

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV062320\  
 Data File : VV017025.D  
 Acq On : 22 Jun 2020 18:34  
 Operator : SY/MD  
 Sample : L3067-04  
 Misc : 25.0mL/MSVOA V/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: Jun 23 04:56:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR061720WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue Jun 23 04:53:49 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.64  | 114  | 192180   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.87  | 117  | 180411   | 5.00 | ug/L  | 0.00     |
| 61) 1,4-Dichlorobenzene-d4 | 11.27 | 152  | 93353    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 64922    | 5.63     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 112.60% |
| 7) Chloroethane-d5             | 1.58   | 69    | 49592    | 5.91     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 118.20% |
| 11) 1,1-Dichloroethene-d2      | 2.12   | 63    | 91403    | 4.16     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 83.20%  |
| 20) 2-Butanone-d5              | 3.93   | 46    | 133670   | 45.47    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 90.94%  |
| 24) Chloroform-d               | 4.38   | 84    | 132199   | 5.36     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 107.20% |
| 26) 1,2-Dichloroethane-d4      | 5.06   | 65    | 71498    | 5.47     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 109.40% |
| 32) Benzene-d6                 | 5.08   | 84    | 256301   | 5.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 109.60% |
| 36) 1,2-Dichloropropane-d6     | 6.09   | 67    | 74806    | 5.34     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 106.80% |
| 41) Toluene-d8                 | 7.34   | 98    | 232217   | 5.29     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 105.80% |
| 45) trans-1,3-Dichloropropene- | 7.64   | 79    | 21459    | 3.68     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 73.60%  |
| 48) 2-Hexanone-d5              | 8.11   | 63    | 100856   | 45.36    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 90.72%  |
| 59) 1,1,2,2-Tetrachloroethane- | 10.24  | 84    | 49905    | 5.36     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 107.20% |
| 65) 1,2-Dichlorobenzene-d4     | 11.65  | 152   | 93738    | 5.43     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 108.60% |

## Target Compounds

| Target Compounds               | R.T.  | QIon | Response | Conc     | Units  | Ovalue |
|--------------------------------|-------|------|----------|----------|--------|--------|
| 8) Chloroethane                | 1.38  | 64   | 288024   | 41.327   | ug/L # | 51     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.13  | 101  | 932      | 0.092    | ug/L # | 27     |
| 12) 1,1-Dichloroethene         | 2.13  | 96   | 1001     | 0.109    | ug/L # | 1      |
| 14) Carbon disulfide           | 2.31  | 76   | 4630     | 0.168    | ug/L # | 89     |
| 15) Methyl Acetate             | 2.46  | 43   | 1830     | 0.504    | ug/L # | 54     |
| 19) 1,1-Dichloroethane         | 3.21  | 63   | 18353    | 0.836    | ug/L   | 97     |
| 22) cis-1,2-Dichloroethene     | 3.94  | 96   | 5842     | 0.437    | ug/L # | 86     |
| 29) 1,1,1-Trichloroethane      | 4.63  | 97   | 1972     | 0.091    | ug/L # | 74     |
| 30) Cyclohexane                | 4.70  | 56   | 7576     | 0.368    | ug/L   | 96     |
| 33) Benzene                    | 5.13  | 78   | 44899    | 0.950    | ug/L   | 100    |
| 35) Methylcyclohexane          | 6.09  | 83   | 18516    | 0.861    | ug/L # | 33     |
| 37) 1,2-Dichloropropane        | 6.10  | 63   | 8927     | 0.763    | ug/L # | 84     |
| 38) Bromodichloromethane       | 6.34  | 83   | 554166   | 34.882   | ug/L # | 32     |
| 40) 4-Methyl-2-pentanone       | 7.16  | 43   | 7496818  | 1110.172 | ug/L # | 48     |
| 43) 1,3,5-Trimethylbenzene     | 10.94 | 105  | 1591     | 0.032    | ug/L   | 94     |
| 46) trans-1,3-Dichloropropene  | 7.65  | 75   | 1086     | 0.072    | ug/L   | 98     |
| 54) Ethylbenzene               | 9.03  | 91   | 22281    | 0.380    | ug/L   | 96     |

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ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :

Quant Time: Jun 23 04:56:41 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR061720WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Tue Jun 23 04:53:49 2020  
Response via : Initial Calibration

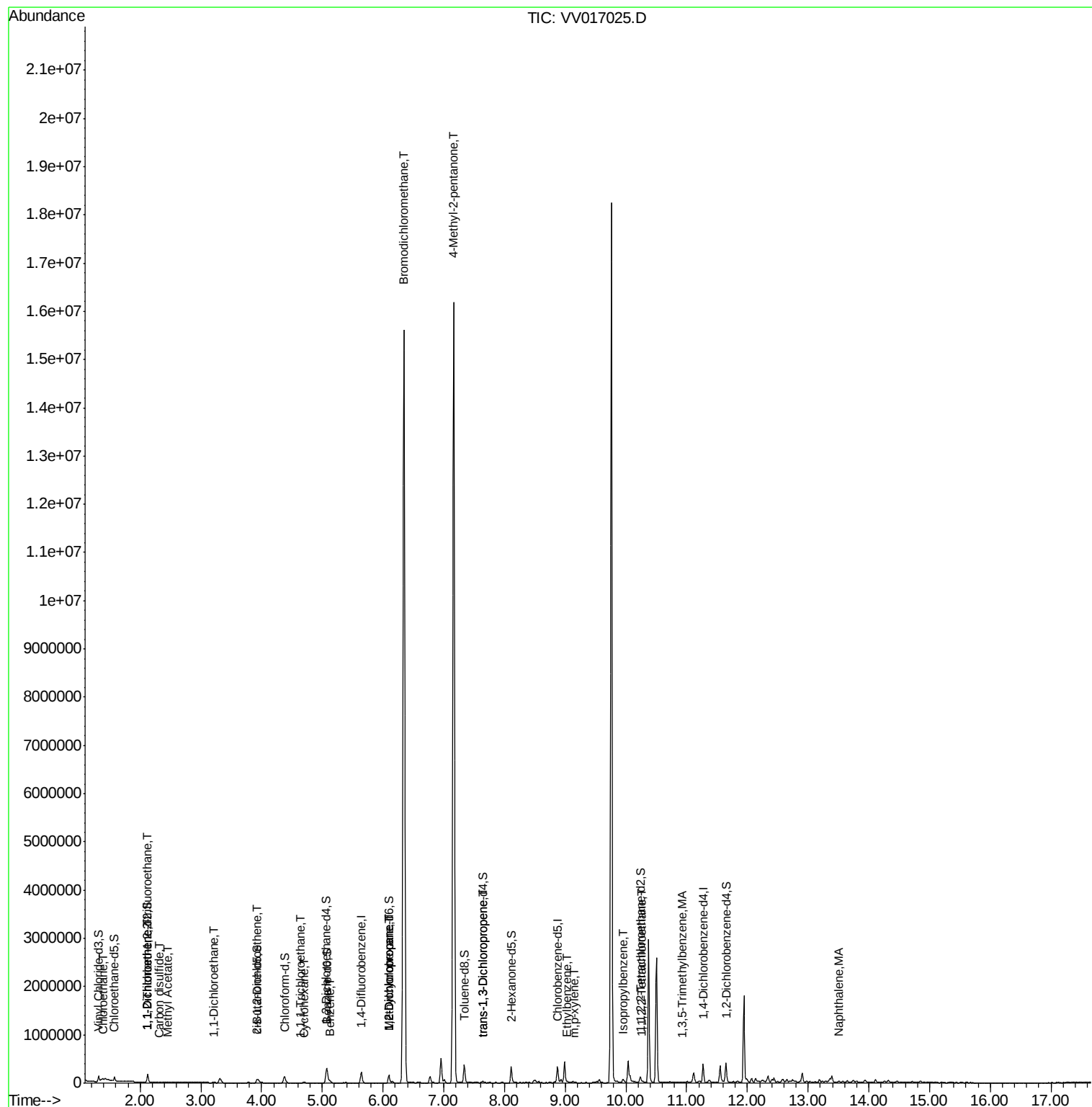
| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 55) m,p-xylene                | 9.16  | 106  | 1902     | 0.083 | ug/L   | 91       |
| 58) Isopropylbenzene          | 9.95  | 105  | 34455    | 0.583 | ug/L   | 97       |
| 60) 1,1,2,2-Tetrachloroethane | 10.27 | 83   | 5297     | 0.617 | ug/L # | 38       |
| 70) Naphthalene               | 13.52 | 128  | 6259     | 0.238 | ug/L # | 48       |

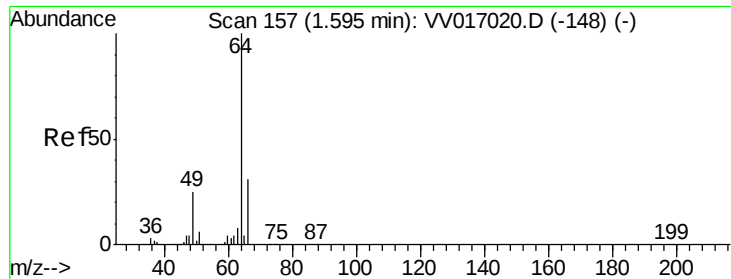
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#8

Chloroethane

Concen: 41.327 ug/L

RT: 1.38 min Scan# 90

Delta R.T. -0.22 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :

MSVOA\_V

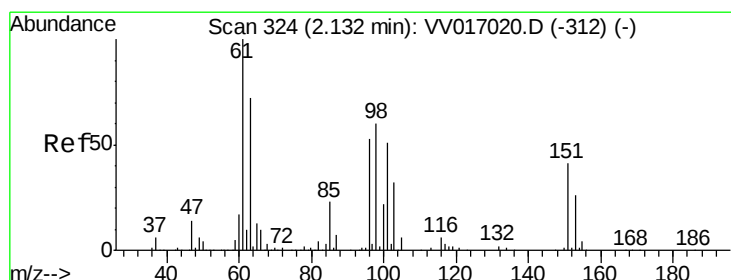
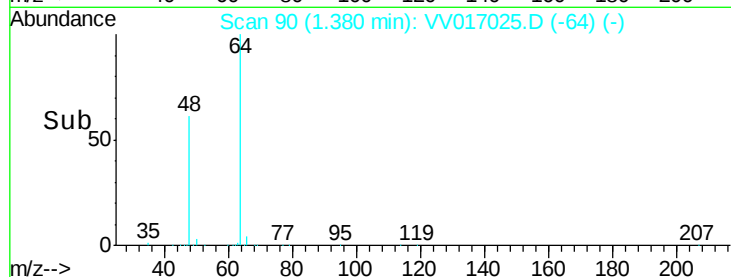
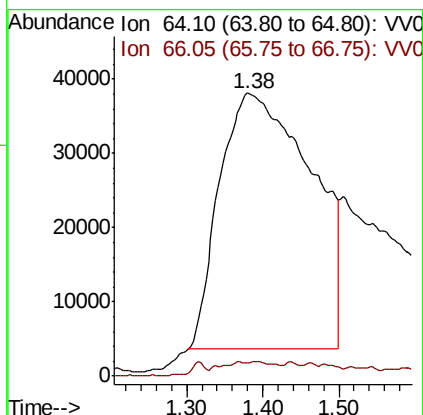
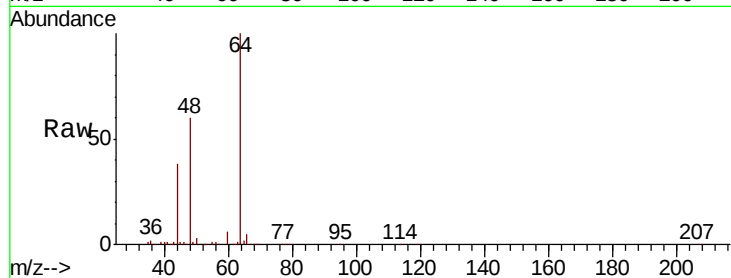
ClientSampleId :

Tot Ion: 64 Resp: 288024

Ion Ratio Lower Upper

64 100

66 4.9 22.8 42.4#



#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 0.092 ug/L

RT: 2.13 min Scan# 322

Delta R.T. -0.01 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

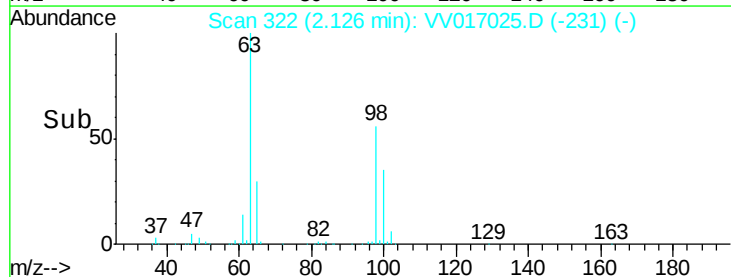
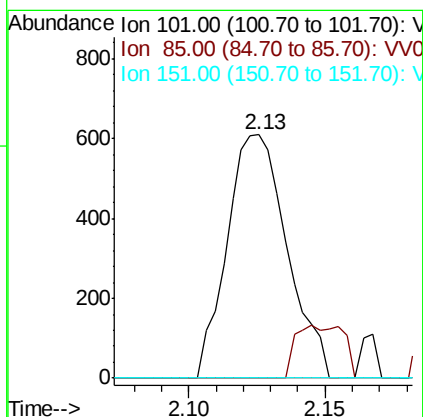
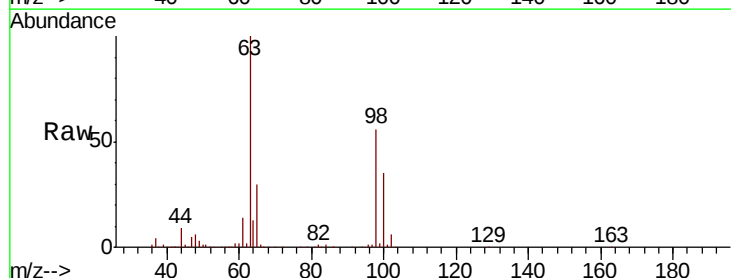
Tgt Ion:101 Resp: 932

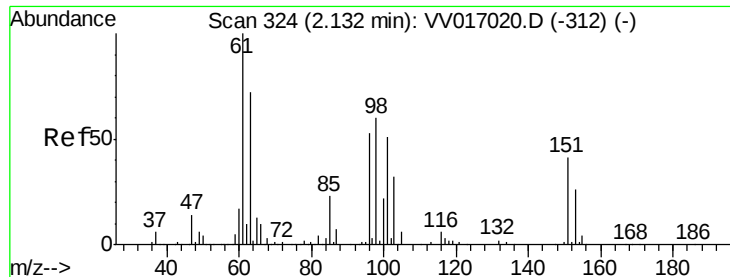
Ion Ratio Lower Upper

101 100

85 17.4 35.4 53.2#

151 0.0 63.9 95.9#





#12

1,1-Dichloroethene

Concen: 0.109 ug/L

RT: 2.13 min Scan# 322

Delta R.T. -0.01 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :  
MSVOA\_V  
ClientSampleId :

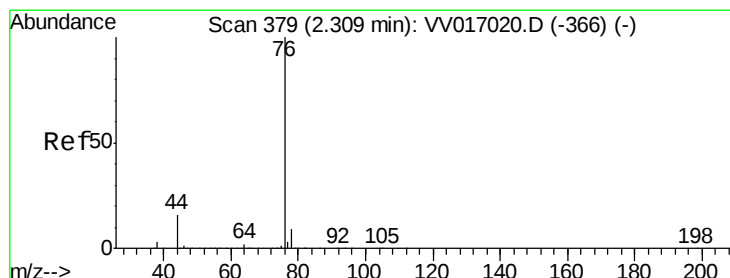
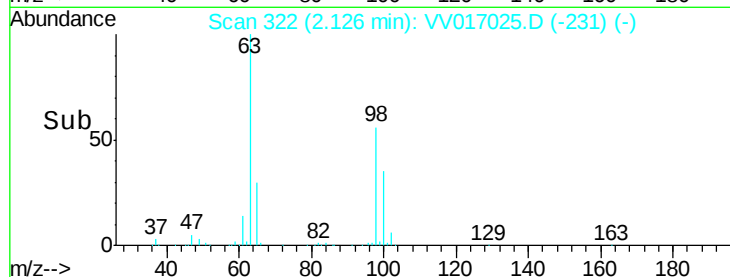
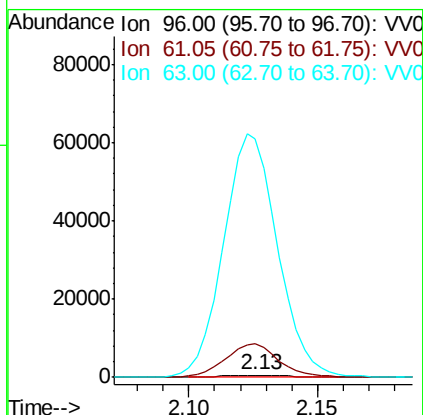
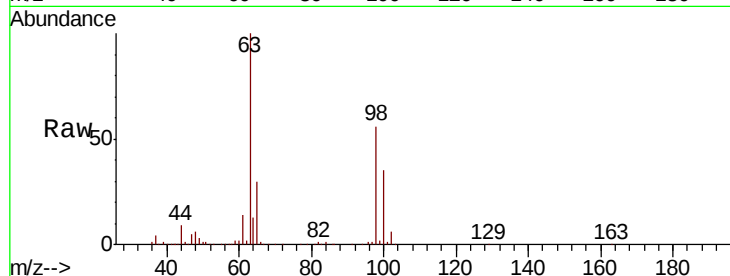
Tot Ion: 96 Resp: 1001

Ion Ratio Lower Upper

96 100

61 1600.7 125.0 232.2#

63 11292.0 109.8 203.8#



#14

Carbon disulfide

Concen: 0.168 ug/L

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VV017025.D

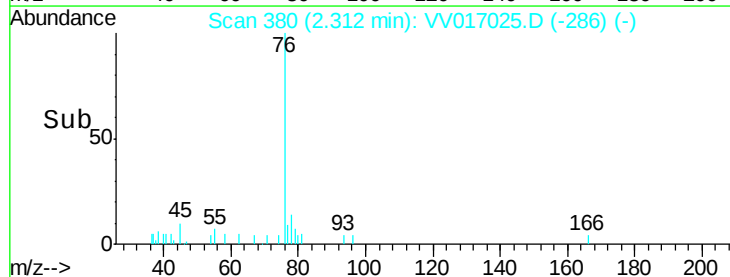
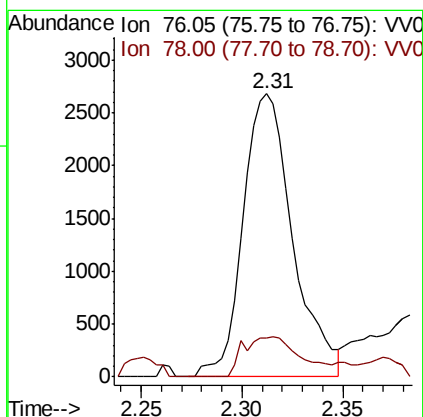
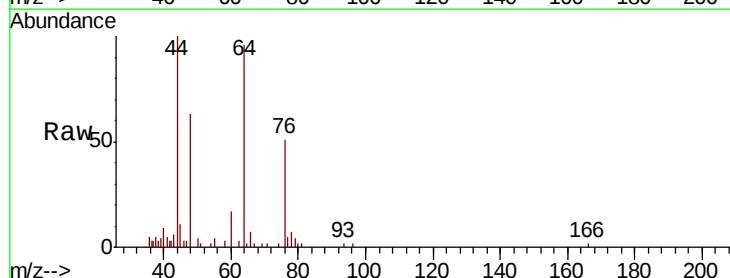
Acq: 22 Jun 2020 18:34

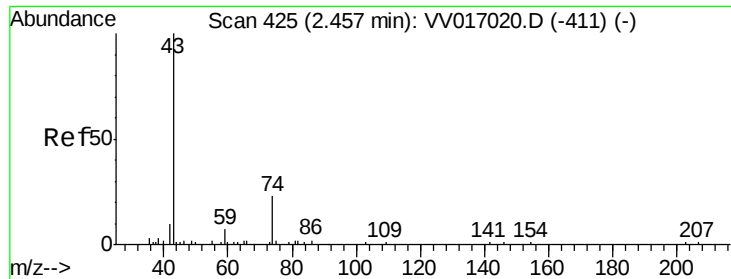
Tgt Ion: 76 Resp: 4630

Ion Ratio Lower Upper

76 100

78 13.7 7.7 11.5#

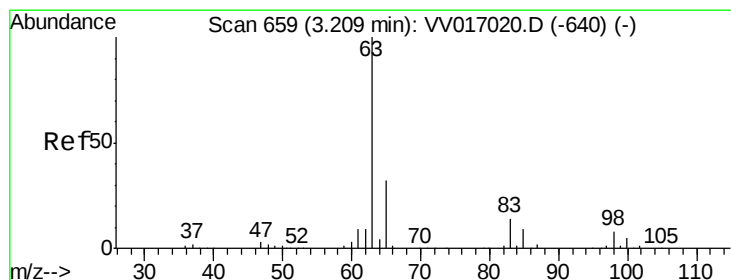
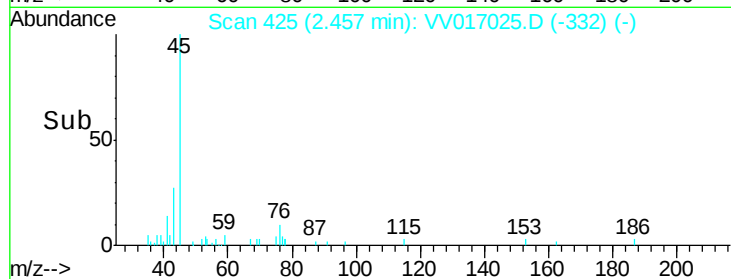
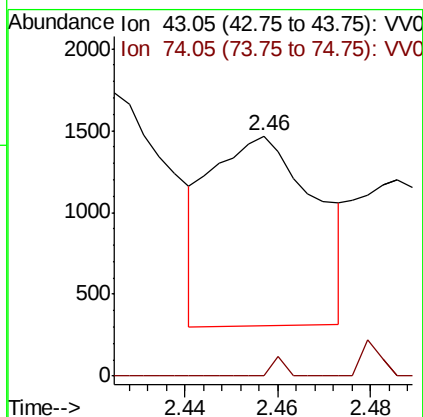
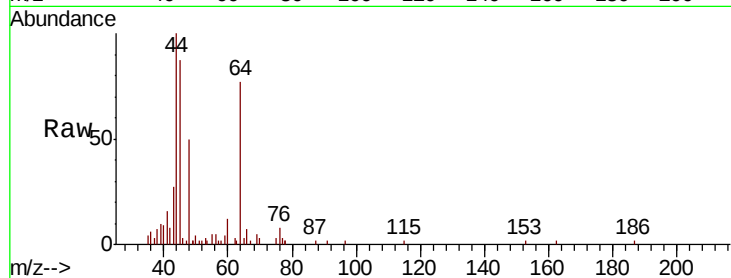




#15  
Methvl Acetate  
Concen: 0.504 ug/L  
RT: 2.46 min Scan# 425  
Delta R.T. 0.00 min  
Lab File: VV017025.D  
Acq: 22 Jun 2020 18:34

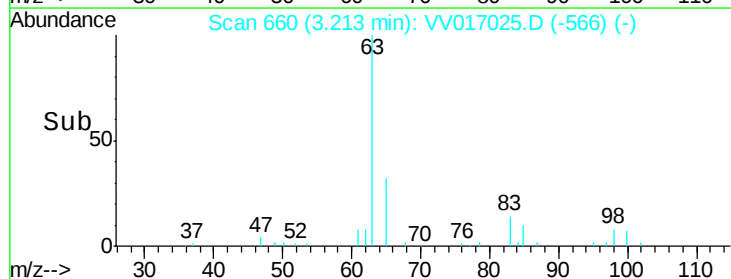
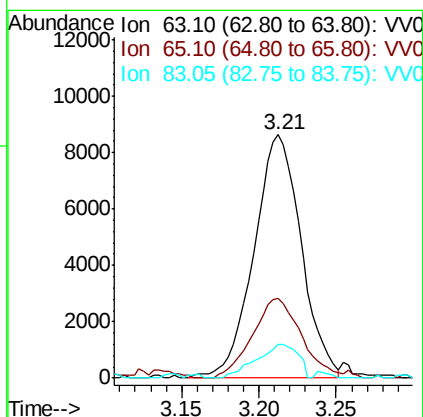
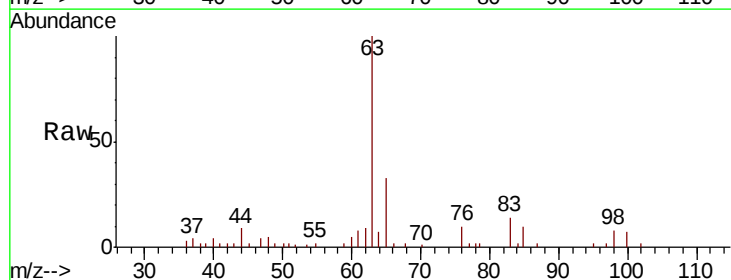
Instrument :  
MSVOA\_V  
ClientSampleId :

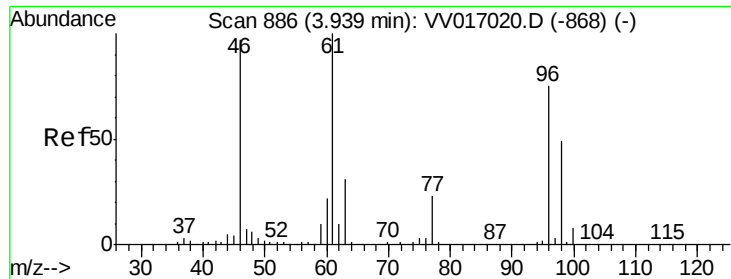
Tot Ion: 43 Resp: 1830  
Ion Ratio Lower Upper  
43 100  
74 1.3 19.1 28.7#



#19  
1,1-Dichloroethane  
Concen: 0.836 ug/L  
RT: 3.21 min Scan# 660  
Delta R.T. 0.00 min  
Lab File: VV017025.D  
Acq: 22 Jun 2020 18:34

Tgt Ion: 63 Resp: 18353  
Ion Ratio Lower Upper  
63 100  
65 33.0 21.8 40.4  
83 13.6 9.7 17.9



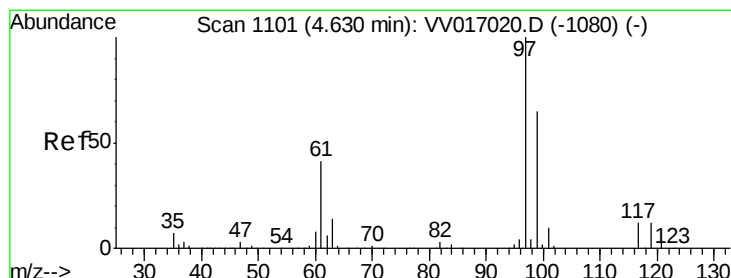
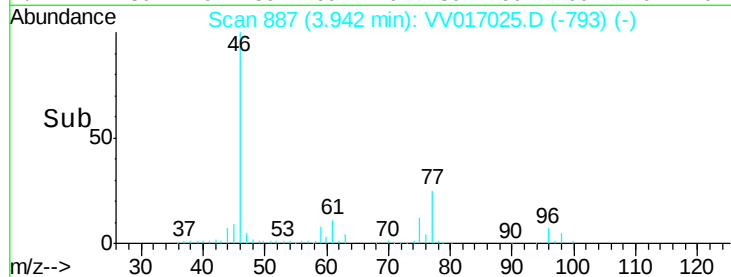
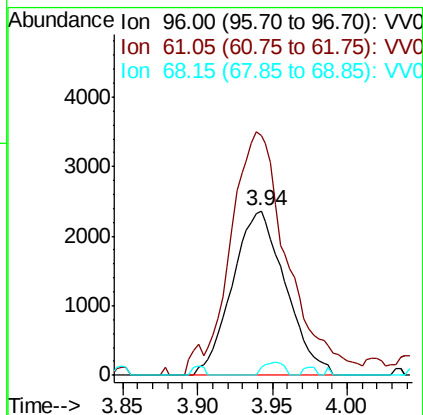
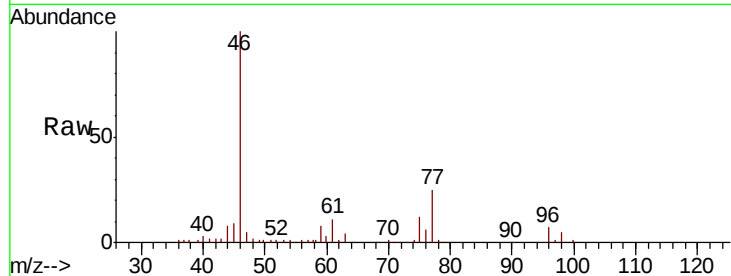


#22

cis-1,2-Dichloroethene  
 Concen: 0.437 ug/L  
 RT: 3.94 min Scan# 887  
 Delta R.T. 0.00 min  
 Lab File: VV017025.D  
 Acq: 22 Jun 2020 18:34

Instrument :  
 MSVOA\_V  
 ClientSampleId :

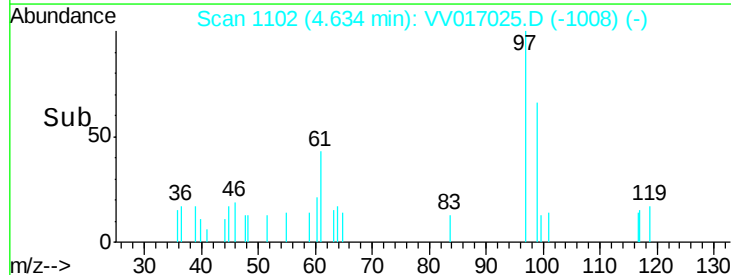
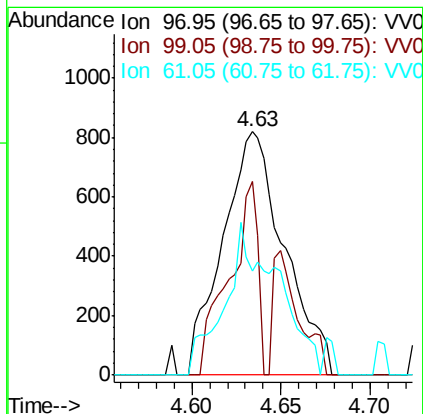
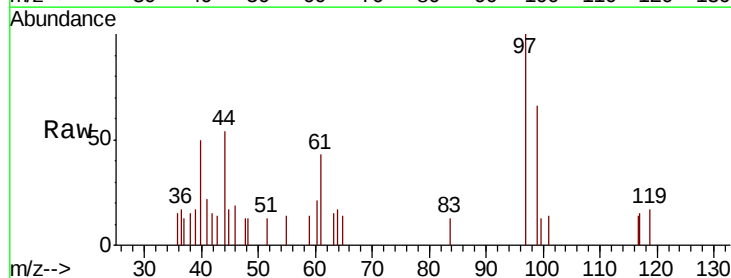
Tot Ion: 96 Resp: 5842  
 Ion Ratio Lower Upper  
 96 100  
 61 145.8 91.0 169.0  
 68 5.1 0.0 0.0#

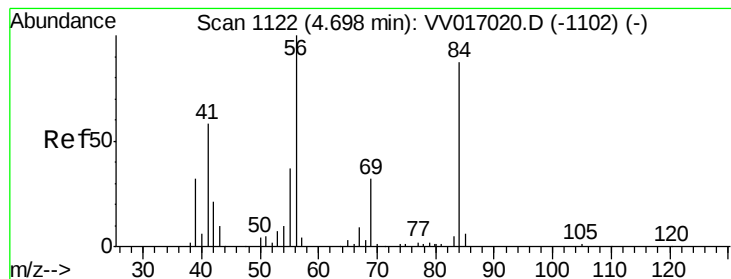


#29

1,1,1-Trichloroethane  
 Concen: 0.091 ug/L  
 RT: 4.63 min Scan# 1102  
 Delta R.T. 0.00 min  
 Lab File: VV017025.D  
 Acq: 22 Jun 2020 18:34

Tgt Ion: 97 Resp: 1972  
 Ion Ratio Lower Upper  
 97 100  
 99 36.6 50.3 75.5#  
 61 54.2 36.0 54.0#





#30

Cyclohexane

Concen: 0.368 ug/L

RT: 4.70 min Scan# 1124

Delta R.T. 0.01 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :  
MSVOA\_V  
ClientSampleId :

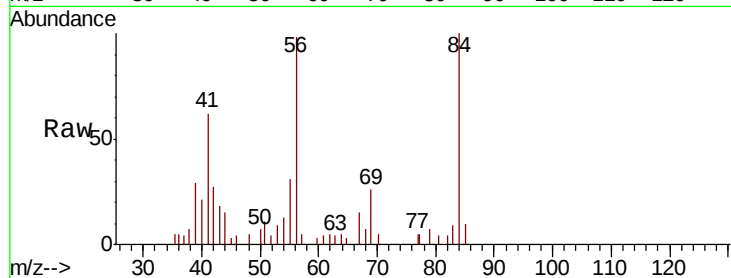
Tot Ion: 56 Resp: 7576

Ion Ratio Lower Upper

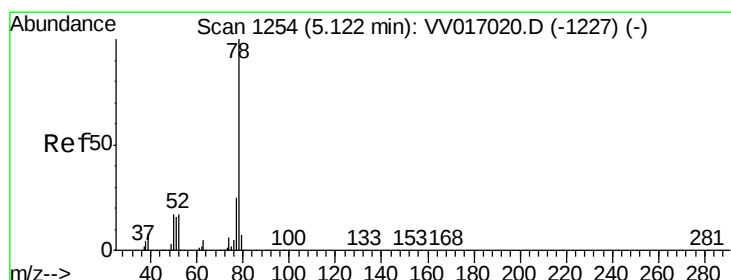
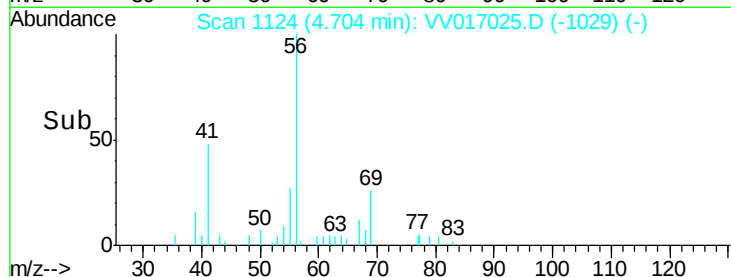
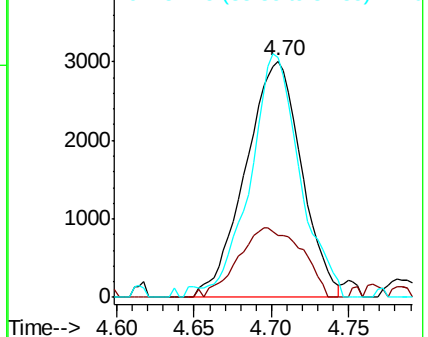
56 100

69 33.5 24.4 36.6

84 91.2 69.9 104.9



Abundance Ion 56.10 (55.80 to 56.80): VV0  
Ion 69.15 (68.85 to 69.85): VV0  
Ion 84.15 (83.85 to 84.85): VV0



#33

Benzene

Concen: 0.950 ug/L

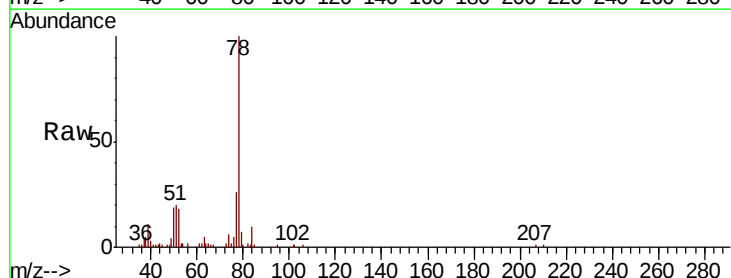
RT: 5.13 min Scan# 1255

Delta R.T. 0.00 min

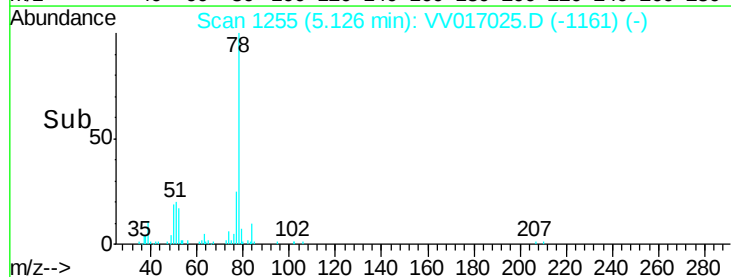
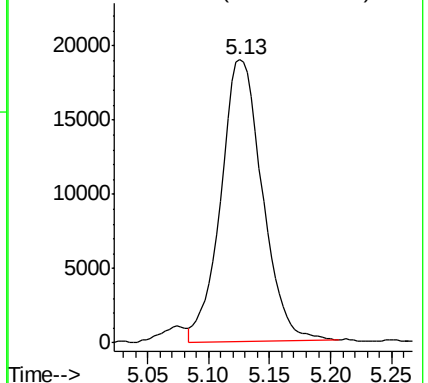
Lab File: VV017025.D

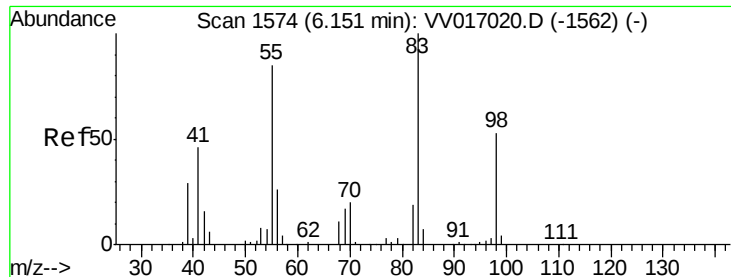
Acq: 22 Jun 2020 18:34

Tgt Ion: 78 Resp: 44899



Abundance Ion 78.10 (77.80 to 78.80): VV0





#35

Methvlcvclohexane

Concen: 0.861 ug/L

RT: 6.09 min Scan# 1556

Delta R.T. -0.06 min

Lab File: VV017025.D

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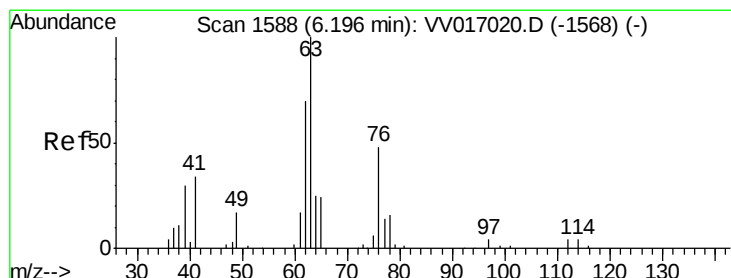
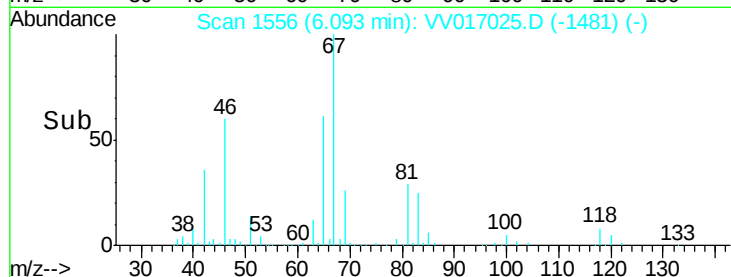
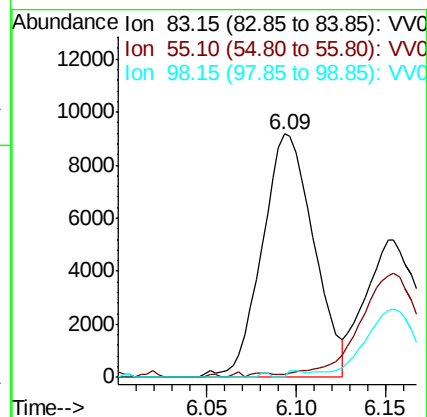
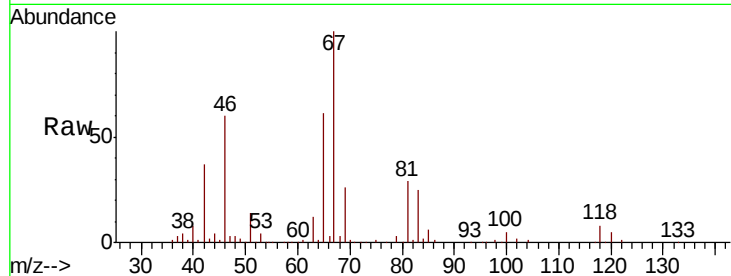
Tot Ion: 83 Resp: 18516

Ion Ratio Lower Upper

83 100

55 0.0 63.6 95.4#

98 29.5 38.8 58.2#



#37

1,2-Dichloropropane

Concen: 0.763 ug/L

RT: 6.10 min Scan# 1557

Delta R.T. -0.10 min

Lab File: VV017025.D

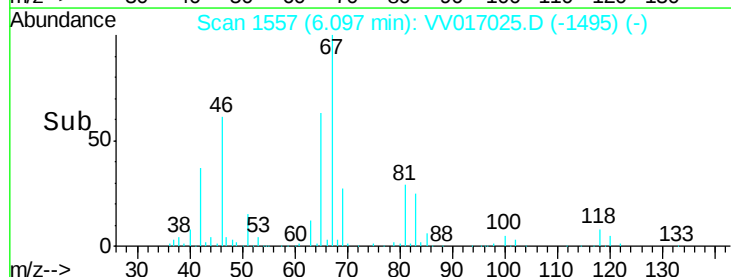
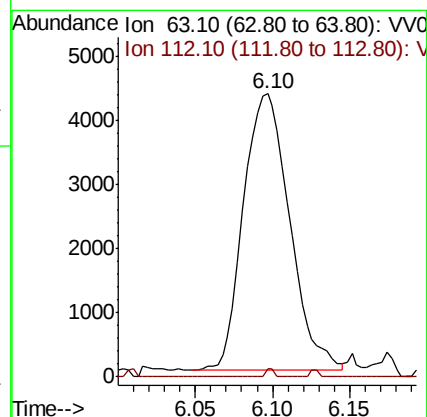
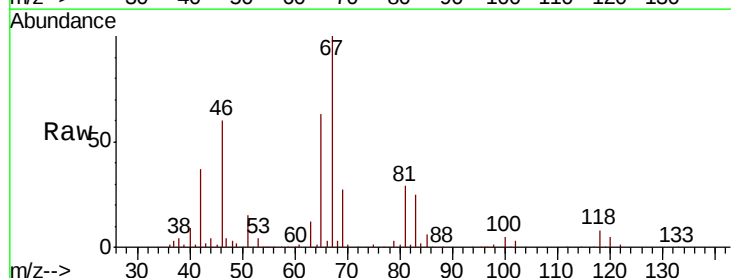
Acq: 22 Jun 2020 18:34

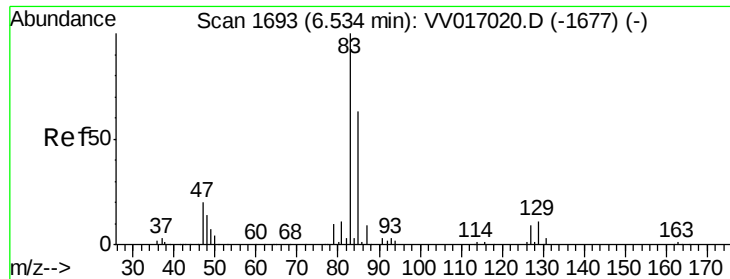
Tgt Ion: 63 Resp: 8927

Ion Ratio Lower Upper

63 100

112 0.0 4.4 6.6#





#38

Bromodichloromethane

Concen: 34.882 ug/L

RT: 6.34 min Scan# 1634

Delta R.T. -0.19 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :  
MSVOA\_V  
ClientSampleId :

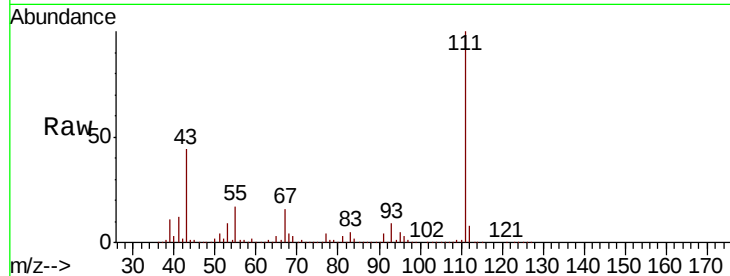
Tot Ion: 83 Resp: 554166

Ion Ratio Lower Upper

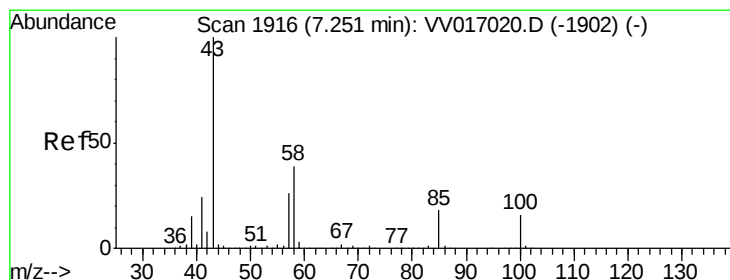
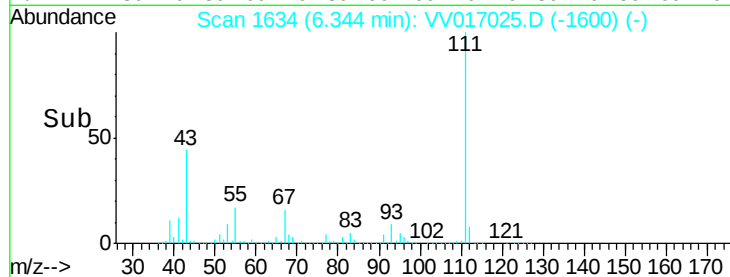
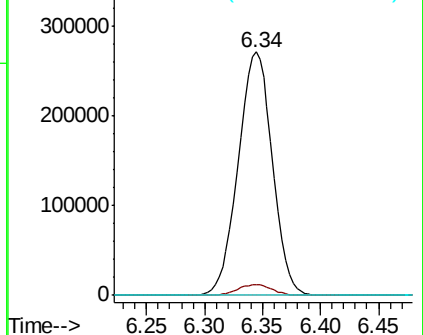
83 100

85 4.3 43.4 80.6#

127 0.2 7.9 11.9#



Abundance Ion 82.95 (82.65 to 83.65): VV0  
Ion 85.00 (84.70 to 85.70): VV0  
Ion 126.90 (126.60 to 127.60): V



#40

4-Methyl-2-pentanone

Concen: 1110.172 ug/L

RT: 7.16 min Scan# 1889

Delta R.T. -0.09 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

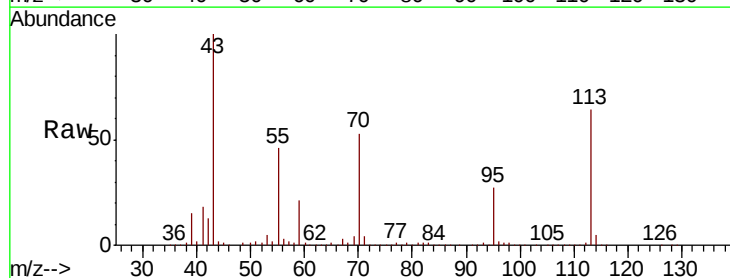
Tgt Ion: 43 Resp: 7496818

Ion Ratio Lower Upper

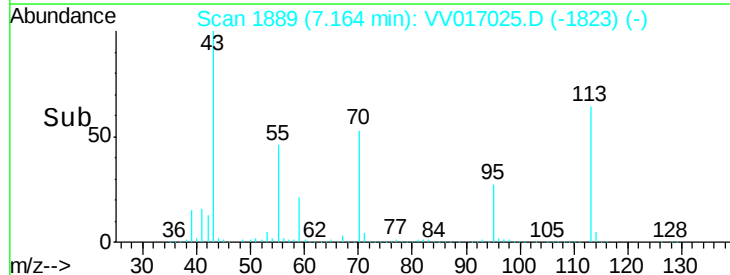
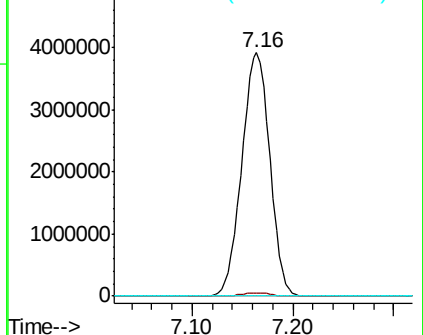
43 100

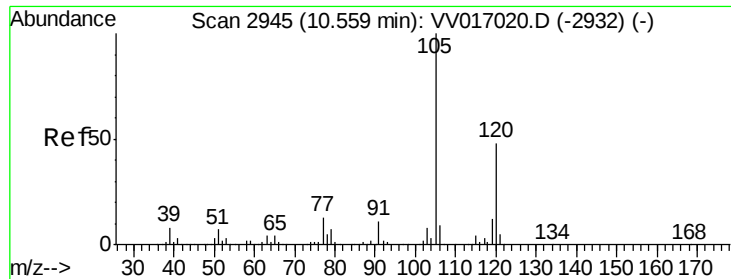
58 1.5 30.4 45.6#

100 2.0 12.7 19.1#



Abundance Ion 43.05 (42.75 to 43.75): VV0  
Ion 58.05 (57.75 to 58.75): VV0  
Ion 100.15 (99.85 to 100.85): V

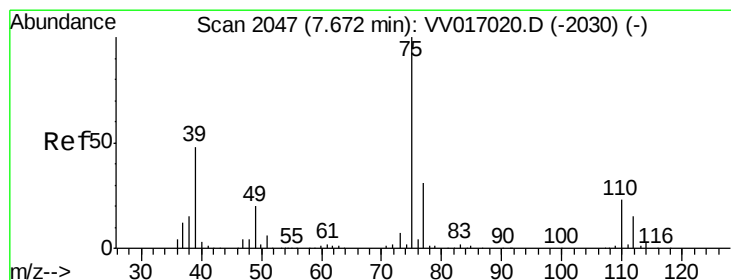
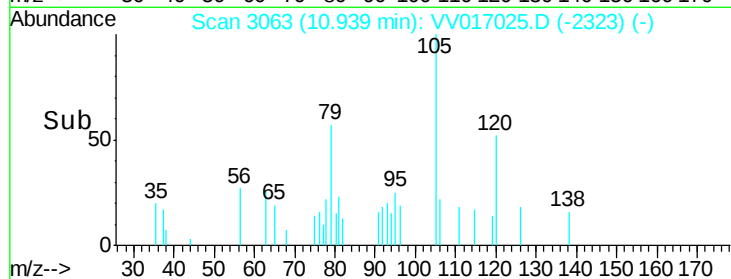
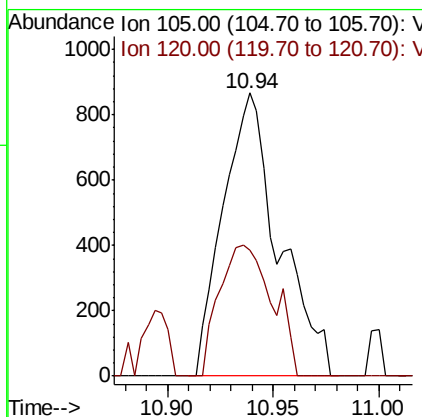
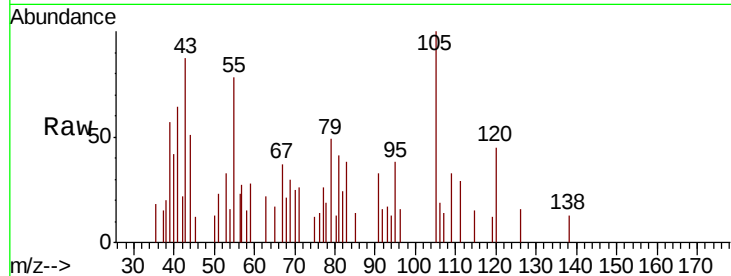




#43  
 1,3,5-Trimethylbenzene  
 Concen: 0.032 ug/L  
 RT: 10.94 min Scan# 3063  
 Delta R.T. 0.38 min  
 Lab File: VV017025.D  
 Acq: 22 Jun 2020 18:34

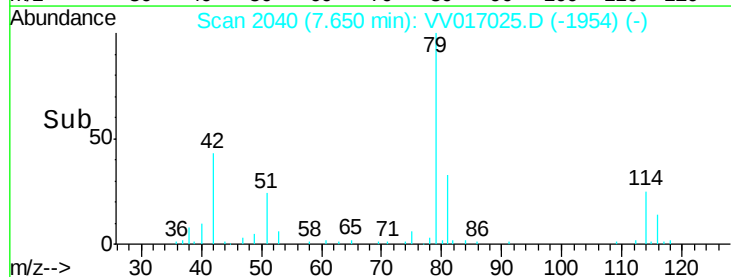
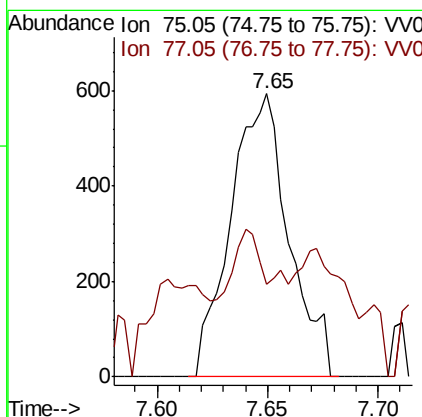
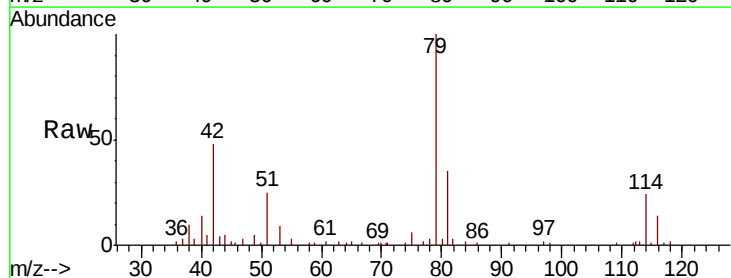
Instrument :  
 MSVOA\_V  
 ClientSampleId :

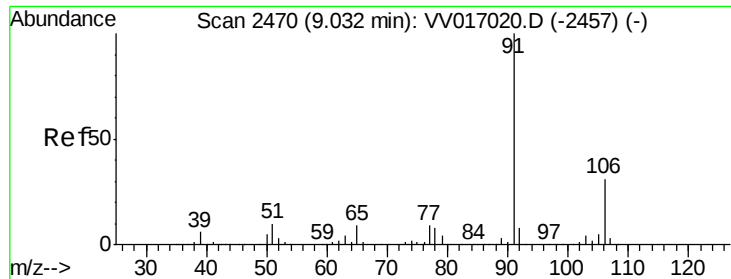
Tot Ion:105 Resp: 1591  
 Ion Ratio Lower Upper  
 105 100  
 120 44.1 38.6 57.8



#46  
 trans-1,3-Dichloropropene  
 Concen: 0.072 ug/L  
 RT: 7.65 min Scan# 2040  
 Delta R.T. -0.02 min  
 Lab File: VV017025.D  
 Acq: 22 Jun 2020 18:34

Tgt Ion: 75 Resp: 1086  
 Ion Ratio Lower Upper  
 75 100  
 77 32.7 22.3 41.3





#54

Ethylbenzene

Concen: 0.380 ug/L

RT: 9.03 min Scan# 2470

Delta R.T. 0.00 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :

MSVOA\_V

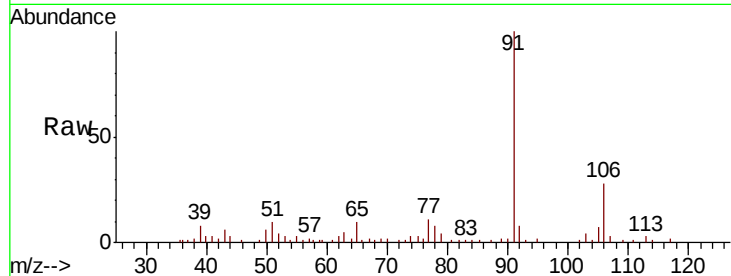
ClientSampleId :

Tot Ion: 91 Resp: 22281

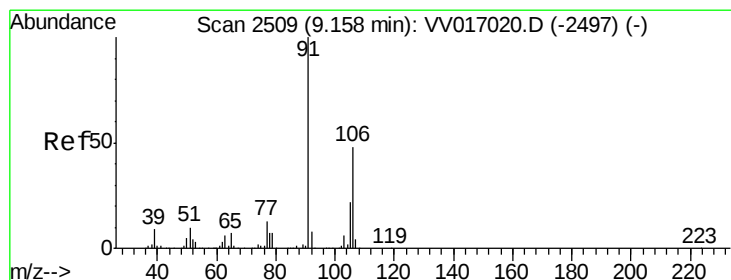
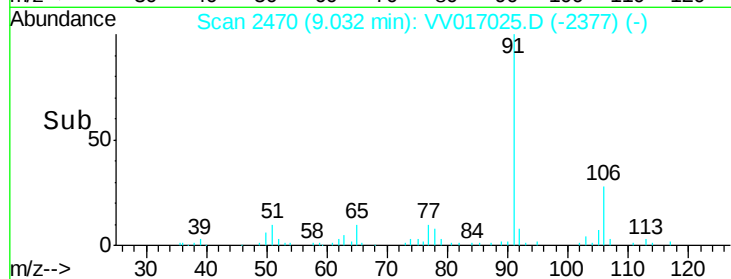
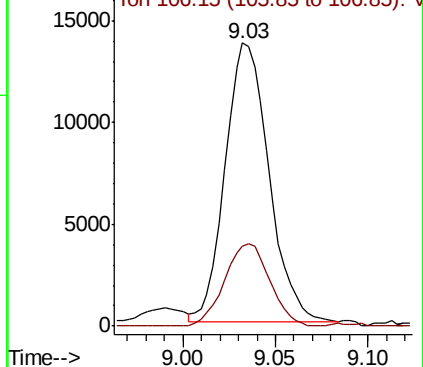
Ion Ratio Lower Upper

91 100

106 28.0 21.1 39.1



Abundance Ion 91.15 (90.85 to 91.85): VV017025.D (-2377) (-)



#55

m,p-xylene

Concen: 0.083 ug/L

RT: 9.16 min Scan# 2510

Delta R.T. 0.00 min

Lab File: VV017025.D

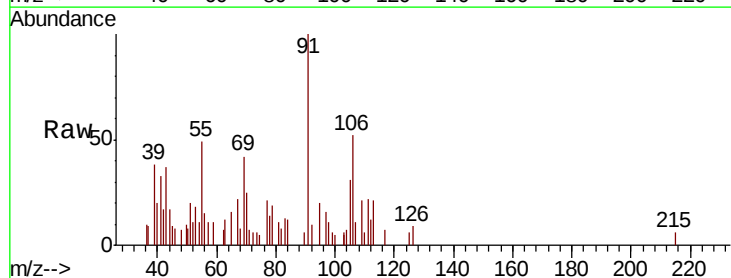
Acq: 22 Jun 2020 18:34

Tgt Ion: 106 Resp: 1902

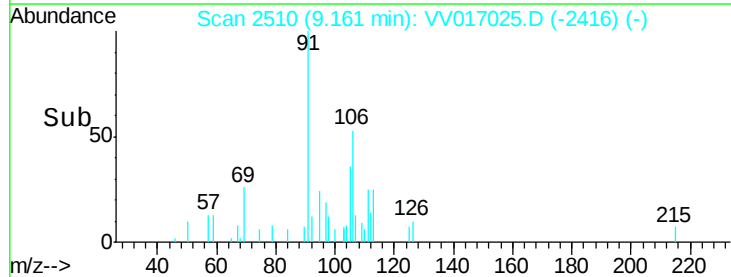
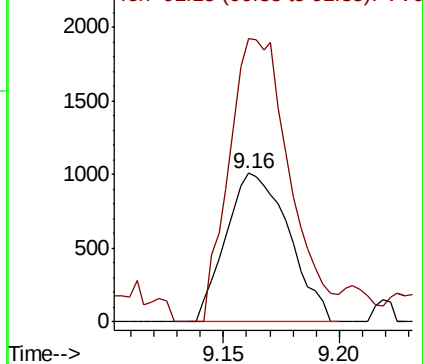
Ion Ratio Lower Upper

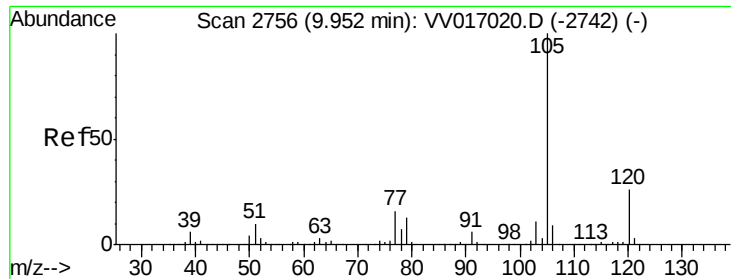
106 100

91 190.8 142.7 264.9



Abundance Ion 106.15 (105.85 to 106.85): VV017025.D (-2416) (-)





#58

Isopropylbenzene

Concen: 0.583 ug/L

RT: 9.95 min Scan# 2756

Delta R.T. 0.00 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :  
MSVOA\_V  
ClientSampled :

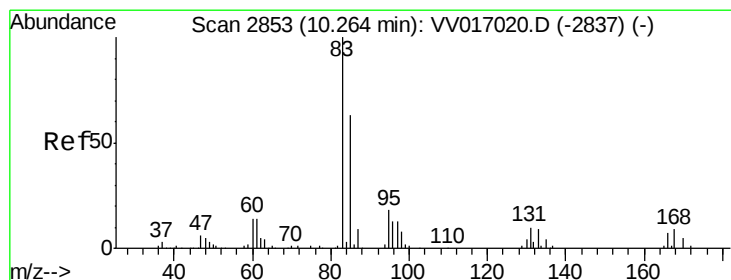
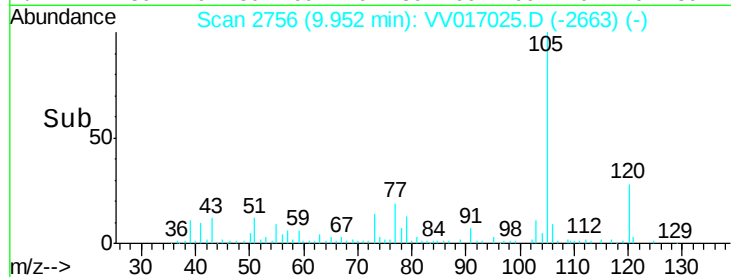
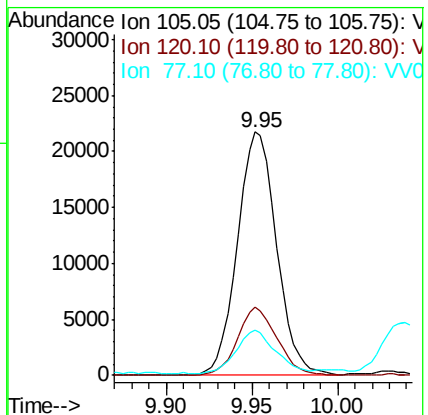
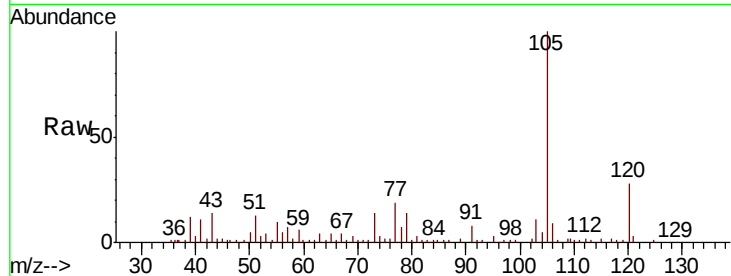
Tot Ion: 105 Resp: 34455

Ion Ratio Lower Upper

105 100

120 28.1 21.2 31.8

77 17.7 13.0 19.4



#60

1,1,2,2-Tetrachloroethane

Concen: 0.617 ug/L

RT: 10.27 min Scan# 2854

Delta R.T. 0.00 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

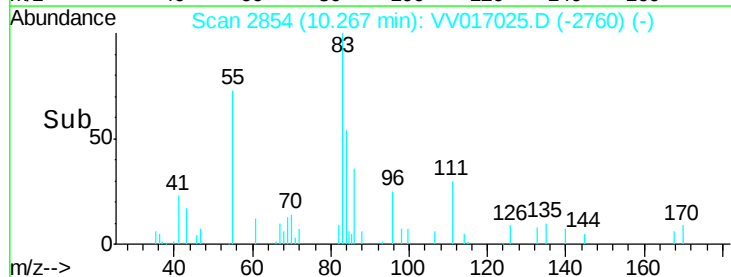
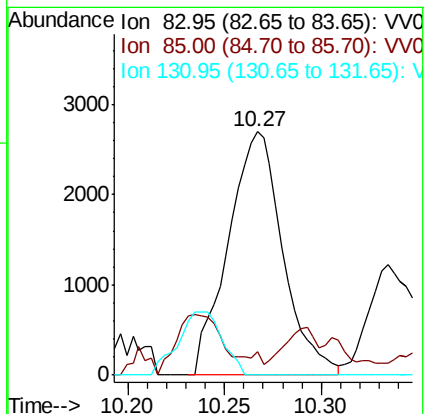
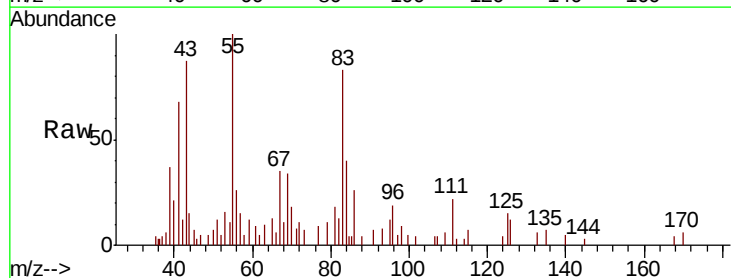
Tgt Ion: 83 Resp: 5297

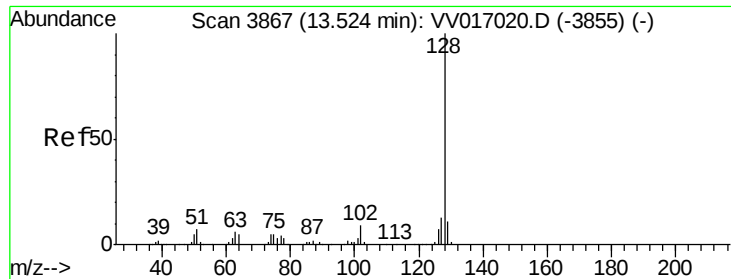
Ion Ratio Lower Upper

83 100

85 9.6 42.9 79.7#

131 0.0 8.6 13.0#





#70

Naphthalene

Concen: 0.238 ug/L

RT: 13.52 min Scan# 3866

Delta R.T. -0.00 min

Lab File: VV017025.D

Acq: 22 Jun 2020 18:34

Instrument :

MSVOA\_V

ClientSampleId :

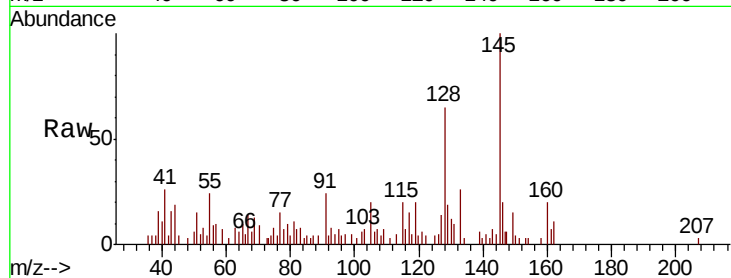
Tot Ion:128 Resp: 6259

Ion Ratio Lower Upper

128 100

129 42.2 8.8 13.2#

127 23.8 10.5 15.7#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

