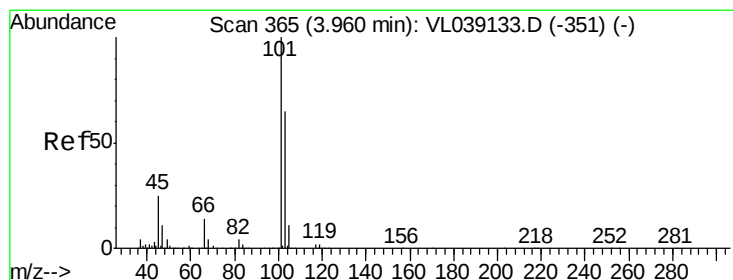
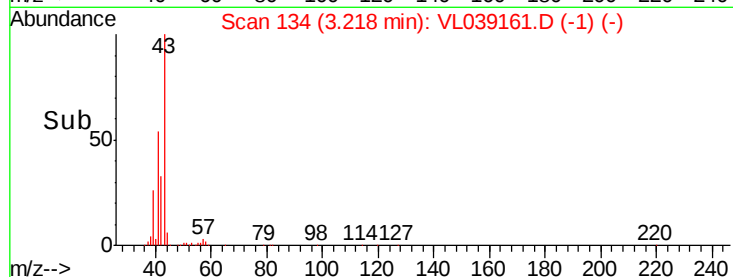
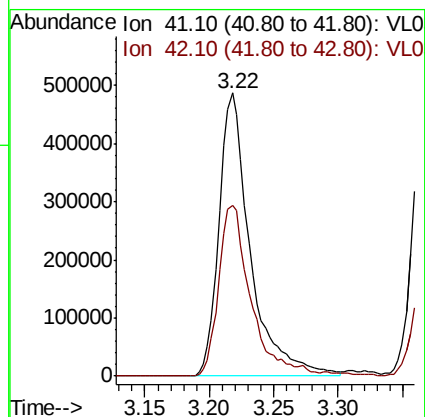
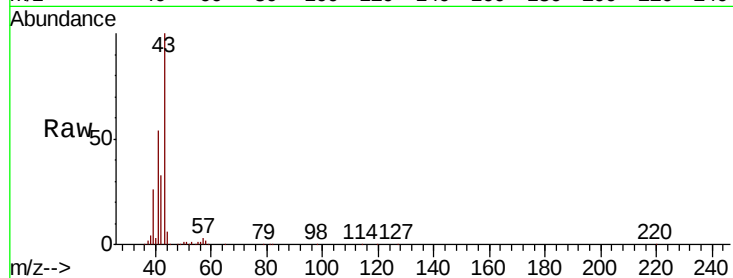
Acq: 3 Jun 2022 20:32

Tot Ion: 41 Resp: 819162

Ion Ratio Lower Upper

41 100

42 63.6 55.4 83.2



#11

Trichlorofluoromethane

Concen: 0.031 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.00 min

Lab File: VL039161.D

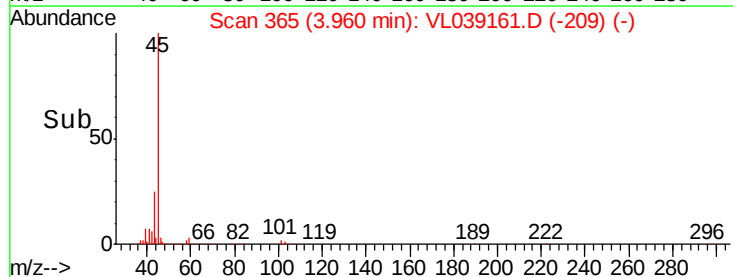
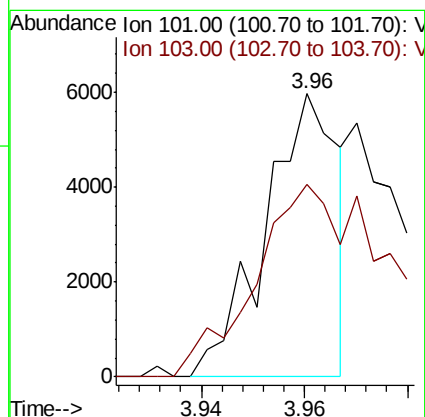
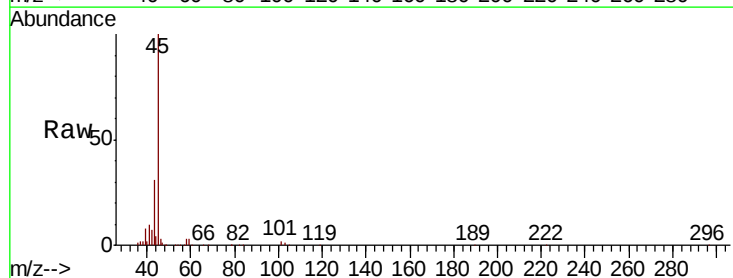
Acq: 3 Jun 2022 20:32

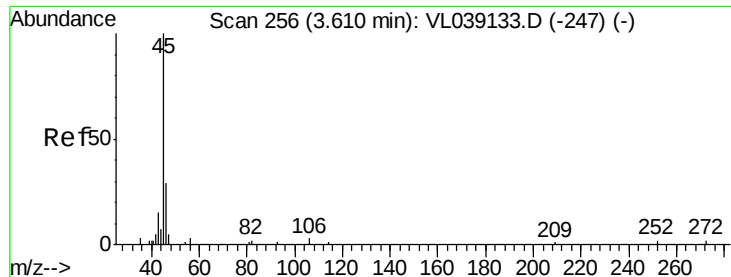
Tgt Ion: 101 Resp: 5836

Ion Ratio Lower Upper

101 100

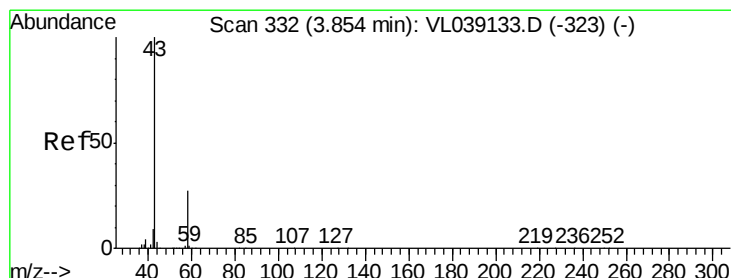
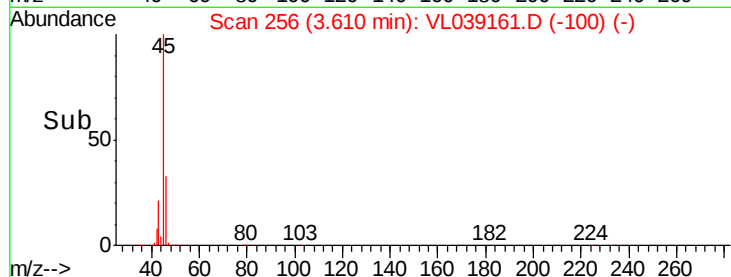
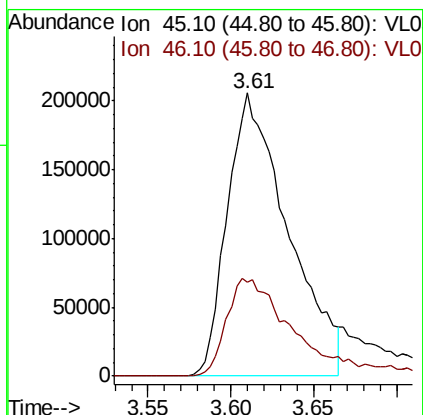
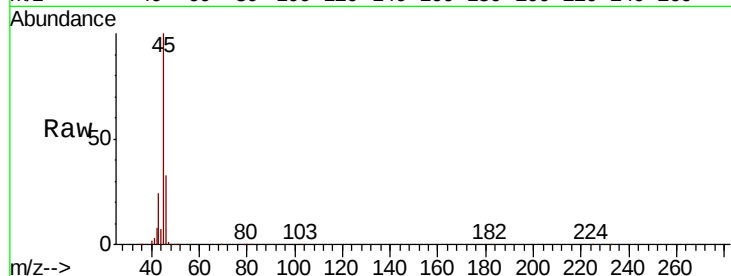
103 59.8 51.7 77.5





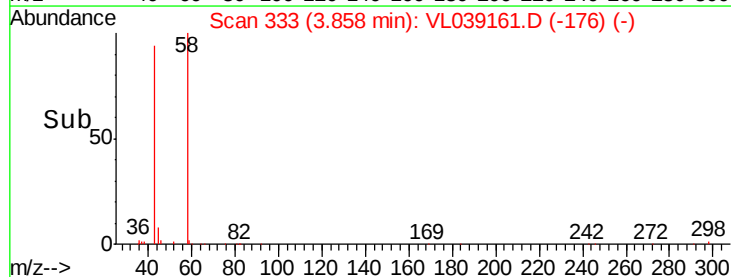
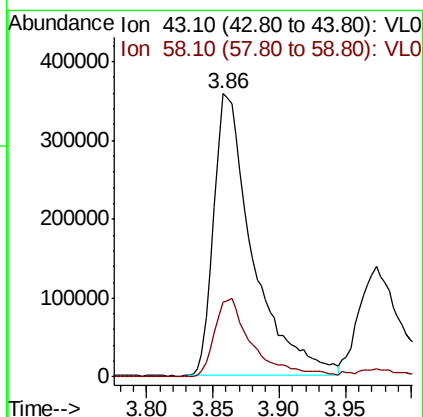
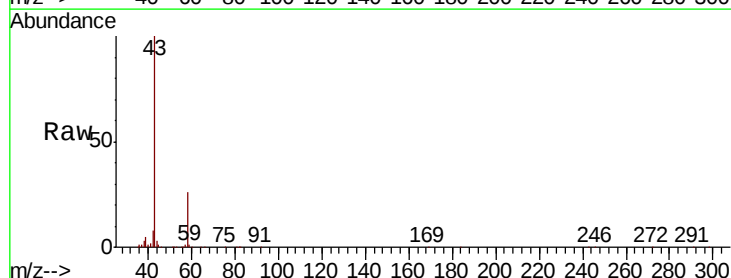
#13
Ethanol
Concen: 145.732 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Jun 2022 20:32

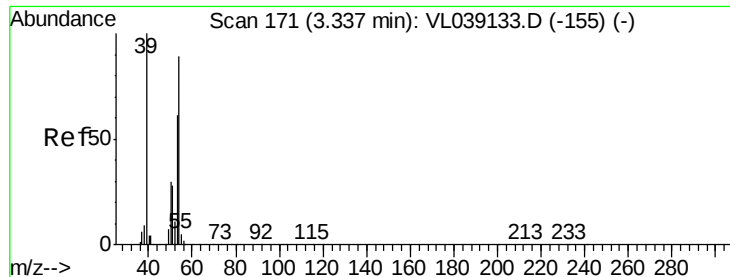
Tot Ion: 45 Resp: 519402
Ion Ratio Lower Upper
45 100
46 42.2 0.0 0.0#



#15
Acetone
Concen: 6.028 ppbv
RT: 3.86 min Scan# 333
Delta R.T. 0.00 min
Lab File: VL039161.D
Acq: 3 Jun 2022 20:32

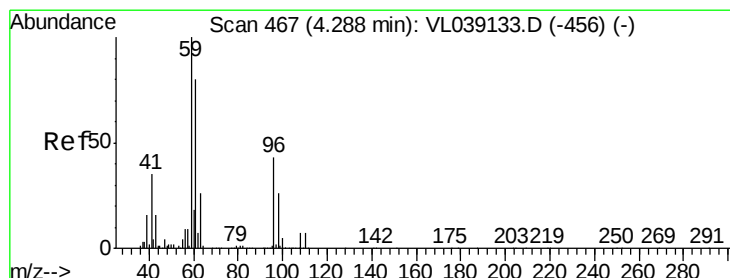
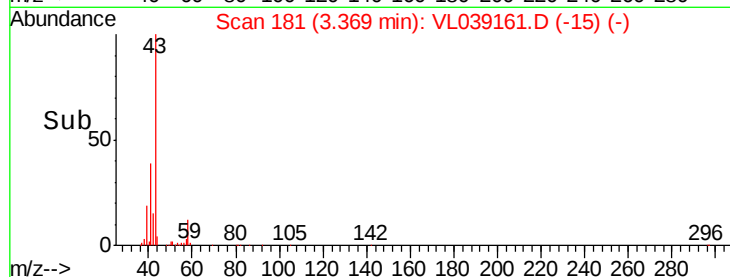
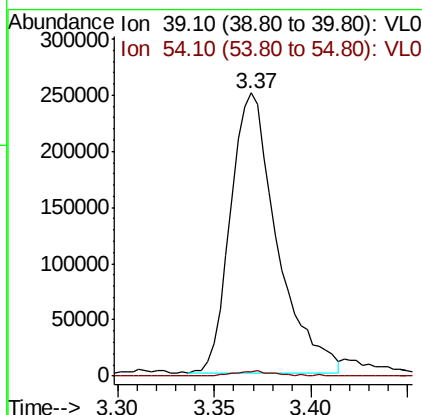
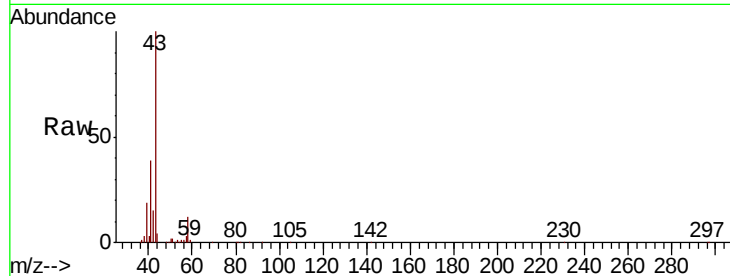
Tgt Ion: 43 Resp: 739644
Ion Ratio Lower Upper
43 100
58 26.8 22.5 33.7





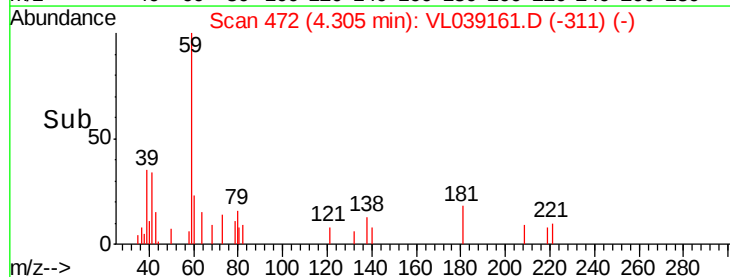
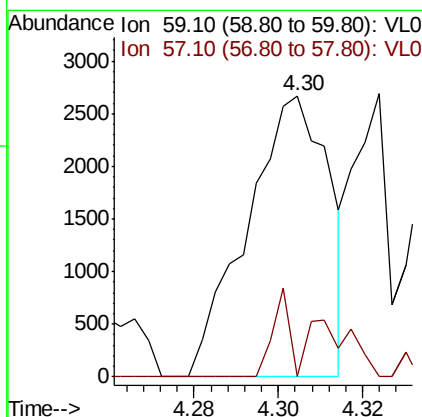
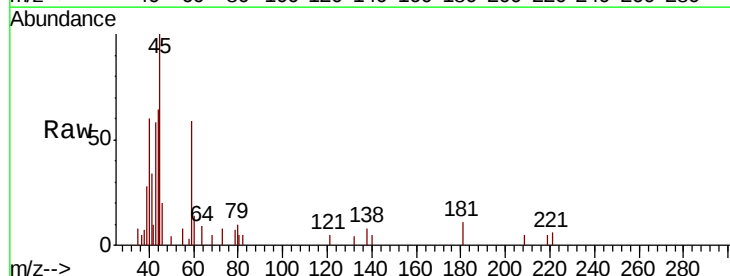
#16
 1,3-Butadiene
 Concen: 6.336 ppbv
 RT: 3.37
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Jun 2022 20:32

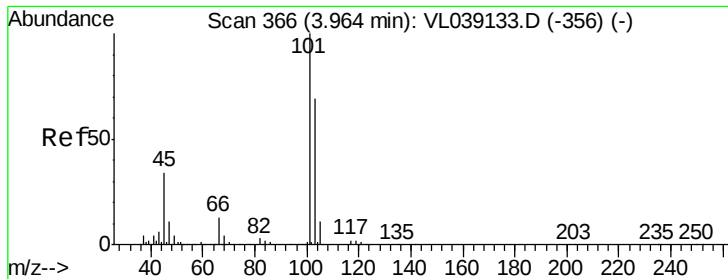
Tot Ion: 39 Resp: 417916
 Ion Ratio Lower Upper
 39 100
 54 2.0 65.8 98.6#



#17
 tert-Butyl alcohol
 Concen: 0.038 ppbv
 RT: 4.30 min Scan# 472
 Delta R.T. 0.02 min
 Lab File: VL039161.D
 Acq: 3 Jun 2022 20:32

Tgt Ion: 59 Resp: 3583
 Ion Ratio Lower Upper
 59 100
 57 0.0 9.1 13.7#





#19

Isopropyl Alcohol

Concen: 19.848 ppbv

RT: 3.97

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

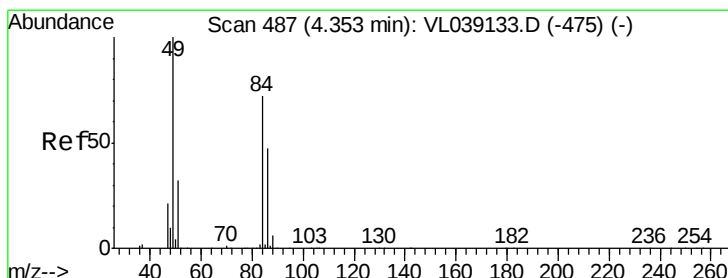
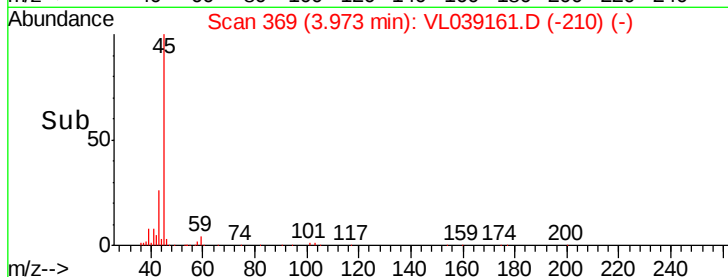
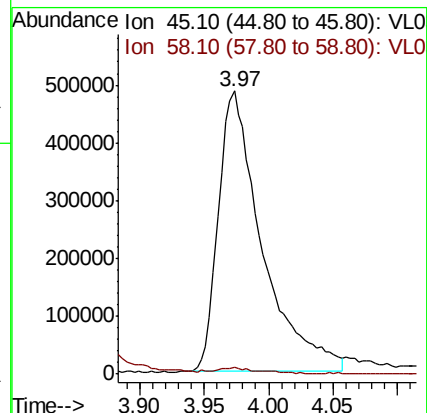
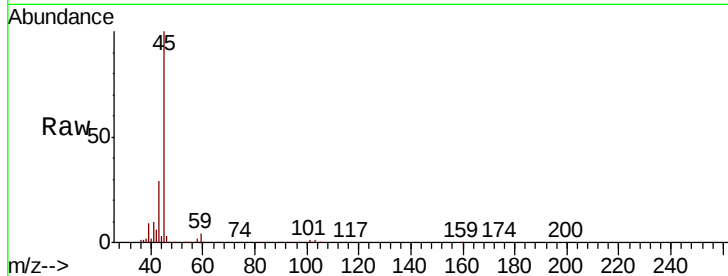
Acq: 3 Jun 2022 20:32

Tot Ion: 45 Resp: 1142274

Ion Ratio Lower Upper

45 100

58 2.5 1.8 2.8



#20

Methylene Chloride

Concen: 2.272 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.00 min

Lab File: VL039161.D

Acq: 3 Jun 2022 20:32

Tgt Ion: 84 Resp: 117500

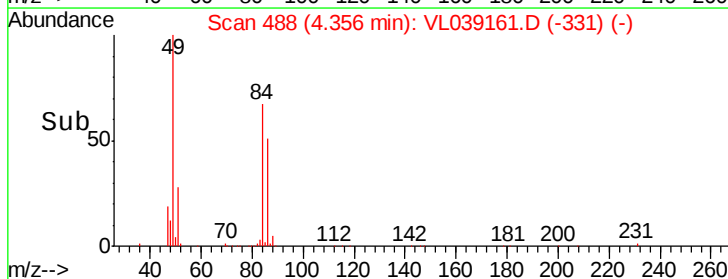
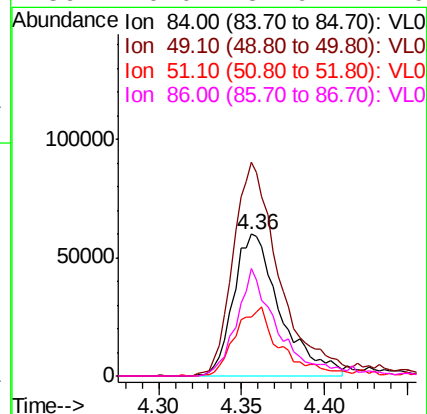
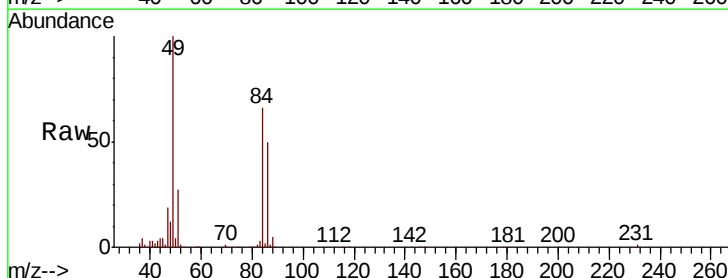
Ion Ratio Lower Upper

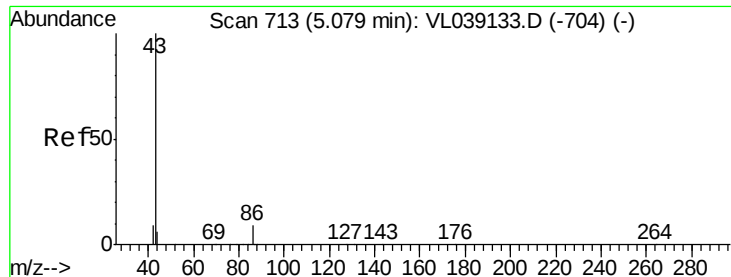
84 100

49 150.3 111.1 166.7

51 41.4 35.3 52.9

86 76.0 51.9 77.9





#23

Vinyl Acetate

Concen: 0.038 ppbv

RT: 5.08 Instrument: MSVOA_1

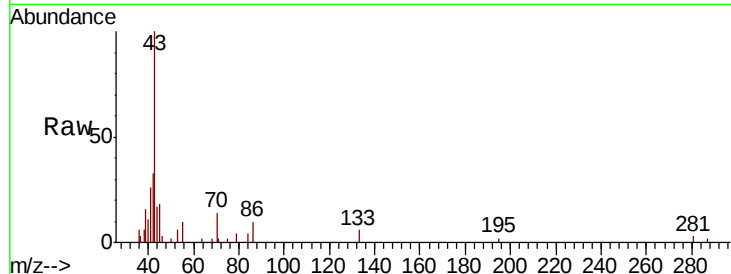
Delta R.T.

Lab File: ClientSampleId:

Acq: 3 Jun 2022 20:32

Tot Ion: 43 Resp: 3854

Ion	Ratio	Lower	Upper
43	100		
86	5.1	6.0	9.0#
42	28.3	8.2	12.4#
44	0.0	4.3	6.5#

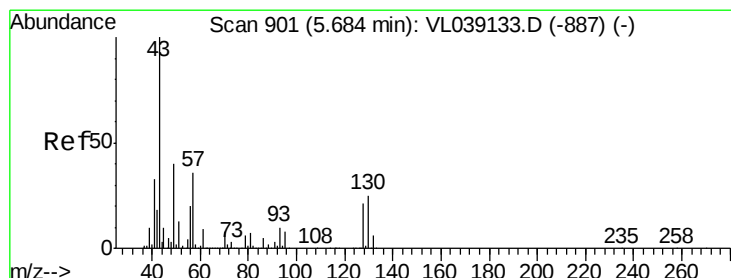
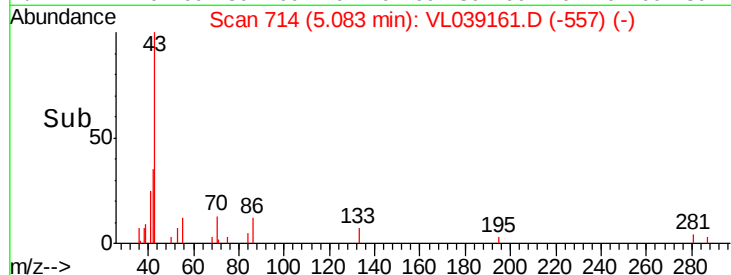
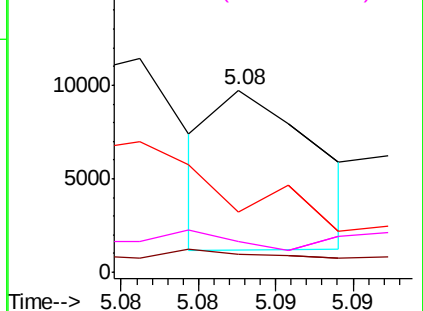


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.553 ppbv

RT: 5.69 min Scan# 904

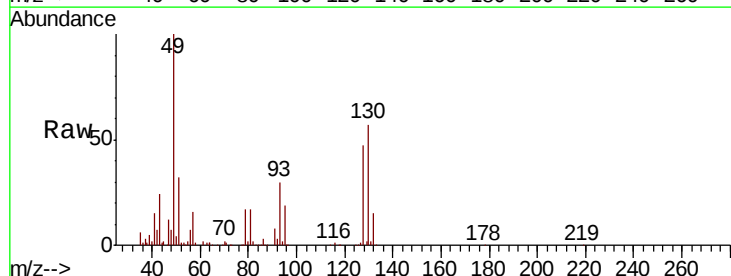
Delta R.T. 0.01 min

Lab File: VL039161.D

Acq: 3 Jun 2022 20:32

Tgt Ion: 43 Resp: 152913

Ion	Ratio	Lower	Upper
43	100		
45	12.9	8.2	12.2#
61	7.4	8.4	12.6#
70	5.9	5.6	8.4

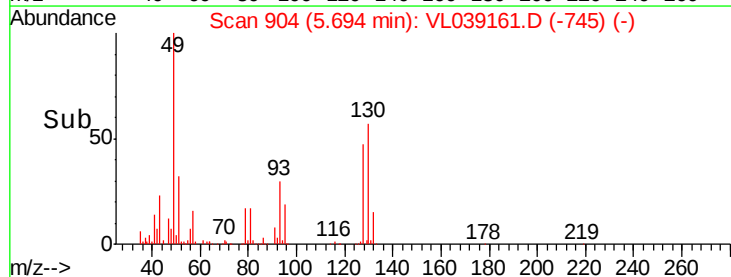
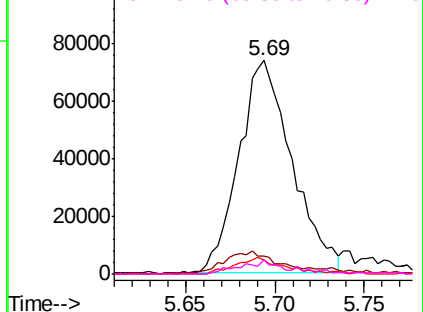


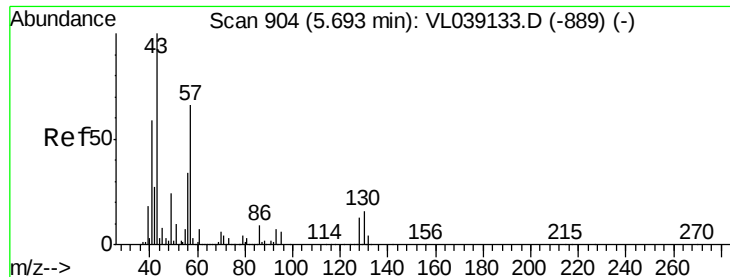
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

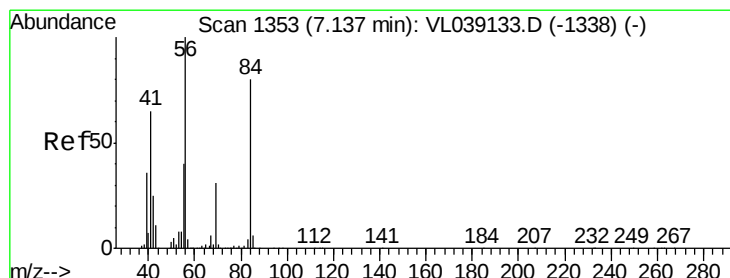
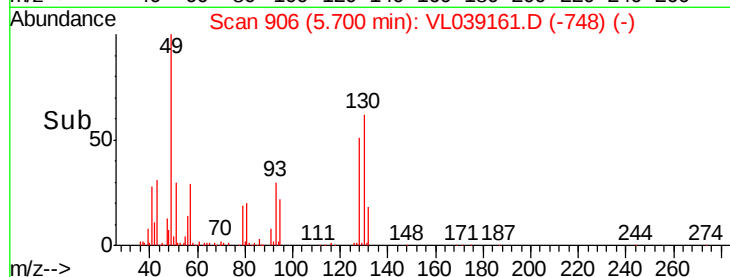
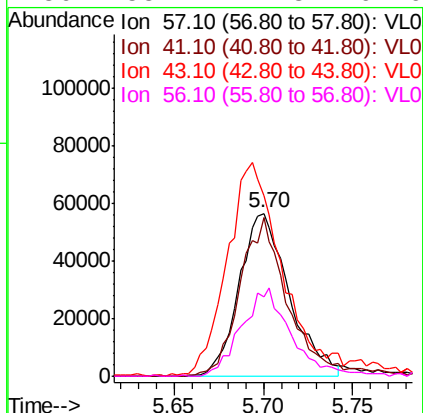
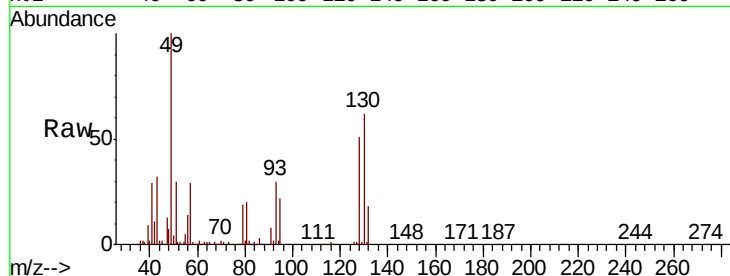
Ion 70.10 (69.80 to 70.80): VL0





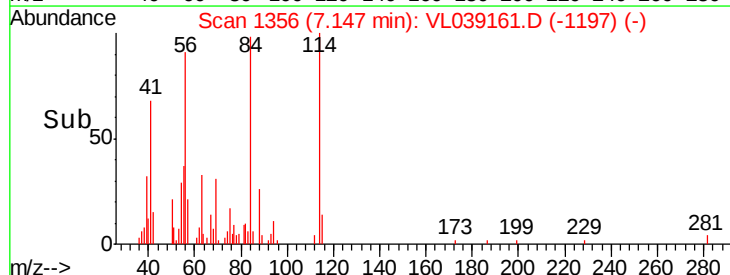
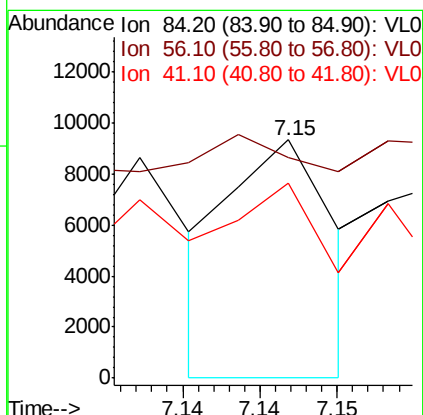
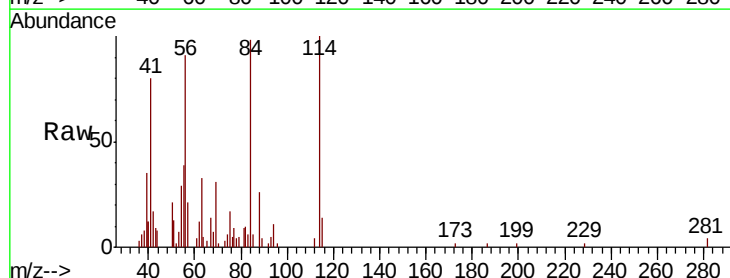
#26
Hexane
Concen: 0.911 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Jun 2022 20:32

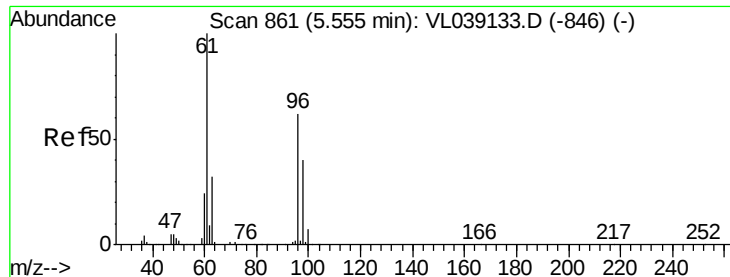
Tot Ion:	57	Resp:	110775
Ion	Ratio	Lower	Upper
57	100		
41	95.7	72.4	108.6
43	153.7	187.0	280.6#
56	55.1	41.8	62.6



#30
Cyclohexane
Concen: 0.043 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. 0.01 min
Lab File: VL039161.D
Acq: 3 Jun 2022 20:32

Tgt Ion:	84	Resp:	4376
Ion	Ratio	Lower	Upper
84	100		
56	0.0	110.6	165.8#
41	361.9	68.9	103.3#





#31

cis-1,2-Dichloroethene

Concen: 0.079 ppbv

RT: 5.69 Instrument:

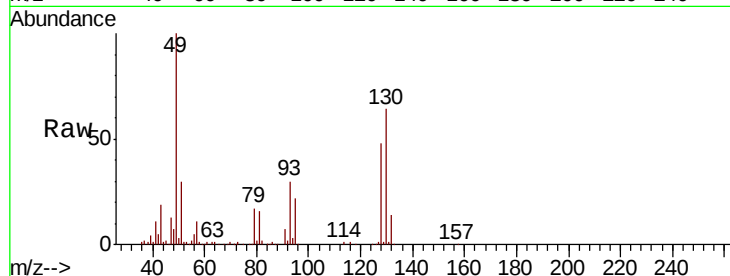
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

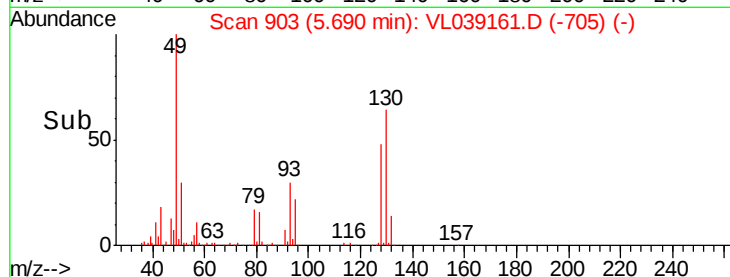
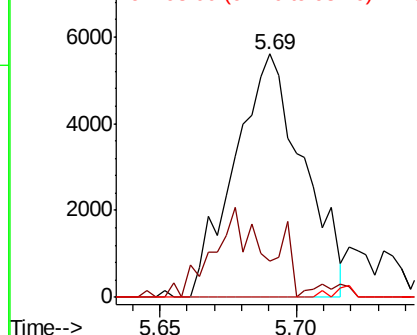
Acq: 3 Jun 2022 20:32

Tot Ion: 61 Resp: 9793

Ion	Ratio	Lower	Upper
61	100		
96	9.4	49.9	74.9#
98	0.0	32.0	48.0#



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1368

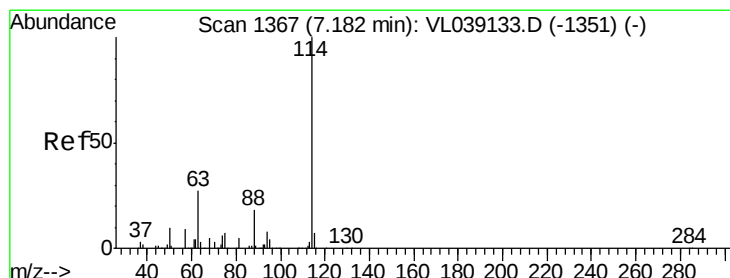
Delta R.T. 0.00 min

Lab File: VL039161.D

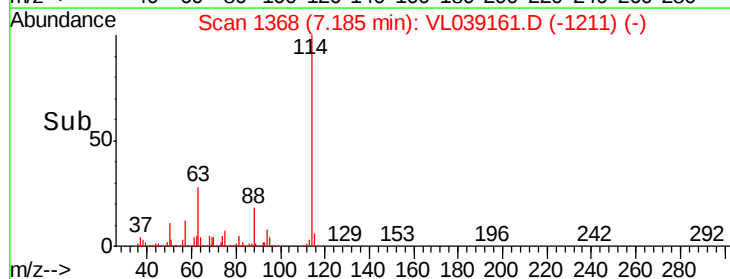
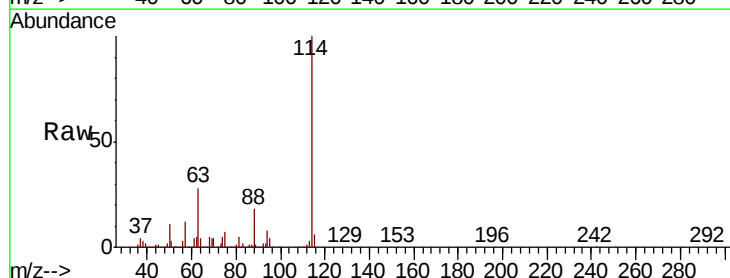
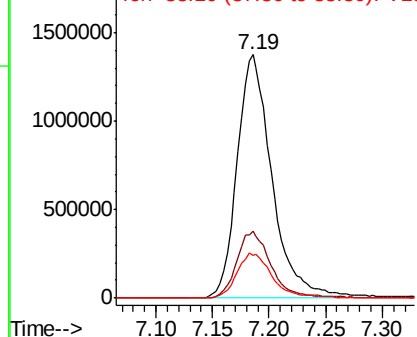
Acq: 3 Jun 2022 20:32

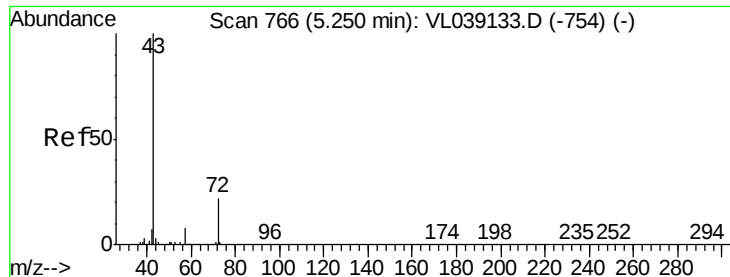
Tgt Ion: 114 Resp: 2942647

Ion	Ratio	Lower	Upper
114	100		
63	27.6	21.7	32.5
88	18.8	14.8	22.2



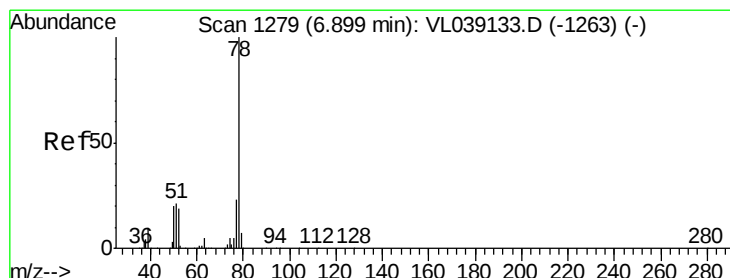
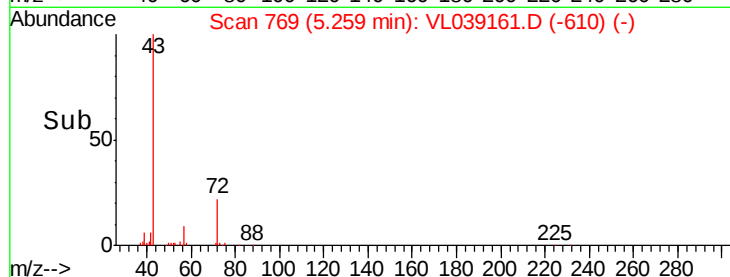
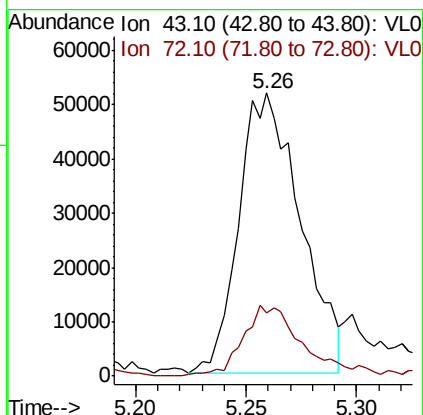
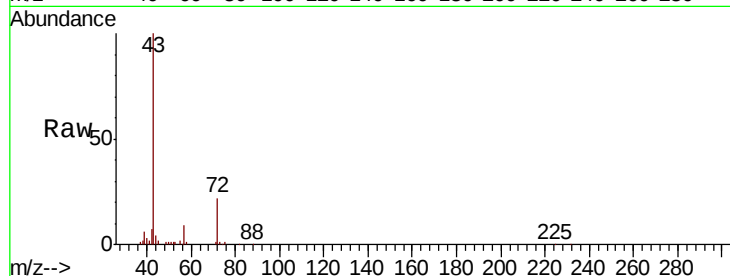
Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





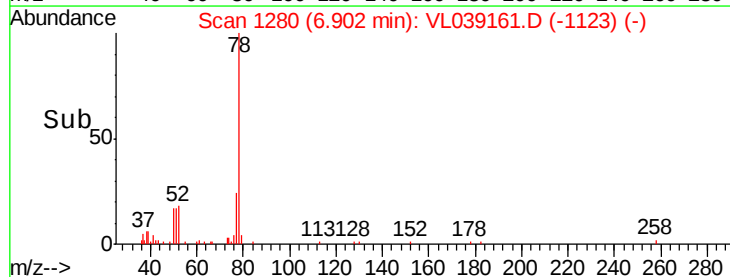
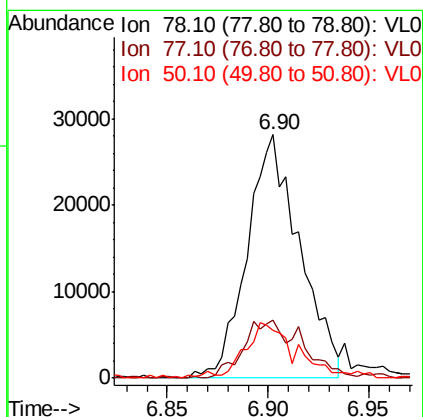
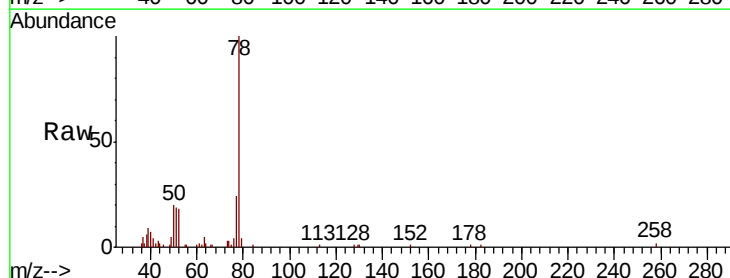
#34
 2-Butanone
 Concen: 0.626 ppbv
 RT: 5.26
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Jun 2022 20:32

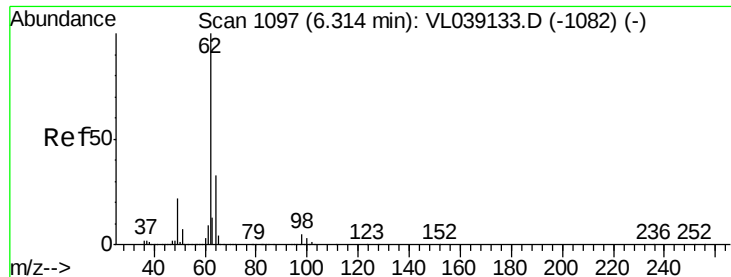
Tot Ion: 43 Resp: 100052
 Ion Ratio Lower Upper
 43 100
 72 25.0 18.2 27.2



#36
 Benzene
 Concen: 0.214 ppbv
 RT: 6.90 min Scan# 1280
 Delta R.T. 0.00 min
 Lab File: VL039161.D
 Acq: 3 Jun 2022 20:32

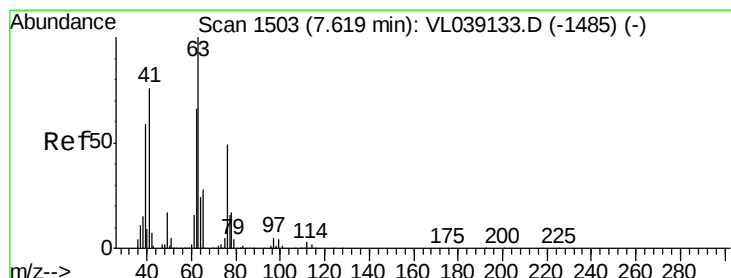
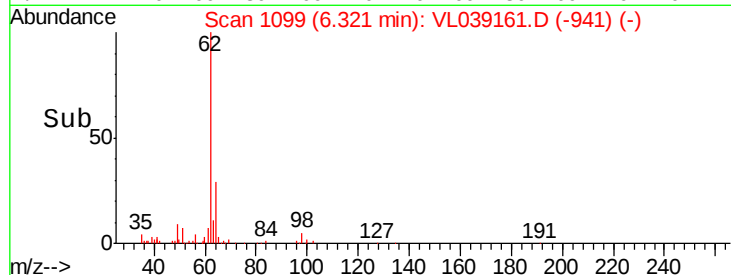
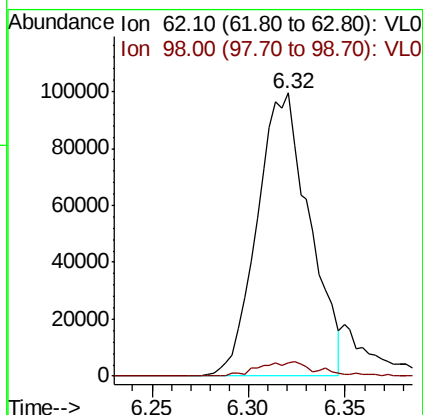
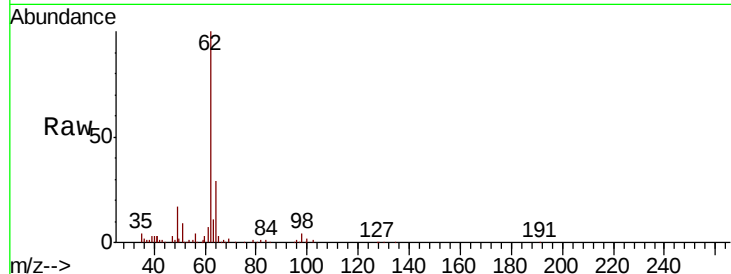
Tgt Ion: 78 Resp: 51101
 Ion Ratio Lower Upper
 78 100
 77 24.1 18.6 27.8
 50 18.5 15.8 23.8





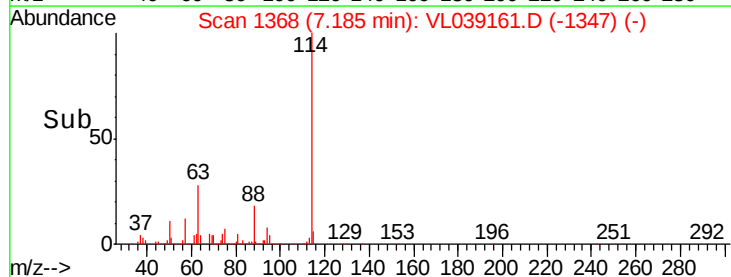
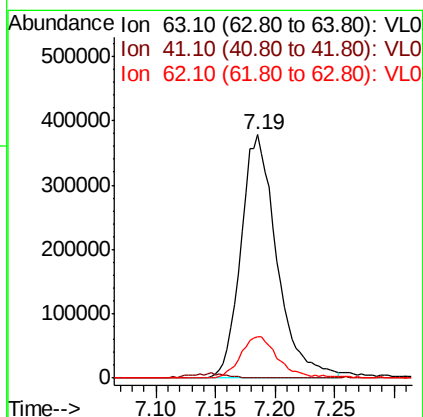
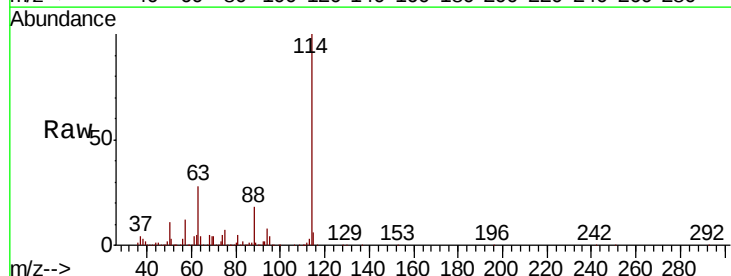
#37
 1,2-Dichloroethane
 Concen: 1.193 ppbv
 RT: 6.32
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Jun 2022 20:32

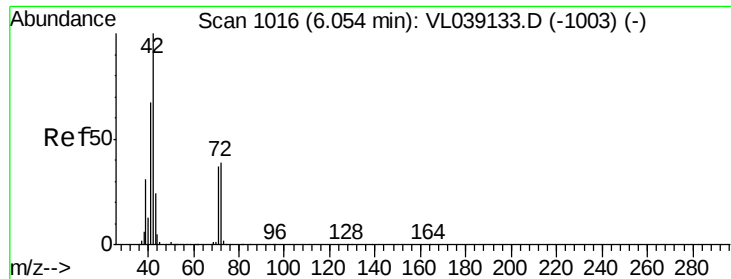
Tot Ion	62	Resp	187568
Ion Ratio	Lower	Upper	
62	100		
98	5.8	4.3	6.5



#39
 1,2-Dichloropropane
 Concen: 8.337 ppbv
 RT: 7.19 min Scan# 1368
 Delta R.T. -0.43 min
 Lab File: VL039161.D
 Acq: 3 Jun 2022 20:32

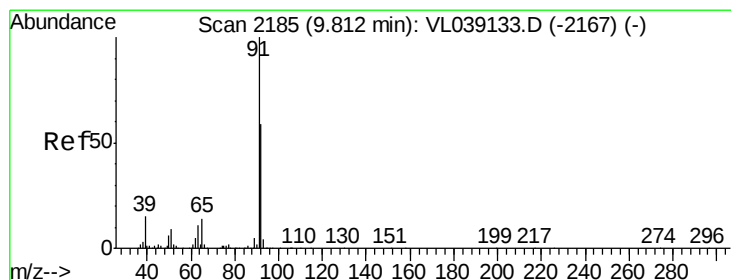
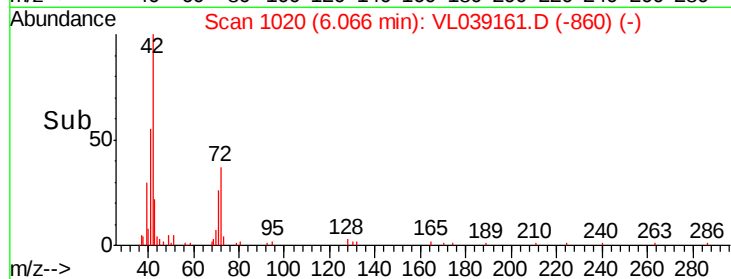
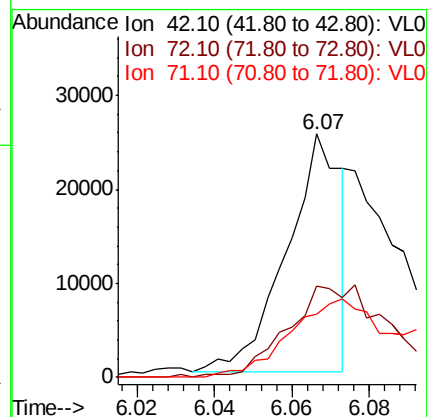
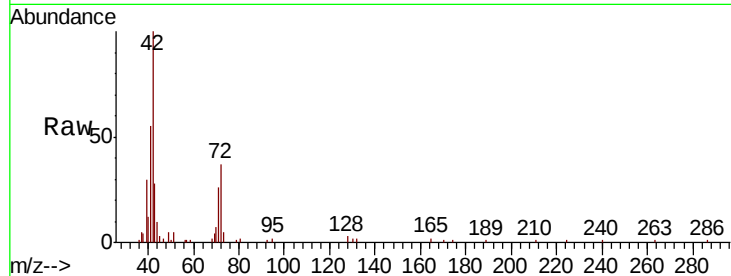
Tgt Ion	63	Resp	792218
Ion Ratio	Lower	Upper	
63	100		
41	0.0	60.8	91.2#
62	16.8	52.9	79.3#





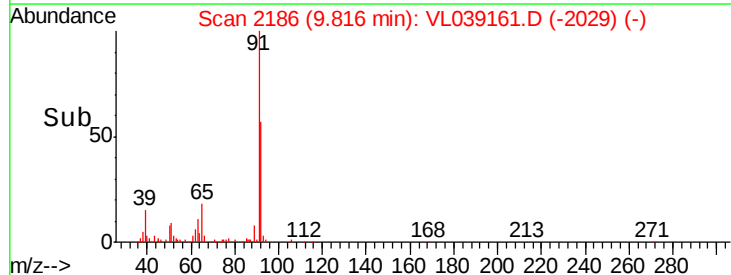
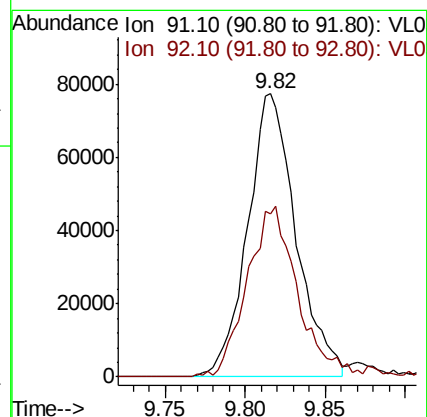
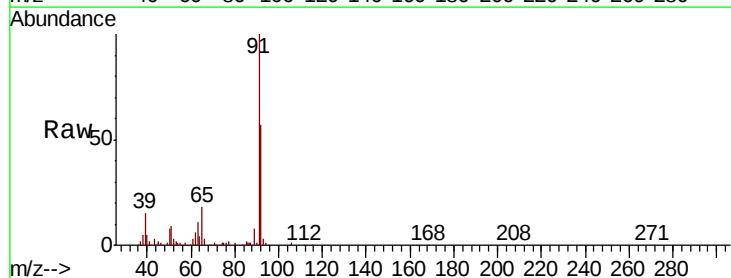
#41
Tetrahydrofuran
Concen: 0.258 ppbv
RT: 6.07
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 3 Jun 2022 20:32

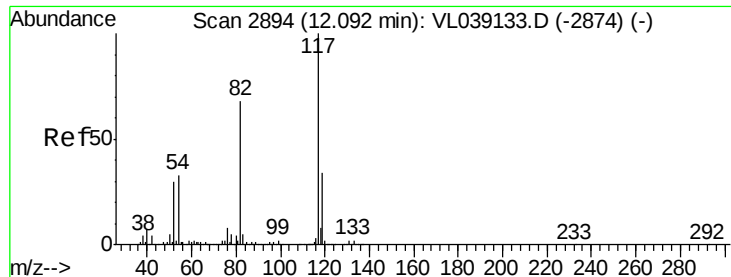
Tot Ion: 42 Resp: 24824
Ion Ratio Lower Upper
42 100
72 92.1 32.0 48.0#
71 78.1 31.1 46.7#



#53
Toluene
Concen: 0.582 ppbv
RT: 9.82 min Scan# 2186
Delta R.T.: 0.00 min
Lab File: VL039161.D
Acq: 3 Jun 2022 20:32

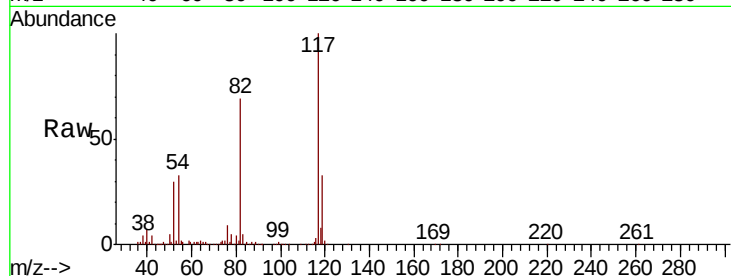
Tgt Ion: 91 Resp: 160193
Ion Ratio Lower Upper
91 100
92 63.8 48.1 72.1



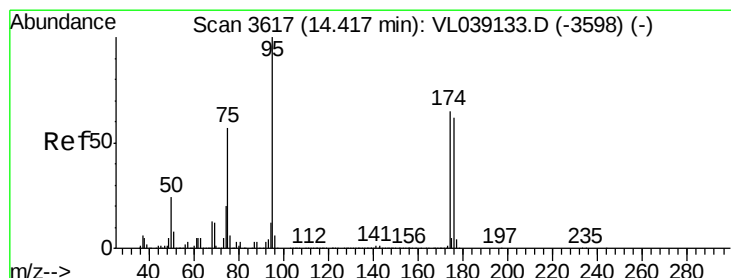
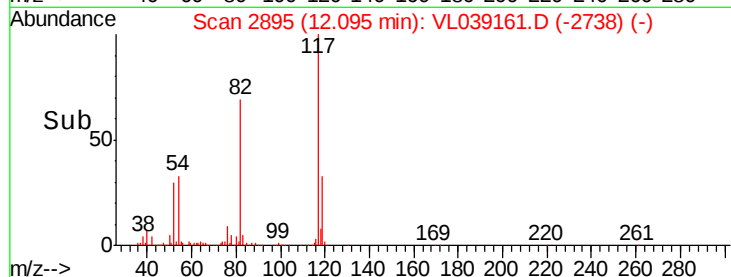
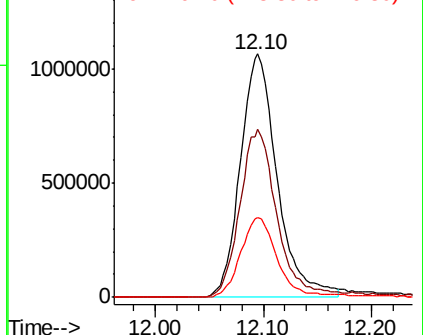


#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.10 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 3 Jun 2022 20:32

Tot Ion: 117 Resp: 2528492
 Ion Ratio Lower Upper
 117 100
 82 72.0 55.1 82.7
 119 33.7 24.7 37.1

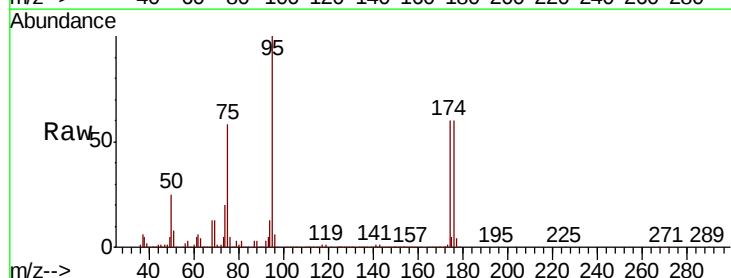


Abundance Ion 117.10 (116.80 to 117.80): V
 Ion 82.10 (81.80 to 82.80): V
 Ion 119.10 (118.80 to 119.80): V

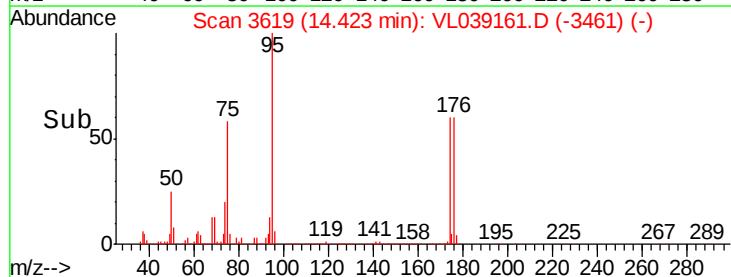
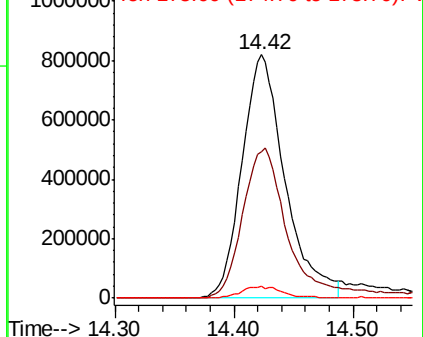


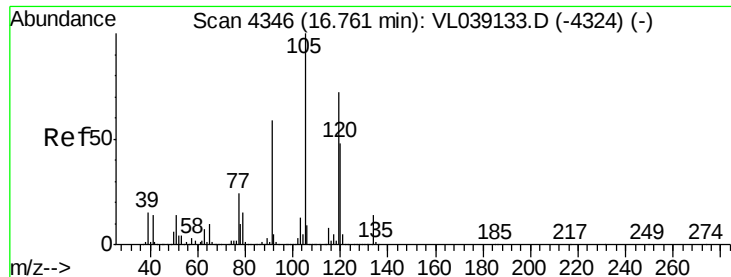
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.824 ppbv
 RT: 14.42 min Scan# 3619
 Delta R.T.: 0.01 min
 Lab File: VL039161.D
 Acq: 3 Jun 2022 20:32

Tgt Ion: 95 Resp: 2053655
 Ion Ratio Lower Upper
 95 100
 174 68.0 53.8 80.8
 175 4.9 4.1 6.1



Abundance Ion 95.10 (94.80 to 95.80): V
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V





#74

1,2,4-Trimethylbenzene

Concen: 0.037 ppbv

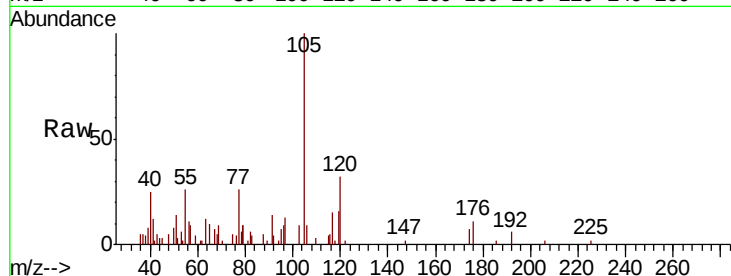
RT: 16.77

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 3 Jun 2022 20:32

Tot Ion:	105	Resp:	12454
Ion	Ratio	Lower	Upper
105	100		
120	30.0	38.1	57.1#
91	9.6	47.4	71.0#
77	23.5	19.5	29.3

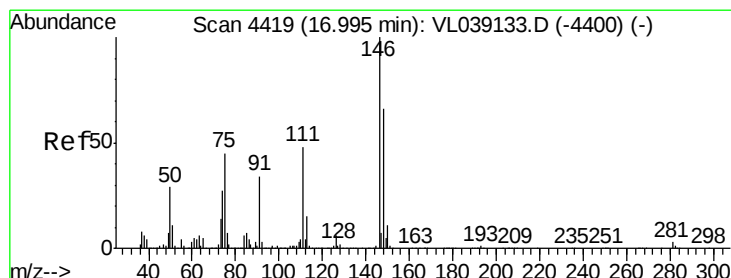
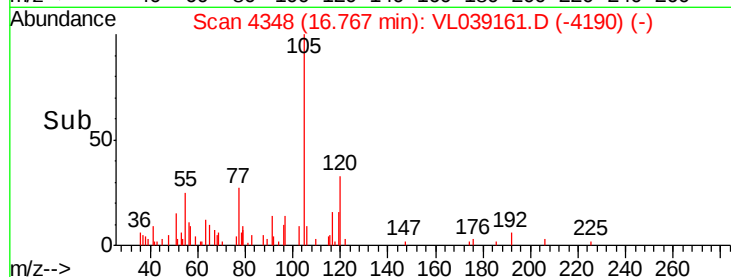
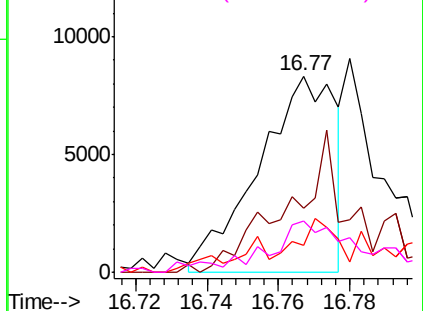


Abundance Ion 105.10 (104.80 to 105.80): V

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



#75

1,3-Dichlorobenzene

Concen: 0.227 ppbv

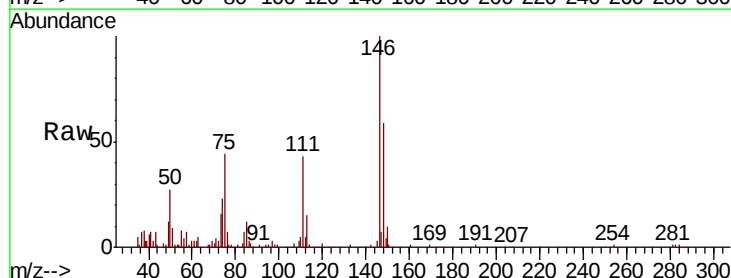
RT: 17.14 min Scan# 4464

Delta R.T. 0.14 min

Lab File: VL039161.D

Acq: 3 Jun 2022 20:32

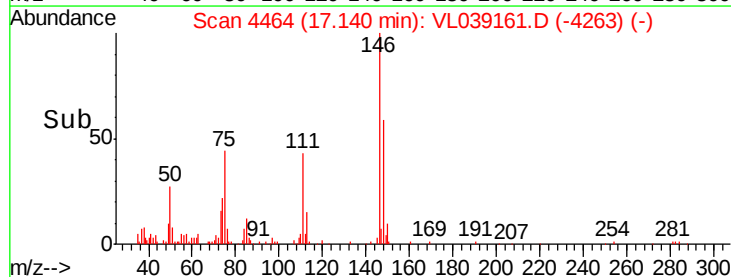
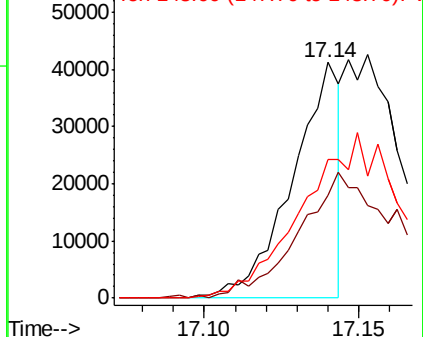
Tgt Ion:	146	Resp:	43760
Ion	Ratio	Lower	Upper
146	100		
111	132.9	23.8	71.4#
148	0.0	32.4	97.0#

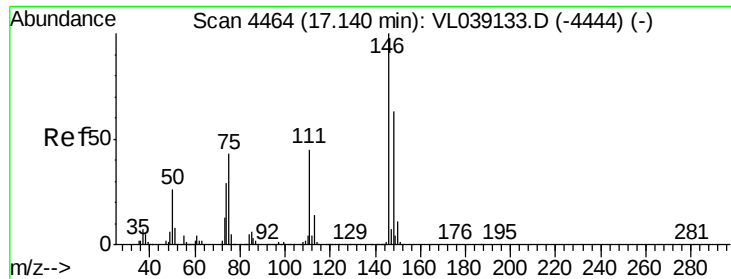


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#76

1,4-Dichlorobenzene

Concen: 0.228 ppbv

RT: 17.14

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 3 Jun 2022 20:32

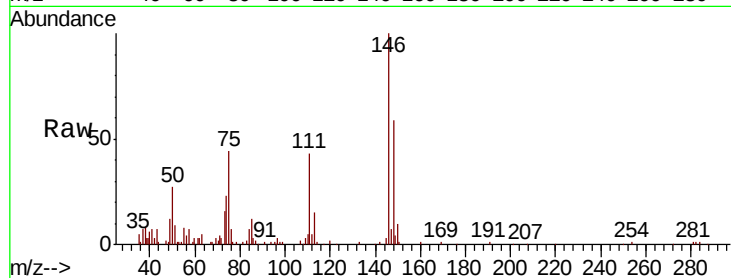
Tot Ion:146 Resp: 43760

Ion Ratio Lower Upper

146 100

111 132.9 23.6 71.0#

148 0.0 33.7 101.0#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

