

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071922\  
 Data File : VL039496.D  
 Acq On : 20 Jul 2022 00:57  
 Operator : SY/AP  
 Sample : N3750-06  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA-2

Quant Time: Jul 20 05:41:02 2022  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062922AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Jul 06 02:15:38 2022  
 QLast Update : Wed Jul 06 02:15:38 2022  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 1124800  | 10.00 | ppbv  | 0.03     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 3117000  | 10.00 | ppbv  | 0.03     |
| 55) Chlorobenzene-d5    | 12.10 | 117  | 2769563  | 10.00 | ppbv  | 0.03     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.43  | 95    | 2081612  | 10.13    | ppbv | 0.04    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.30% |

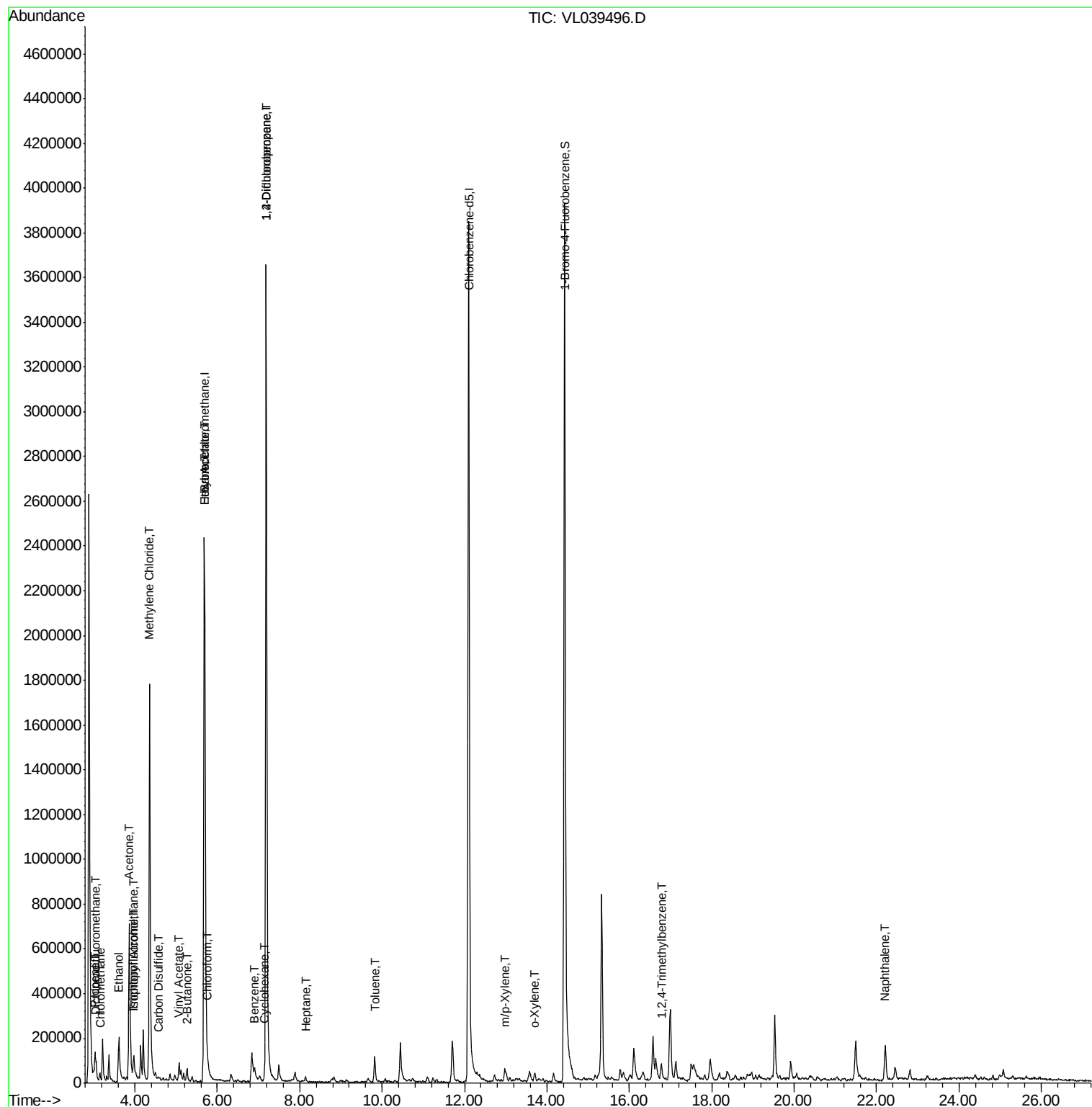
| Target Compounds           | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|----------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.06  | 85   | 53968    | 0.333  | ppbv   | 93     |
| 4) Chloromethane           | 3.15  | 50   | 33311    | 0.427  | ppbv   | 95     |
| 9) Propene                 | 3.02  | 41   | 32040    | 0.497  | ppbv   | 96     |
| 10) Heptane                | 8.14  | 43   | 6714     | 0.044  | ppbv # | 49     |
| 11) Trichlorofluoromethane | 3.96  | 101  | 35009    | 0.194  | ppbv   | 97     |
| 13) Ethanol                | 3.61  | 45   | 296035   | 79.176 | ppbv   | 74     |
| 15) Acetone                | 3.86  | 43   | 909354   | 6.834  | ppbv   | 95     |
| 19) Isopropyl Alcohol      | 3.98  | 45   | 69367    | 0.977  | ppbv # | 1      |
| 20) Methylene Chloride     | 4.36  | 84   | 727138   | 13.709 | ppbv   | 97     |
| 23) Vinyl Acetate          | 5.08  | 43   | 56397    | 0.634  | ppbv # | 72     |
| 25) Ethyl Acetate          | 5.70  | 43   | 399664   | 1.465  | ppbv # | 78     |
| 26) Hexane                 | 5.70  | 57   | 551968   | 5.018  | ppbv # | 39     |
| 27) Carbon Disulfide       | 4.56  | 76   | 5418     | 0.041  | ppbv # | 68     |
| 29) Chloroform             | 5.76  | 83   | 11561    | 0.060  | ppbv # | 81     |
| 30) Cyclohexane            | 7.14  | 84   | 3045     | 0.030  | ppbv # | 1      |
| 34) 2-Butanone             | 5.26  | 43   | 41118    | 0.262  | ppbv # | 43     |
| 36) Benzene                | 6.90  | 78   | 25504    | 0.106  | ppbv # | 86     |
| 39) 1,2-Dichloropropane    | 7.19  | 63   | 751658   | 8.340  | ppbv # | 25     |
| 53) Toluene                | 9.83  | 91   | 25217    | 0.091  | ppbv # | 21     |
| 59) m/p-Xylene             | 13.00 | 91   | 11587    | 0.037  | ppbv # | 32     |
| 60) o-Xylene               | 13.71 | 91   | 25151    | 0.084  | ppbv   | 84     |
| 74) 1,2,4-Trimethylbenzene | 16.78 | 105  | 51627    | 0.145  | ppbv # | 65     |
| 79) Naphthalene            | 22.21 | 128  | 202261   | 0.824  | ppbv   | 95     |

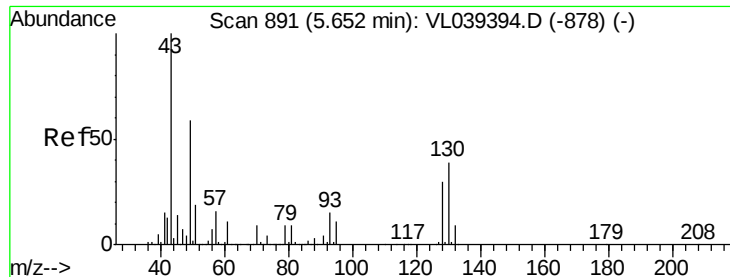
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL071922\  
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Instrument :  
MSVOA\_L  
ClientSampleId :  
IA-2

Quant Time: Jul 20 05:41:02 2022  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL062922AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Jul 06 02:15:38 2022  
QLast Update : Wed Jul 06 02:15:38 2022  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 20 Jul 2022 00:57

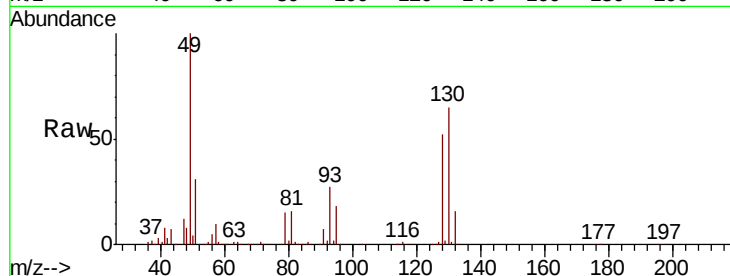
Tot Ion: 49 Resp: 1124800

Ion Ratio Lower Upper

49 100

128 53.1 26.7 80.0

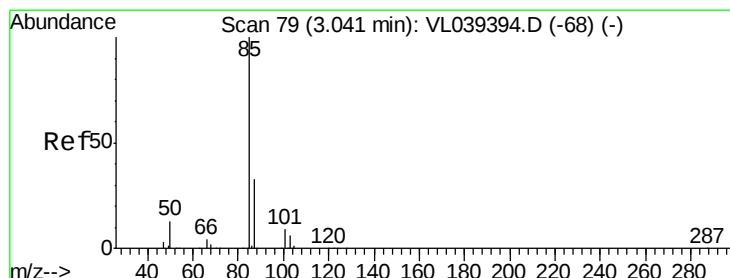
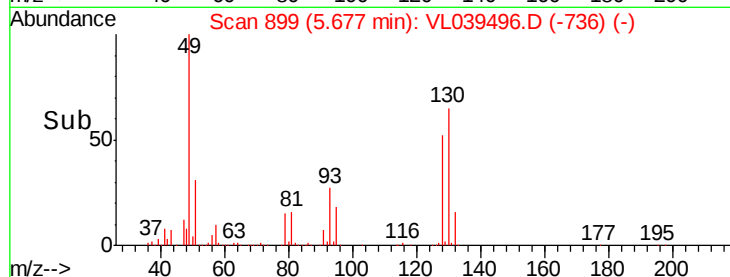
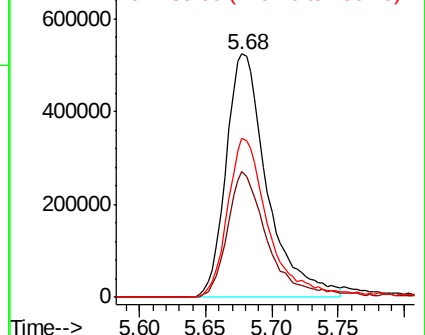
130 68.0 34.3 102.8



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: 0.333 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.02 min

Lab File: VL039496.D

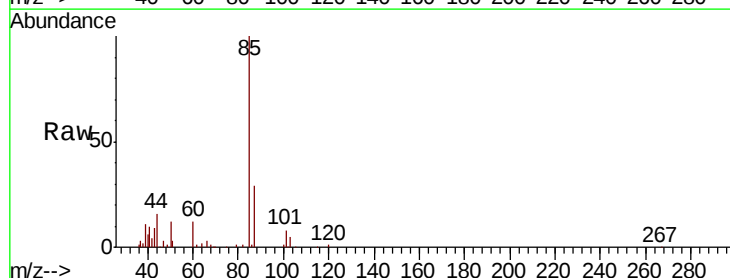
Acq: 20 Jul 2022 00:57

Tgt Ion: 85 Resp: 53968

Ion Ratio Lower Upper

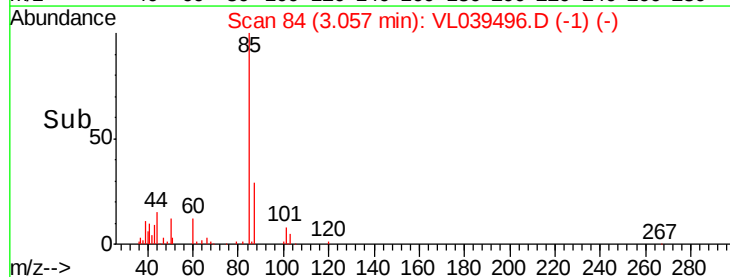
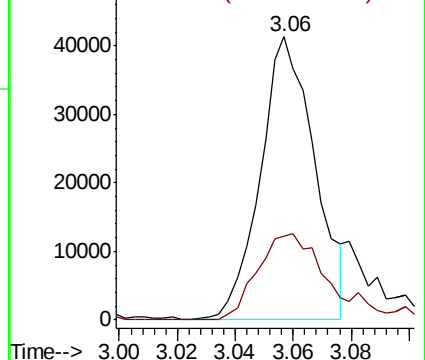
85 100

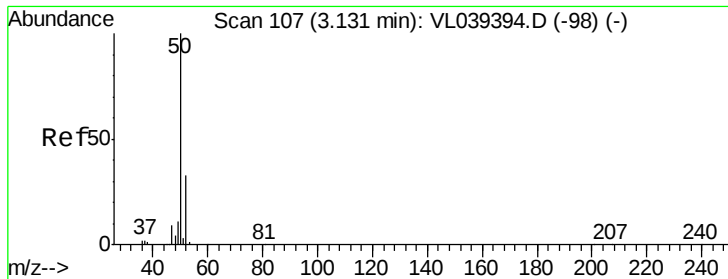
87 29.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.427 ppbv

RT: 3.15 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

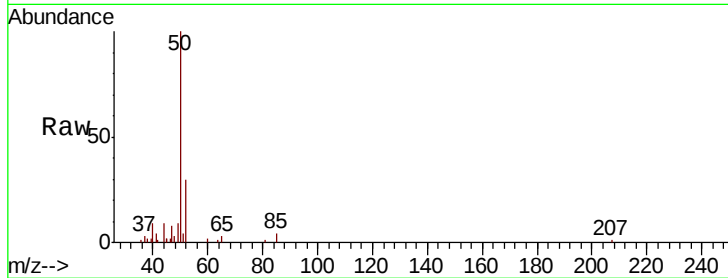
Acq: 20 Jul 2022 00:57

Tot Ion: 50 Resp: 33311

Ion Ratio Lower Upper

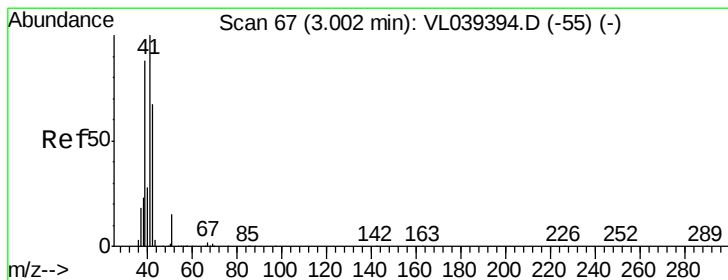
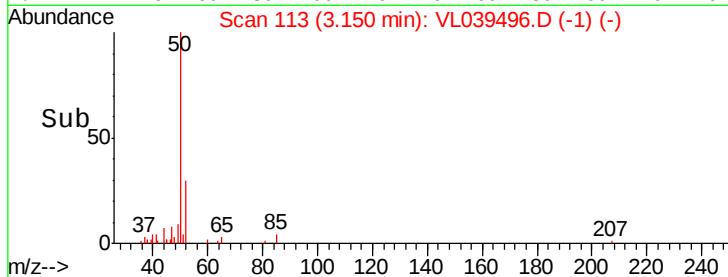
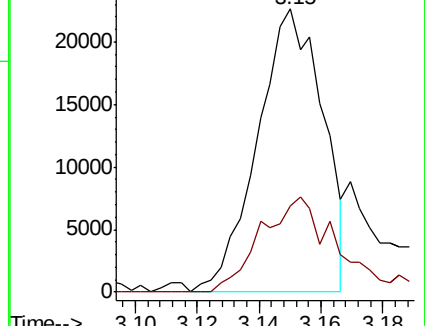
50 100

52 30.5 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.497 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL039496.D

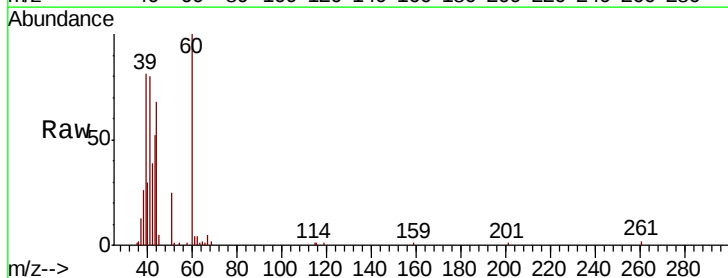
Acq: 20 Jul 2022 00:57

Tgt Ion: 41 Resp: 32040

Ion Ratio Lower Upper

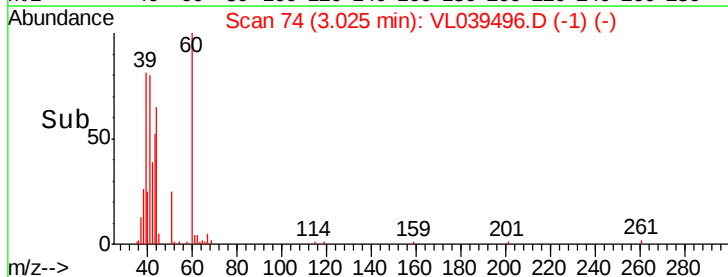
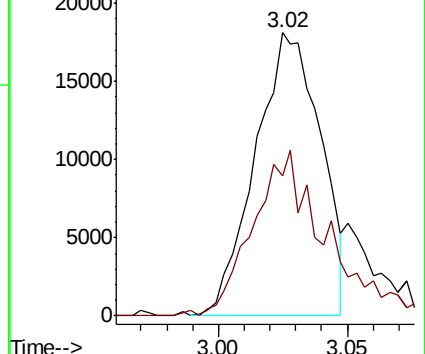
41 100

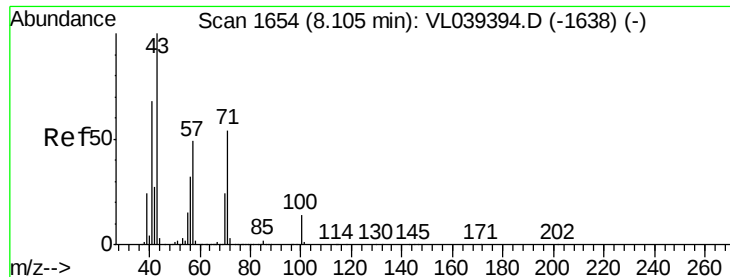
42 66.0 55.2 82.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.044 ppbv

RT: 8.14 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

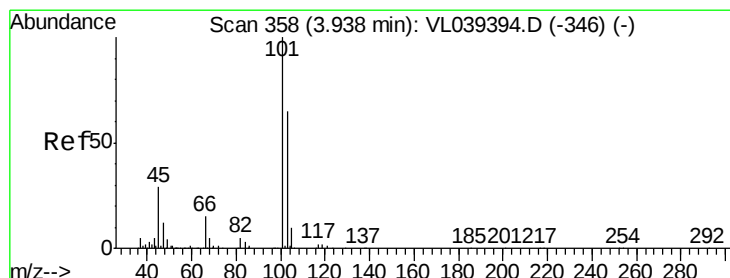
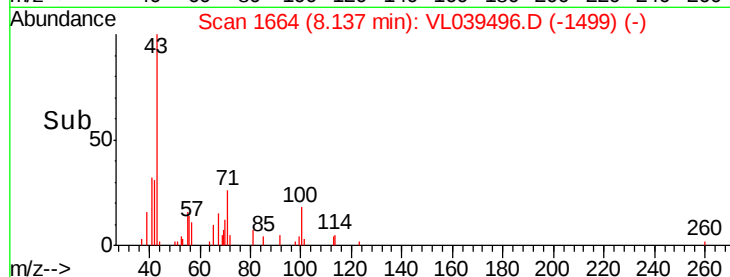
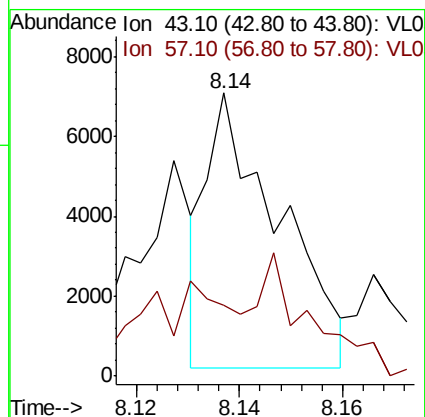
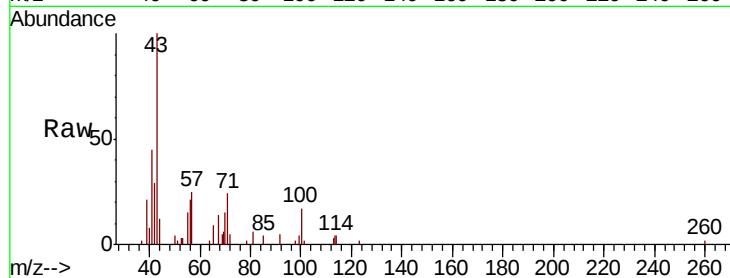
Acq: 20 Jul 2022 00:57

Tot Ion: 43 Resp: 6714

Ion Ratio Lower Upper

43 100

57 86.2 40.5 60.7#



#11

Trichlorofluoromethane

Concen: 0.194 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.02 min

Lab File: VL039496.D

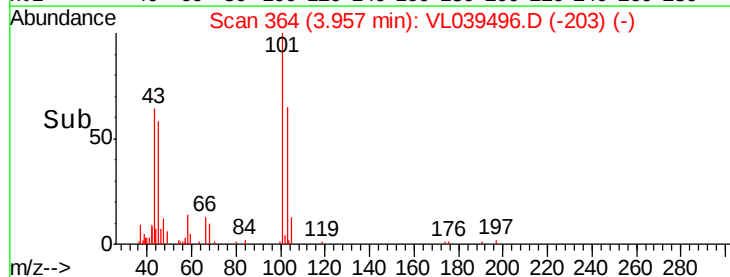
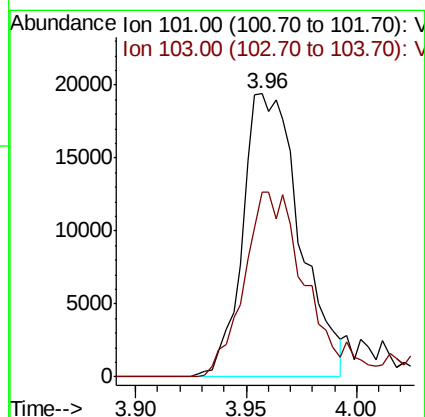
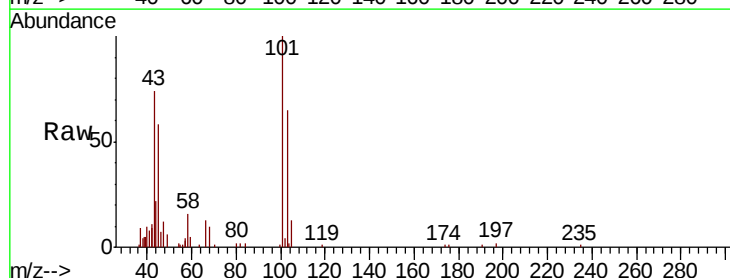
Acq: 20 Jul 2022 00:57

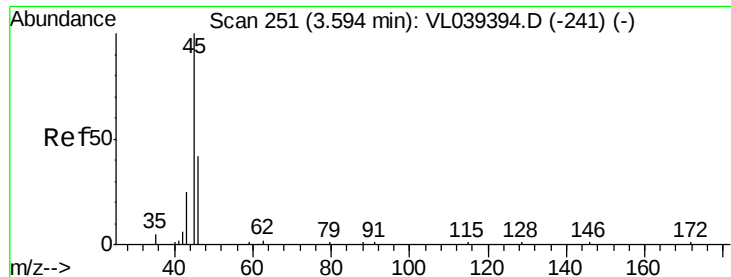
Tgt Ion: 101 Resp: 35009

Ion Ratio Lower Upper

101 100

103 67.3 51.8 77.8





#13

Ethanol

Concen: 79.176 ppbv

RT: 3.61

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

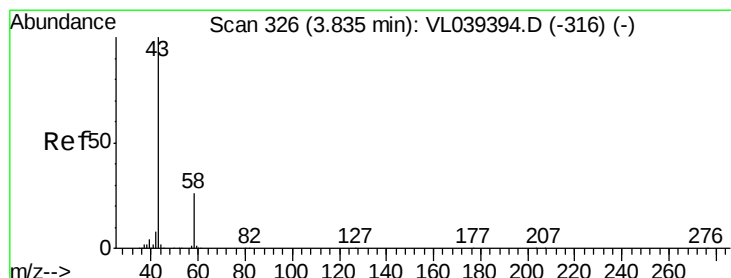
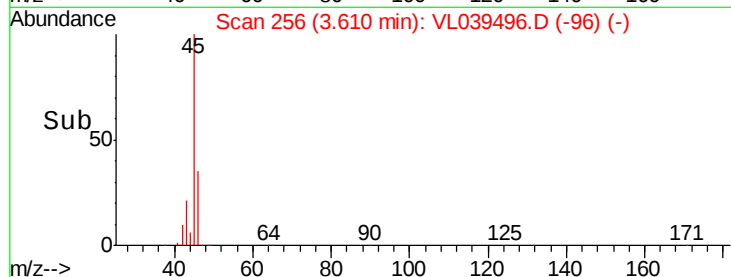
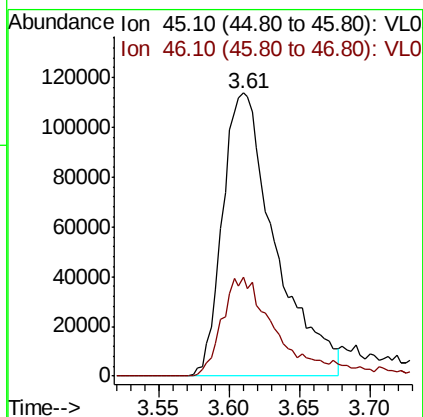
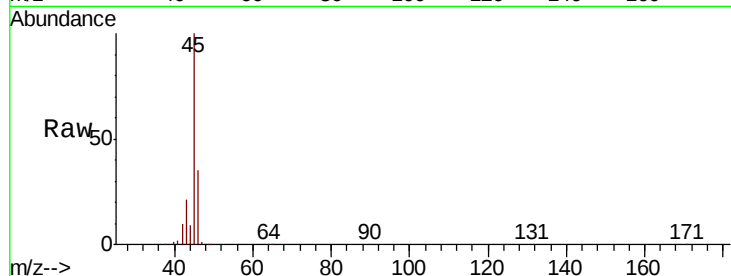
Acq: 20 Jul 2022 00:57

Tot Ion: 45 Resp: 296035

Ion Ratio Lower Upper

45 100

46 38.1 22.8 91.2



#15

Acetone

Concen: 6.834 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.02 min

Lab File: VL039496.D

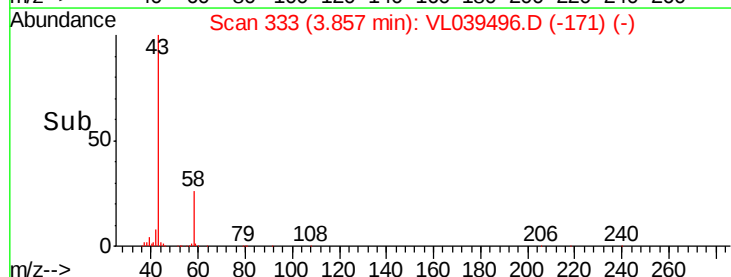
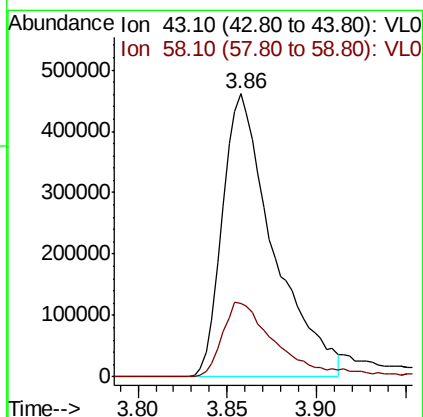
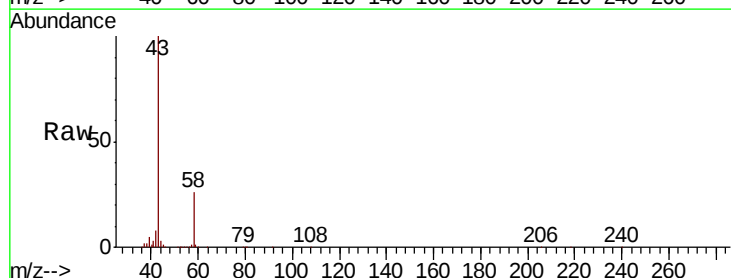
Acq: 20 Jul 2022 00:57

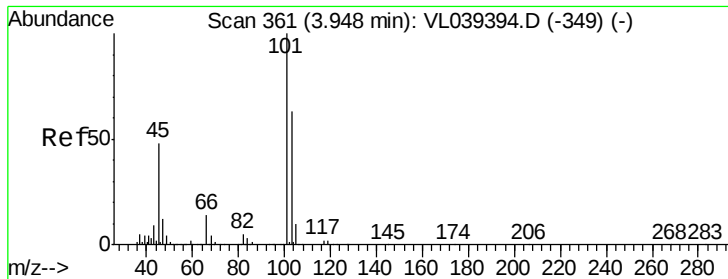
Tgt Ion: 43 Resp: 909354

Ion Ratio Lower Upper

43 100

58 28.8 21.0 31.6





#19

Isopropyl Alcohol

Concen: 0.977 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

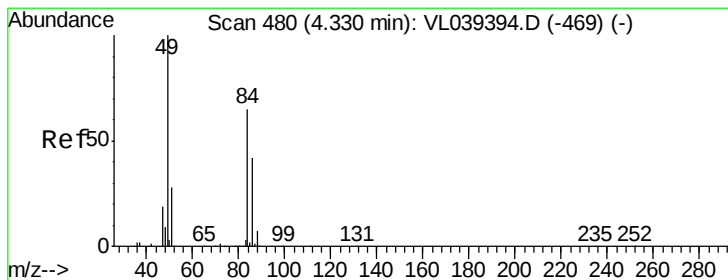
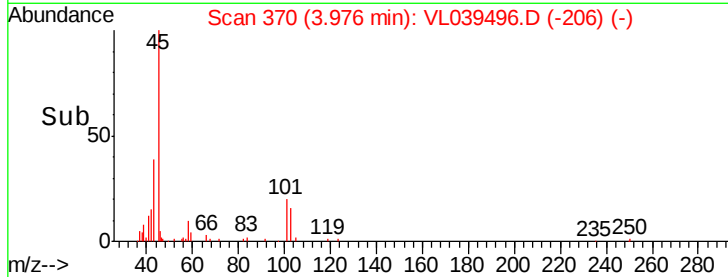
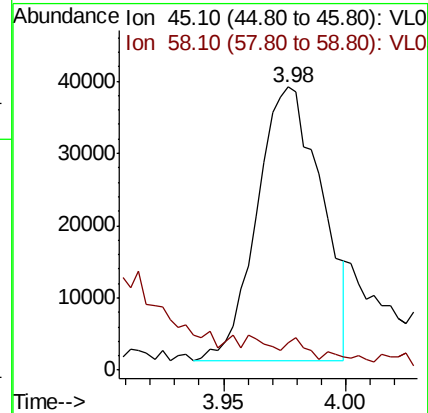
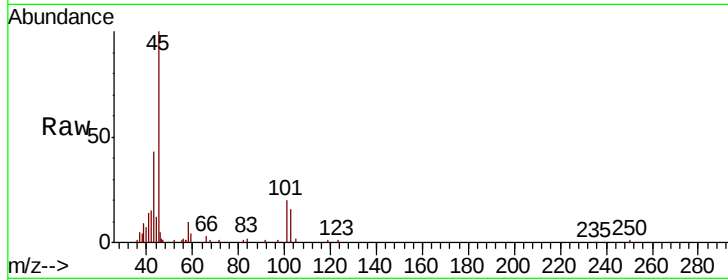
Acq: 20 Jul 2022 00:57

Tot Ion: 45 Resp: 69367

Ion Ratio Lower Upper

45 100

58 390.5 3.2 4.8#



#20

Methylene Chloride

Concen: 13.709 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.03 min

Lab File: VL039496.D

Acq: 20 Jul 2022 00:57

Tgt Ion: 84 Resp: 727138

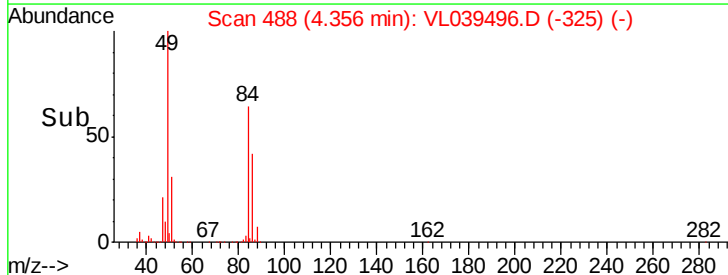
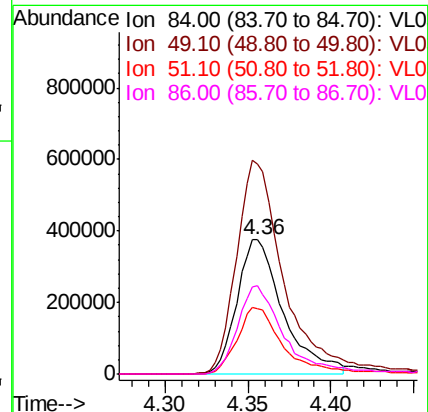
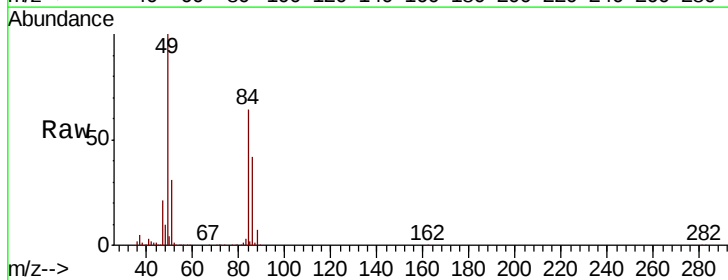
Ion Ratio Lower Upper

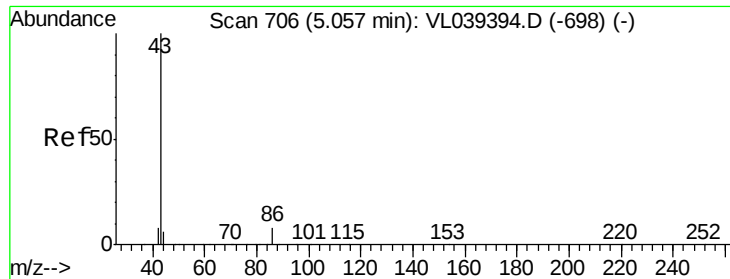
84 100

49 156.8 123.1 184.7

51 48.2 34.4 51.6

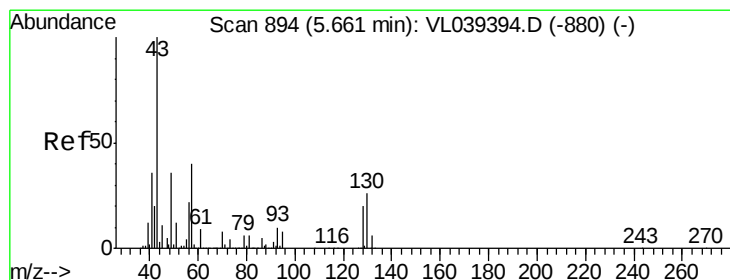
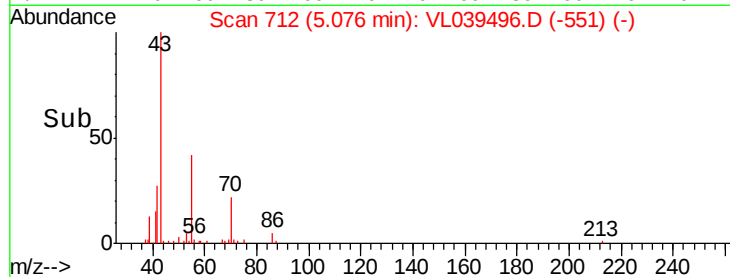
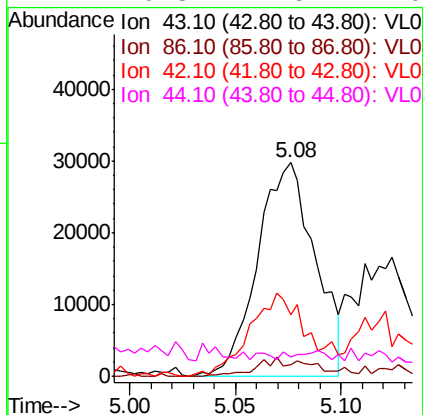
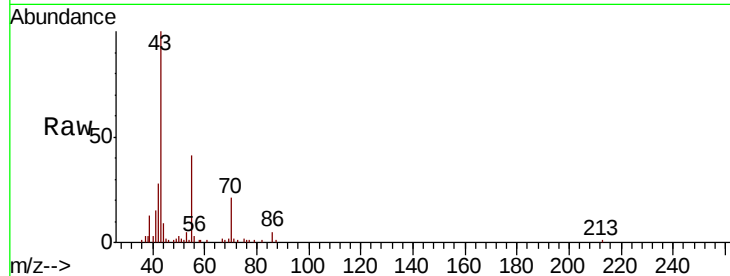
86 66.1 51.1 76.7





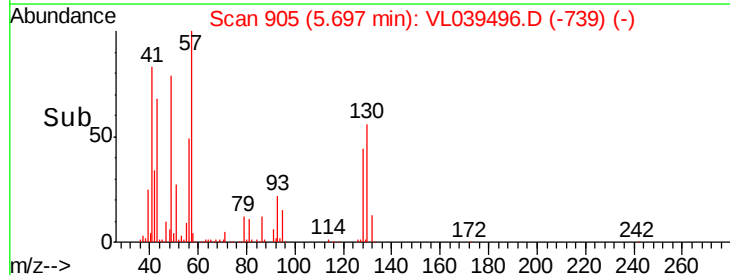
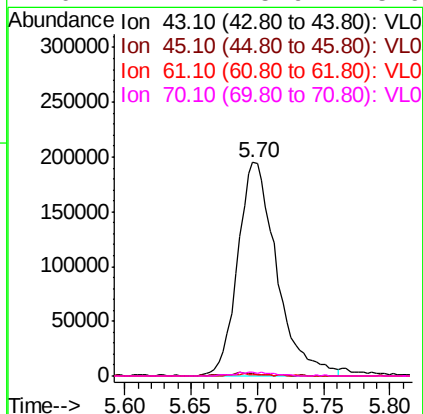
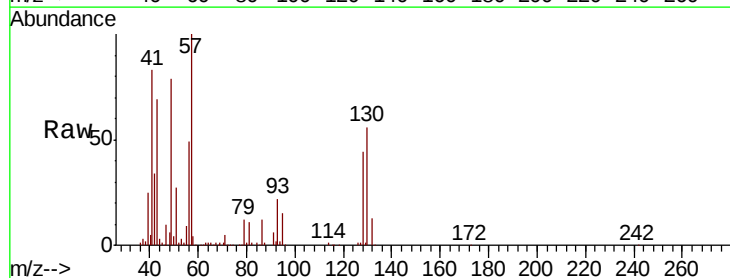
#23  
 Vinyl Acetate  
 Concen: 0.634 ppbv  
 RT: 5.08  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 20 Jul 2022 00:57

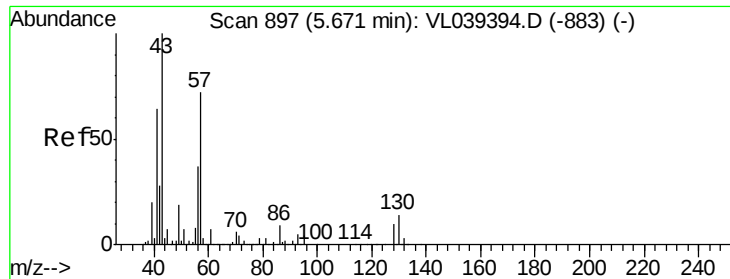
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 56397 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 5.3   | 5.0   | 7.6   |
| 42       | 28.5  | 7.7   | 11.5# |
| 44       | 0.8   | 4.6   | 7.0#  |



#25  
 Ethyl Acetate  
 Concen: 1.465 ppbv  
 RT: 5.70 min Scan# 905  
 Delta R.T. 0.04 min  
 Lab File: VL039496.D  
 Acq: 20 Jul 2022 00:57

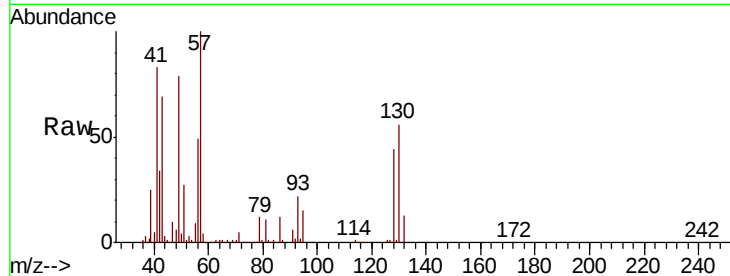
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 399664 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 1.7   | 8.2   | 12.4#  |
| 61       | 0.8   | 8.3   | 12.5#  |
| 70       | 2.1   | 5.9   | 8.9#   |



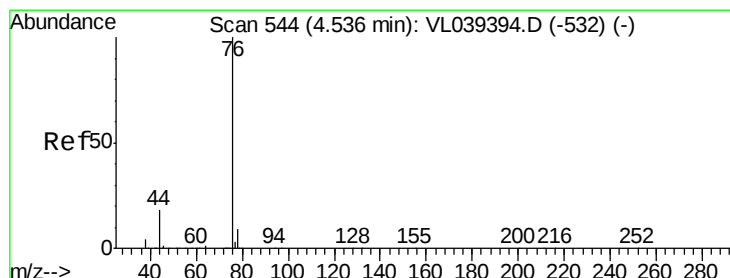
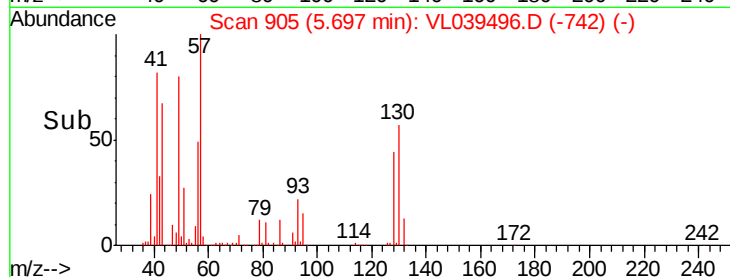
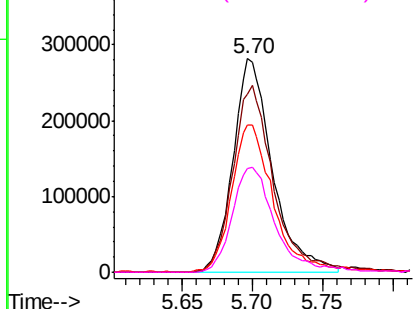


#26  
Hexane  
Concen: 5.018 ppbv  
RT: 5.70  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 20 Jul 2022 00:57

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 57    | Resp: | 551968 |
| Ion      | Ratio | Lower | Upper  |
| 57       | 100   |       |        |
| 41       | 92.1  | 76.9  | 115.3  |
| 43       | 74.4  | 191.0 | 286.6# |
| 56       | 54.1  | 43.2  | 64.8   |

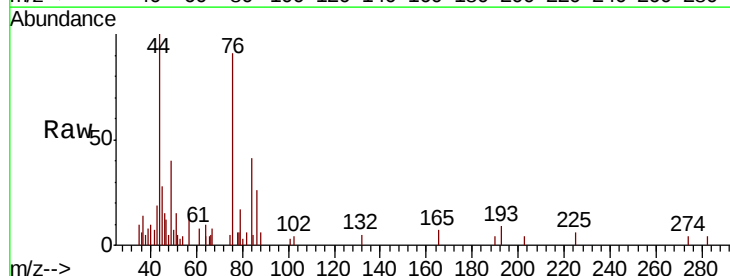


Abundance Ion 57.10 (56.80 to 57.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 43.10 (42.80 to 43.80): VL0  
Ion 56.10 (55.80 to 56.80): VL0

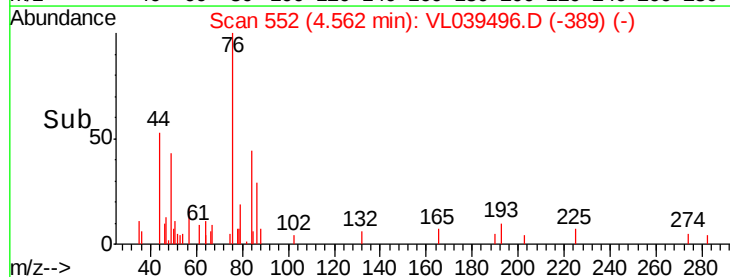
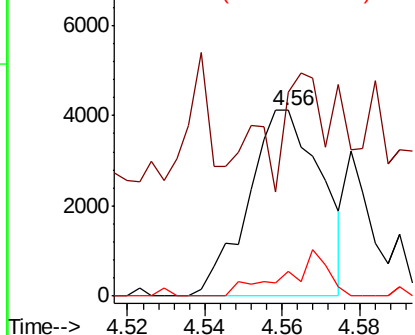


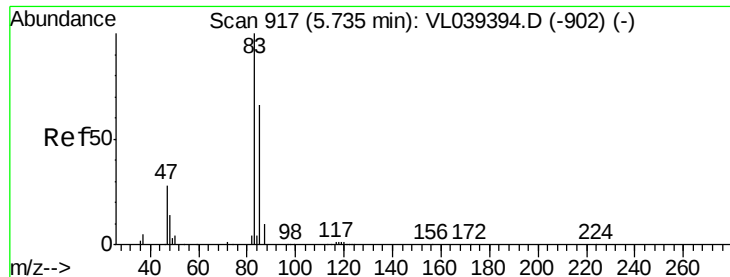
#27  
Carbon Disulfide  
Concen: 0.041 ppbv  
RT: 4.56 min Scan# 552  
Delta R.T. 0.03 min  
Lab File: VL039496.D  
Acq: 20 Jul 2022 00:57

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 76    | Resp: | 5418  |
| Ion      | Ratio | Lower | Upper |
| 76       | 100   |       |       |
| 44       | 0.0   | 14.6  | 21.8# |
| 78       | 15.0  | 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





#29

Chloroform

Concen: 0.060 ppbv

RT: 5.76 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

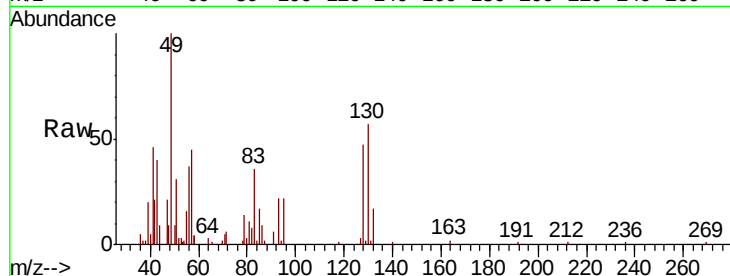
Acq: 20 Jul 2022 00:57

Tot Ion: 83 Resp: 11561

Ion Ratio Lower Upper

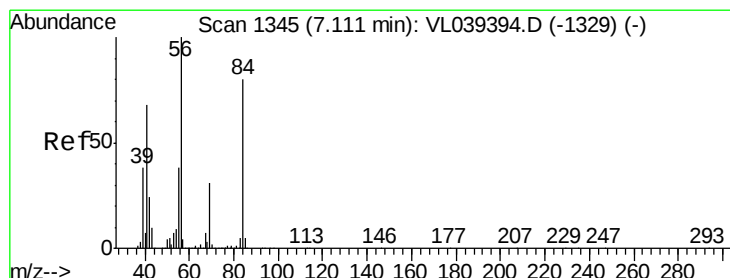
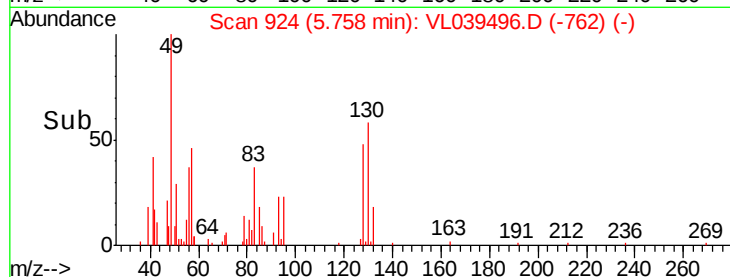
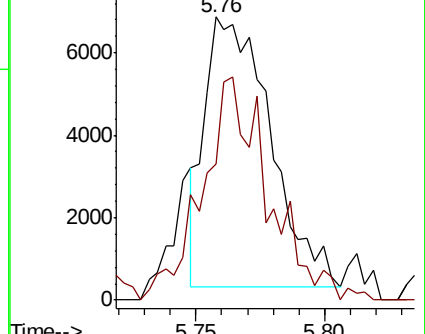
83 100

85 50.5 52.8 79.2#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.030 ppbv

RT: 7.14 min Scan# 1354

Delta R.T. 0.03 min

Lab File: VL039496.D

Acq: 20 Jul 2022 00:57

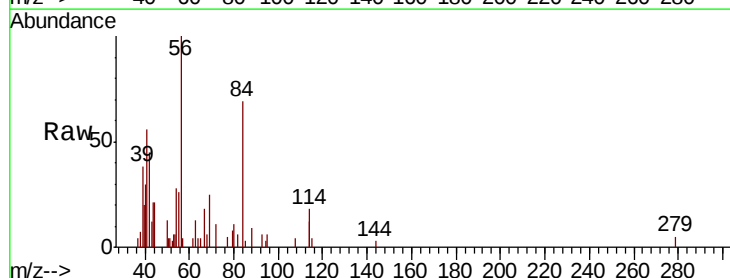
Tgt Ion: 84 Resp: 3045

Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

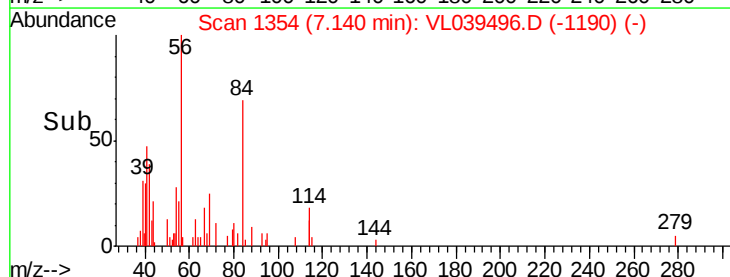
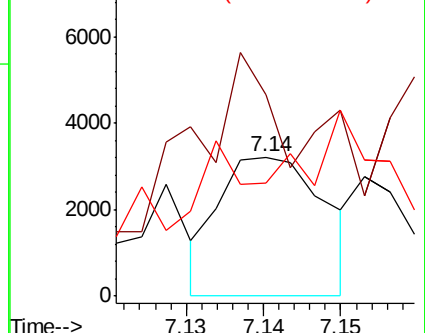
41 0.0 67.7 101.5#

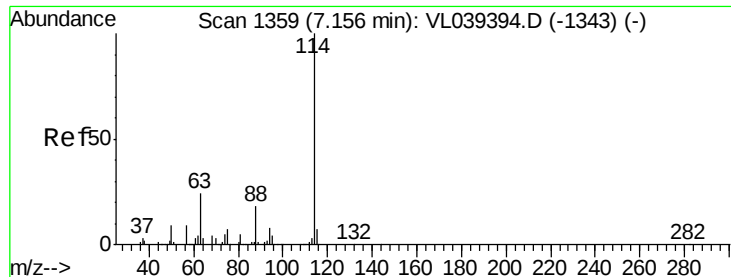


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

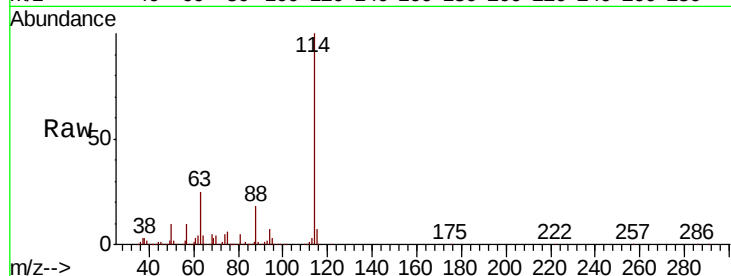
Ion 41.10 (40.80 to 41.80): VL0



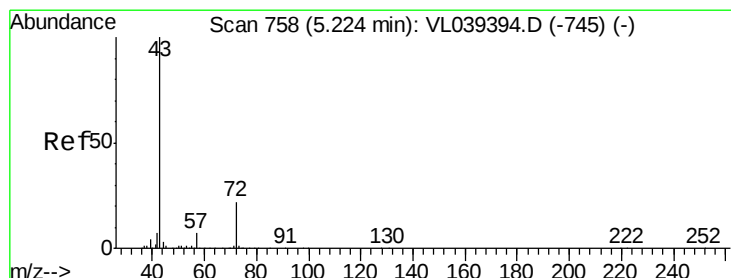
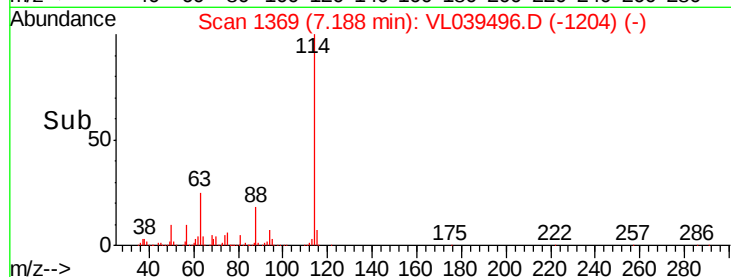
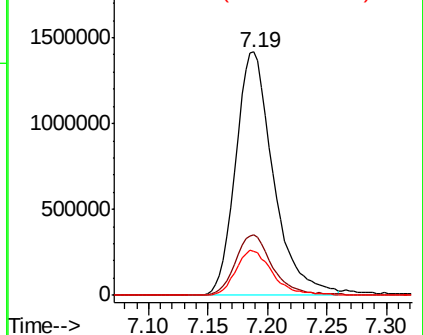


#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.19  
 Instrument: MSVOA\_1  
 Delta R.T.:  
 Lab File: ClientSampleId:  
 Acq: 20 Jul 2022 00:57

Tot Ion:114 Resp: 3117000  
 Ion Ratio Lower Upper  
 114 100  
 63 25.1 20.2 30.4  
 88 18.4 14.5 21.7

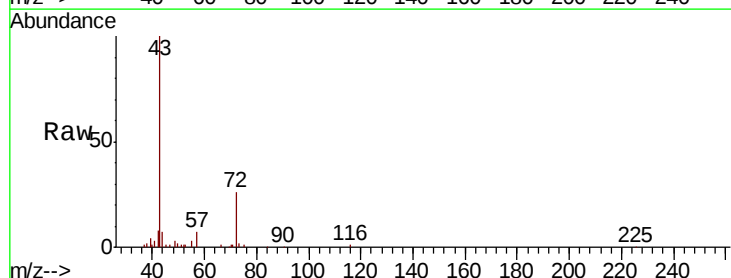


Abundance Ion 114.10 (113.80 to 114.80): V  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

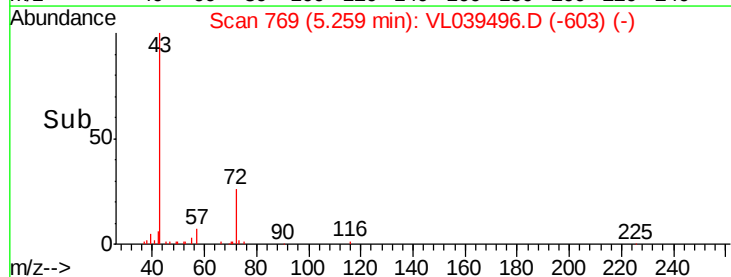
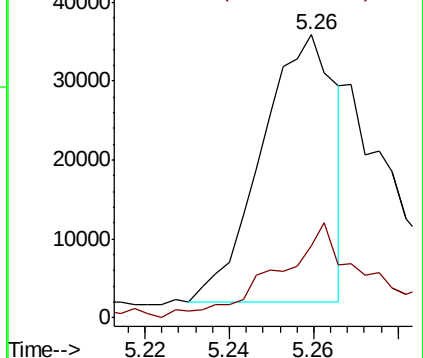


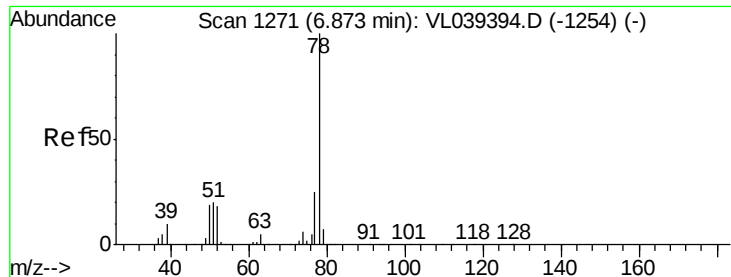
#34  
 2-Butanone  
 Concen: 0.262 ppbv  
 RT: 5.26 min Scan# 769  
 Delta R.T. 0.04 min  
 Lab File: VL039496.D  
 Acq: 20 Jul 2022 00:57

Tgt Ion: 43 Resp: 41118  
 Ion Ratio Lower Upper  
 43 100  
 72 49.8 17.9 26.9#



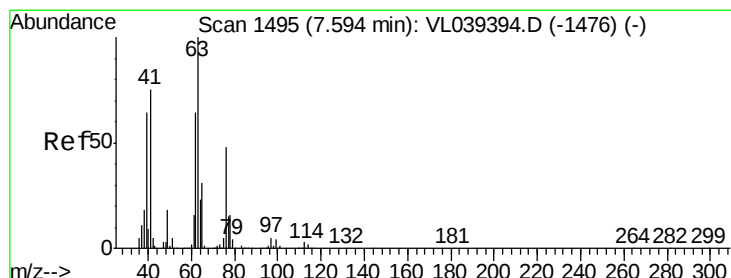
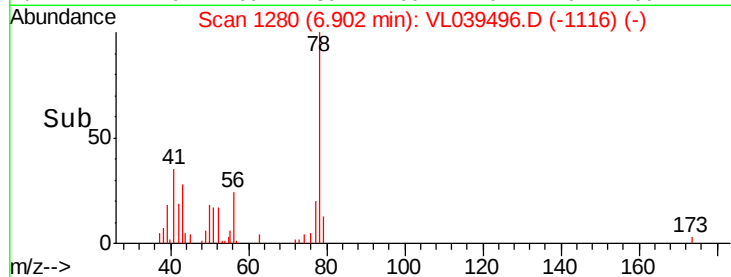
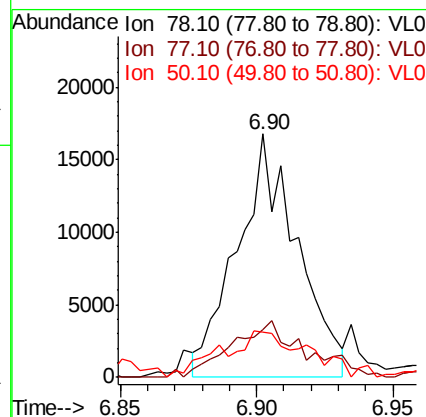
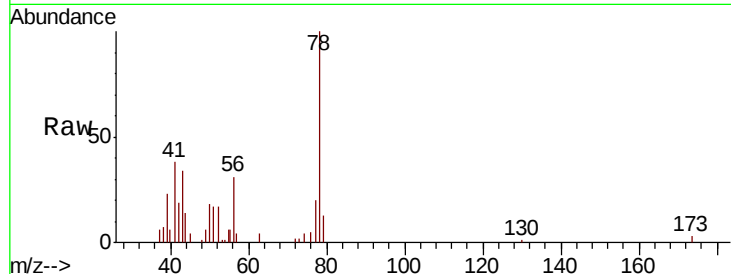
Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





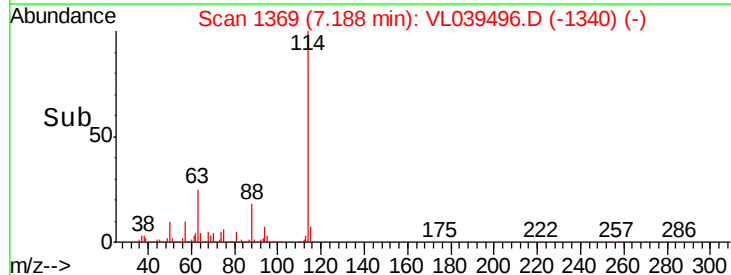
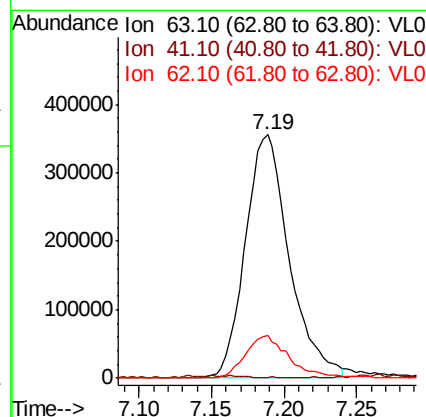
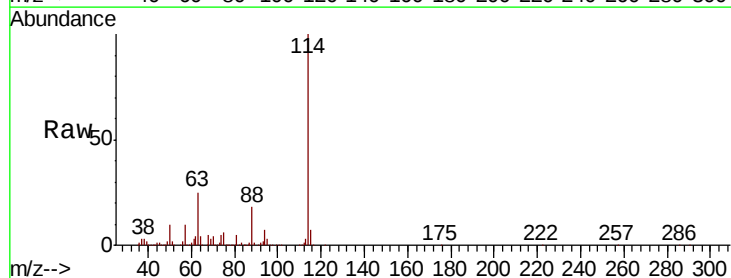
#36  
Benzene  
Concen: 0.106 ppbv  
RT: 6.90  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 20 Jul 2022 00:57

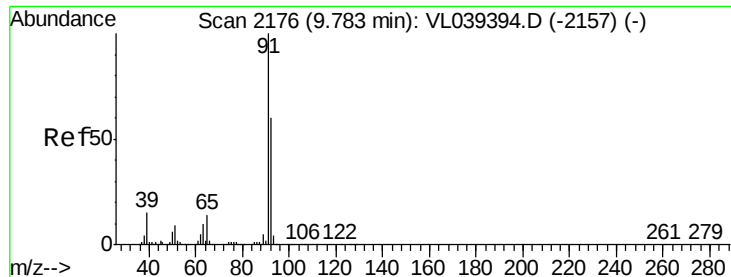
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 18.6  | 20.3  | 30.5# |
| 50      | 12.2  | 15.5  | 23.3# |



#39  
1,2-Dichloropropane  
Concen: 8.340 ppbv  
RT: 7.19 min Scan# 1369  
Delta R.T. -0.41 min  
Lab File: VL039496.D  
Acq: 20 Jul 2022 00:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 41      | 0.0   | 59.6  | 89.4# |
| 62      | 17.8  | 51.4  | 77.0# |





#53

Toluene

Concen: 0.091 ppbv

RT: 9.83 Instrument: MSVOA\_1

Delta R.T. 0.03 min

Lab File: ClientSampleId: IA-2

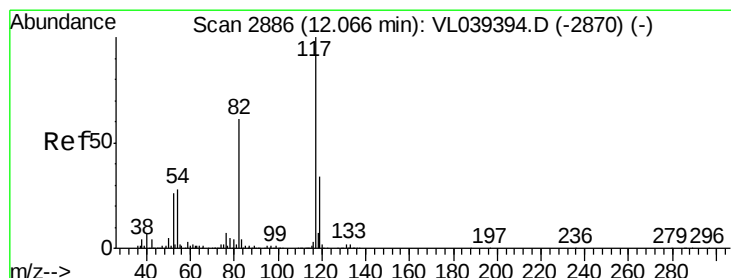
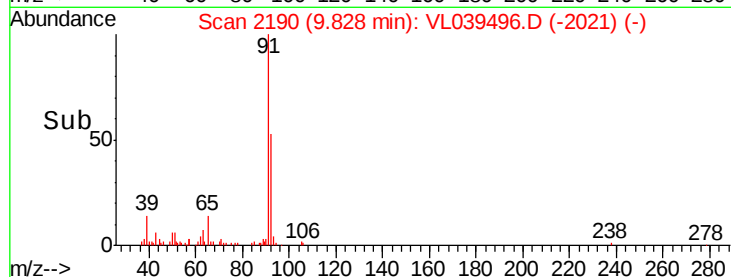
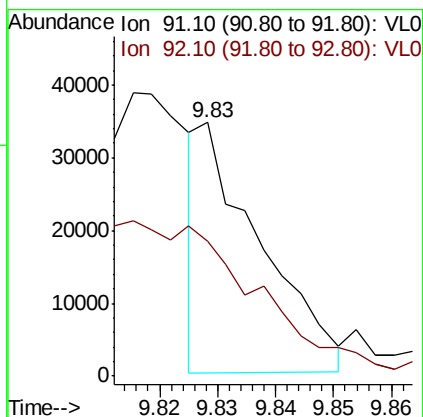
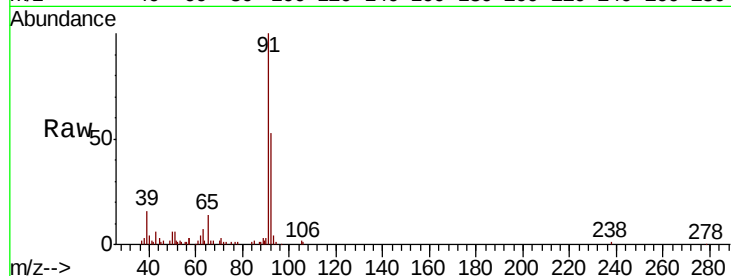
Acq: 20 Jul 2022 00:57

Tot Ion: 91 Resp: 25217

Ion Ratio Lower Upper

91 100

92 0.0 48.2 72.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. 0.03 min

Lab File: VL039496.D

Acq: 20 Jul 2022 00:57

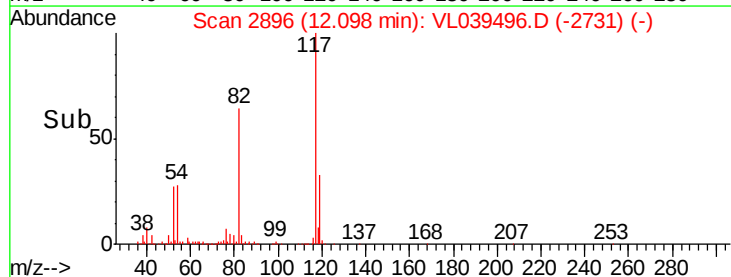
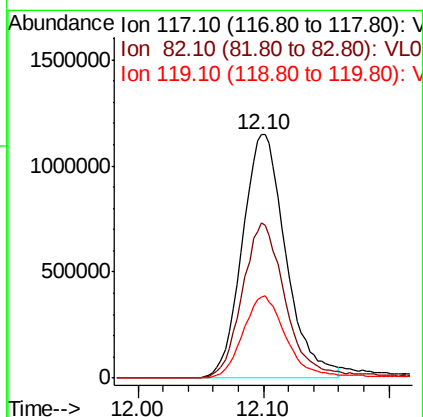
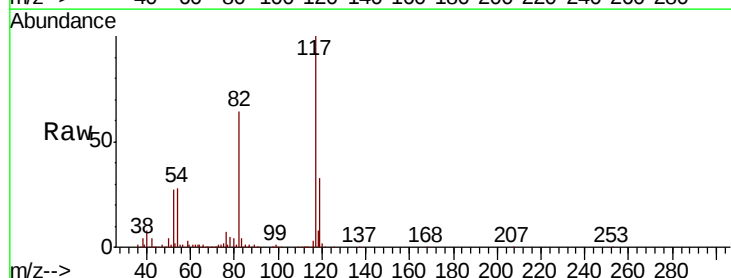
Tgt Ion: 117 Resp: 2769563

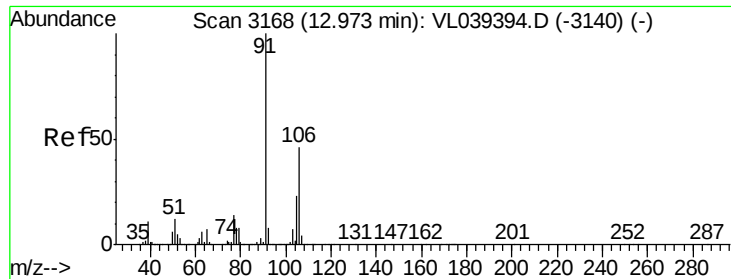
Ion Ratio Lower Upper

117 100

82 66.0 50.8 76.2

119 34.6 24.1 36.1





#59

m/p-Xylene

Concen: 0.037 ppbv

RT: 13.00

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

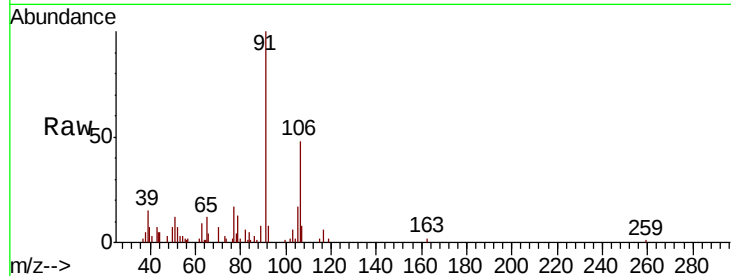
Acq: 20 Jul 2022 00:57

Tot Ion: 91 Resp: 11587

Ion Ratio Lower Upper

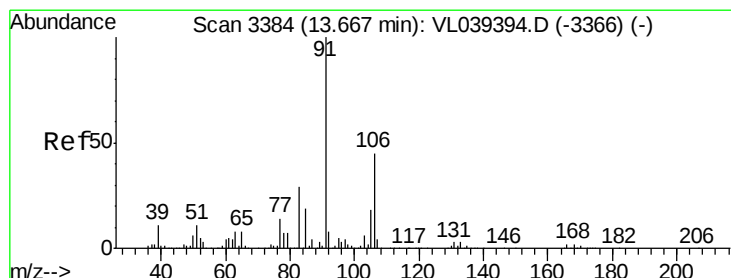
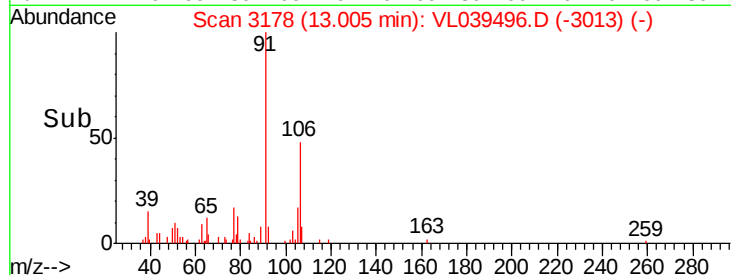
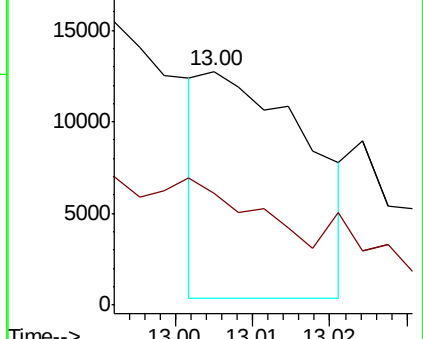
91 100

106 0.0 35.4 53.2#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.084 ppbv

RT: 13.71 min Scan# 3397

Delta R.T. 0.04 min

Lab File: VL039496.D

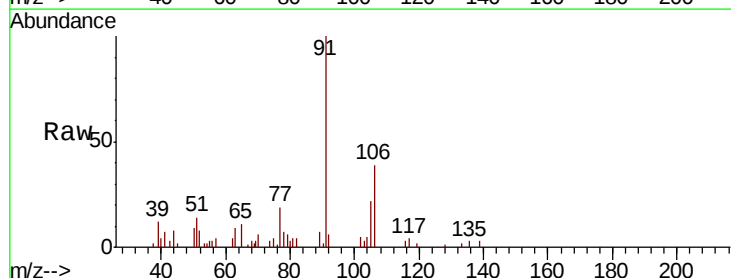
Acq: 20 Jul 2022 00:57

Tgt Ion: 91 Resp: 25151

Ion Ratio Lower Upper

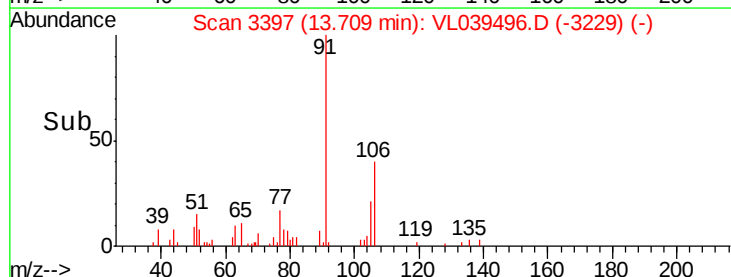
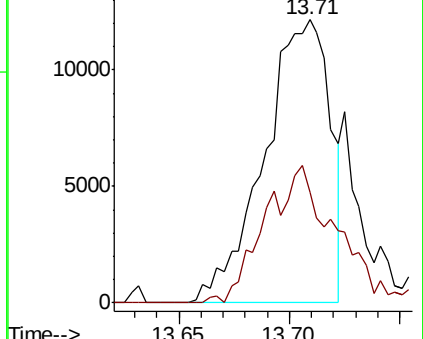
91 100

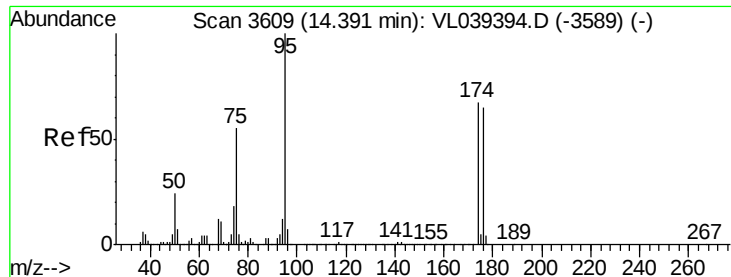
106 55.2 22.4 67.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

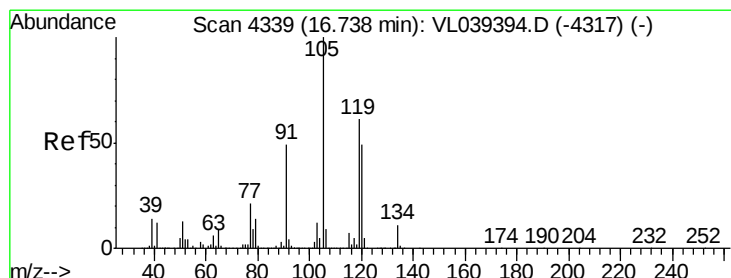
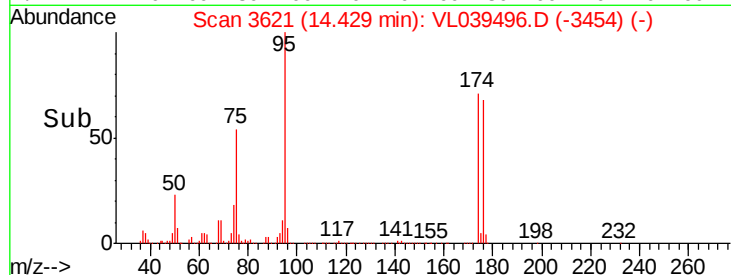
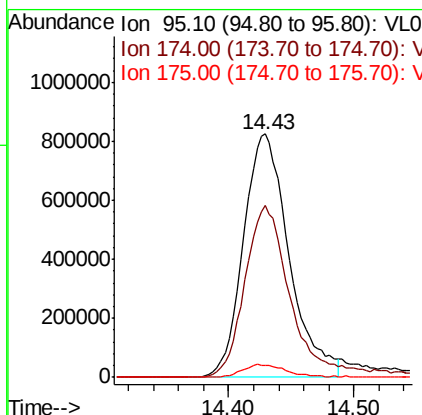
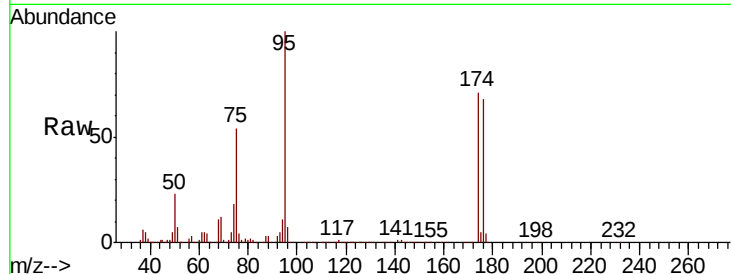




#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.131 ppbv  
 RT: 14.43 min  
 Delta R.T. MSVOA\_L  
 Lab File: ClientSampleId :  
 Acq: 20 Jul 2022 00:57

Tot Ion: 95 Resp: 2081612

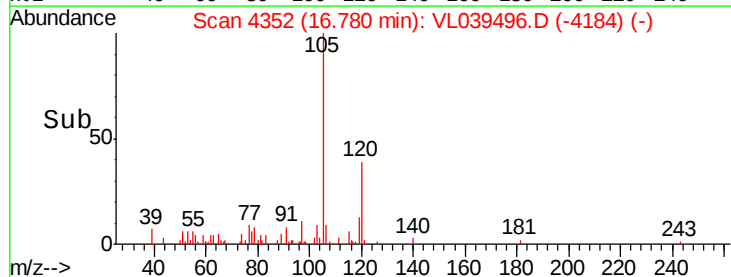
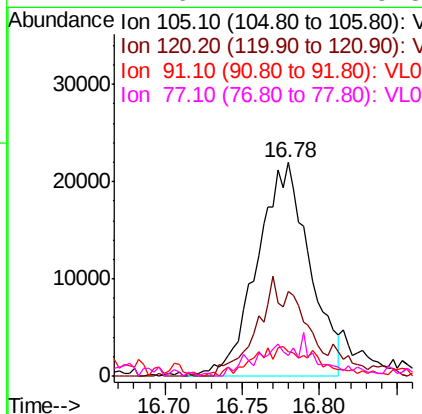
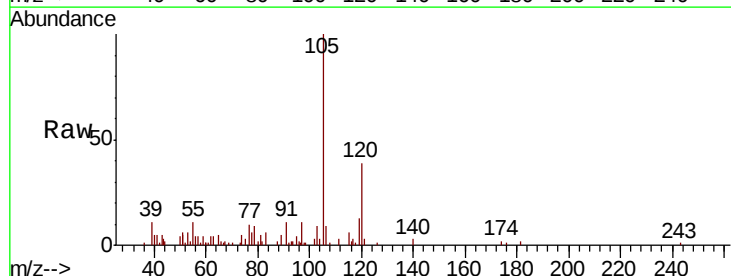
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 174 | 74.5  | 55.9  | 83.9  |
| 175 | 5.7   | 4.2   | 6.4   |

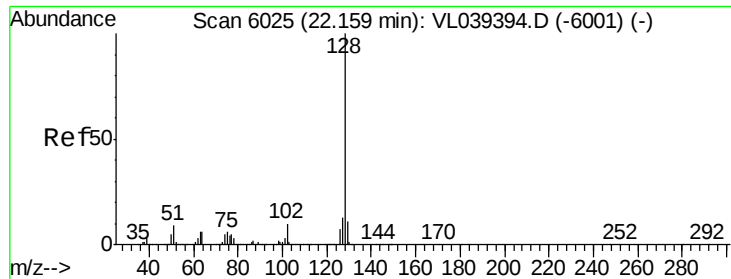


#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.145 ppbv  
 RT: 16.78 min Scan# 4352  
 Delta R.T. 0.04 min  
 Lab File: VL039496.D  
 Acq: 20 Jul 2022 00:57

Tgt Ion: 105 Resp: 51627

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 105 | 100   |       |       |
| 120 | 38.3  | 39.5  | 59.3# |
| 91  | 10.1  | 39.2  | 58.8# |
| 77  | 7.6   | 17.2  | 25.8# |





#79

Naphthalene

Concen: 0.824 ppbv

RT: 22.21

Delta R.T: MSVOA\_L

Lab File: ClientSampleId :

Acq: 20 Jul 2022 00:57

Tot Ion: 128 Resp: 202261

Ion Ratio Lower Upper

128 100

127 11.2 10.6 15.8

129 13.1 8.8 13.2

