

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060322\  
 Data File : VL039162.D  
 Acq On : 3 Jun 2022 21:12  
 Operator : SY/AP  
 Sample : N3106-06DL 4X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2DL

Quant Time: Jun 04 00:17:30 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   | 1118991  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 2746468  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2368315  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.42  | 95    | 1932597  | 9.87     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.70% |

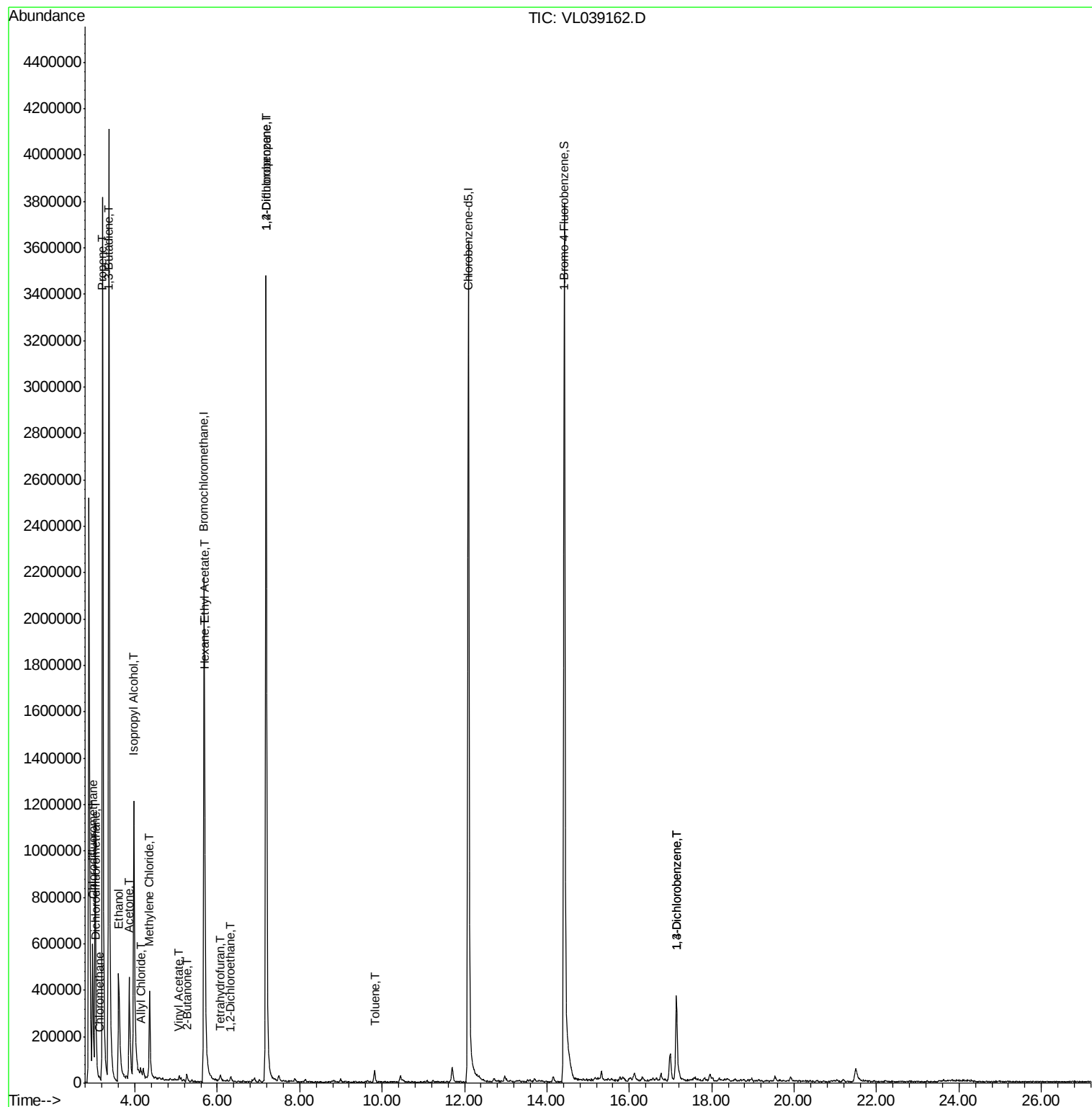
| Target Compounds           |       |     |         |                | Ovalue |
|----------------------------|-------|-----|---------|----------------|--------|
| 2) Dichlorodifluoromethane | 3.06  | 85  | 24231   | 0.123 ppbv     | 97     |
| 3) Chlorodifluoromethane   | 2.97  | 51  | 449691  | 3.158 ppbv #   | 58     |
| 4) Chloromethane           | 3.16  | 50  | 4127    | 0.056 ppbv #   | 64     |
| 9) Propene                 | 3.21  | 41  | 1470100 | 23.680 ppbv    | 92     |
| 13) Ethanol                | 3.61  | 45  | 705031  | 208.238 ppbv # | 100    |
| 15) Acetone                | 3.86  | 43  | 553461  | 4.748 ppbv     | 97     |
| 16) 1,3-Butadiene          | 3.37  | 39  | 653302  | 10.426 ppbv #  | 10     |
| 19) Isopropyl Alcohol      | 3.97  | 45  | 1617835 | 29.592 ppbv    | 100    |
| 20) Methylene Chloride     | 4.36  | 84  | 162236  | 3.303 ppbv     | 97     |
| 21) Allyl Chloride         | 4.14  | 41  | 8049    | 0.102 ppbv #   | 64     |
| 23) Vinyl Acetate          | 5.08  | 43  | 4589    | 0.048 ppbv #   | 26     |
| 25) Ethyl Acetate          | 5.70  | 43  | 103697  | 0.395 ppbv #   | 85     |
| 26) Hexane                 | 5.70  | 57  | 128918  | 1.117 ppbv #   | 42     |
| 34) 2-Butanone             | 5.26  | 43  | 18002   | 0.121 ppbv #   | 53     |
| 37) 1,2-Dichloroethane     | 6.32  | 62  | 5069    | 0.035 ppbv #   | 85     |
| 39) 1,2-Dichloropropane    | 7.18  | 63  | 756223  | 8.527 ppbv #   | 24     |
| 41) Tetrahydrofuran        | 6.06  | 42  | 4787    | 0.053 ppbv #   | 36     |
| 53) Toluene                | 9.82  | 91  | 13876   | 0.054 ppbv #   | 21     |
| 75) 1,3-Dichlorobenzene    | 17.14 | 146 | 171825  | 0.953 ppbv     | 88     |
| 76) 1,4-Dichlorobenzene    | 17.14 | 146 | 171825  | 0.955 ppbv     | 90     |

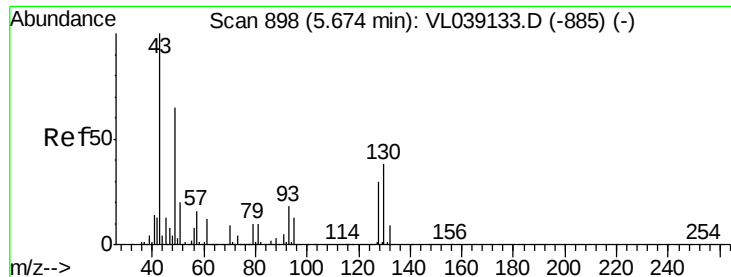
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2DL

Quant Time: Jun 04 00:17:30 2022  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jun 01 01:22:18 2022  
QLast Update : Wed Jun 01 01:22:18 2022  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File: IA2DL

Acq: 3 Jun 2022 21:12

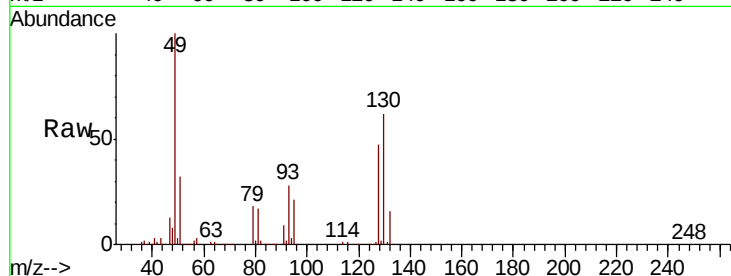
Tot Ion: 49 Resp: 1118991

| 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

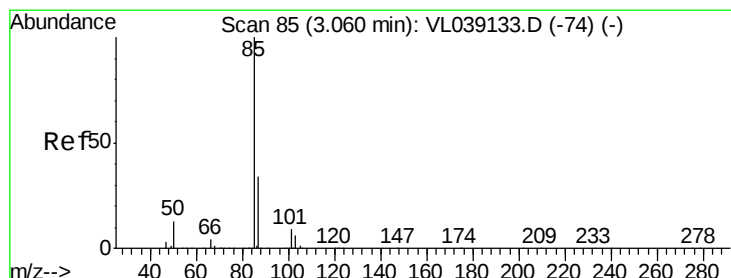
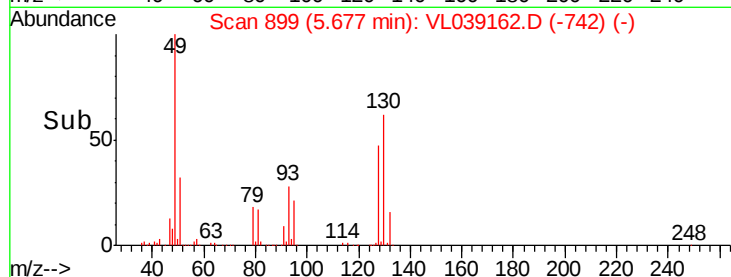
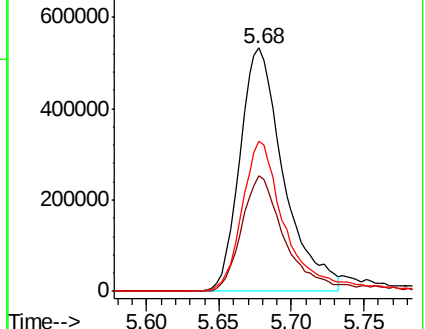
130 63.5 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.123 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.00 min

Lab File: VL039162.D

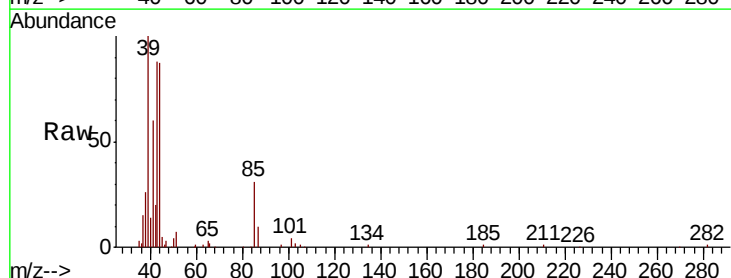
Acq: 3 Jun 2022 21:12

Tgt Ion: 85 Resp: 24231

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 85  | 100   |       |       |
| 87  | 31.6  | 26.9  | 40.3  |

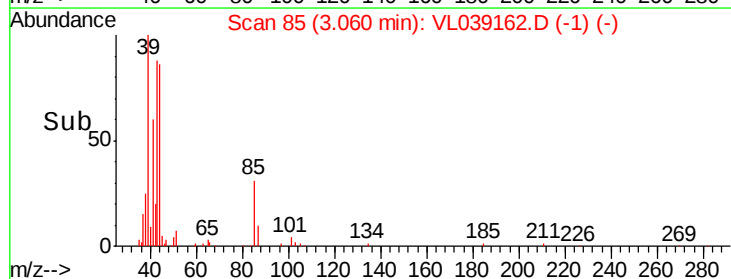
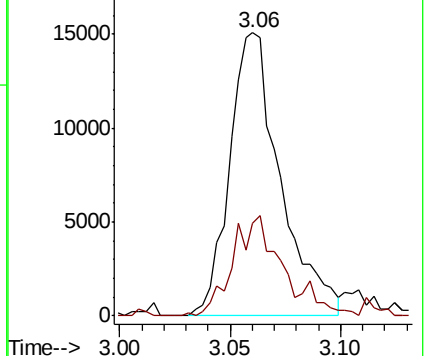
85 100

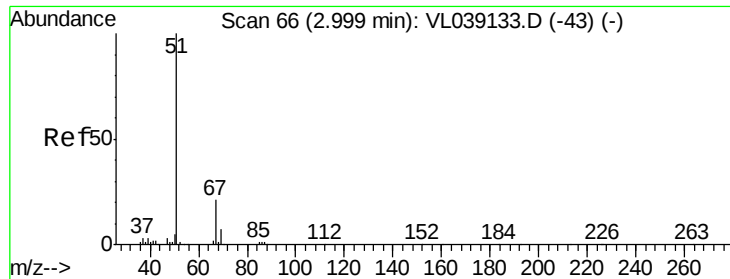
87 31.6 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 3.158 ppbv

RT: 2.97 Instrument: MSVOA\_1

Delta R.T. ClientSampleId:

Lab File: IA2DL

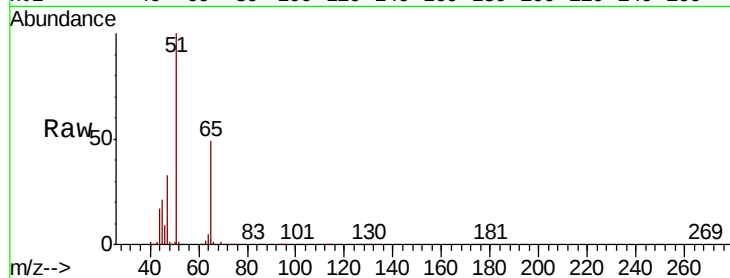
Acq: 3 Jun 2022 21:12

Tot Ion: 51 Resp: 449691

Ion Ratio Lower Upper

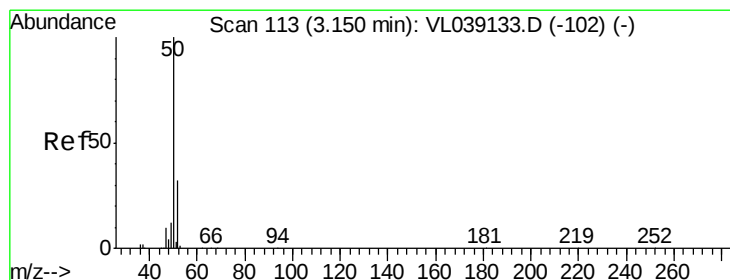
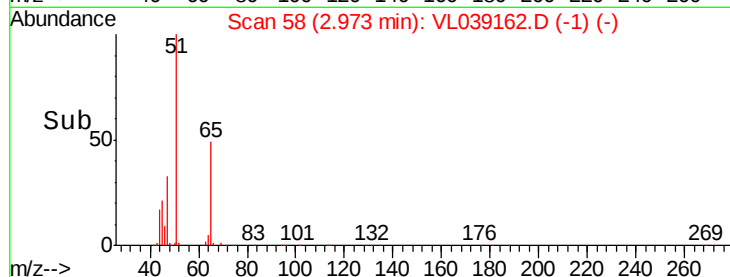
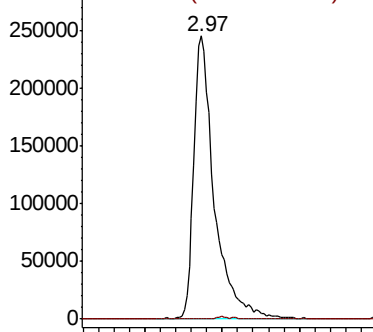
51 100

67 0.7 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: 0.056 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.01 min

Lab File: VL039162.D

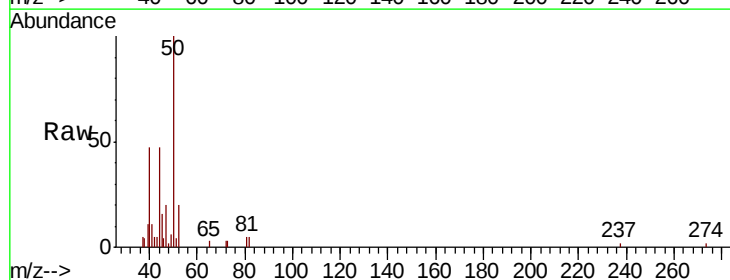
Acq: 3 Jun 2022 21:12

Tgt Ion: 50 Resp: 4127

Ion Ratio Lower Upper

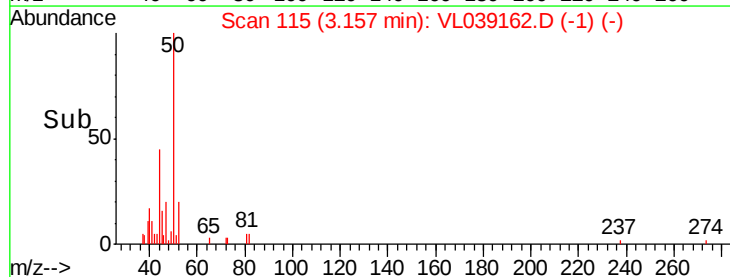
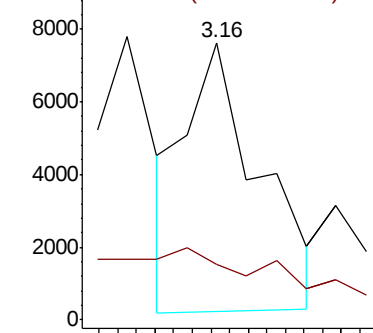
50 100

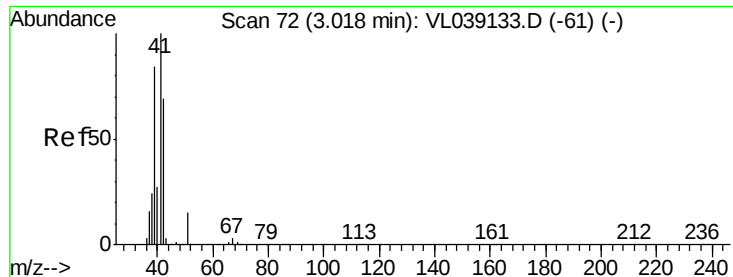
52 12.3 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 23.680 ppbv

RT: 3.21 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

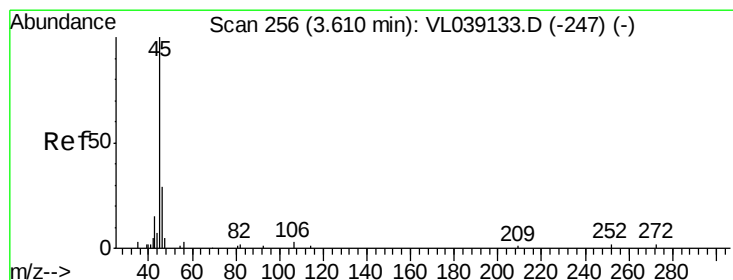
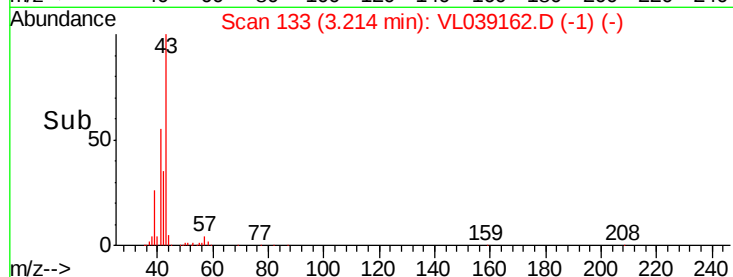
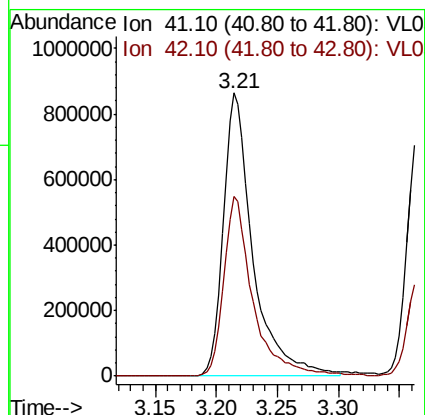
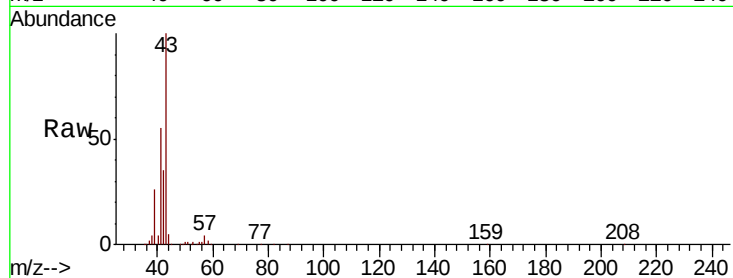
Acq: 3 Jun 2022 21:12

Tot Ion: 41 Resp: 1470100

Ion Ratio Lower Upper

41 100

42 62.9 55.4 83.2



#13

Ethanol

Concen: 208.238 ppbv

RT: 3.61 min Scan# 255

Delta R.T. -0.00 min

Lab File: VL039162.D

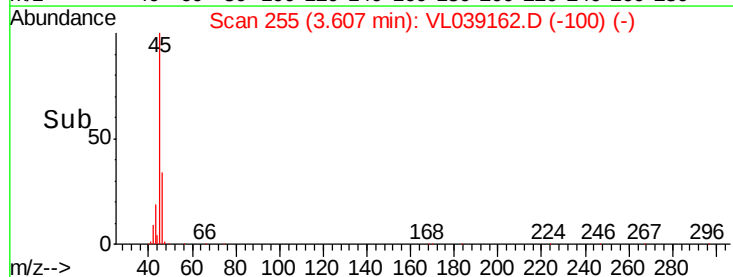
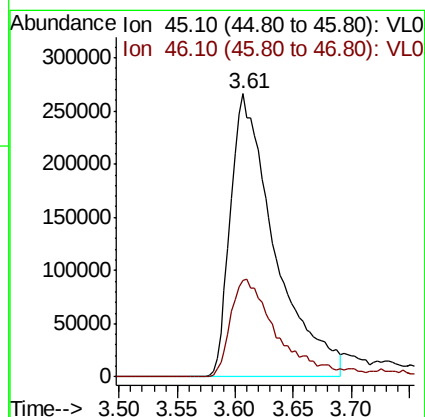
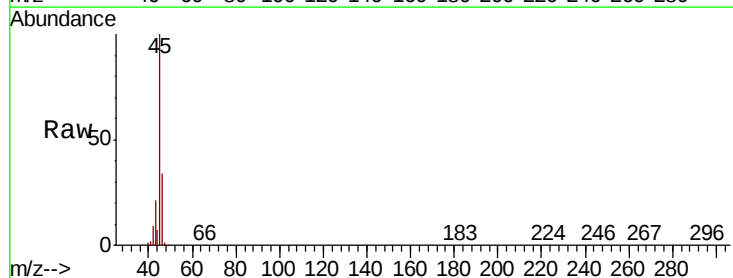
Acq: 3 Jun 2022 21:12

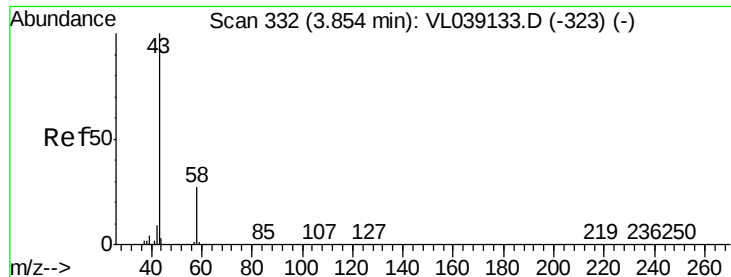
Tgt Ion: 45 Resp: 705031

Ion Ratio Lower Upper

45 100

46 40.6 0.0 0.0#





#15

Acetone

Concen: 4.748 ppbv

RT: 3.86

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

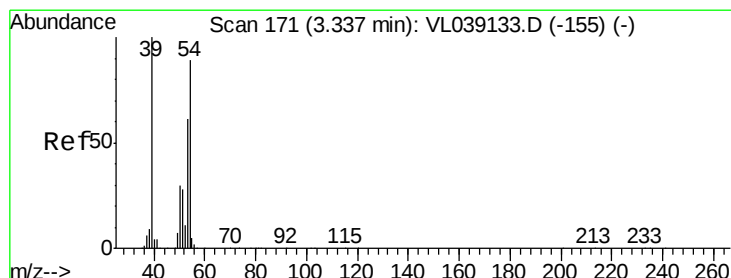
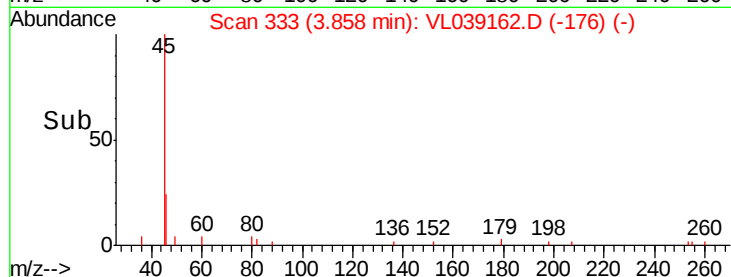
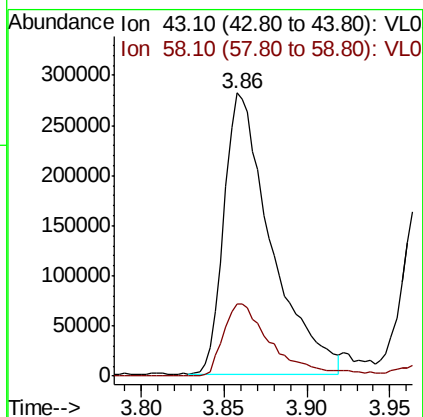
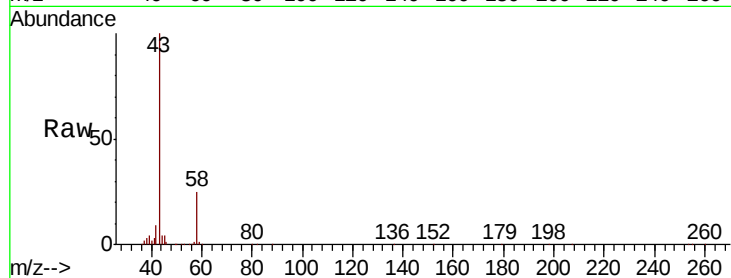
Acq: 3 Jun 2022 21:12

Tot Ion: 43 Resp: 553461

Ion Ratio Lower Upper

43 100

58 26.6 22.5 33.7



#16

1,3-Butadiene

Concen: 10.426 ppbv

RT: 3.37 min Scan# 181

Delta R.T. 0.03 min

Lab File: VL039162.D

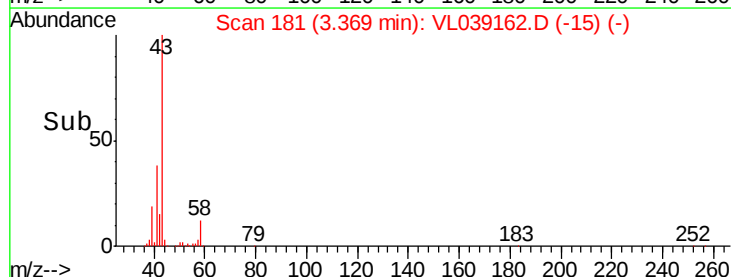
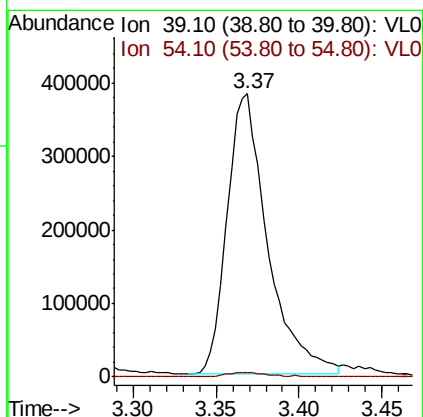
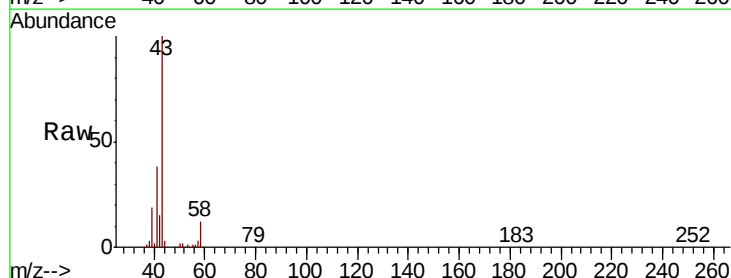
Acq: 3 Jun 2022 21:12

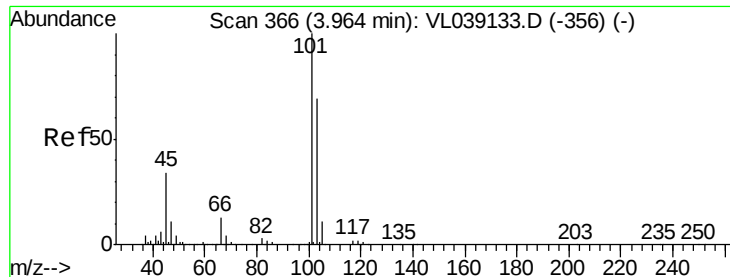
Tgt Ion: 39 Resp: 653302

Ion Ratio Lower Upper

39 100

54 1.8 65.8 98.6#





#19

Isopropyl Alcohol

Concen: 29.592 ppbv

RT: 3.97

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

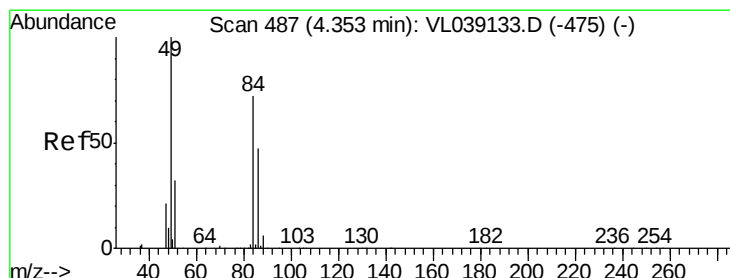
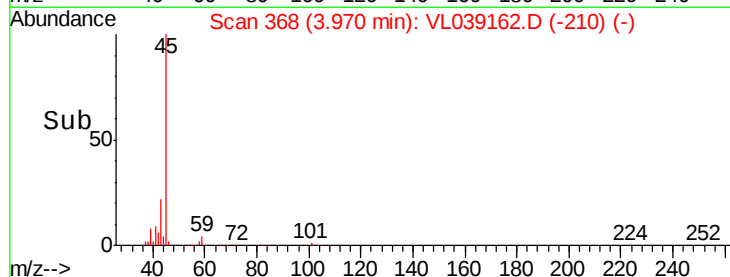
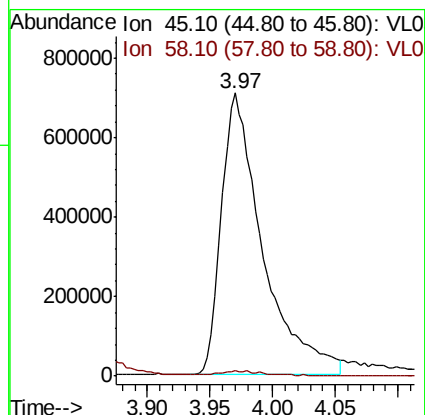
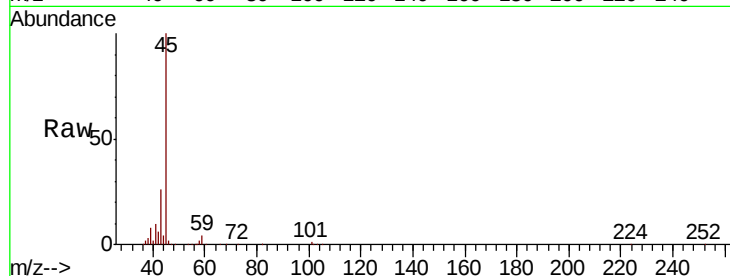
Acq: 3 Jun 2022 21:12

Tot Ion: 45 Resp: 1617835

Ion Ratio Lower Upper

45 100

58 2.4 1.8 2.8



#20

Methylene Chloride

Concen: 3.303 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.00 min

Lab File: VL039162.D

Acq: 3 Jun 2022 21:12

Tgt Ion: 84 Resp: 162236

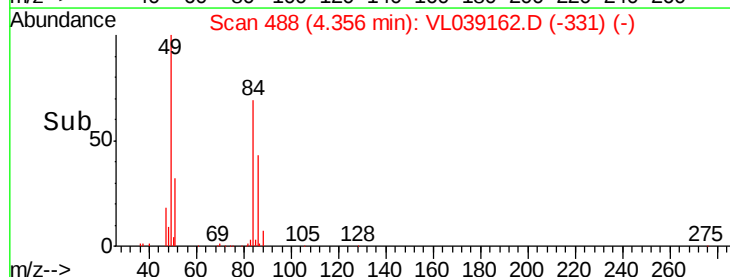
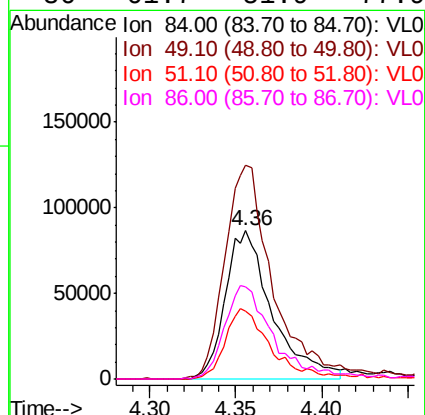
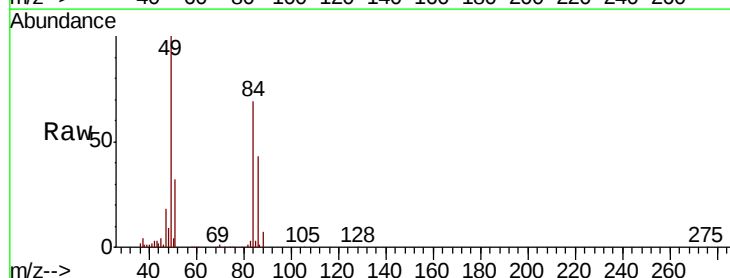
Ion Ratio Lower Upper

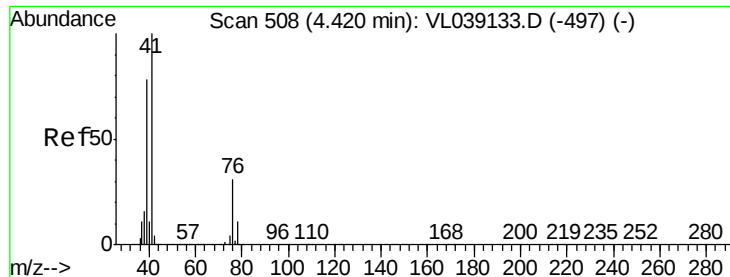
84 100

49 142.8 111.1 166.7

51 45.6 35.3 52.9

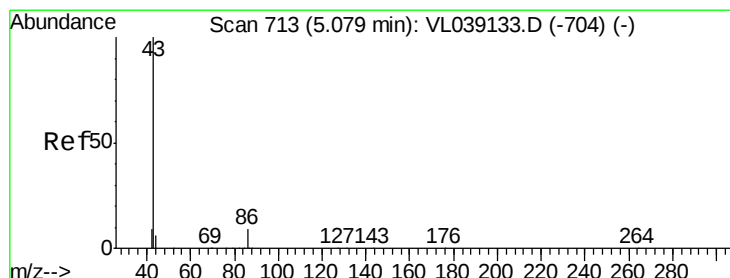
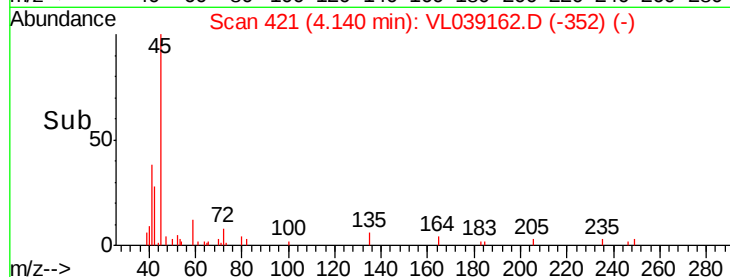
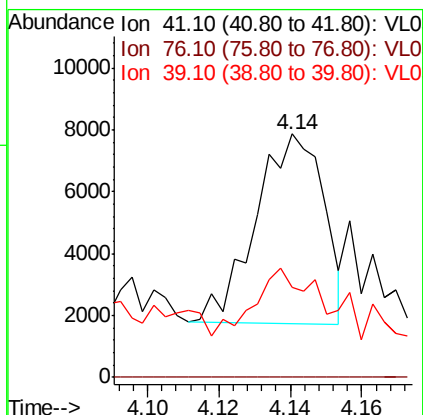
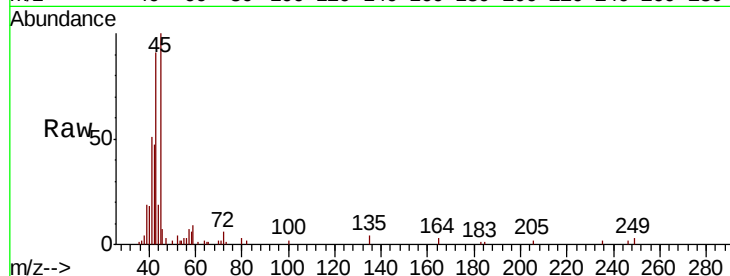
86 61.7 51.9 77.9





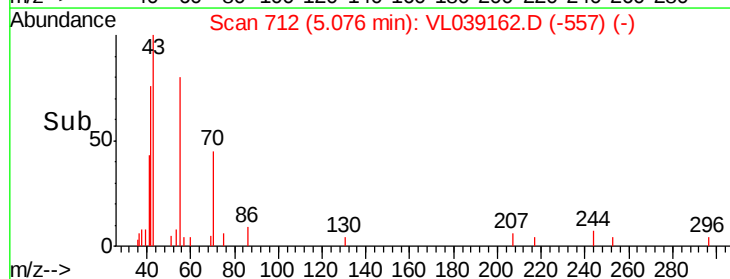
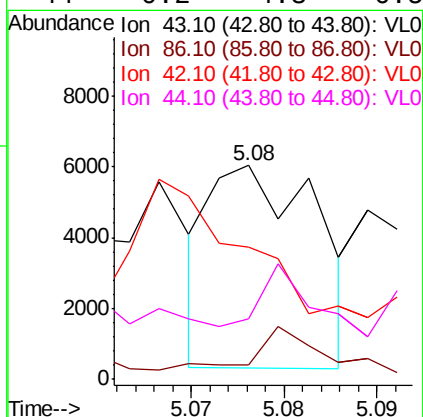
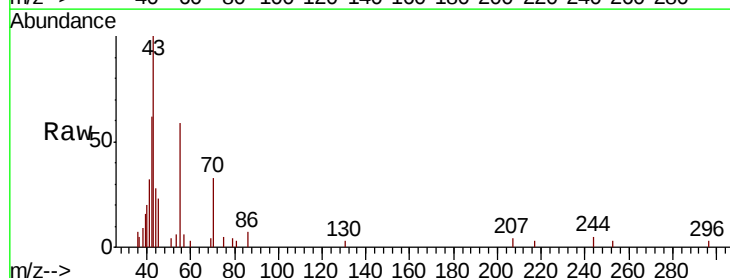
#21  
Allvl Chloride  
Concen: 0.102 ppbv  
RT: 4.14  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 3 Jun 2022 21:12

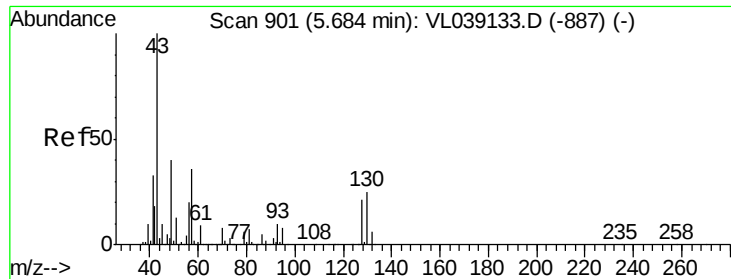
Tot Ion: 41 Resp: 8049  
Ion Ratio Lower Upper  
41 100  
76 0.0 24.2 36.2#  
39 53.6 62.2 93.2#



#23  
Vinyl Acetate  
Concen: 0.048 ppbv  
RT: 5.08 min Scan# 712  
Delta R.T. -0.00 min  
Lab File: VL039162.D  
Acq: 3 Jun 2022 21:12

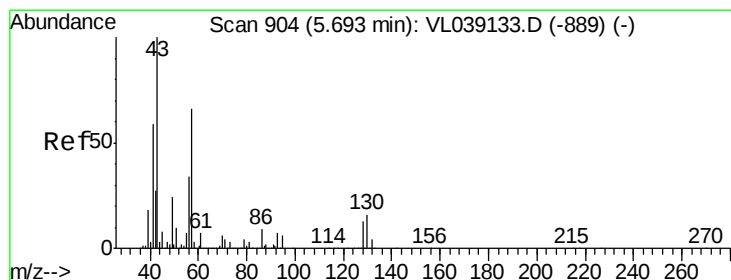
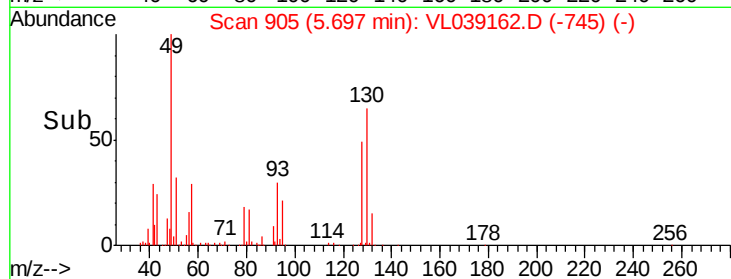
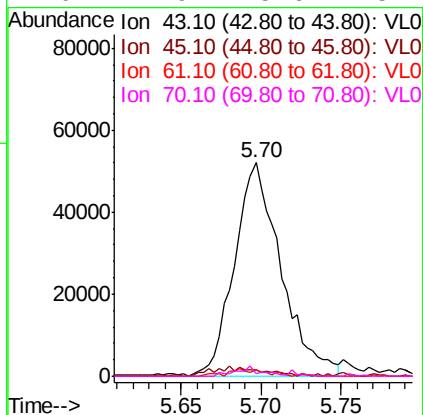
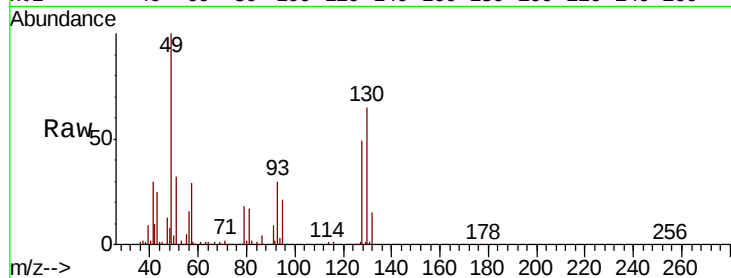
Tgt Ion: 43 Resp: 4589  
Ion Ratio Lower Upper  
43 100  
86 0.0 6.0 9.0#  
42 63.7 8.2 12.4#  
44 0.2 4.3 6.5#





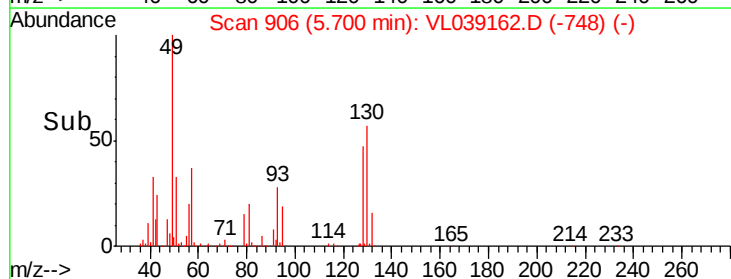
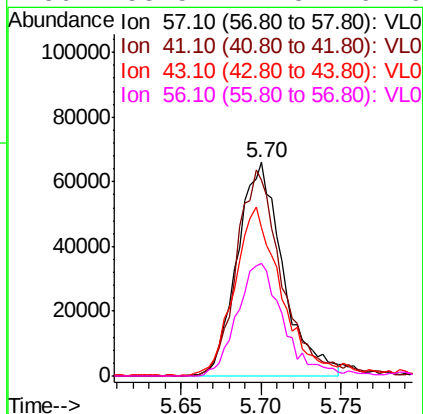
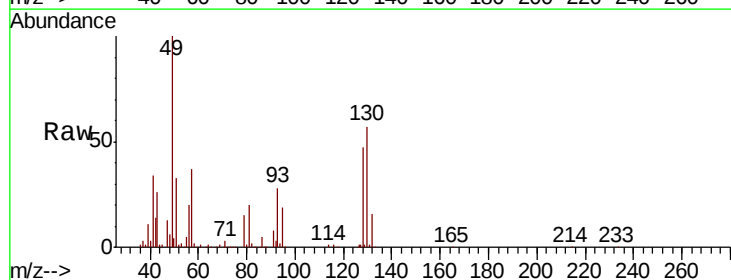
#25  
Ethyl Acetate  
Concen: 0.395 ppbv  
RT: 5.70 min  
Delta R.T.: 0.01 min  
Lab File: VL039162.D  
Acq: 3 Jun 2022 21:12

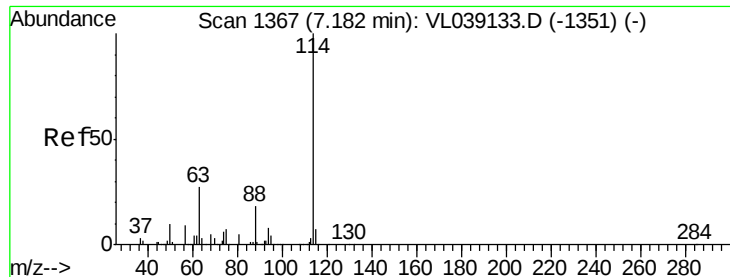
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 103697 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 6.1   | 8.2   | 12.2#  |
| 61       | 3.0   | 8.4   | 12.6#  |
| 70       | 2.9   | 5.6   | 8.4#   |



#26  
Hexane  
Concen: 1.117 ppbv  
RT: 5.70 min Scan# 906  
Delta R.T.: 0.01 min  
Lab File: VL039162.D  
Acq: 3 Jun 2022 21:12

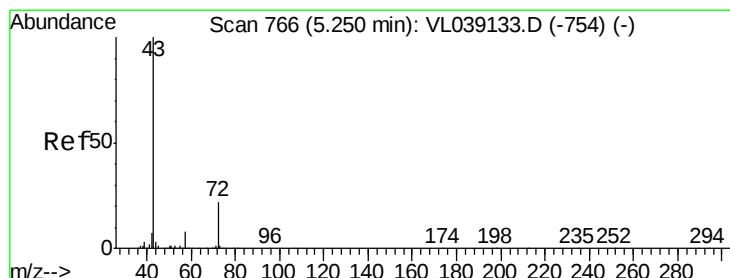
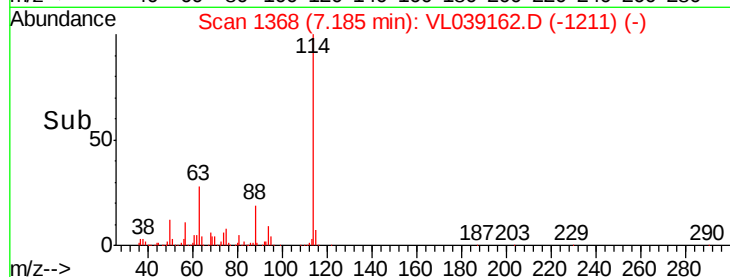
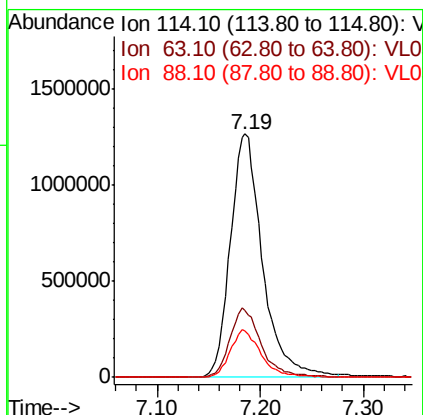
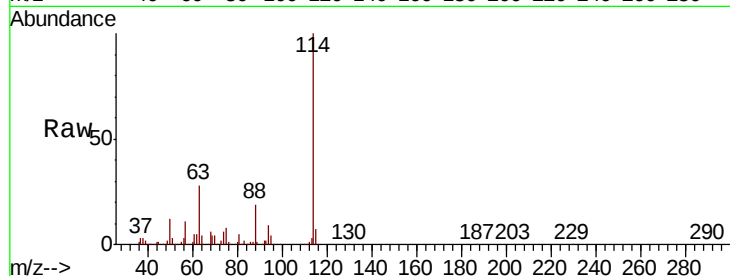
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 57    | Resp: | 128918 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 98.9  | 72.4  | 108.6  |
| 43       | 83.7  | 187.0 | 280.6# |
| 56       | 53.5  | 41.8  | 62.6   |





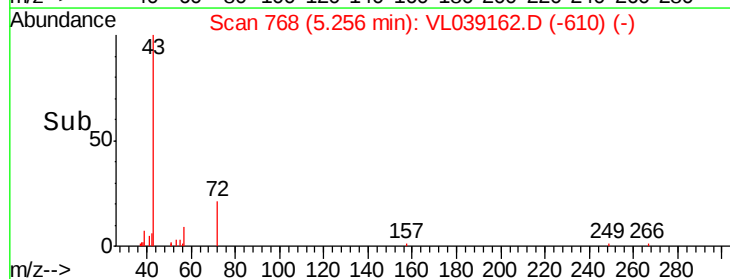
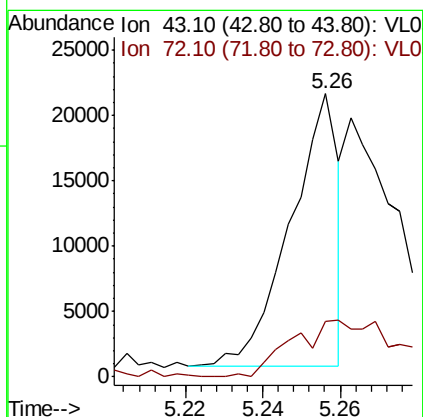
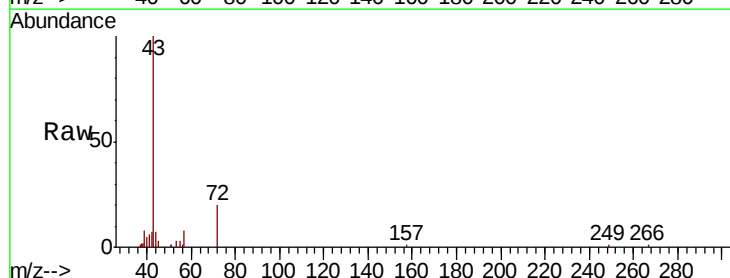
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.19  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 3 Jun 2022 21:12

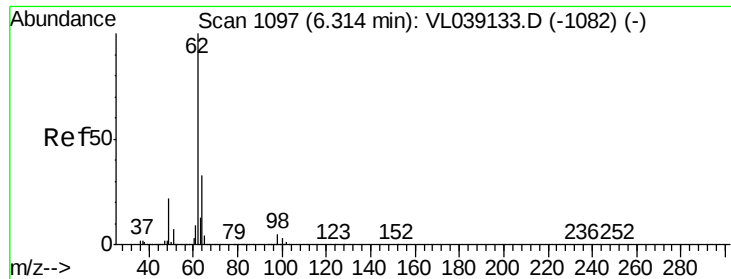
Tot Ion:114 Resp: 2746468  
 Ion Ratio Lower Upper  
 114 100  
 63 28.0 21.7 32.5  
 88 19.2 14.8 22.2



#34  
 2-Butanone  
 Concen: 0.121 ppbv  
 RT: 5.26 min Scan# 768  
 Delta R.T. 0.01 min  
 Lab File: VL039162.D  
 Acq: 3 Jun 2022 21:12

Tgt Ion: 43 Resp: 18002  
 Ion Ratio Lower Upper  
 43 100  
 72 0.0 18.2 27.2#





#37

1,2-Dichloroethane

Concen: 0.035 ppbv

RT: 6.32 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

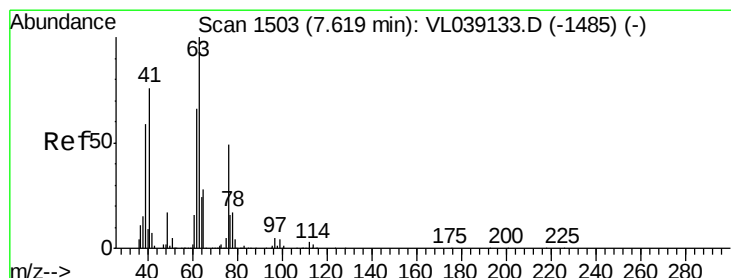
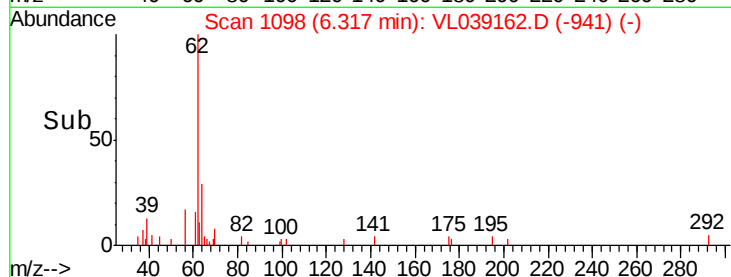
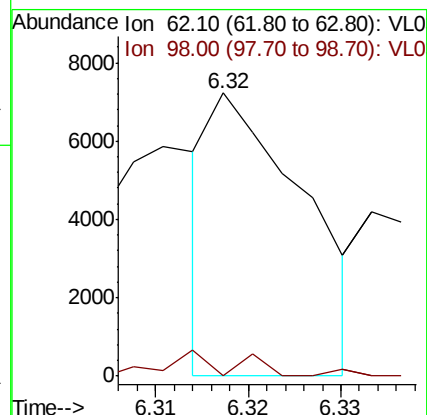
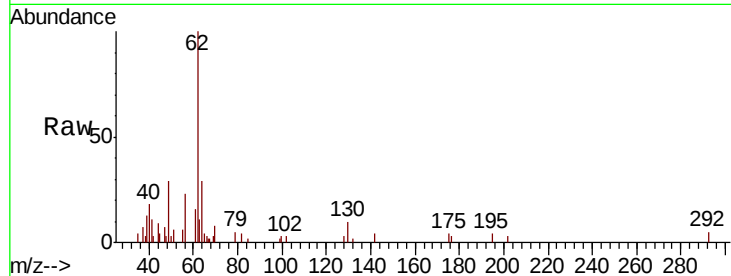
Acq: 3 Jun 2022 21:12

Tot Ion: 62 Resp: 5069

Ion Ratio Lower Upper

62 100

98 10.3 4.3 6.5#



#39

1,2-Dichloropropane

Concen: 8.527 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.44 min

Lab File: VL039162.D

Acq: 3 Jun 2022 21:12

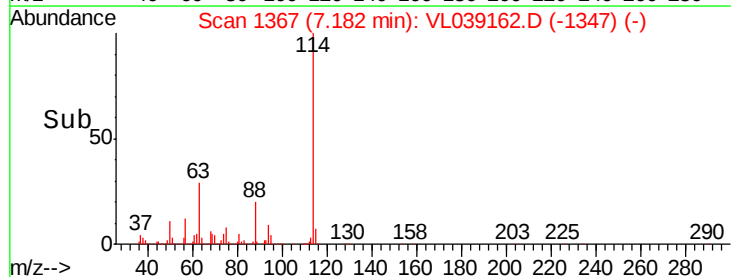
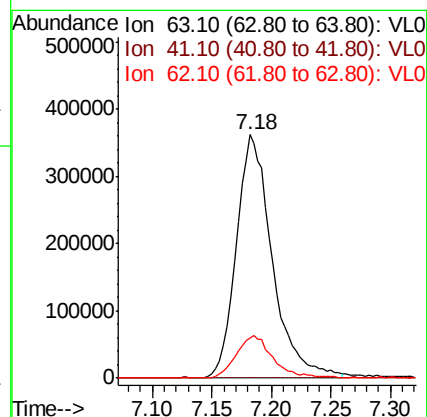
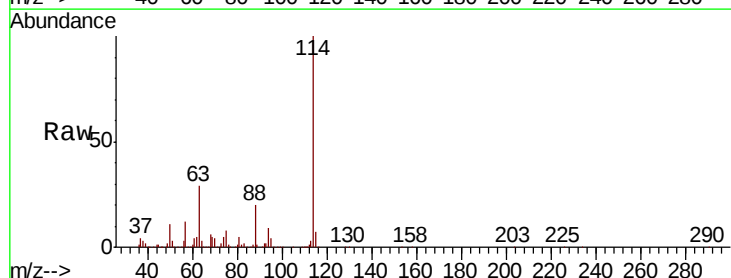
Tgt Ion: 63 Resp: 756223

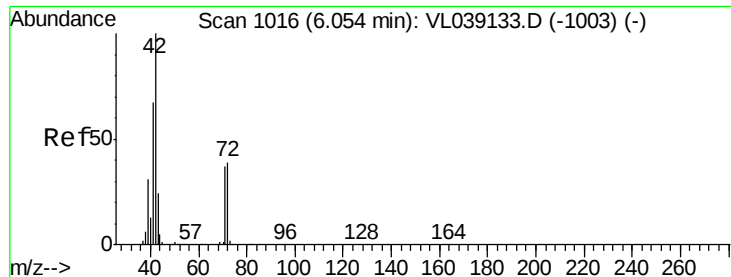
Ion Ratio Lower Upper

63 100

41 0.0 60.8 91.2#

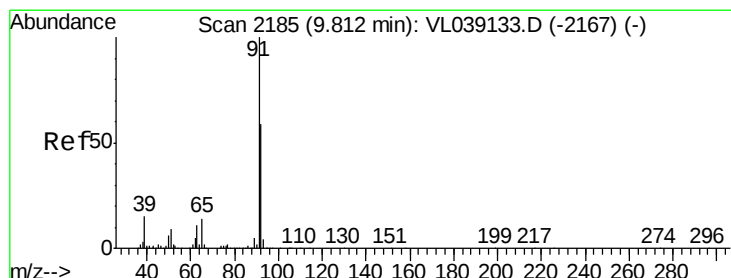
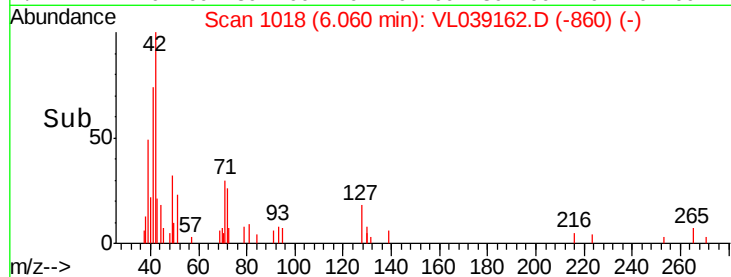
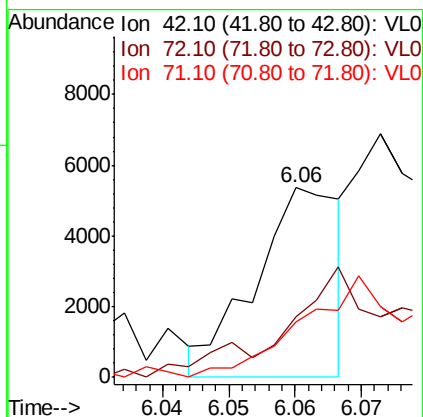
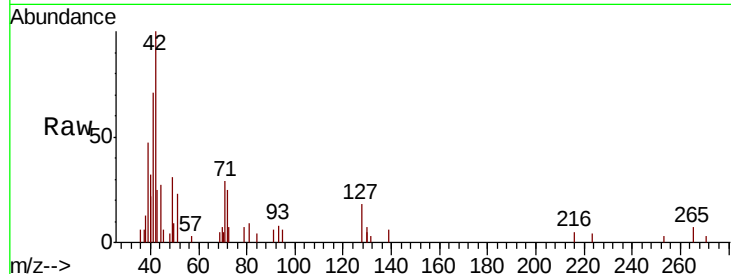
62 16.3 52.9 79.3#





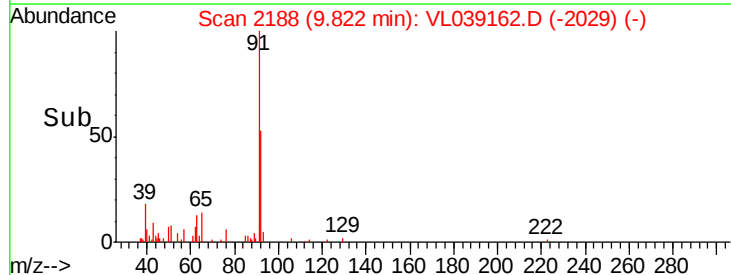
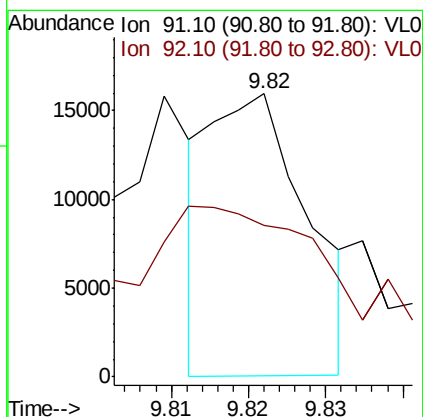
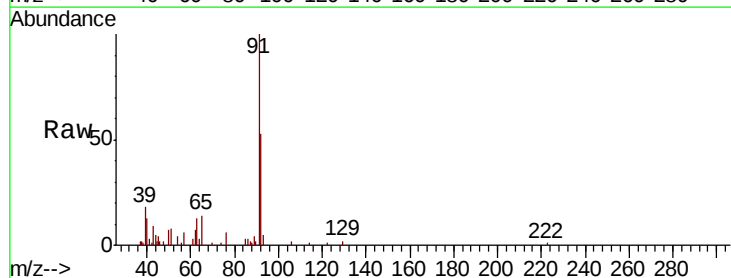
#41  
Tetrahydrofuran  
Concen: 0.053 ppbv  
RT: 6.06  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId:  
Acq: 3 Jun 2022 21:12

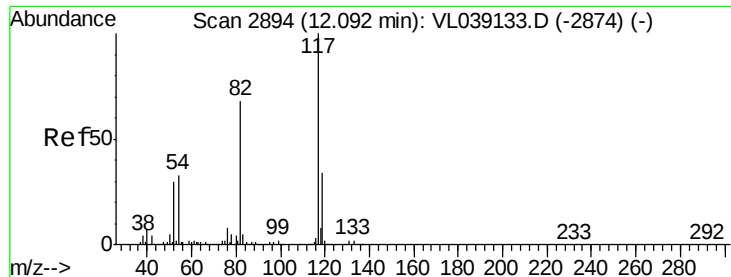
| Tot Ion   | 42    | Resp  | 4787  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 42        | 100   |       |       |
| 72        | 0.0   | 32.0  | 48.0# |
| 71        | 0.0   | 31.1  | 46.7# |



#53  
Toluene  
Concen: 0.054 ppbv  
RT: 9.82 min Scan# 2188  
Delta R.T.: 0.01 min  
Lab File: VL039162.D  
Acq: 3 Jun 2022 21:12

| Tgt Ion   | 91    | Resp  | 13876 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 92        | 0.0   | 48.1  | 72.1# |

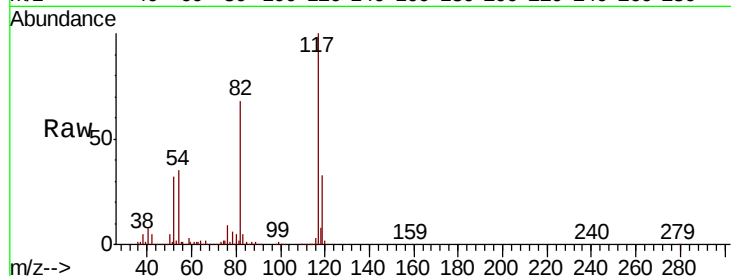




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.10 min  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 3 Jun 2022 21:12

Tot Ion: 117 Resp: 2368315

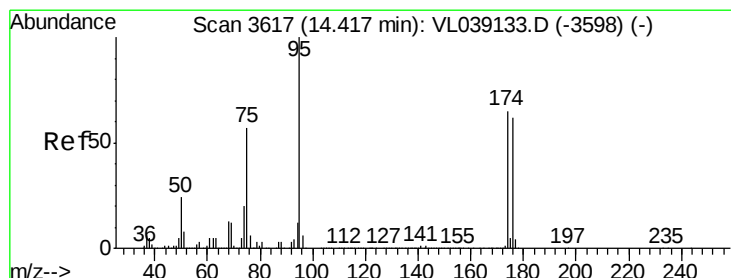
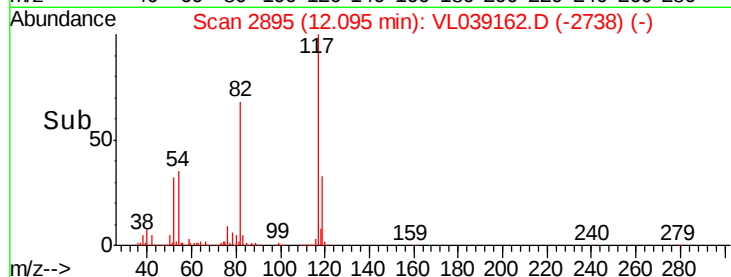
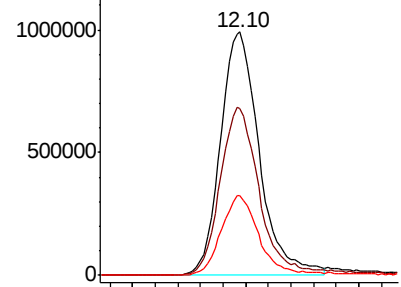
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 117 | 100   |       |       |
| 82  | 71.8  | 55.1  | 82.7  |
| 119 | 33.4  | 24.7  | 37.1  |



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

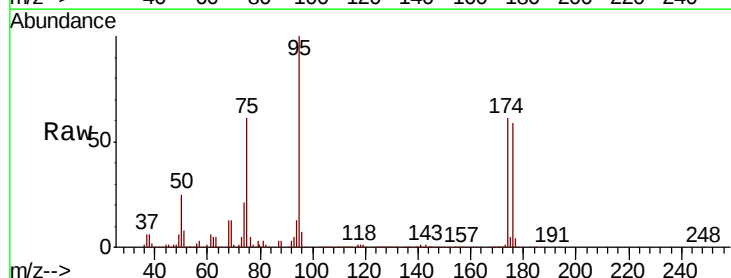
Ion 119.10 (118.80 to 119.80): V



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.870 ppbv  
RT: 14.42 min Scan# 3619  
Delta R.T. 0.01 min  
Lab File: VL039162.D  
Acq: 3 Jun 2022 21:12

Tgt Ion: 95 Resp: 1932597

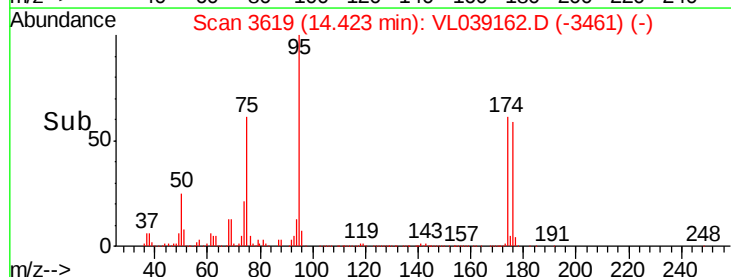
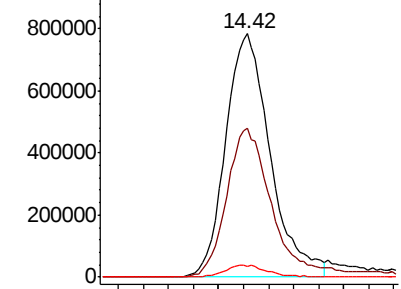
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 174 | 66.1  | 53.8  | 80.8  |
| 175 | 4.9   | 4.1   | 6.1   |

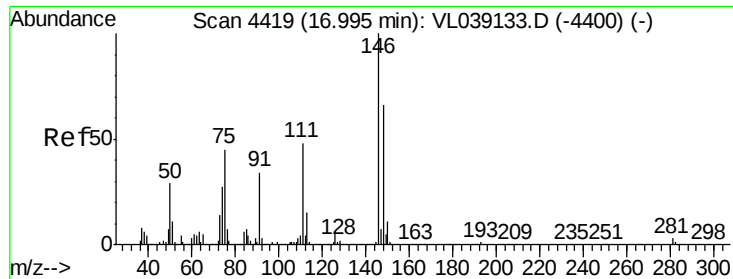


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

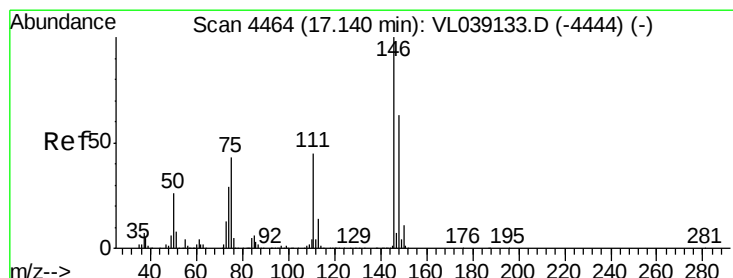
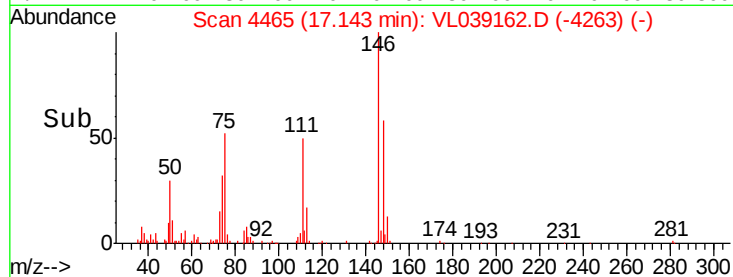
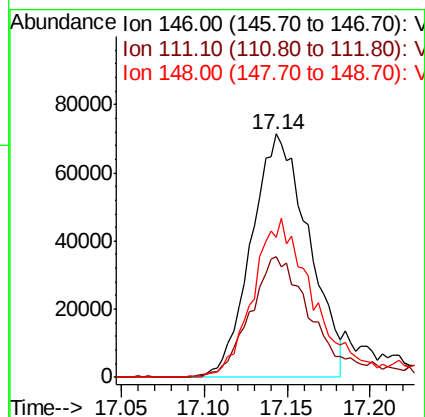
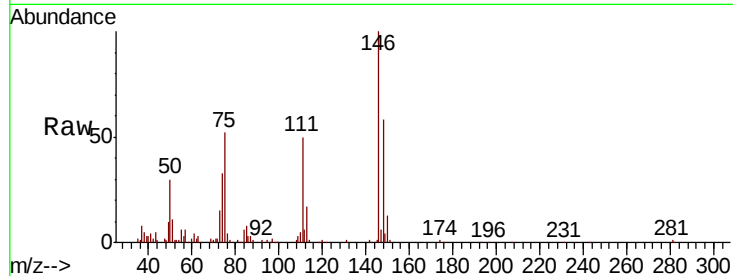
Ion 175.00 (174.70 to 175.70): V





#75  
 1,3-Dichlorobenzene  
 Concen: 0.953 ppbv  
 RT: 17.14 min  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 3 Jun 2022 21:12

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 146   | Resp: | 171825 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 56.4  | 23.8  | 71.4   |
| 148      | 73.2  | 32.4  | 97.0   |



#76  
 1,4-Dichlorobenzene  
 Concen: 0.955 ppbv  
 RT: 17.14 min Scan# 4465  
 Delta R.T. 0.00 min  
 Lab File: VL039162.D  
 Acq: 3 Jun 2022 21:12

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 171825 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 56.4  | 23.6  | 71.0   |
| 148      | 73.2  | 33.7  | 101.0  |

