

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL030222\  
 Data File : VL038488.D  
 Acq On : 2 Mar 2022 19:06  
 Operator : SY/AP  
 Sample : N1724-02DL 40X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV-1DL

Quant Time: Mar 02 22:39:31 2022  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL022222AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Tue Feb 22 19:45:51 2022  
 QLast Update : Tue Feb 22 19:45:51 2022  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 949797   | 10.00 | ppbv  | 0.02     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 2494248  | 10.00 | ppbv  | 0.02     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 2232116  | 10.00 | ppbv  | 0.03     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2104765  | 11.40    | ppbv | 0.03    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 114.00% |

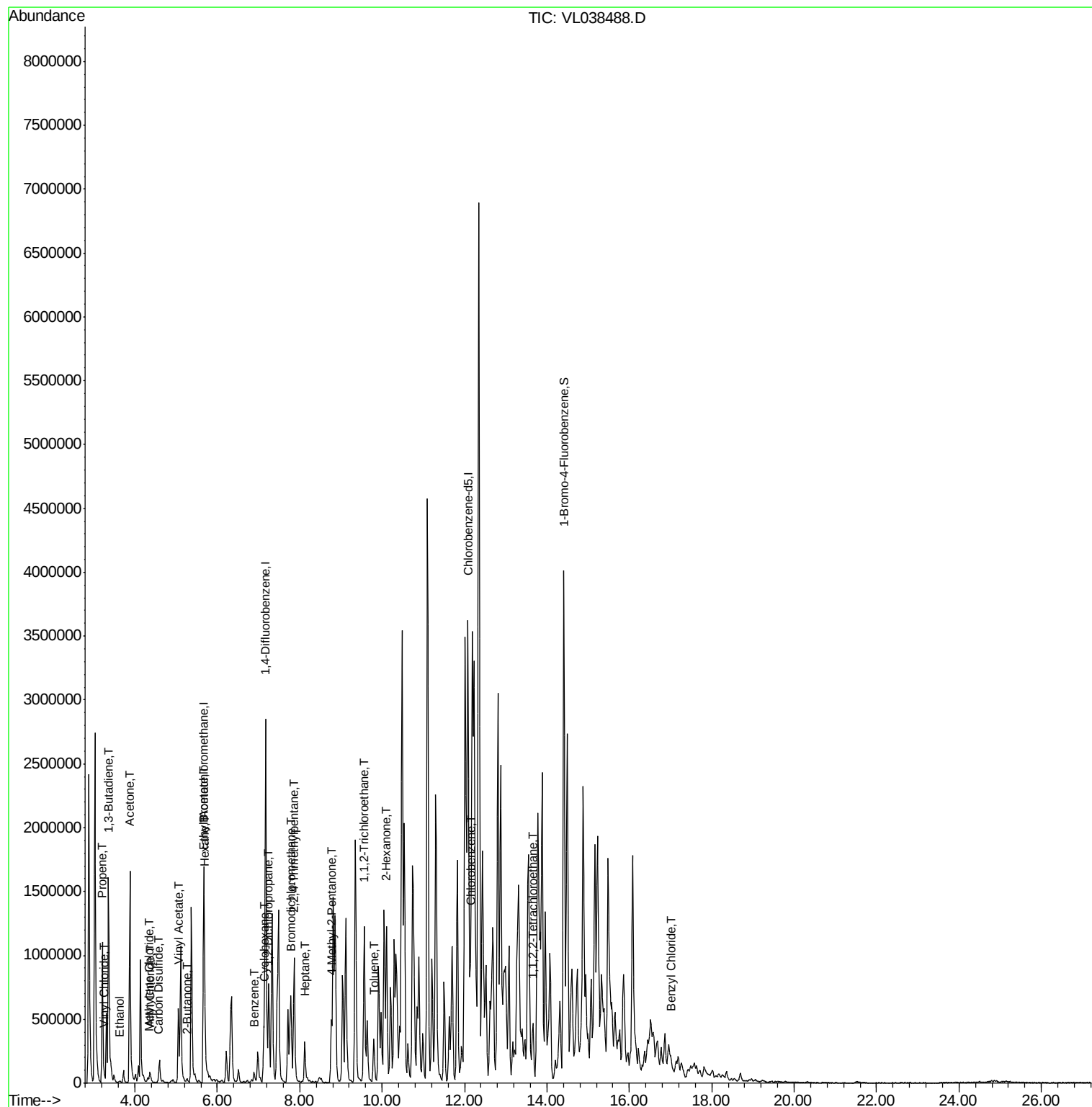
| Target Compounds              | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|-------------------------------|-------|------|----------|-------|-------|--------|
| 5) Vinyl Chloride             | 3.26  | 62   | 3714     | 0.06  | ppbv  | # 68   |
| 9) Propene                    | 3.21  | 41   | 414568   | 7.49  | ppbv  | 96     |
| 10) Heptane                   | 8.12  | 43   | 156517   | 1.16  | ppbv  | 96     |
| 13) Ethanol                   | 3.61  | 45   | 3139     | 0.57  | ppbv  | # 31   |
| 15) Acetone                   | 3.88  | 43   | 835805   | 10.35 | ppbv  | # 64   |
| 16) 1,3-Butadiene             | 3.36  | 39   | 186761   | 3.46  | ppbv  | # 24   |
| 20) Methylene Chloride        | 4.34  | 84   | 6152     | 0.15  | ppbv  | 91     |
| 21) Allyl Chloride            | 4.37  | 41   | 5516     | 0.08  | ppbv  | # 1    |
| 23) Vinyl Acetate             | 5.06  | 43   | 282309   | 2.64  | ppbv  | # 1    |
| 25) Ethyl Acetate             | 5.69  | 43   | 161159   | 0.74  | ppbv  | # 81   |
| 26) Hexane                    | 5.69  | 57   | 208363   | 2.12  | ppbv  | # 45   |
| 27) Carbon Disulfide          | 4.55  | 76   | 17104    | 0.16  | ppbv  | # 78   |
| 30) Cyclohexane               | 7.13  | 84   | 161775   | 2.01  | ppbv  | 87     |
| 34) 2-Butanone                | 5.26  | 43   | 32119    | 0.41  | ppbv  | # 72   |
| 36) Benzene                   | 6.89  | 78   | 64798    | 0.30  | ppbv  | # 90   |
| 39) 1,2-Dichloropropane       | 7.23  | 63   | 9649     | 0.11  | ppbv  | # 58   |
| 42) Bromodichloromethane      | 7.79  | 83   | 38386    | 0.21  | ppbv  | # 24   |
| 44) 2,2,4-Trimethylpentane    | 7.87  | 57   | 491863   | 1.30  | ppbv  | # 26   |
| 47) 1,1,2-Trichloroethane     | 9.57  | 97   | 46647    | 0.54  | ppbv  | # 59   |
| 50) 4-Methyl-2-Pentanone      | 8.77  | 43   | 33882    | 0.24  | ppbv  | # 86   |
| 51) 2-Hexanone                | 10.11 | 43   | 778908   | 12.54 | ppbv  | # 31   |
| 53) Toluene                   | 9.81  | 91   | 22533    | 0.09  | ppbv  | 97     |
| 57) Chlorobenzene             | 12.14 | 112  | 17217    | 0.10  | ppbv  | # 25   |
| 63) 1,1,2,2-Tetrachloroethane | 13.66 | 83   | 6819     | 0.03  | ppbv  | # 24   |
| 66) Benzyl Chloride           | 17.01 | 91   | 613      | 0.04  | ppbv  | # 53   |

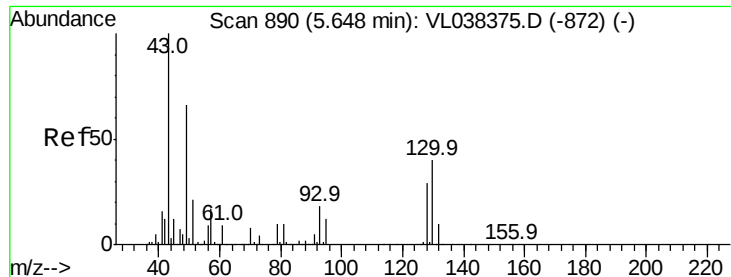
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_L\DATA\VL030222\  
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SV-1DL

Quant Time: Mar 02 22:39:31 2022  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_L\METHODS\VL022222AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Feb 22 19:45:51 2022  
QLast Update : Tue Feb 22 19:45:51 2022  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 2 Mar 2022 19:00 SV-1DL

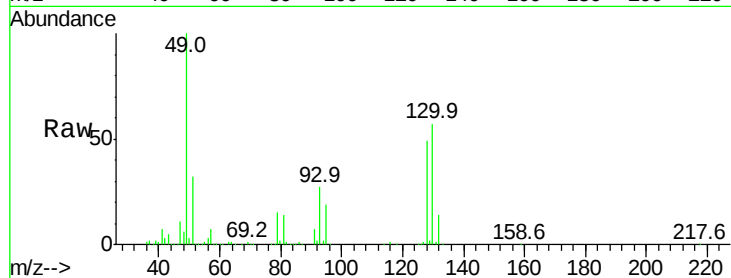
Tgt Ion: 49 Resp: 949797

Ion Ratio Lower Upper

49 100

128 49.8 24.3 72.9

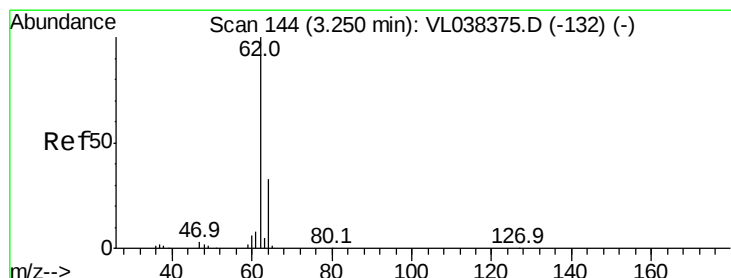
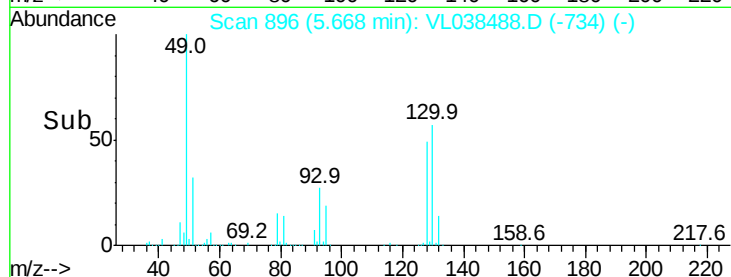
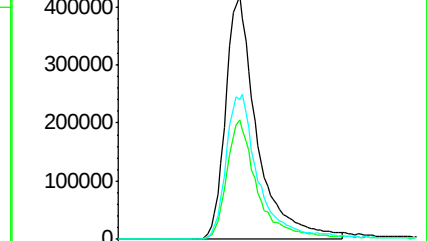
130 62.8 30.1 90.5



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



#5

Vinyl Chloride

Concen: 0.06 ppbv

RT: 3.26 min Scan# 148

Delta R.T. 0.01 min

Lab File: VL038488.D

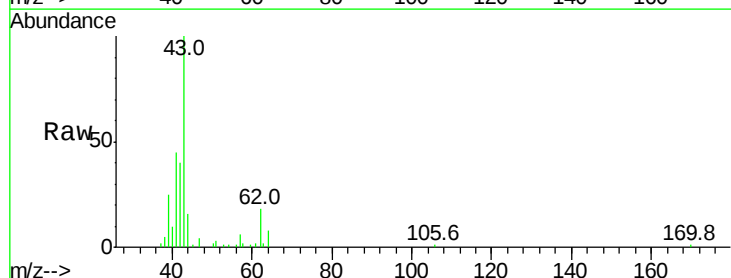
Acq: 2 Mar 2022 19:06

Tgt Ion: 62 Resp: 3714

Ion Ratio Lower Upper

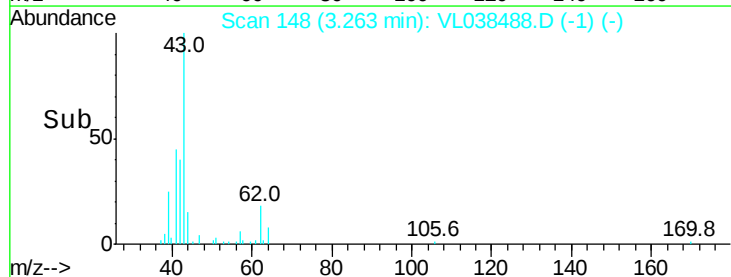
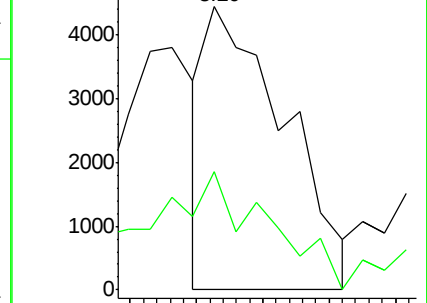
62 100

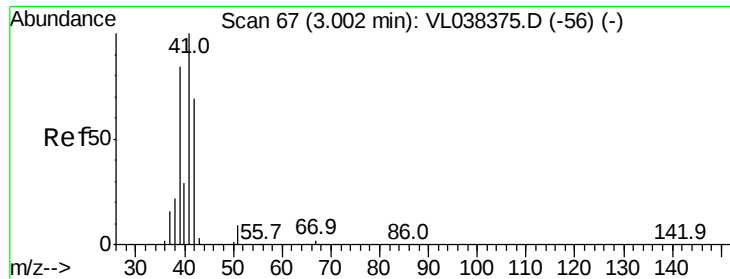
64 50.7 26.2 39.2#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





#9

Propene

Concen: 7.49 ppbv

RT: 3.21 Instrument: MSVOA\_1

Delta R.T.

Lab File: ClientSampleId:

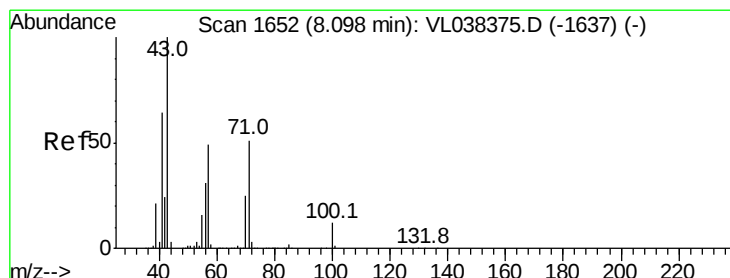
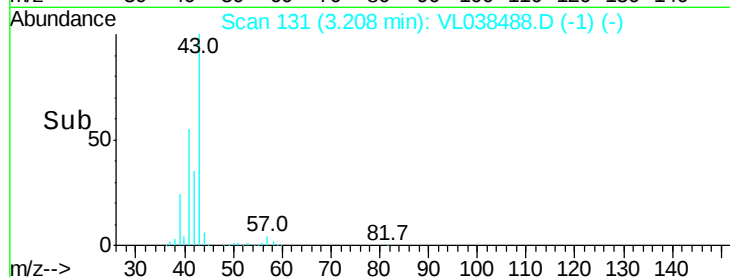
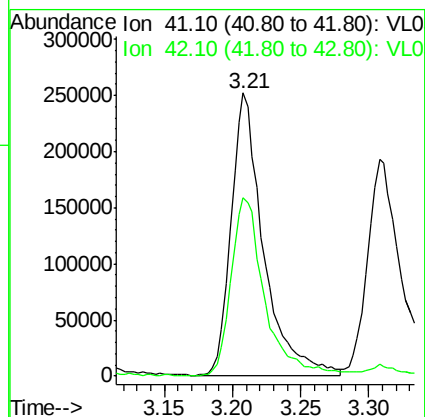
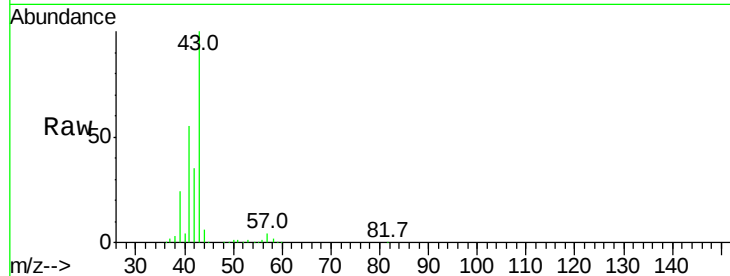
Acq: 2 Mar 2022 19:00

Tgt Ion: 41 Resp: 414568

Ion Ratio Lower Upper

41 100

42 65.4 54.6 82.0



#10

Heptane

Concen: 1.16 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. 0.03 min

Lab File: VL038488.D

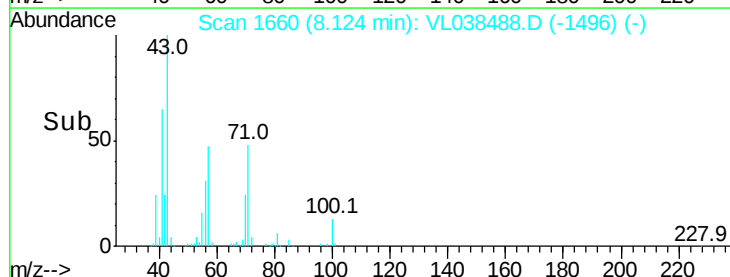
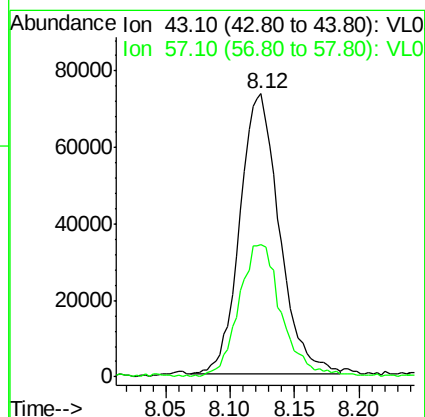
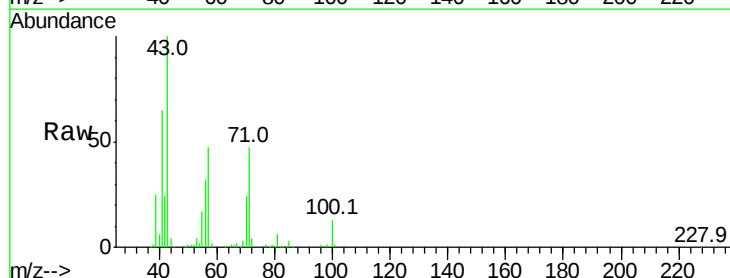
Acq: 2 Mar 2022 19:06

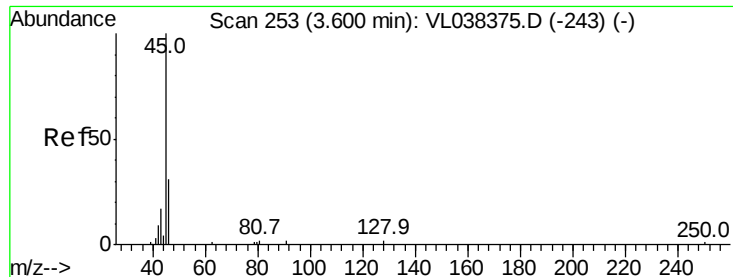
Tgt Ion: 43 Resp: 156517

Ion Ratio Lower Upper

43 100

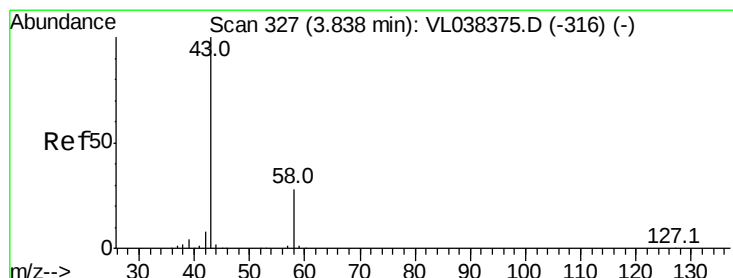
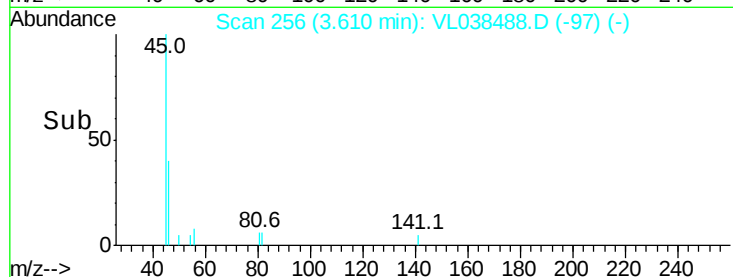
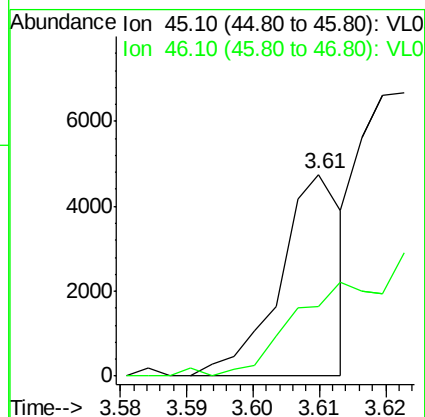
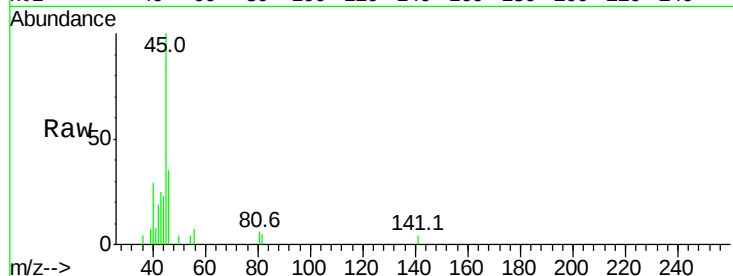
57 52.3 39.8 59.8





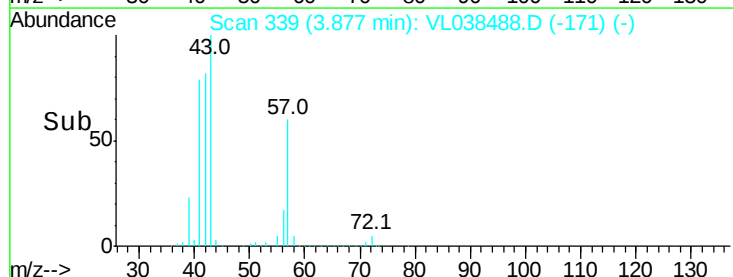
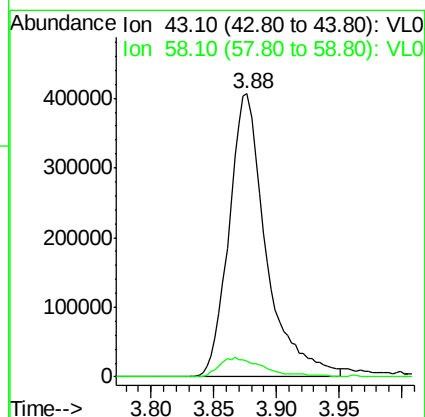
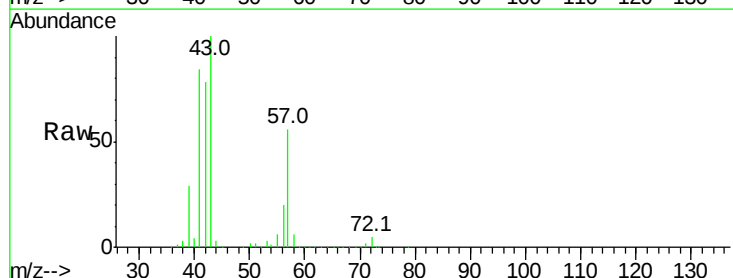
#13  
Ethanol  
Concen: 0.57 ppbv  
RT: 3.61  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 2 Mar 2022 19:00

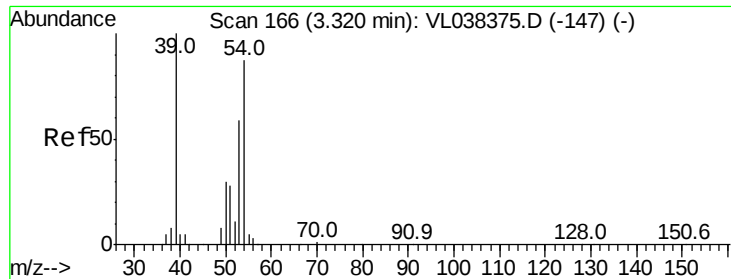
Tgt Ion: 45 Resp: 3139  
Ion Ratio Lower Upper  
45 100  
46 0.0 18.2 72.8#



#15  
Acetone  
Concen: 10.35 ppbv  
RT: 3.88 min Scan# 339  
Delta R.T. 0.04 min  
Lab File: VL038488.D  
Acq: 2 Mar 2022 19:06

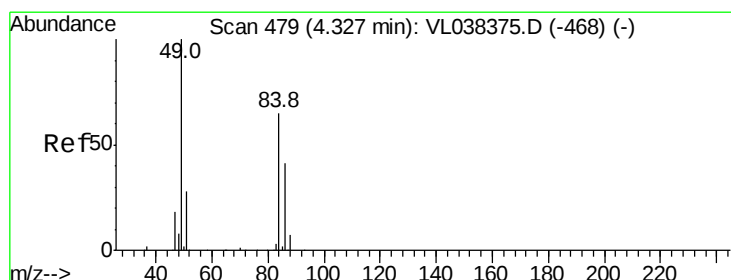
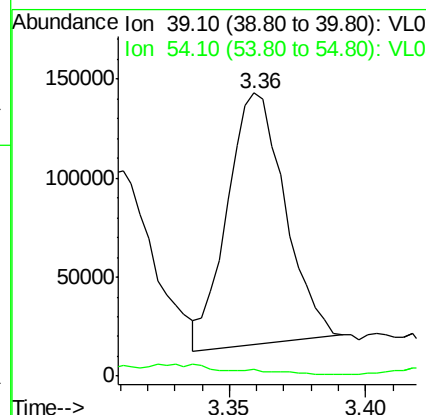
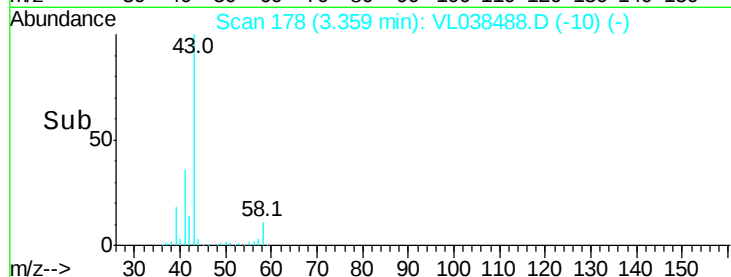
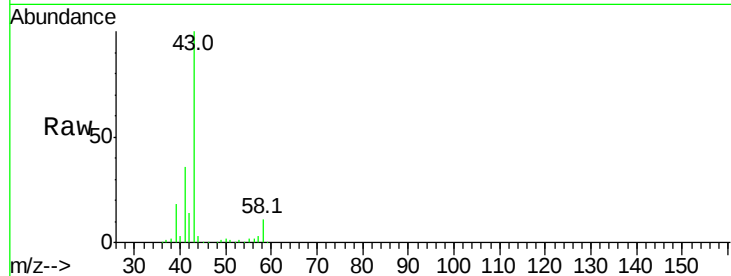
Tgt Ion: 43 Resp: 835805  
Ion Ratio Lower Upper  
43 100  
58 8.5 21.7 32.5#





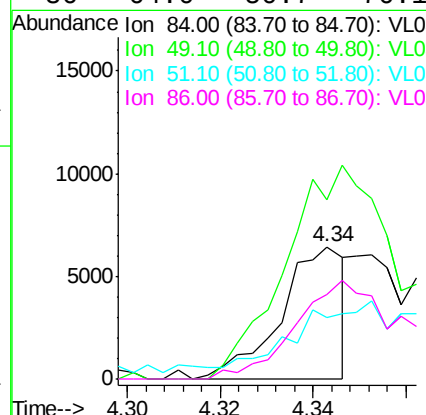
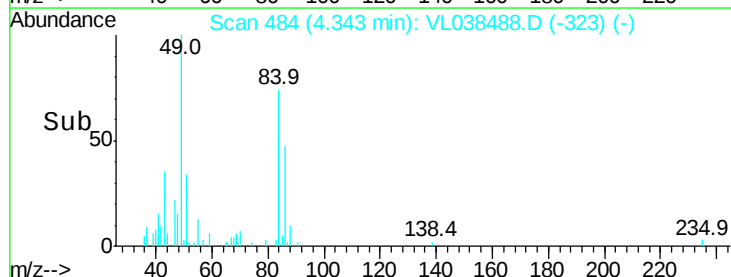
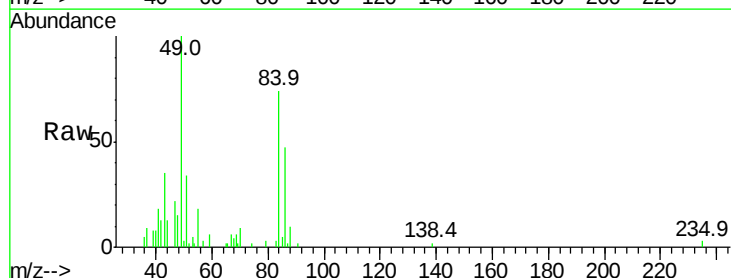
#16  
 1,3-Butadiene  
 Concen: 3.46 ppbv  
 RT: 3.36  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 SV-1DL  
 Acq: 2 Mar 2022 19:00

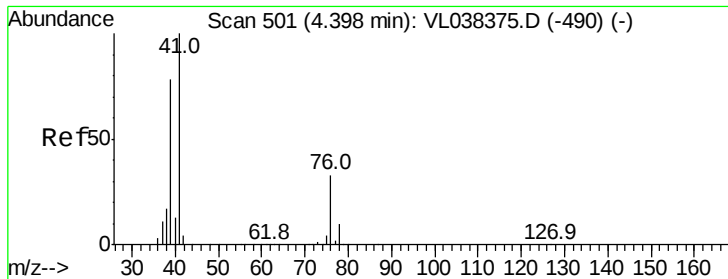
Tgt Ion: 39 Resp: 186761  
 Ion Ratio Lower Upper  
 39 100  
 54 10.5 60.3 90.5#



#20  
 Methylene Chloride  
 Concen: 0.15 ppbv  
 RT: 4.34 min Scan# 484  
 Delta R.T. 0.02 min  
 Lab File: VL038488.D  
 Acq: 2 Mar 2022 19:06

Tgt Ion: 84 Resp: 6152  
 Ion Ratio Lower Upper  
 84 100  
 49 135.8 122.4 183.6  
 51 39.6 33.3 49.9  
 86 64.0 50.7 76.1





#21

Allyl Chloride

Concen: 0.08 ppbv

RT: 4.37 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 2 Mar 2022 19:00 SV-1DL

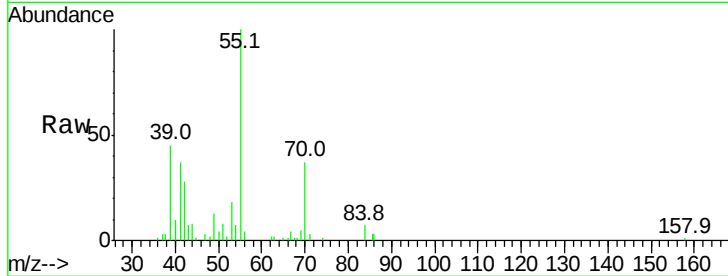
Tgt Ion: 41 Resp: 5516

Ion Ratio Lower Upper

41 100

76 0.0 25.4 38.0#

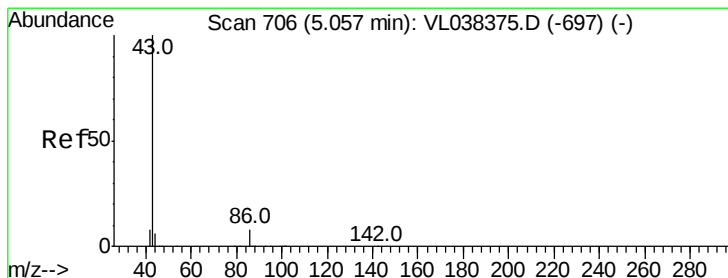
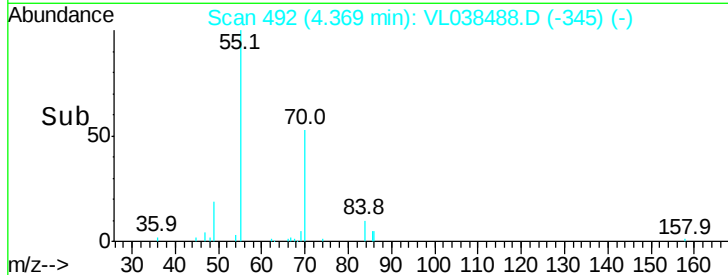
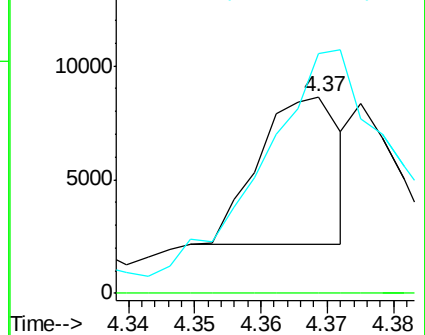
39 416.4 63.0 94.6#



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: 2.64 ppbv

RT: 5.06 min Scan# 706

Delta R.T. 0.00 min

Lab File: VL038488.D

Acq: 2 Mar 2022 19:06

Tgt Ion: 43 Resp: 282309

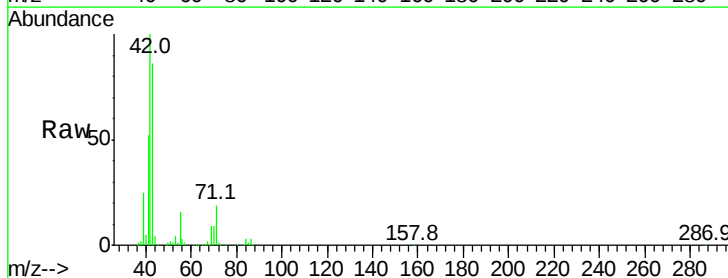
Ion Ratio Lower Upper

43 100

86 3.6 5.8 8.6#

42 117.4 7.4 11.0#

44 3.4 4.2 6.2#

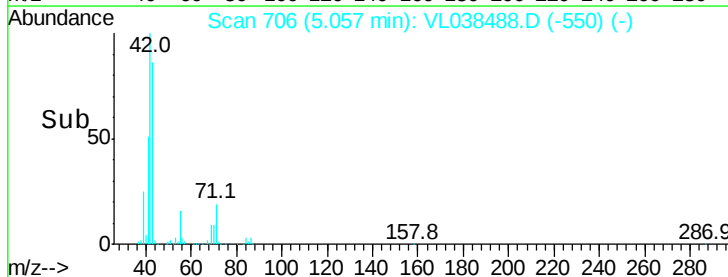
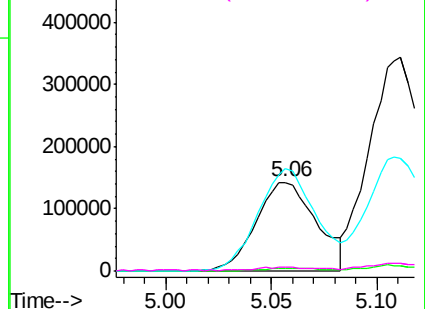


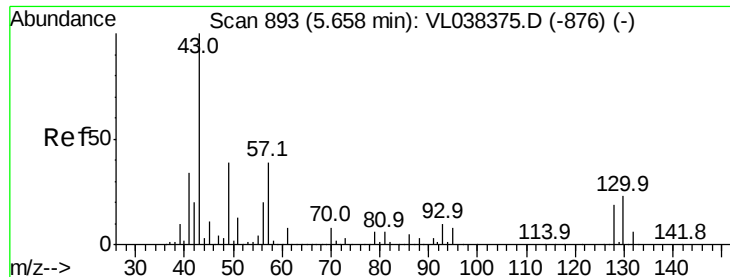
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

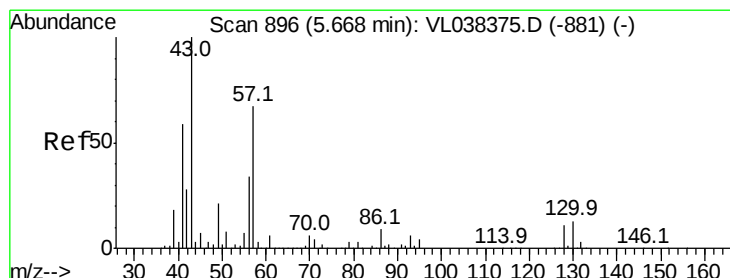
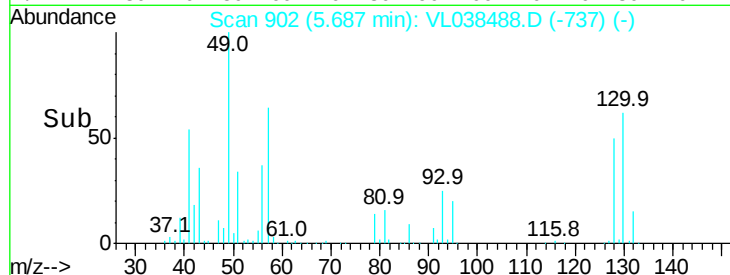
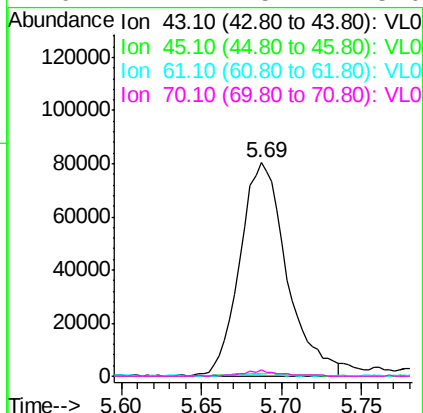
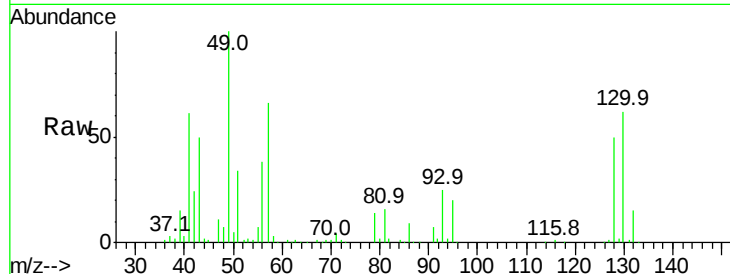
Ion 44.10 (43.80 to 44.80): VL0





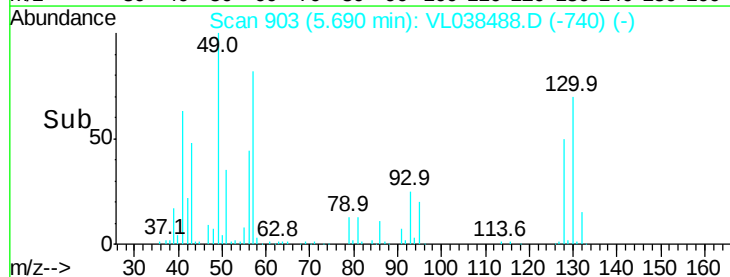
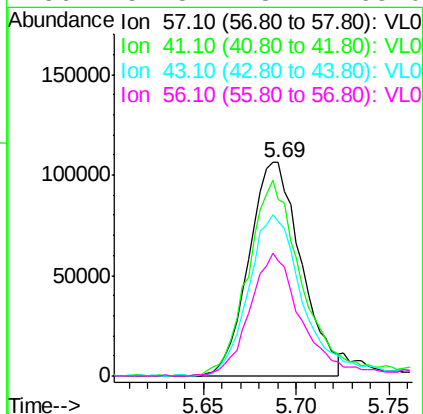
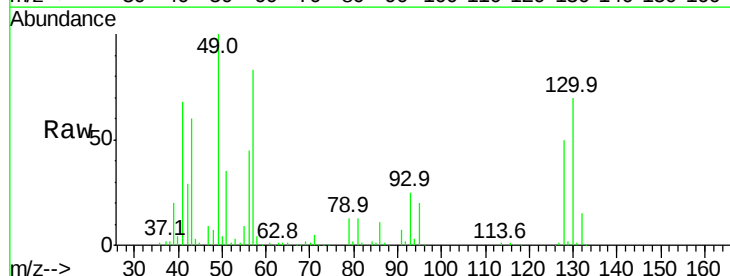
#25  
Ethyl Acetate  
Concen: 0.74 ppbv  
RT: 5.69  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId :  
SV-1DL  
Acq: 2 Mar 2022 19:00

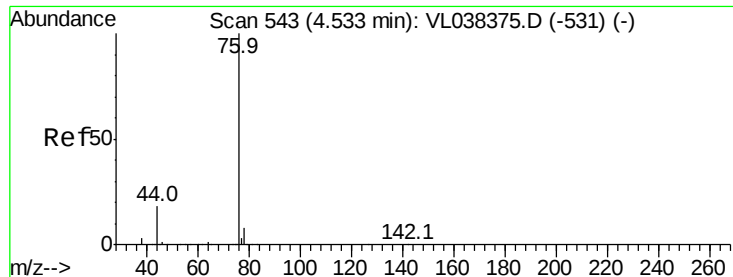
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 161159 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 1.8   | 7.8   | 11.6#  |
| 61       | 1.3   | 7.5   | 11.3#  |
| 70       | 2.4   | 5.4   | 8.0#   |



#26  
Hexane  
Concen: 2.12 ppbv  
RT: 5.69 min Scan# 903  
Delta R.T.: 0.02 min  
Lab File: VL038488.D  
Acq: 2 Mar 2022 19:00

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 208363 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 95.9  | 73.1  | 109.7  |
| 43       | 83.1  | 181.0 | 271.4# |
| 56       | 57.8  | 43.4  | 65.0   |





#27

Carbon Disulfide

Concen: 0.16 ppbv

RT: 4.55 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File: SV-1DL

Acq: 2 Mar 2022 19:00

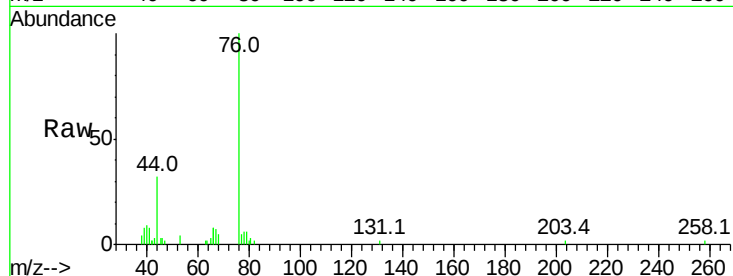
Tgt Ion: 76 Resp: 17104

Ion Ratio Lower Upper

76 100

44 30.4 14.2 21.2#

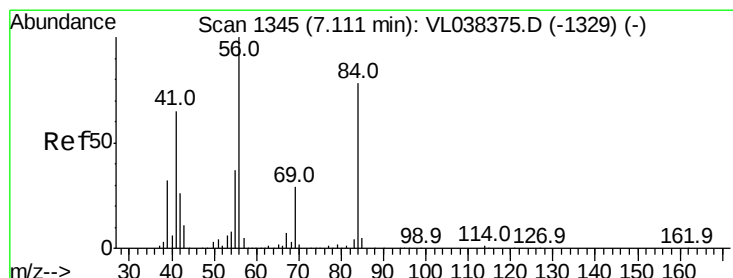
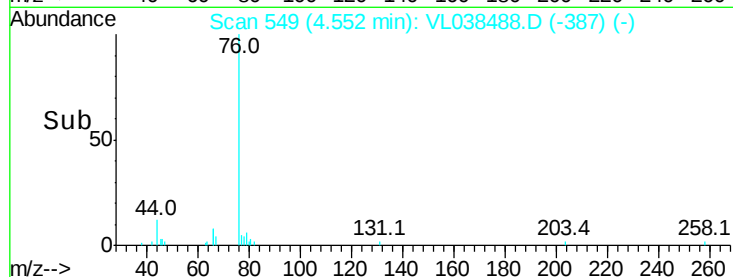
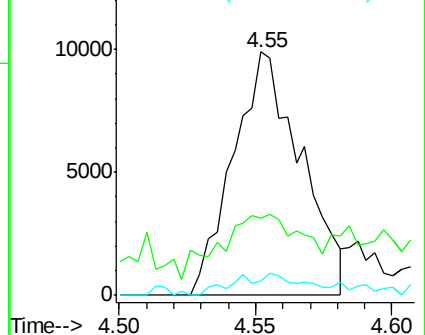
78 13.4 7.8 11.6#



Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0



#30

Cyclohexane

Concen: 2.01 ppbv

RT: 7.13 min Scan# 1351

Delta R.T. 0.02 min

Lab File: VL038488.D

Acq: 2 Mar 2022 19:06

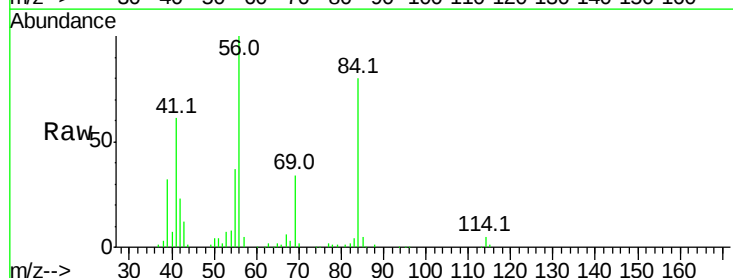
Tgt Ion: 84 Resp: 161775

Ion Ratio Lower Upper

84 100

56 165.4 116.2 174.4

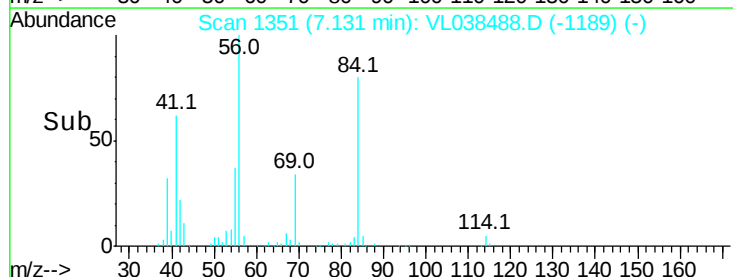
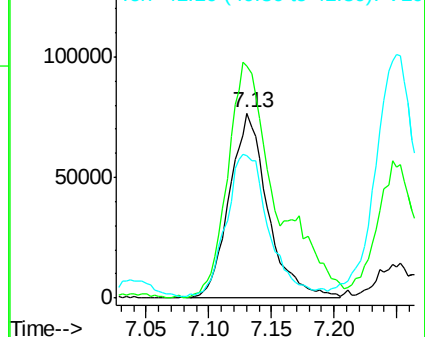
41 84.8 74.3 111.5

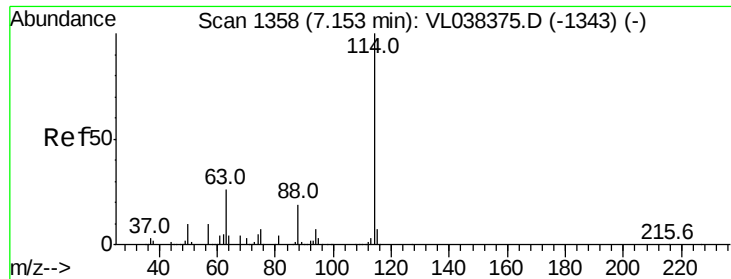


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

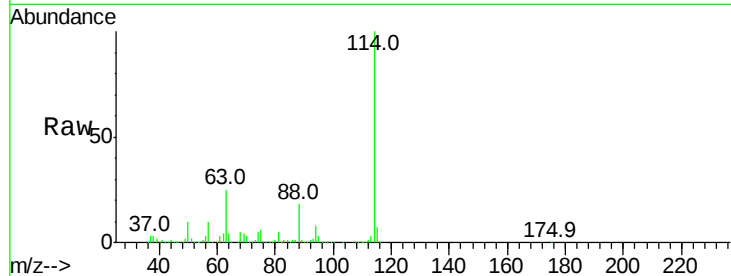
Ion 41.10 (40.80 to 41.80): VL0



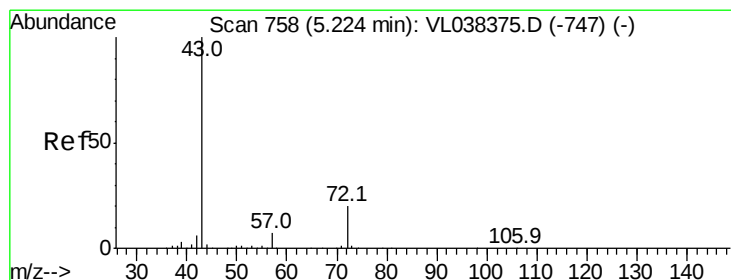
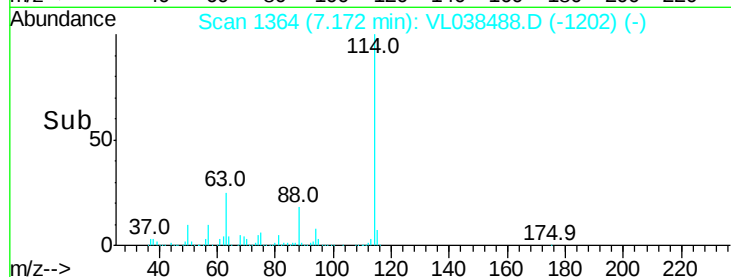
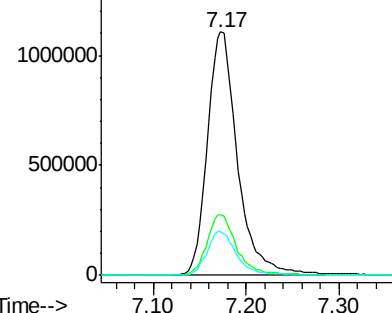


#33  
 1,4-Difluorobenzene  
 Concen: 10.00 ppbv  
 RT: 7.17  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 SV-1DL  
 Acq: 2 Mar 2022 19:00

Tgt Ion: 114 Resp: 2494248  
 Ion Ratio Lower Upper  
 114 100  
 63 24.9 22.2 33.2  
 88 18.0 15.2 22.8

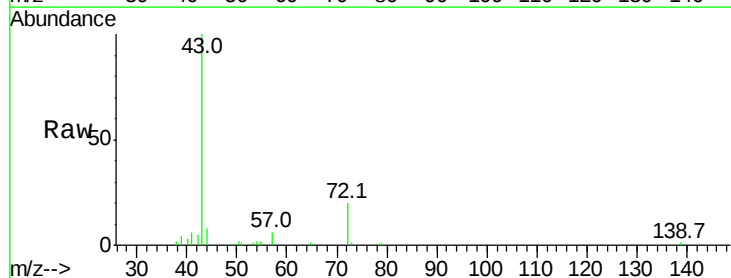


Abundance Ion 114.10 (113.80 to 114.80): V  
 1500000  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

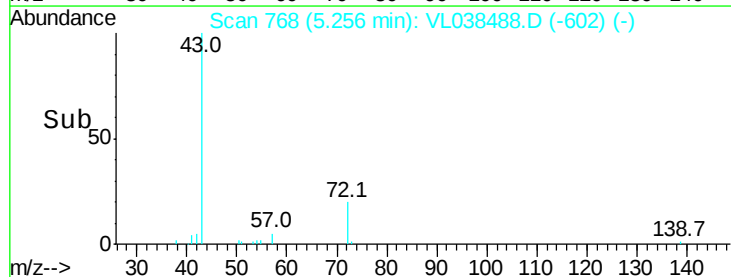
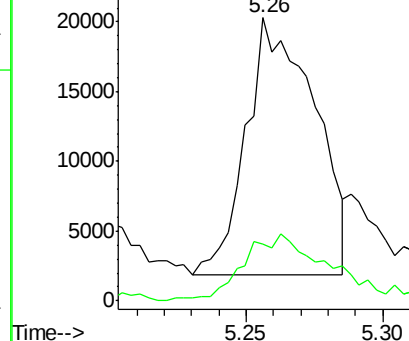


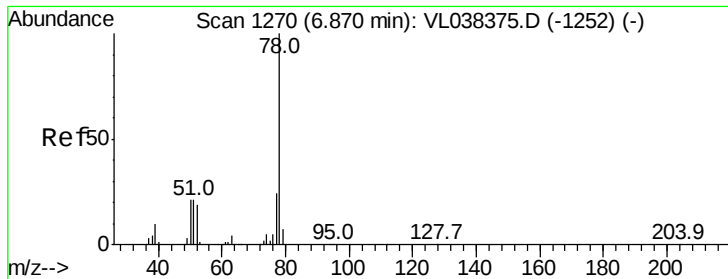
#34  
 2-Butanone  
 Concen: 0.41 ppbv  
 RT: 5.26 min Scan# 768  
 Delta R.T. 0.03 min  
 Lab File: VL038488.D  
 Acq: 2 Mar 2022 19:06

Tgt Ion: 43 Resp: 32119  
 Ion Ratio Lower Upper  
 43 100  
 72 35.1 17.4 26.2#



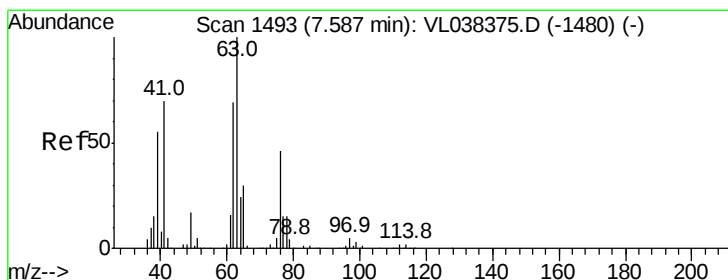
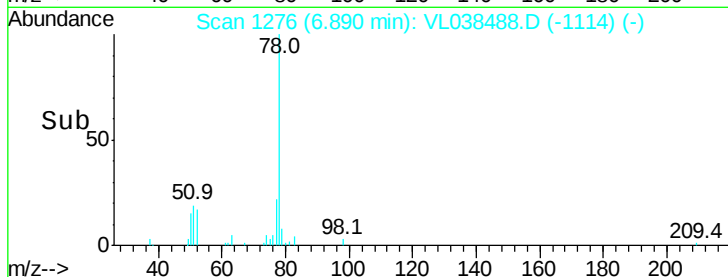
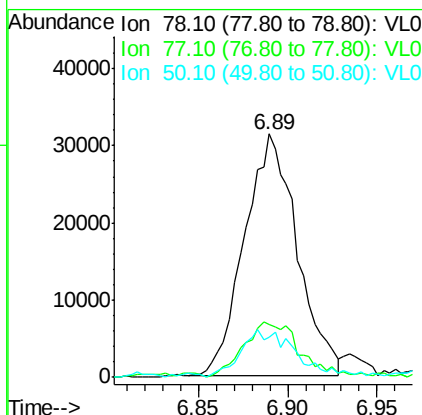
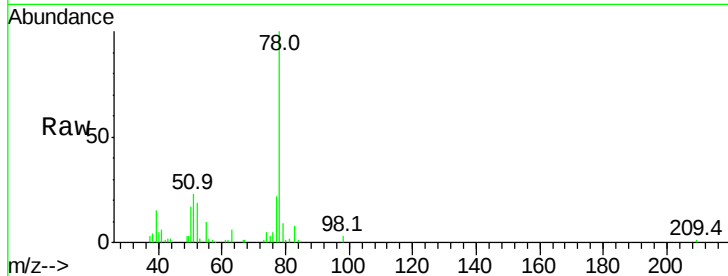
Abundance Ion 43.10 (42.80 to 43.80): VL0  
 20000  
 Ion 72.10 (71.80 to 72.80): VL0





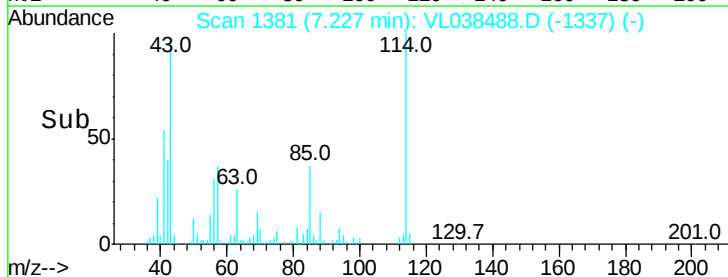
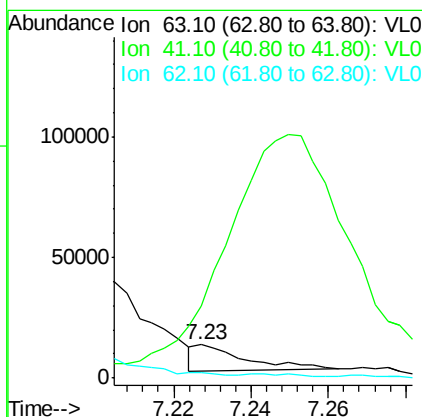
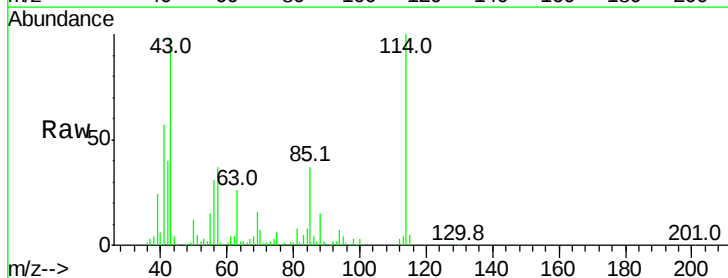
#36  
Benzene  
Concen: 0.30 ppbv  
RT: 6.89  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 2 Mar 2022 19:00

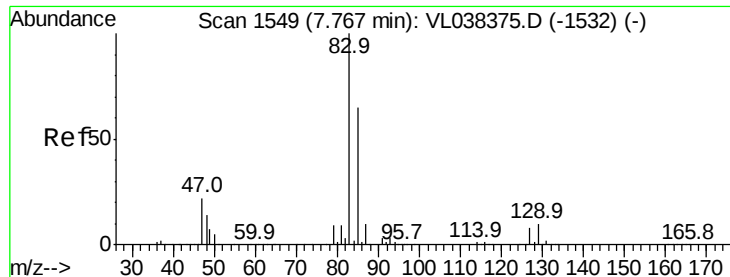
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 20.1  | 19.0  | 28.6  |
| 50      | 15.0  | 16.6  | 24.8# |



#39  
1,2-Dichloropropane  
Concen: 0.11 ppbv  
RT: 7.23 min Scan# 1381  
Delta R.T. -0.36 min  
Lab File: VL038488.D  
Acq: 2 Mar 2022 19:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 86.1  | 56.1  | 84.1# |
| 62      | 16.0  | 55.5  | 83.3# |





#42

Bromodichloromethane

Concen: 0.21 ppbv

RT: 7.79 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 2 Mar 2022 19:00

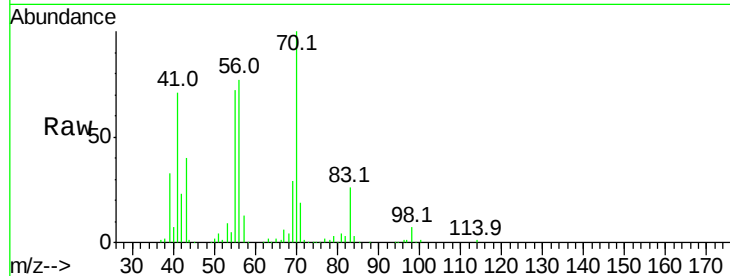
Tgt Ion: 83 Resp: 38386

Ion Ratio Lower Upper

83 100

85 0.1 52.2 78.4#

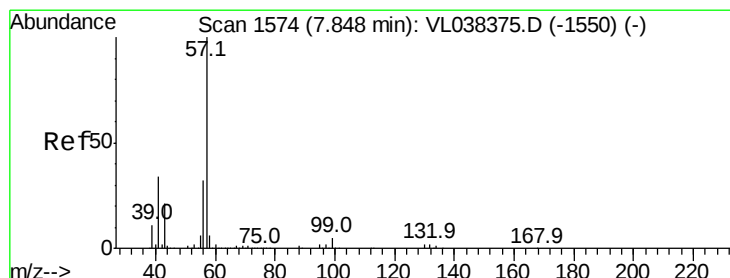
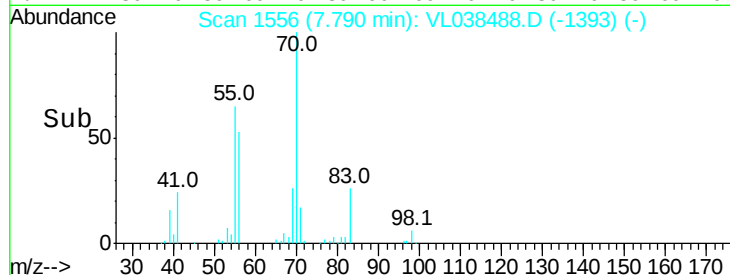
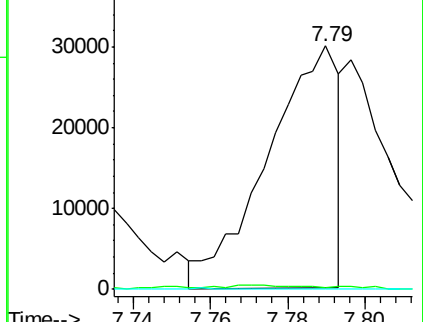
127 0.0 6.2 9.4#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): VL0



#44

2,2,4-Trimethylpentane

Concen: 1.30 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. 0.02 min

Lab File: VL038488.D

Acq: 2 Mar 2022 19:06

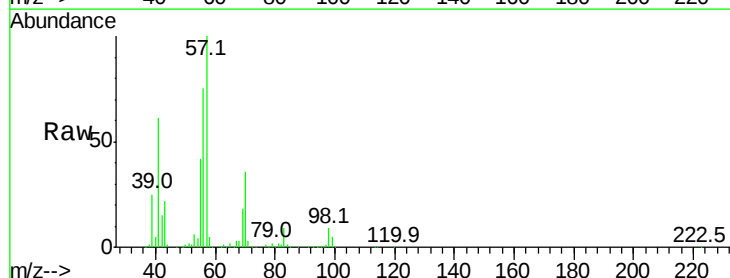
Tgt Ion: 57 Resp: 491863

Ion Ratio Lower Upper

57 100

41 66.4 26.6 39.8#

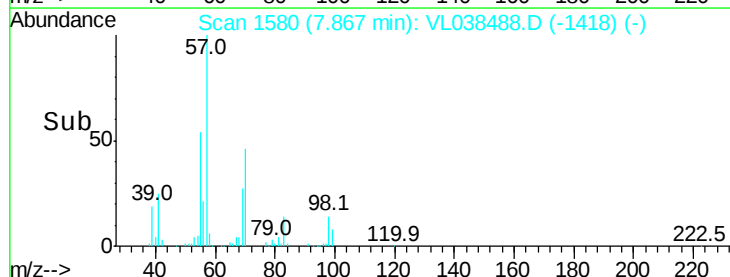
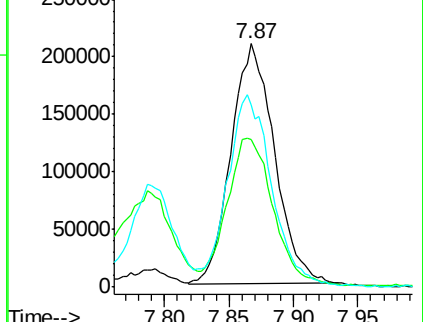
56 81.6 25.0 37.6#

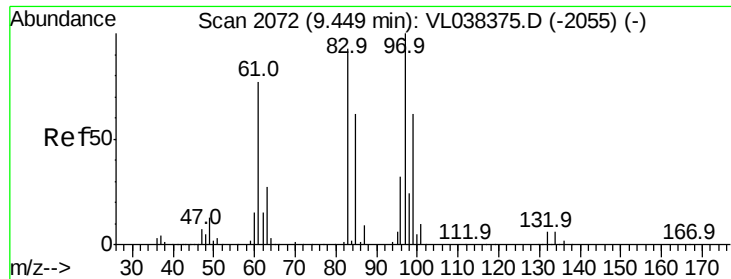


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#47

1,1,2-Trichloroethane

Concen: 0.54 ppbv

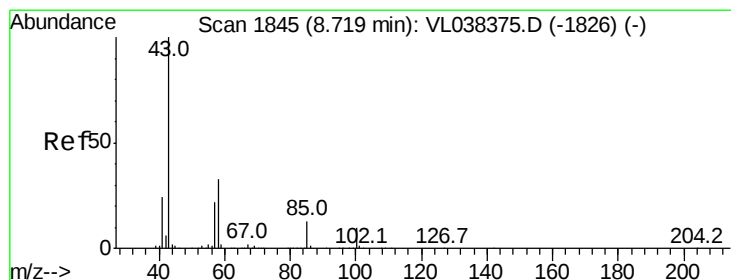
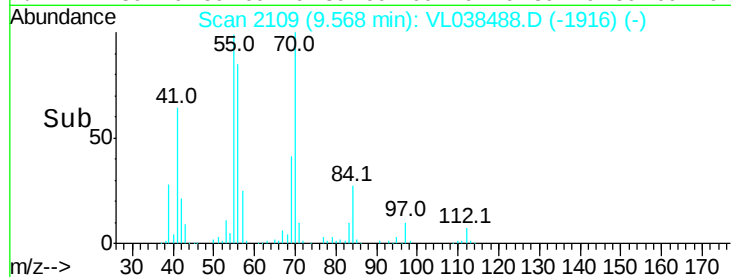
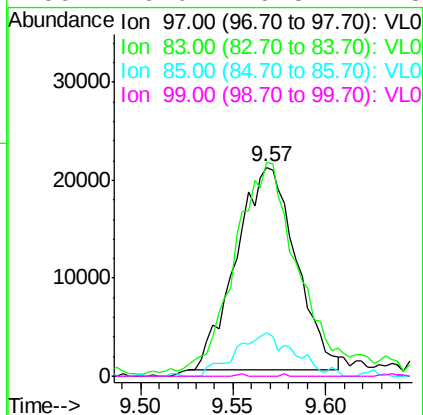
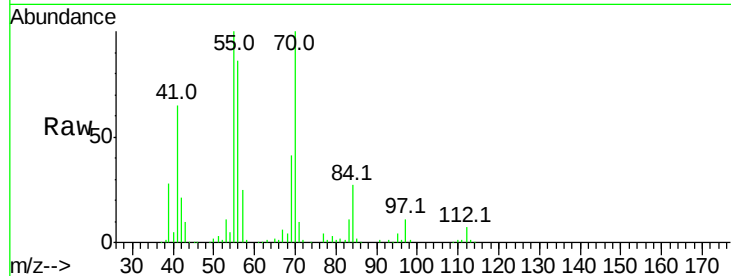
RT: 9.57 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 2 Mar 2022 19:00

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 46647 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 83       | 99.4  | 74.2  | 111.4 |
| 85       | 21.2  | 49.8  | 74.8# |
| 99       | 0.0   | 49.5  | 74.3# |



#50

4-Methyl-2-Pentanone

Concen: 0.24 ppbv

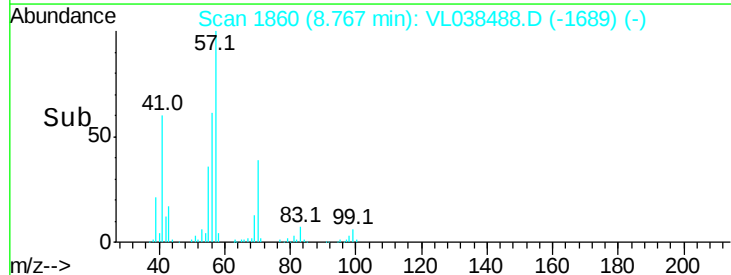
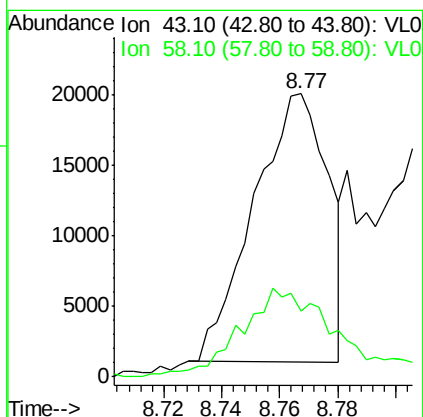
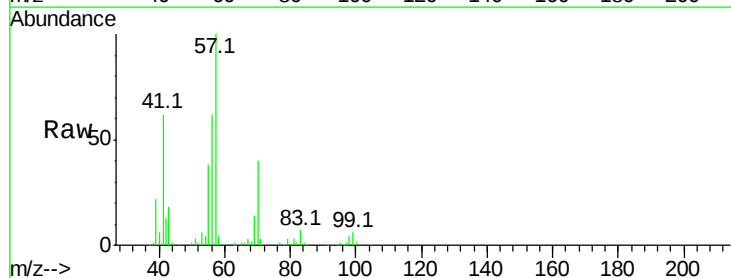
RT: 8.77 min Scan# 1860

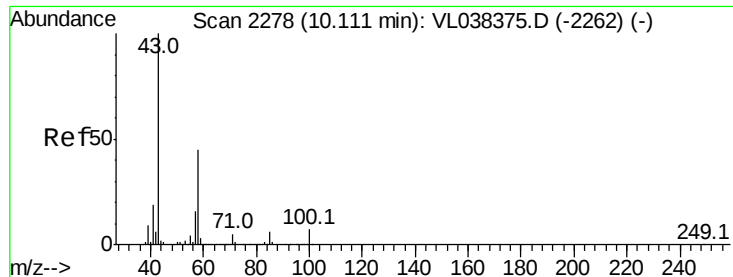
Delta R.T. 0.05 min

Lab File: VL038488.D

Acq: 2 Mar 2022 19:06

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 33882 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 42.7  | 27.7  | 41.5# |





#51

2-Hexanone

Concen: 12.54 ppbv

RT: 10.11

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 2 Mar 2022 19:00

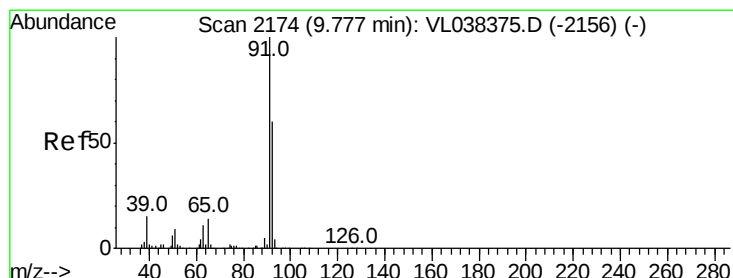
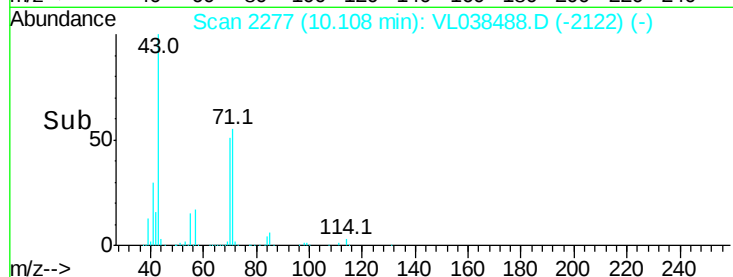
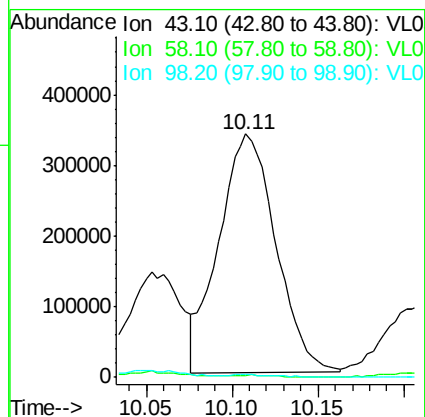
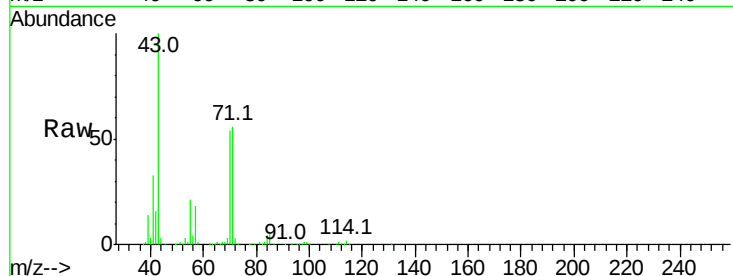
Tgt Ion: 43 Resp: 778908

Ion Ratio Lower Upper

43 100

58 0.7 37.4 56.0#

98 1.0 0.1 0.1#



#53

Toluene

Concen: 0.09 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. 0.03 min

Lab File: VL038488.D

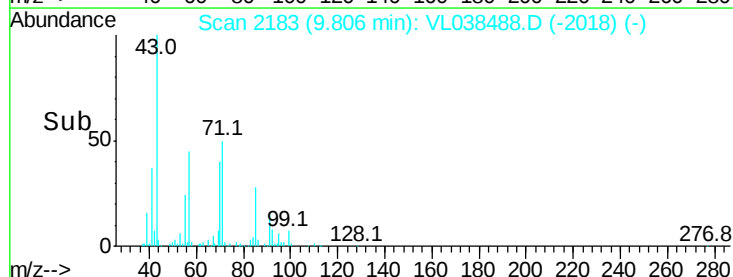
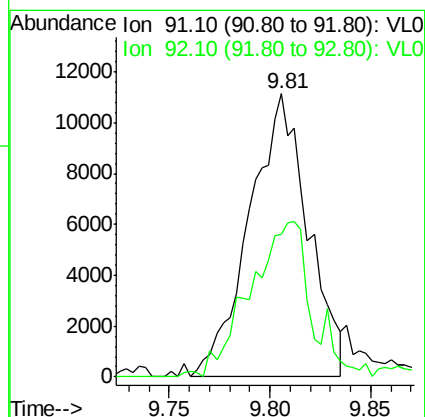
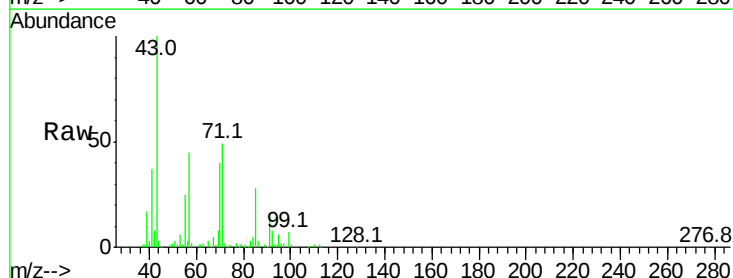
Acq: 2 Mar 2022 19:06

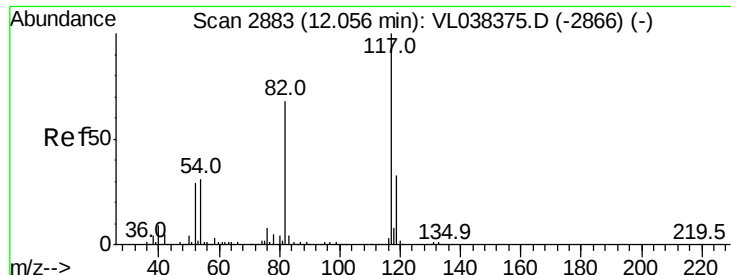
Tgt Ion: 91 Resp: 22533

Ion Ratio Lower Upper

91 100

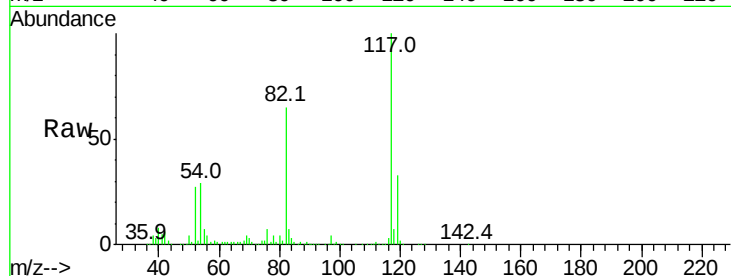
92 58.0 48.2 72.4



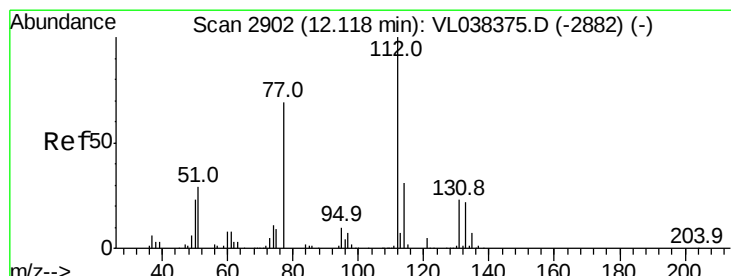
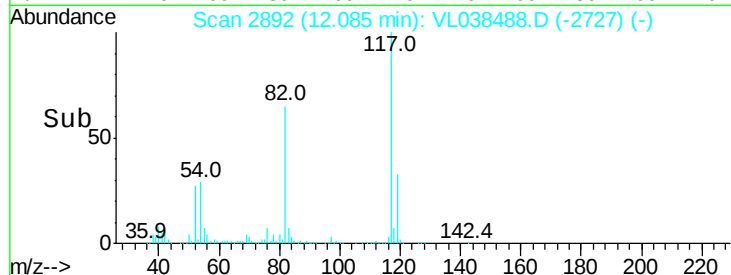
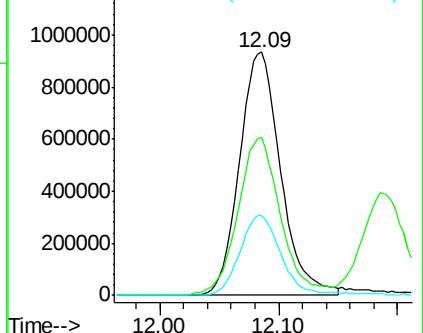


#55  
Chlorobenzene-d5  
Concen: 10.00 ppbv  
RT: 12.09 min  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId:  
SV-1DL  
Acq: 2 Mar 2022 19:00

Tgt Ion:117 Resp: 2232116  
Ion Ratio Lower Upper  
117 100  
82 67.2 54.9 82.3  
119 33.4 46.1 69.1#

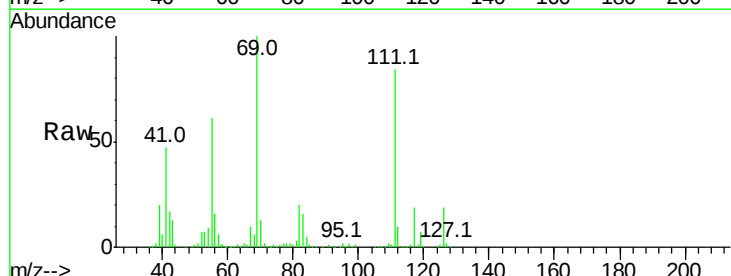


Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V

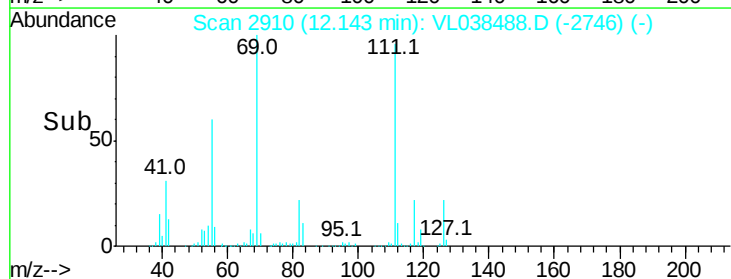
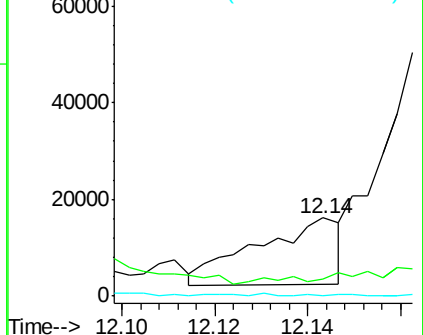


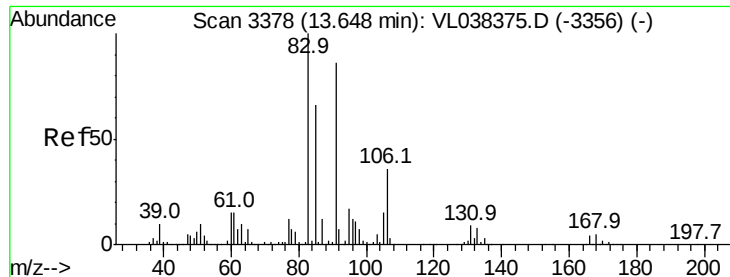
#57  
Chlorobenzene  
Concen: 0.10 ppbv  
RT: 12.14 min Scan# 2910  
Delta R.T. 0.03 min  
Lab File: VL038488.D  
Acq: 2 Mar 2022 19:06

Tgt Ion:112 Resp: 17217  
Ion Ratio Lower Upper  
112 100  
77 0.0 55.2 82.8#  
114 1.3 27.9 34.1#



Abundance Ion 112.10 (111.80 to 112.80): V  
Ion 77.10 (76.80 to 77.80): VL0  
Ion 114.10 (113.80 to 114.80): V





#63

1,1,2,2-Tetrachloroethane

Concen: 0.03 ppbv

RT: 13.66

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 2 Mar 2022 19:00

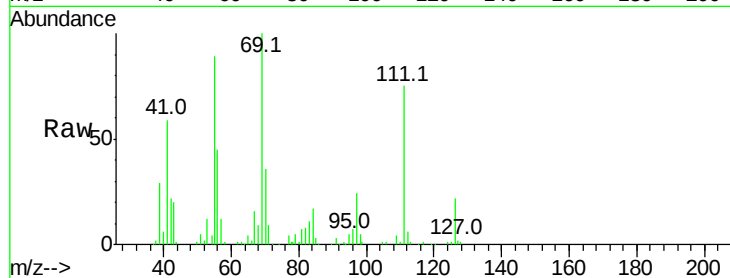
Tgt Ion: 83 Resp: 6819

Ion Ratio Lower Upper

83 100

131 0.0 4.5 13.7#

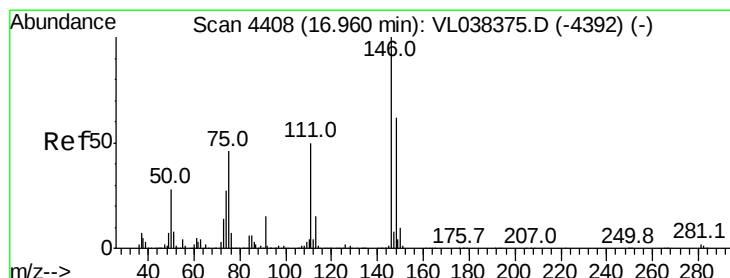
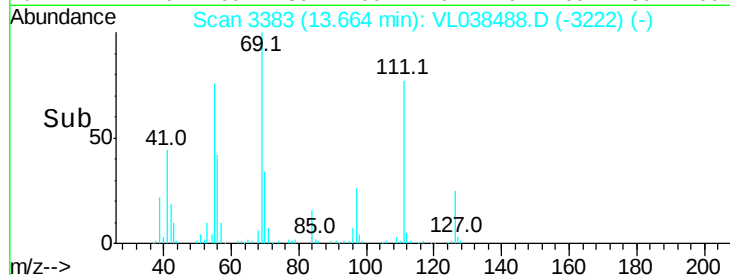
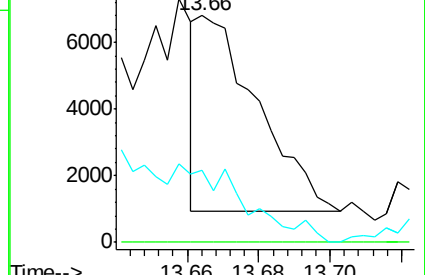
85 0.0 33.0 99.0#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VL0



#66

Benzyl Chloride

Concen: 0.04 ppbv

RT: 17.01 min Scan# 4423

Delta R.T. 0.05 min

Lab File: VL038488.D

Acq: 2 Mar 2022 19:06

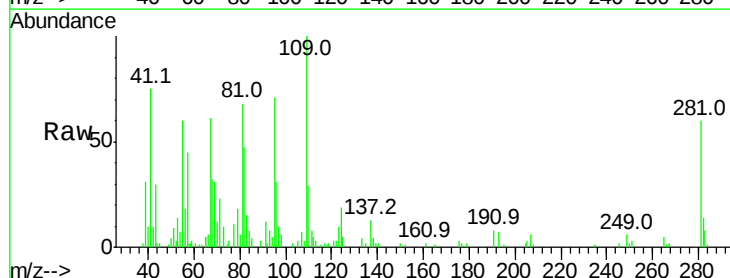
Tgt Ion: 91 Resp: 613

Ion Ratio Lower Upper

91 100

126 39.6 12.3 18.5#

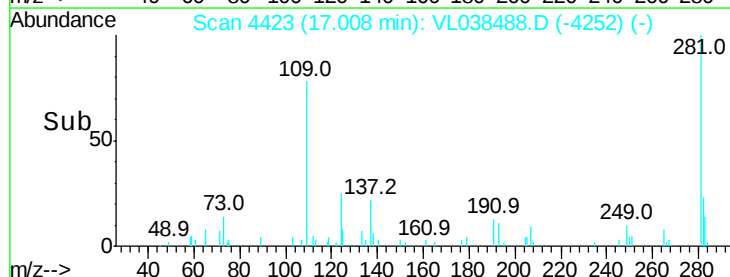
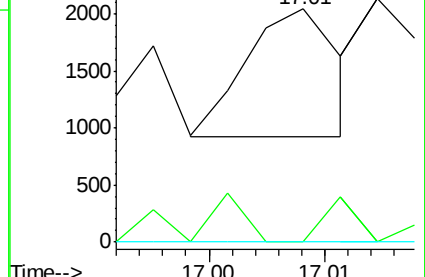
128 0.0 4.2 6.4#

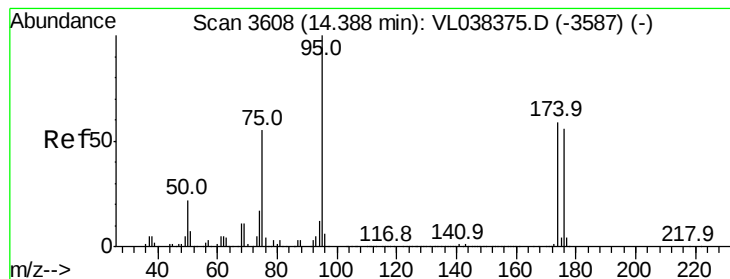


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 11.40 ppbv

RT: 14.41

Delta R.T: MSVOA\_L

Lab File: ClientSampleId :

Acq: 2 Mar 2022 19:00

Tgt Ion: 95 Resp: 2104765

Ion Ratio Lower Upper

95 100

174 54.7 49.0 73.4

175 4.1 3.6 5.4

