

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN052920\  
 Data File : VN061571.D  
 Acq On : 29 May 2020 16:46  
 Operator : JC/MD  
 Sample : PB129155ZHE#03  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: May 30 04:44:13 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N052820W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 29 02:14:10 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 271793   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 490095   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 498319   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 227005   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.99  | 65   | 172269   | 53.20 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.40% |          |
| 35) Dibromofluoromethane    | 7.55  | 113  | 128898   | 51.85 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.70% |          |
| 50) Toluene-d8              | 10.06 | 98   | 616092   | 53.47 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.94% |          |
| 62) 4-Bromofluorobenzene    | 12.38 | 95   | 232092   | 55.22 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 110.44% |          |

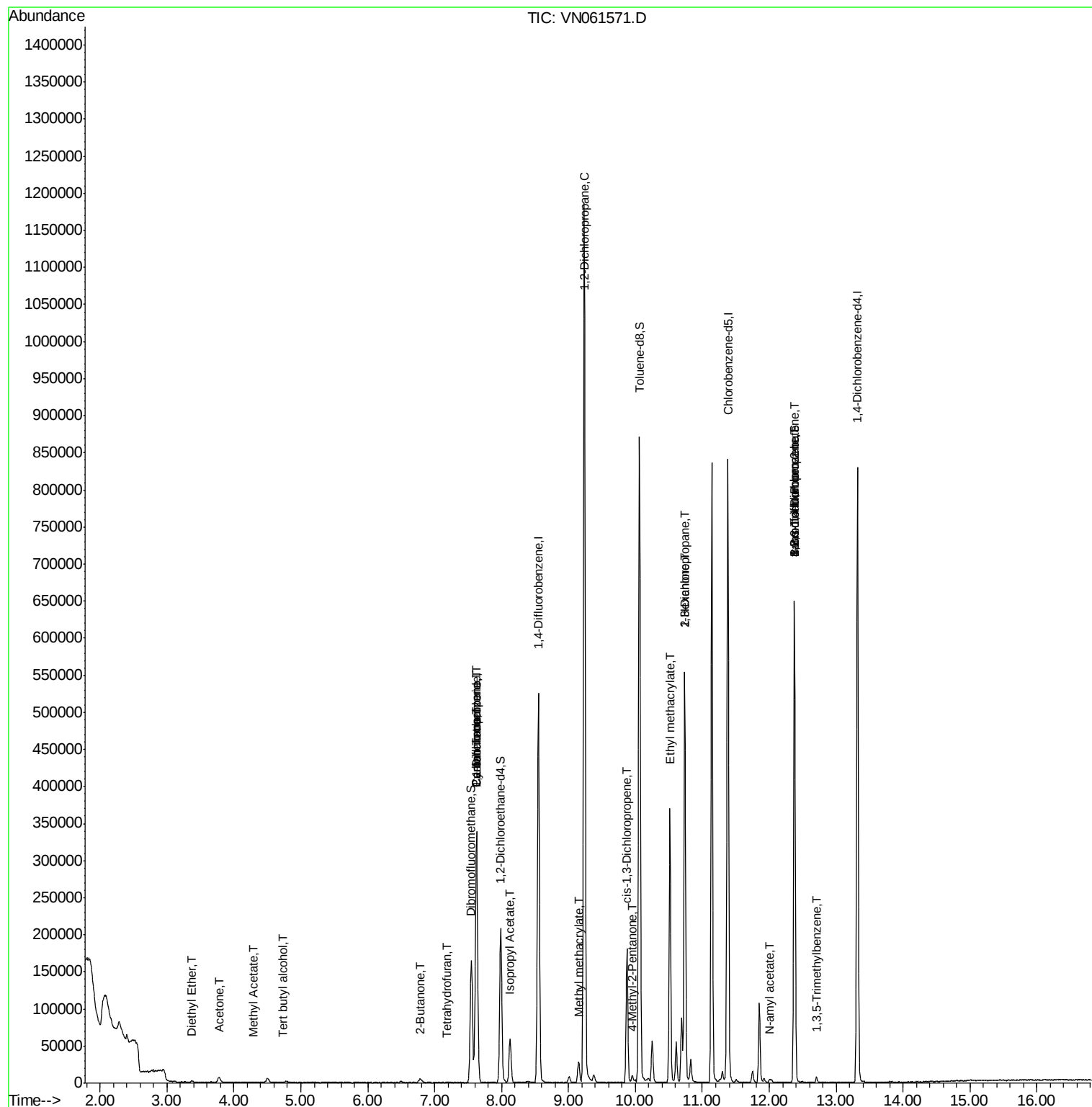
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 8) Diethyl Ether               | 3.36  | 74   | 528      | 0.295     | ug/l # | 17     |
| 11) Tert butyl alcohol         | 4.73  | 59   | 228      | 0.529     | ug/l # | 72     |
| 16) Acetone                    | 3.78  | 43   | 11966    | 7.390     | ug/l   | 90     |
| 18) Methyl Acetate             | 4.28  | 43   | 2246     | 0.766     | ug/l # | 59     |
| 20) Methylene Chloride         | 4.50  | 84   | 4766     | Below Cal | #      | 84     |
| 25) 2-Butanone                 | 6.79  | 43   | 4516     | 2.943     | ug/l   | 89     |
| 29) Tetrahydrofuran            | 7.18  | 42   | 531      | 0.525     | ug/l # | 25     |
| 31) Cyclohexane                | 7.63  | 56   | 5786     | 1.268     | ug/l # | 22     |
| 36) 1,1-Dichloropropene        | 7.63  | 75   | 21638    | 4.987     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.63  | 117  | 28625    | 6.840     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.13  | 43   | 67292    | 10.703    | ug/l # | 90     |
| 45) 1,2-Dichloropropane        | 9.23  | 63   | 1575     | 0.495     | ug/l # | 44     |
| 48) Methyl methacrylate        | 9.15  | 41   | 3814     | 1.348     | ug/l # | 5      |
| 51) 4-Methyl-2-Pentanone       | 9.95  | 43   | 4601     | 1.299     | ug/l # | 85     |
| 54) cis-1,3-Dichloropropene    | 9.88  | 75   | 37005    | 6.614     | ug/l # | 63     |
| 56) Ethyl methacrylate         | 10.52 | 69   | 1183     | 0.243     | ug/l # | 1      |
| 57) 1,3-Dichloropropane        | 10.73 | 76   | 6008     | 1.079     | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.74 | 43   | 73825    | 29.015    | ug/l # | 48     |
| 71) Bromoform                  | 12.37 | 173  | 1933     | 0.650     | ug/l # | 1      |
| 74) N-amyl acetate             | 12.01 | 43   | 4979     | 0.954     | ug/l # | 38     |
| 76) 1,2,3-Trichloropropane     | 12.37 | 75   | 116651   | 28.260    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 4115     | 0.297     | ug/l   | 98     |
| 81) trans-1,4-Dichloro-2-buten | 12.37 | 75   | 116651   | 72.267    | ug/l # | 15     |

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

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Quant Title : SW846 8260  
QLast Update : Fri May 29 02:14:10 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.63 min Scan# 1820

Delta R.T. -0.00 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

Instrument :

MSVOA\_N

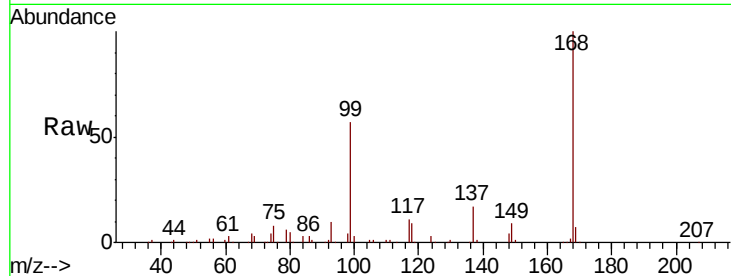
ClientSampleId :

Tot Ion:168 Resp: 271793

Ion Ratio Lower Upper

168 100

99 56.7 45.0 67.4



Abundance Ion 167.90 (167.60 to 168.60): VN061541.D (-1801) (-)

Ion 98.90 (98.60 to 99.60): VN061541.D (-1801) (-)

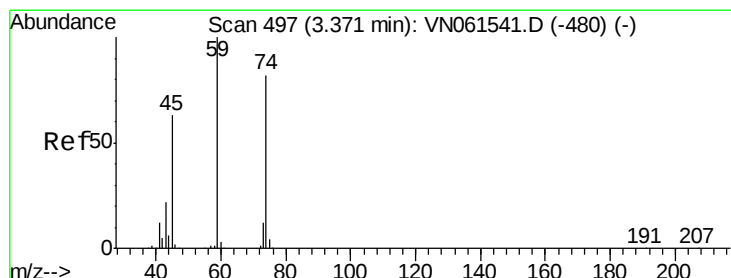
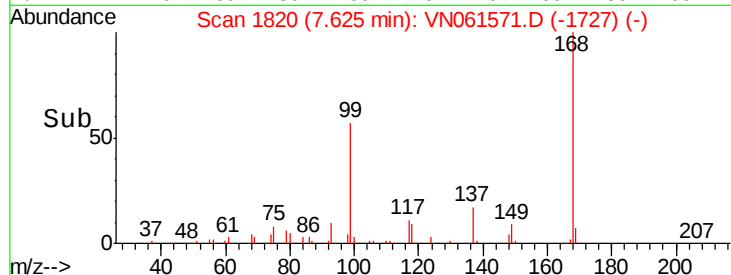
7.63

100000

50000

0

Time-->



#8

Diethyl Ether

Concen: 0.295 ug/l

RT: 3.36 min Scan# 495

Delta R.T. -0.01 min

Lab File: VN061571.D

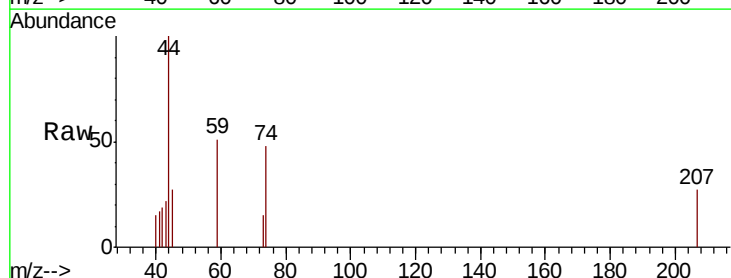
Acq: 29 May 2020 16:46

Tgt Ion: 74 Resp: 528

Ion Ratio Lower Upper

74 100

45 152.8 39.9 119.7#



Abundance Ion 74.00 (73.70 to 74.70): VN061541.D (-480) (-)

Ion 45.00 (44.70 to 45.70): VN061541.D (-480) (-)

3.36

500

400

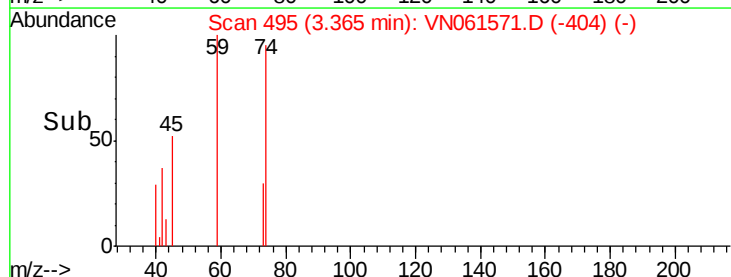
300

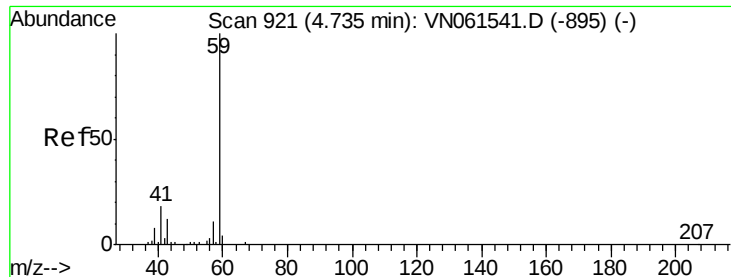
200

100

0

Time-->

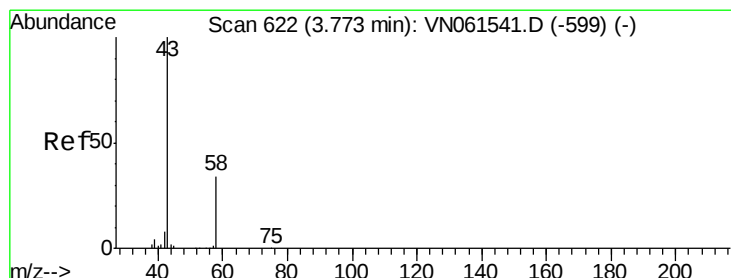
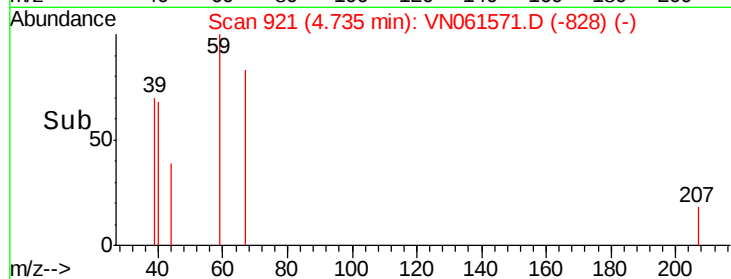
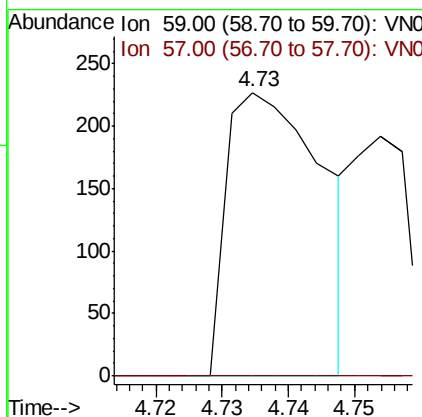
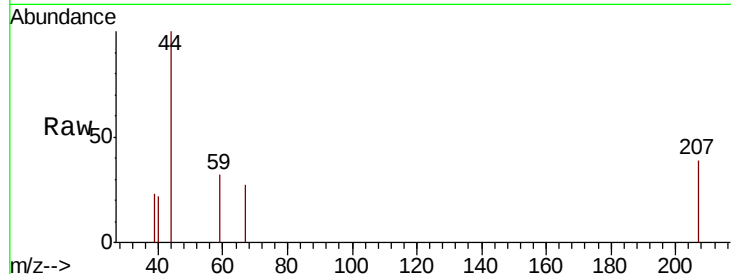




#11  
Tert butyl alcohol  
Concen: 0.529 ug/l  
RT: 4.73 min Scan# 921  
Delta R.T. -0.00 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

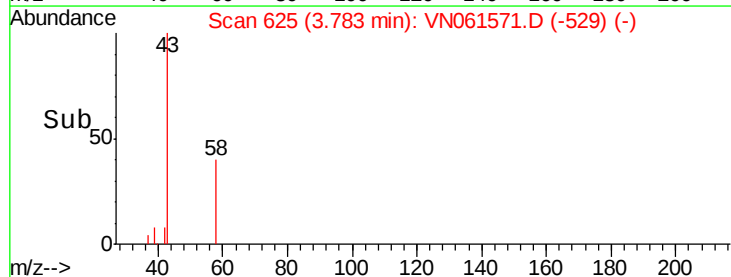
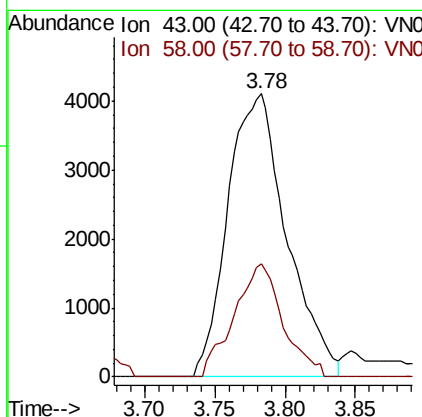
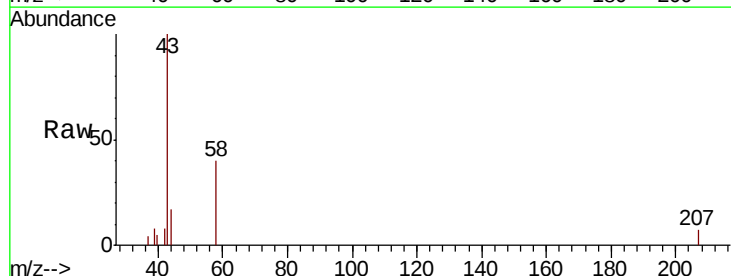
Instrument :  
MSVOA\_N  
ClientSampled :

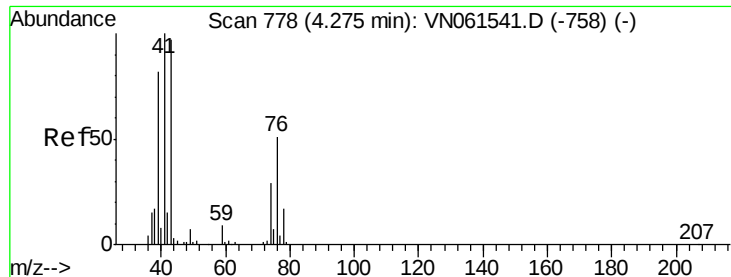
Tot Ion: 59 Resp: 228  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.4 12.6#



#16  
Acetone  
Concen: 7.390 ug/l  
RT: 3.78 min Scan# 625  
Delta R.T. 0.01 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

Tgt Ion: 43 Resp: 11966  
Ion Ratio Lower Upper  
43 100  
58 39.8 27.2 40.8

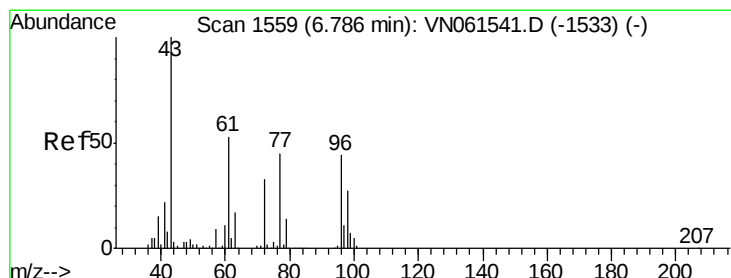
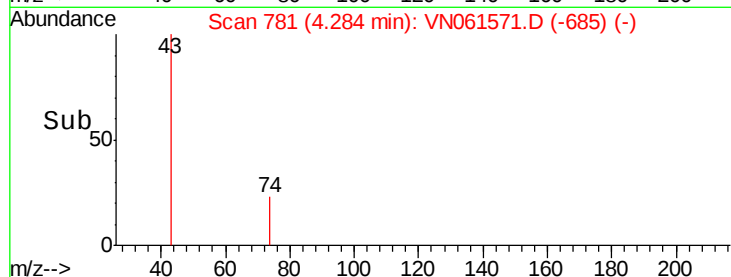
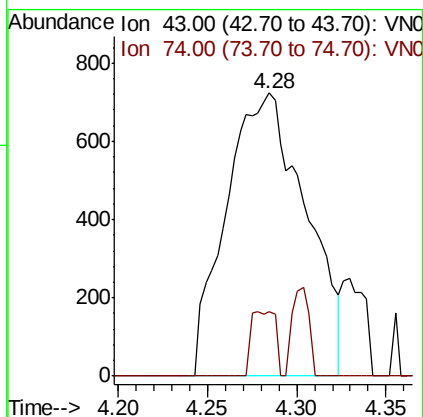
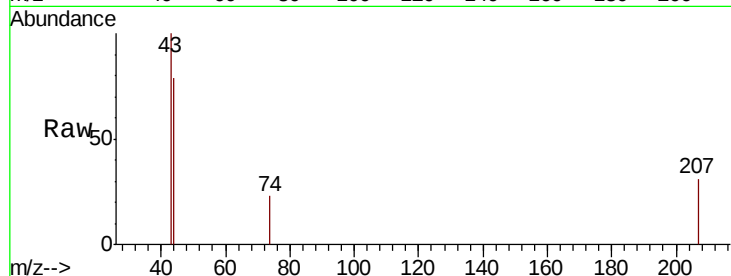




#18  
Methyl Acetate  
Concen: 0.766 ug/l  
RT: 4.28 min Scan# 781  
Delta R.T. 0.01 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

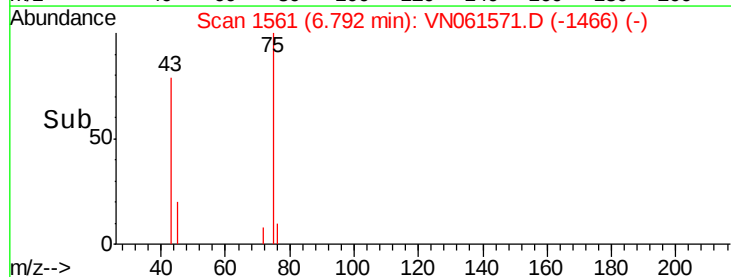
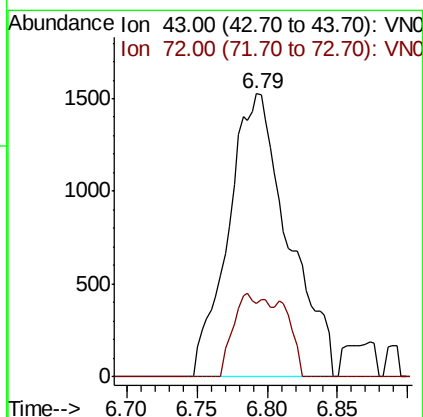
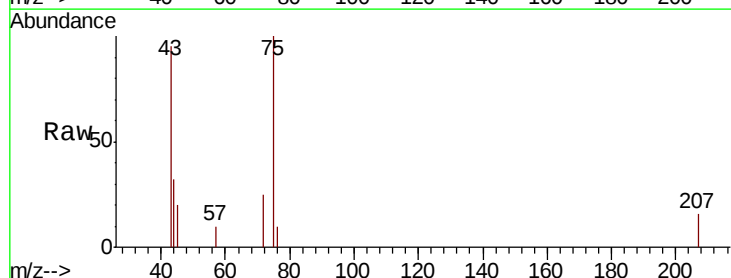
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MSVOA\_N  
ClientSampleId :

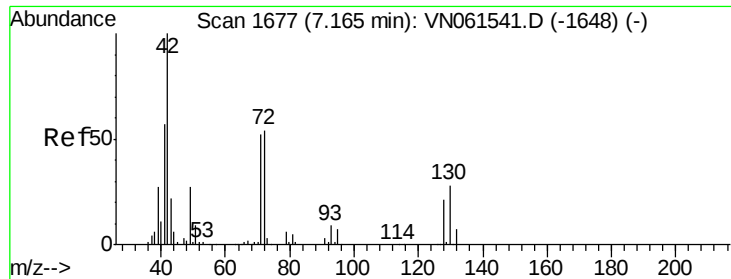
Tot Ion: 43 Resp: 2246  
Ion Ratio Lower Upper  
43 100  
74 6.9 23.2 34.8#



#25  
2-Butanone  
Concen: 2.943 ug/l  
RT: 6.79 min Scan# 1561  
Delta R.T. 0.01 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

Tgt Ion: 43 Resp: 4516  
Ion Ratio Lower Upper  
43 100  
72 26.1 26.0 39.0

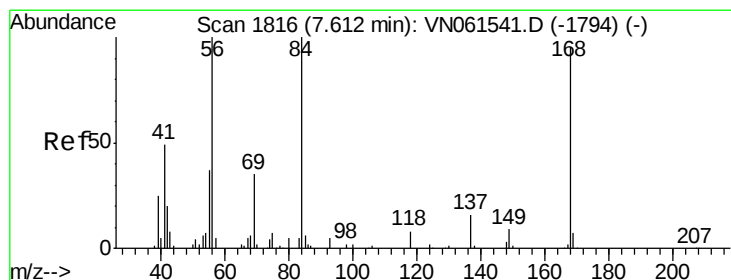
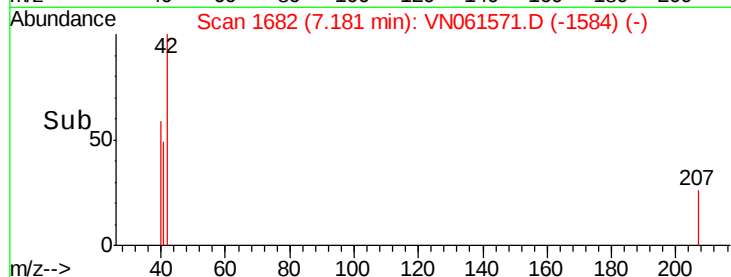
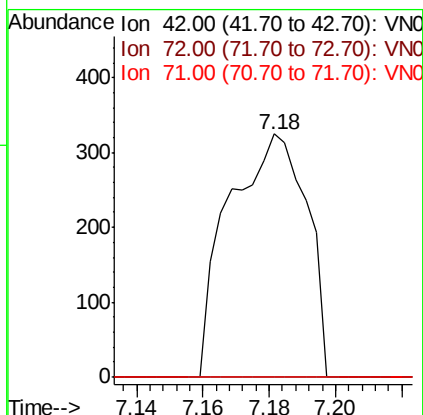
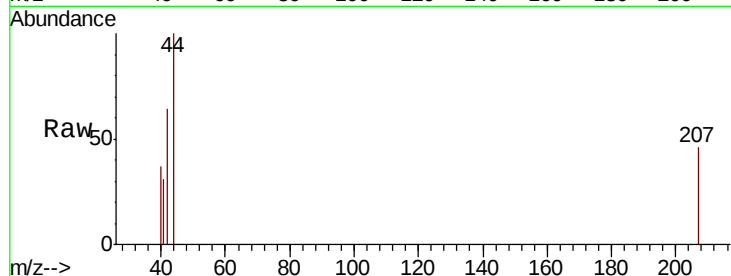




#29  
Tetrahydrofuran  
Concen: 0.525 ug/l  
RT: 7.18 min Scan# 1682  
Delta R.T. 0.02 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

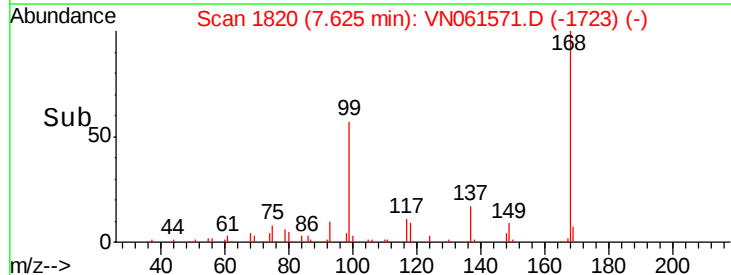
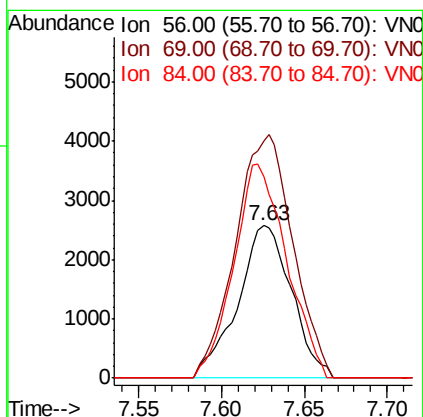
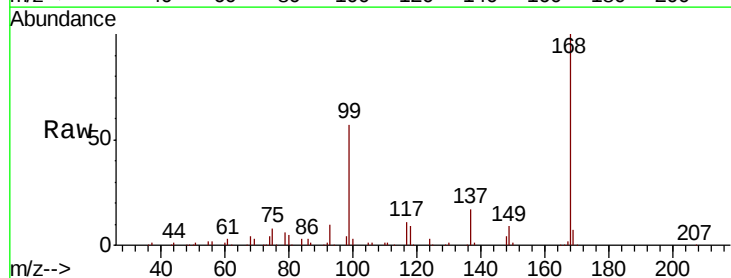
Instrument :  
MSVOA\_N  
ClientSampleId :

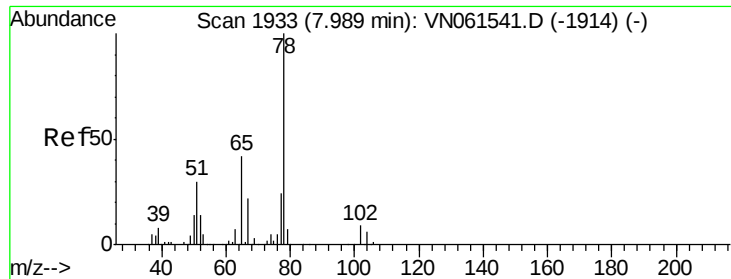
Tot Ion: 42 Resp: 531  
Ion Ratio Lower Upper  
42 100  
72 0.0 43.6 65.4#  
71 0.0 41.2 61.8#



#31  
Cyclohexane  
Concen: 1.268 ug/l  
RT: 7.63 min Scan# 1820  
Delta R.T. 0.01 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

Tgt Ion: 56 Resp: 5786  
Ion Ratio Lower Upper  
56 100  
69 155.9 27.8 41.8#  
84 131.8 79.9 119.9#

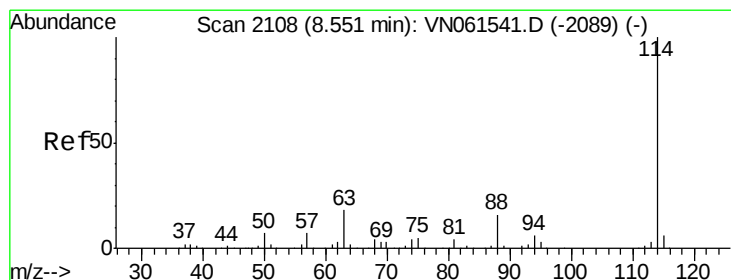
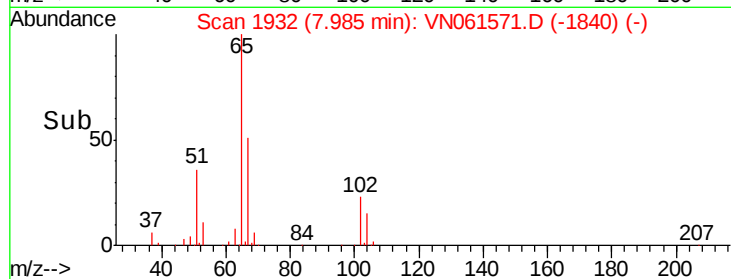
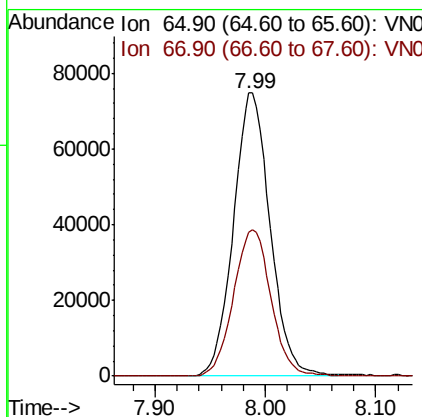
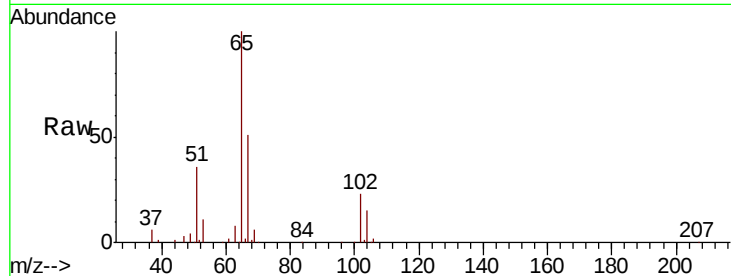




#33  
 1,2-Dichloroethane-d4  
 Concen: 53.198 ug/l  
 RT: 7.99 min Scan# 1932  
 Delta R.T. -0.00 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

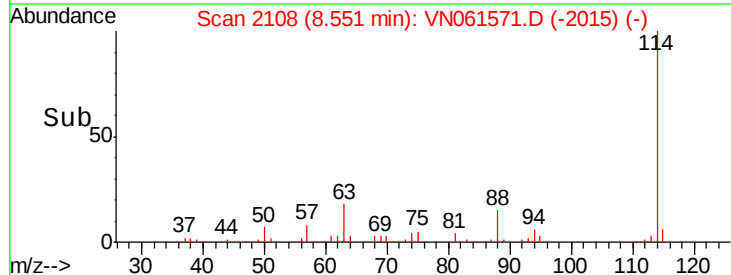
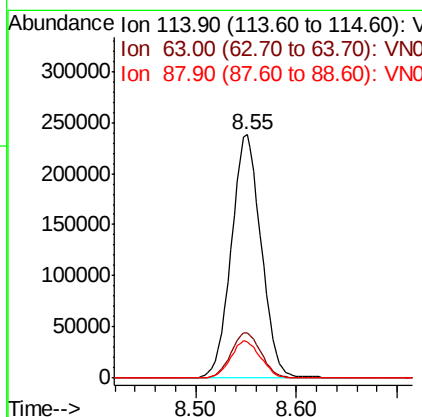
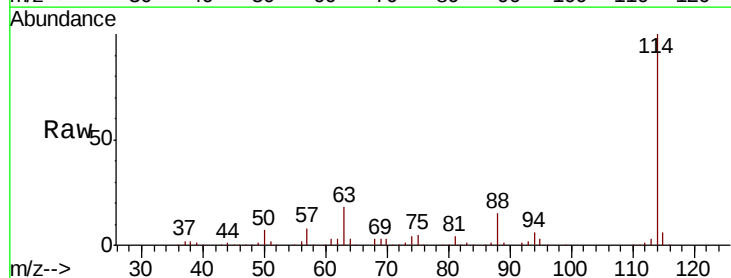
Instrument :  
 MSVOA\_N  
 ClientSampleId :

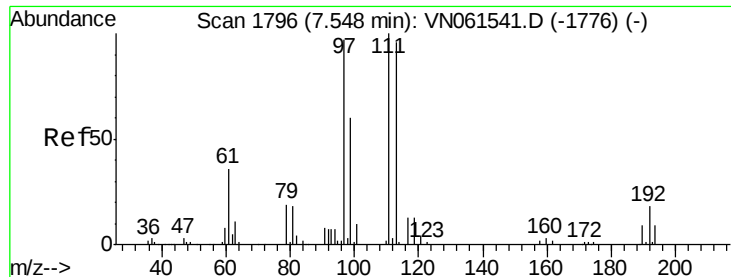
Tot Ion: 65 Resp: 172269  
 Ion Ratio Lower Upper  
 65 100  
 67 52.8 0.0 104.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.55 min Scan# 2108  
 Delta R.T. -0.00 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Tgt Ion: 114 Resp: 490095  
 Ion Ratio Lower Upper  
 114 100  
 63 18.3 0.0 35.8  
 88 14.9 0.0 31.0

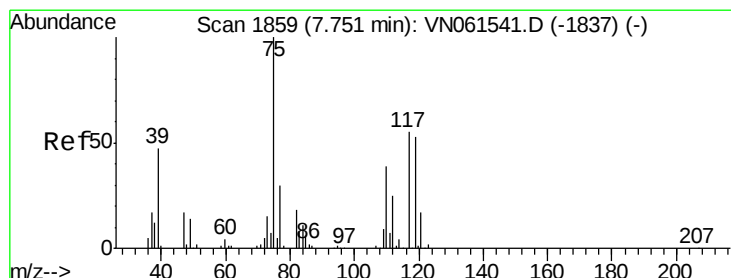
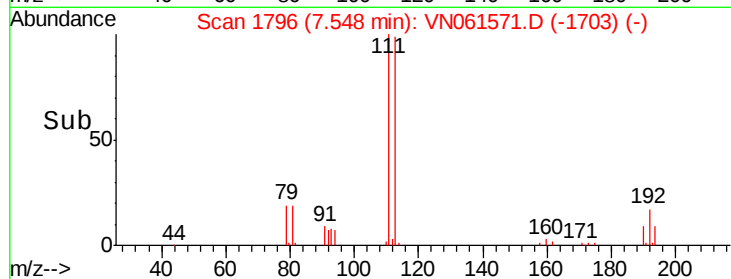
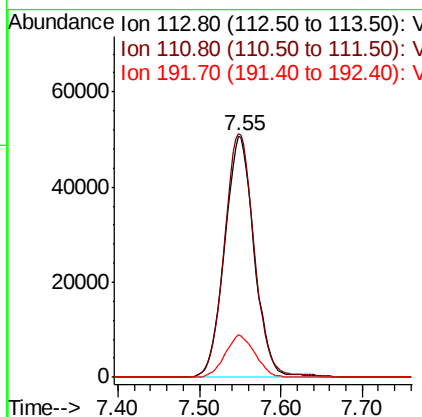
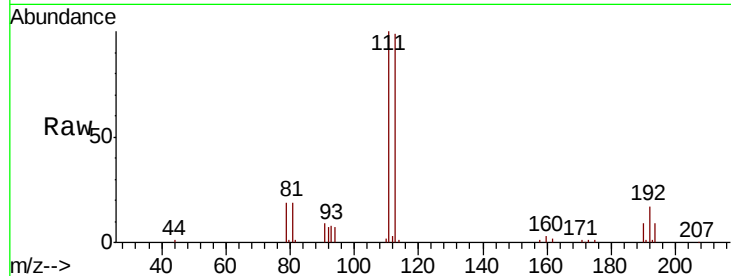




#35  
 Dibromofluoromethane  
 Concen: 51.846 ug/l  
 RT: 7.55 min Scan# 1796  
 Delta R.T. -0.00 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

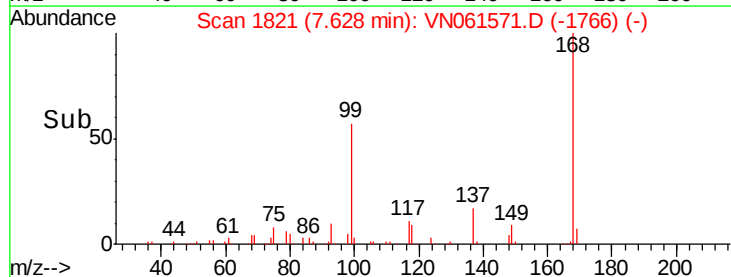
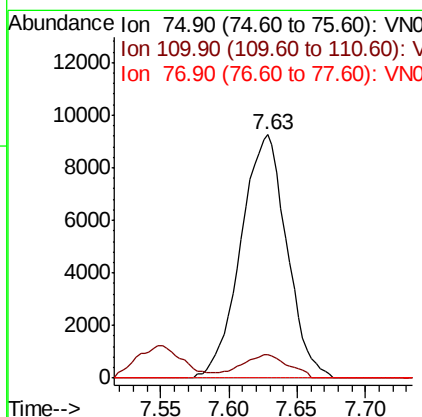
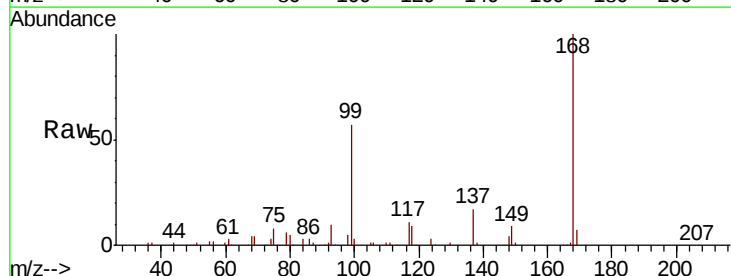
Instrument :  
 MSVOA\_N  
 ClientSampleId :

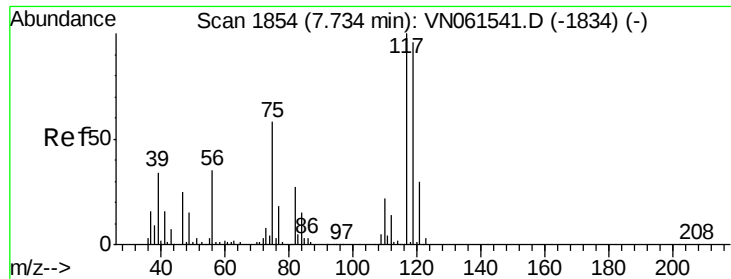
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.5 | 83.4  | 125.0 |
| 192     | 17.6  | 15.4  | 23.2  |



#36  
 1,1-Dichloropropene  
 Concen: 4.987 ug/l  
 RT: 7.63 min Scan# 1821  
 Delta R.T. -0.12 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 9.7   | 19.5  | 58.5# |
| 77      | 0.0   | 24.7  | 37.1# |





#38

Carbon Tetrachloride

Concen: 6.840 ug/l

RT: 7.63 min Scan# 1820

Delta R.T. -0.11 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

Instrument :

MSVOA\_N

ClientSampleId :

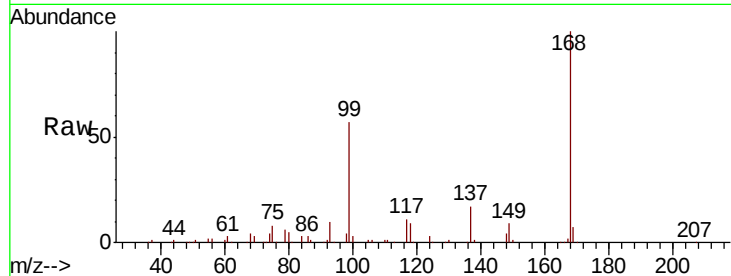
Tot Ion:117 Resp: 28625

Ion Ratio Lower Upper

117 100

119 4.5 76.5 114.7#

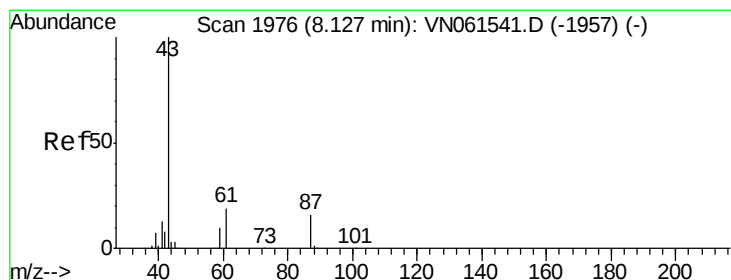
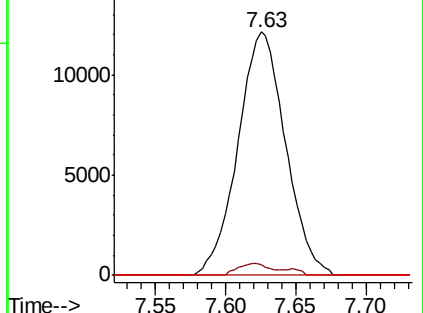
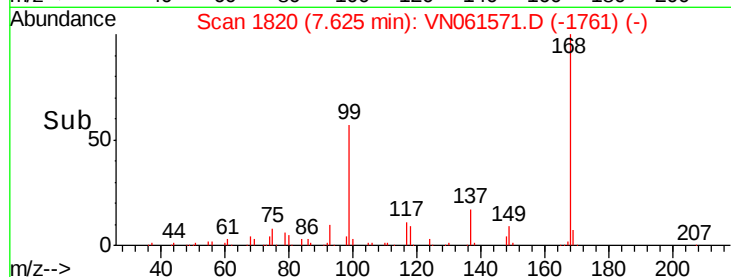
121 0.0 24.1 36.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#43

Isopropyl Acetate

Concen: 10.703 ug/l

RT: 8.13 min Scan# 1976

Delta R.T. 0.00 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

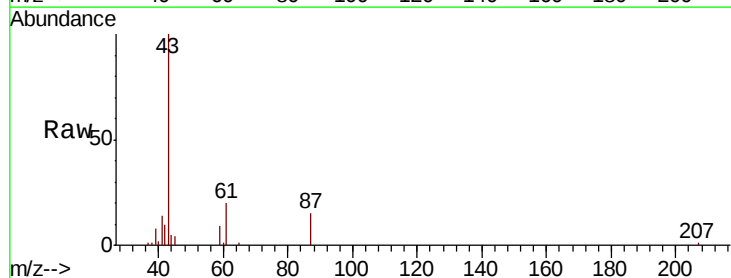
Tgt Ion: 43 Resp: 67292

Ion Ratio Lower Upper

43 100

61 21.7 23.6 35.4#

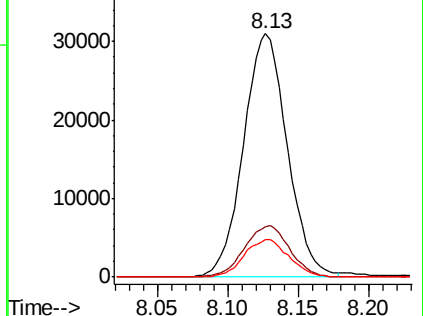
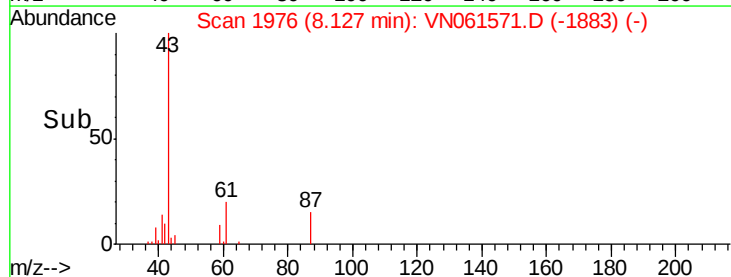
87 15.7 13.0 19.6

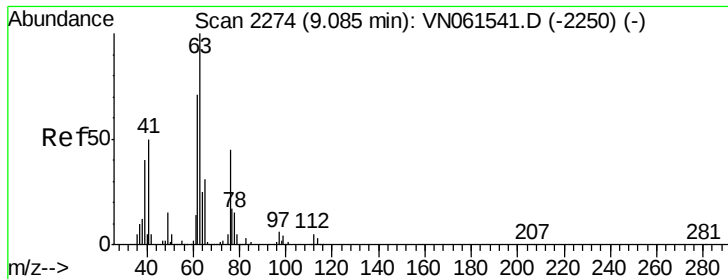


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 61.00 (60.70 to 61.70): VN0

Ion 87.00 (86.70 to 87.70): VN0





#45

1,2-Dichloropropane

Concen: 0.495 ug/l

RT: 9.23 min Scan# 2320

Delta R.T. 0.15 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

Instrument :

MSVOA\_N

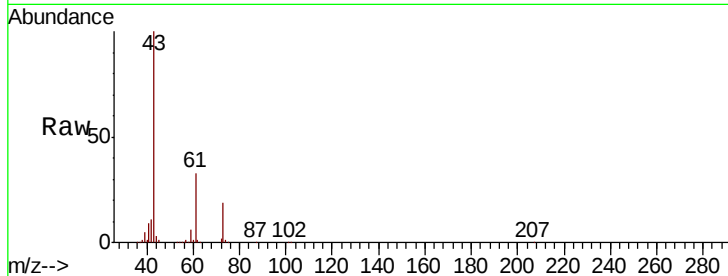
ClientSampleId :

Tot Ion: 63 Resp: 1575

Ion Ratio Lower Upper

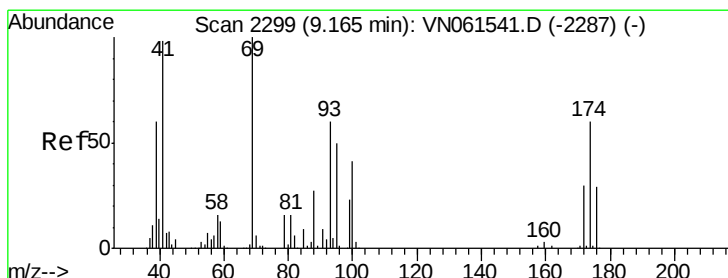
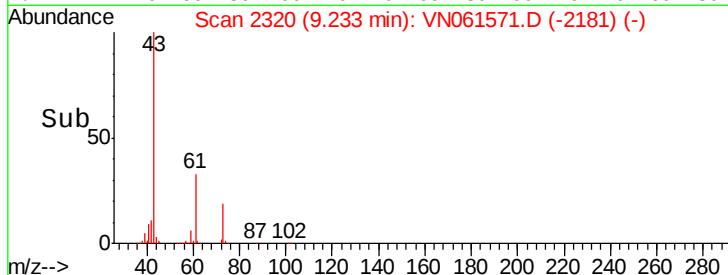
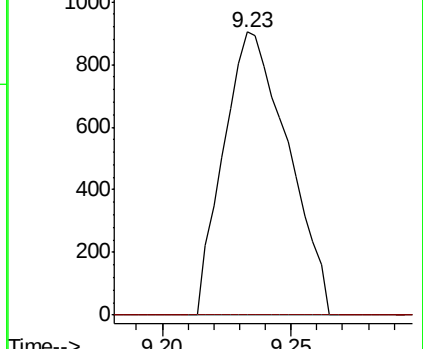
63 100

65 0.0 24.7 37.1#



Abundance Ion 62.90 (62.60 to 63.60): VN0

Ion 64.90 (64.60 to 65.60): VN0



#48

Methyl methacrylate

Concen: 1.348 ug/l

RT: 9.15 min Scan# 2293

Delta R.T. -0.02 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

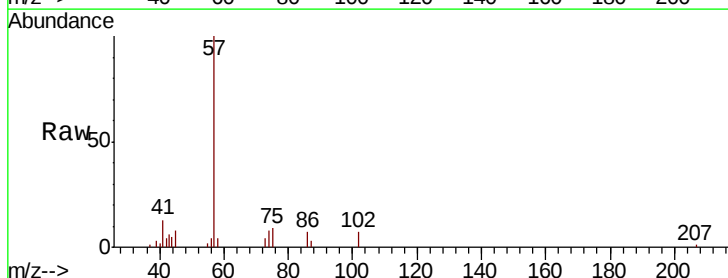
Tgt Ion: 41 Resp: 3814

Ion Ratio Lower Upper

41 100

69 0.0 83.9 125.9#

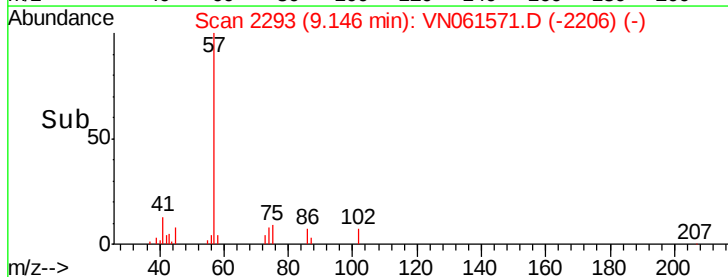
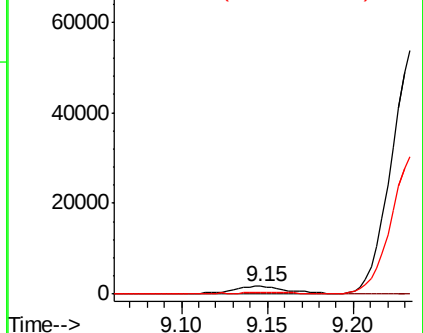
39 0.0 52.1 78.1#

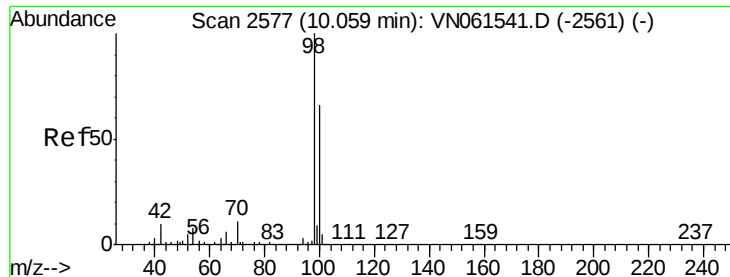


Abundance Ion 41.00 (40.70 to 41.70): VN0

Ion 69.00 (68.70 to 69.70): VN0

Ion 39.00 (38.70 to 39.70): VN0





#50

Toluene-d8

Concen: 53.475 ug/l

RT: 10.06 min Scan# 2577

Delta R.T. 0.00 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

Instrument :

MSVOA\_N

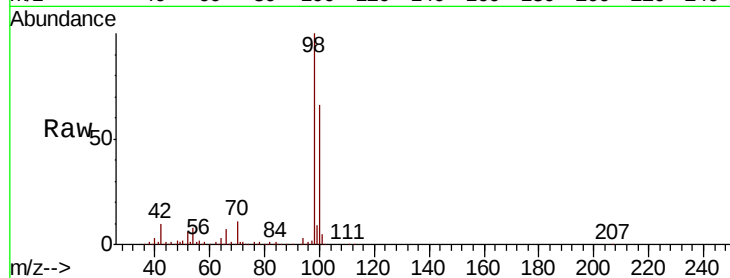
ClientSampleId :

Tot Ion: 98 Resp: 616092

Ion Ratio Lower Upper

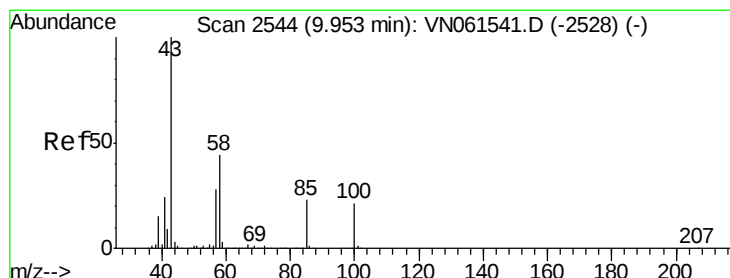
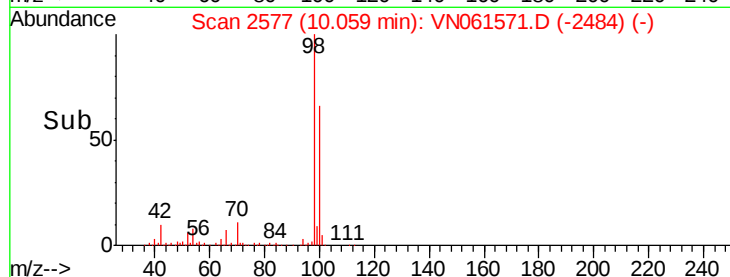
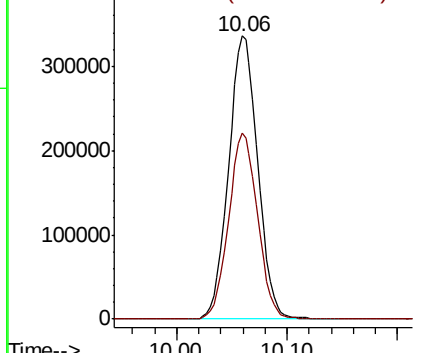
98 100

100 65.3 52.8 79.2



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN



#51

4-Methyl-2-Pentanone

Concen: 1.299 ug/l

RT: 9.95 min Scan# 2544

Delta R.T. -0.00 min

Lab File: VN061571.D

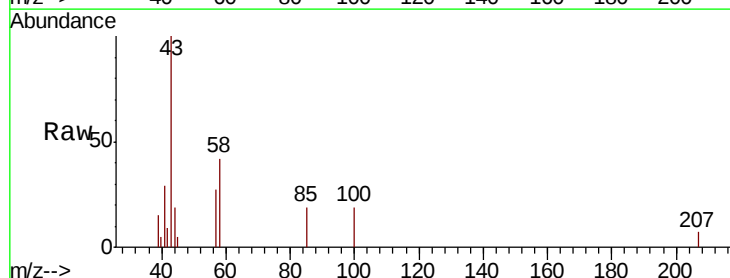
Acq: 29 May 2020 16:46

Tgt Ion: 43 Resp: 4601

Ion Ratio Lower Upper

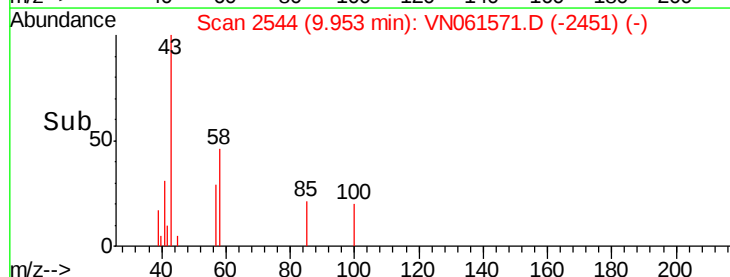
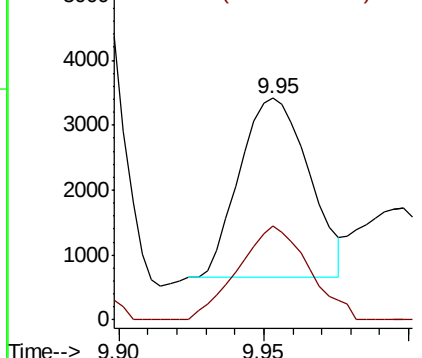
43 100

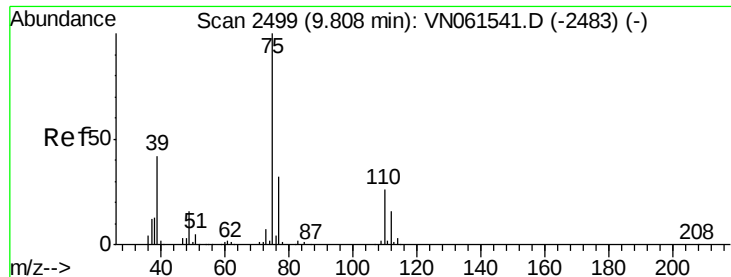
58 53.2 35.0 52.6#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



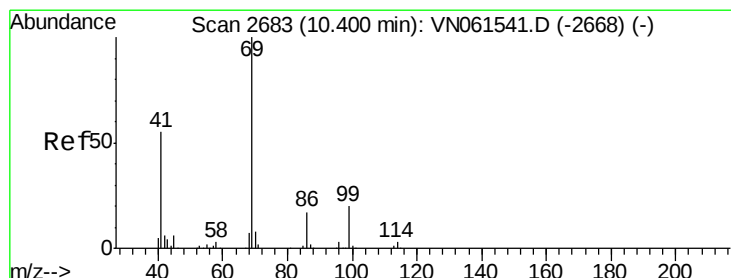
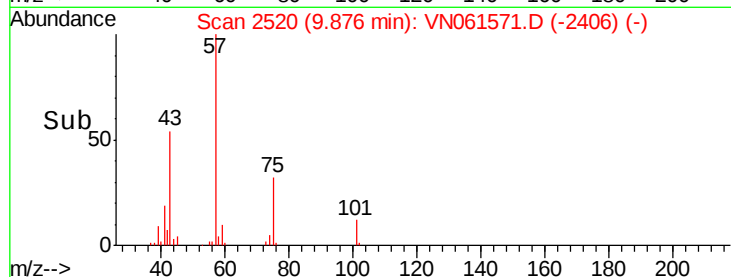
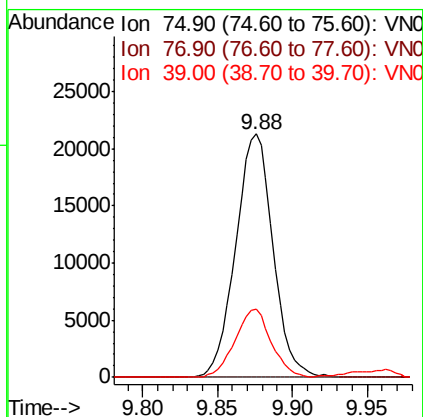
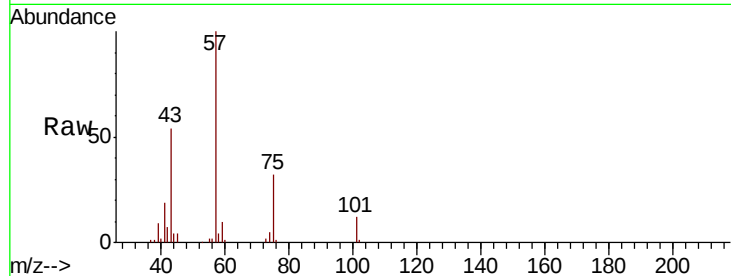


#54

cis-1,3-Dichloropropene  
 Concen: 6.614 ug/l  
 RT: 9.88 min Scan# 2520  
 Delta R.T. 0.07 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Instrument :  
 MSVOA\_N  
 ClientSampled :

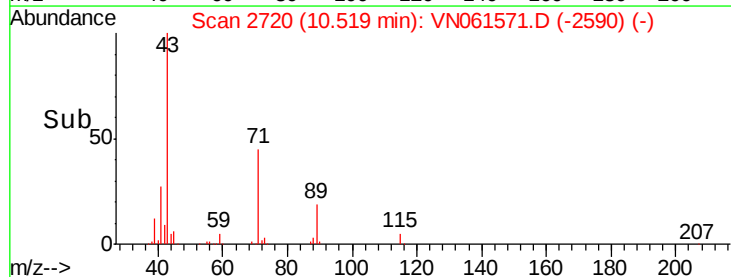
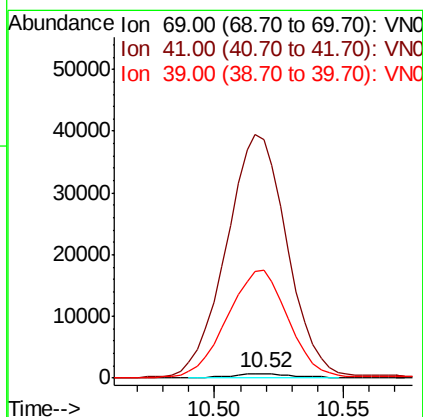
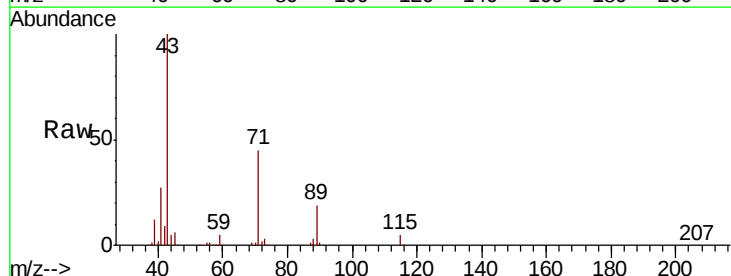
Tot Ion: 75 Resp: 37005  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.4 38.2#  
 39 28.2 33.8 50.6#

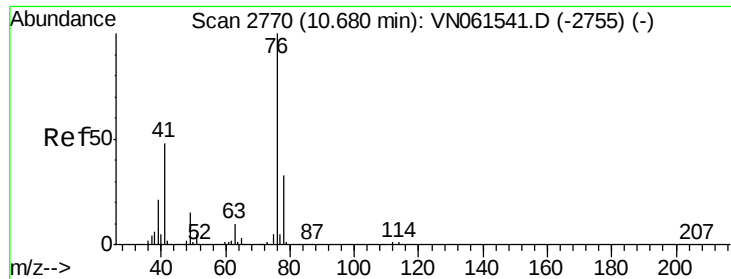


#56

Ethyl methacrylate  
 Concen: 0.243 ug/l  
 RT: 10.52 min Scan# 2720  
 Delta R.T. 0.12 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Tgt Ion: 69 Resp: 1183  
 Ion Ratio Lower Upper  
 69 100  
 41 5525.4 43.5 65.3#  
 39 2461.3 27.0 40.6#

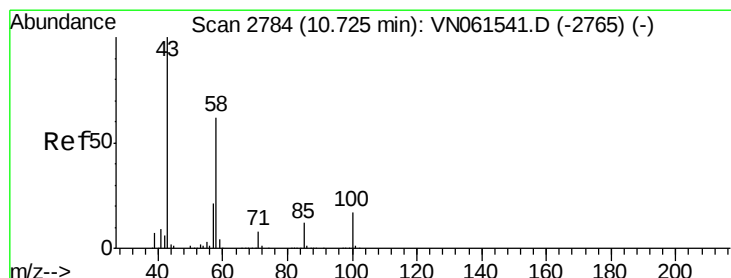
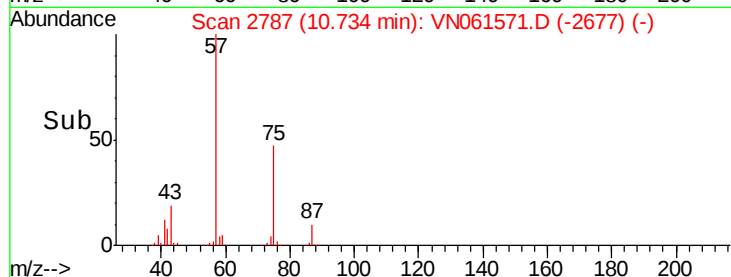
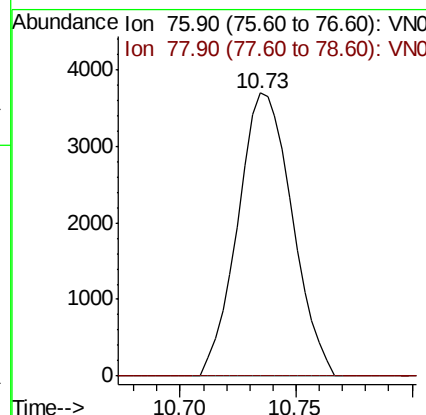
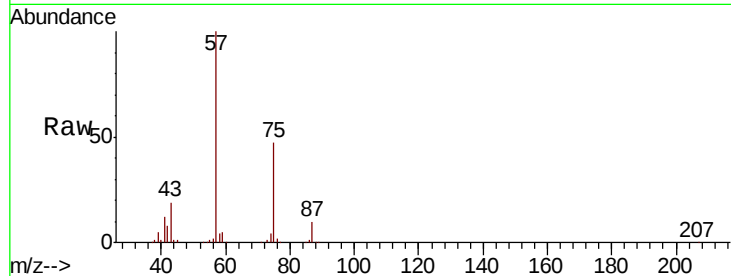




#57  
 1,3-Dichloropropane  
 Concen: 1.079 ug/l  
 RT: 10.73 min Scan# 2787  
 Delta R.T. 0.05 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

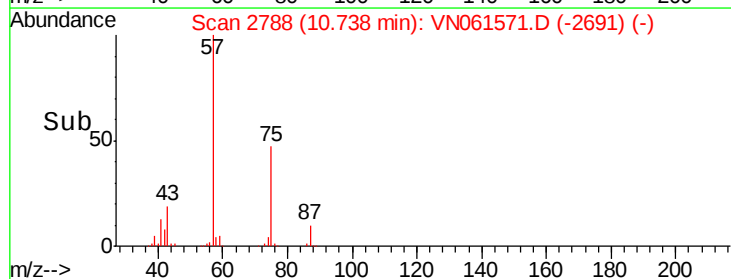
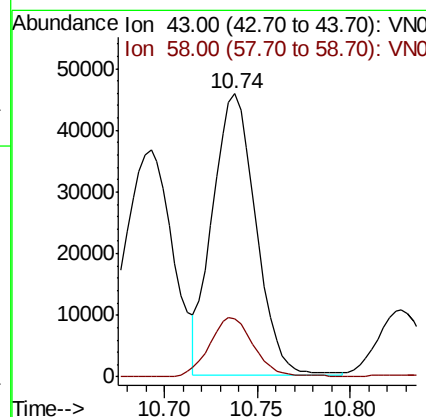
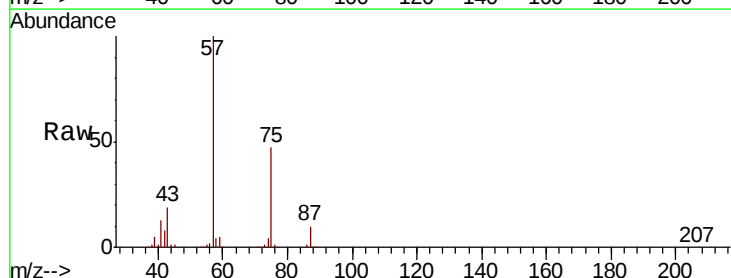
Instrument :  
 MSVOA\_N  
 ClientSampleId :

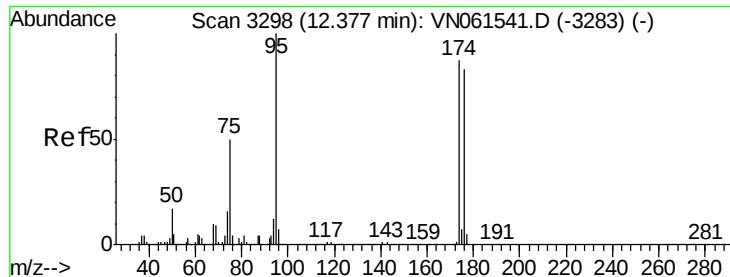
Tot Ion: 76 Resp: 6008  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 26.3 39.5#



#59  
 2-Hexanone  
 Concen: 29.015 ug/l  
 RT: 10.74 min Scan# 2788  
 Delta R.T. 0.01 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Tgt Ion: 43 Resp: 73825  
 Ion Ratio Lower Upper  
 43 100  
 58 21.6 30.7 92.1#

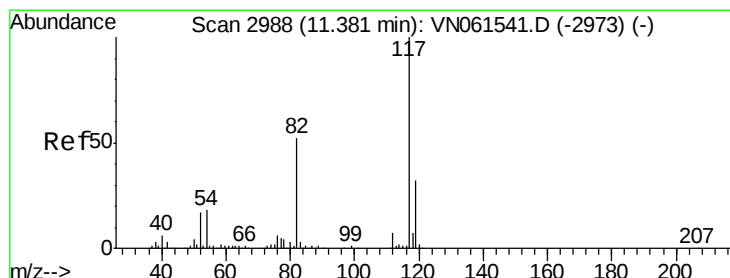
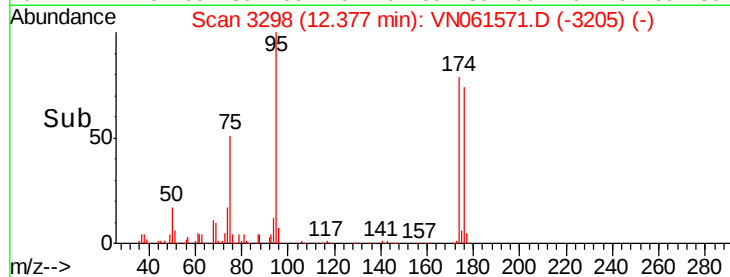
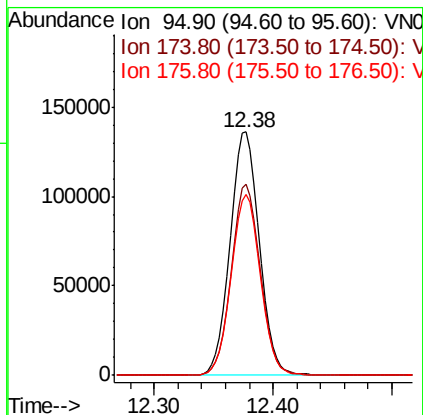
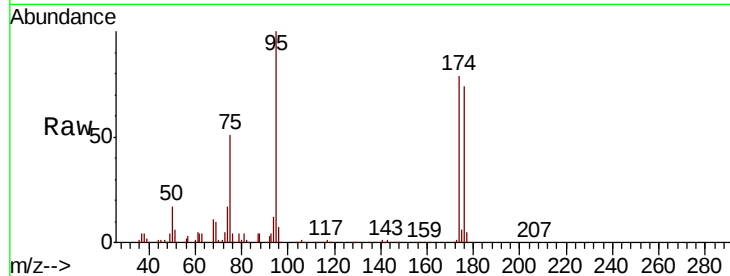




#62  
4-Bromofluorobenzene  
Concen: 55.216 ug/l  
RT: 12.38 min Scan# 3298  
Delta R.T. 0.00 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

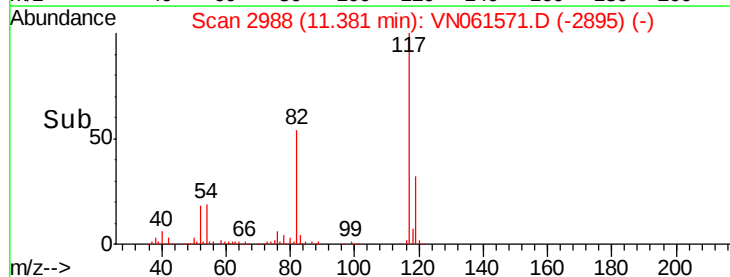
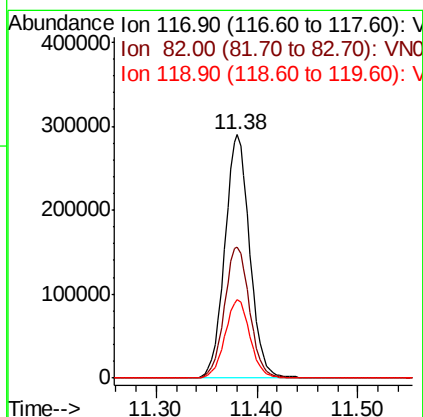
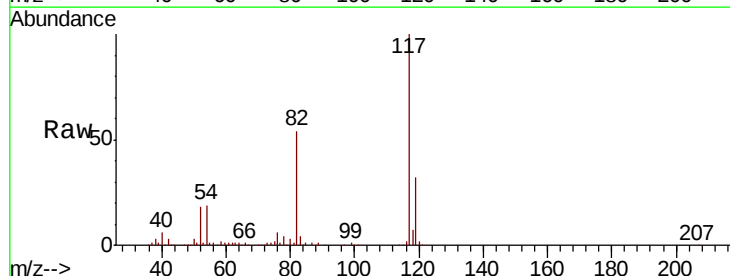
Instrument :  
MSVOA\_N  
ClientSampleId :

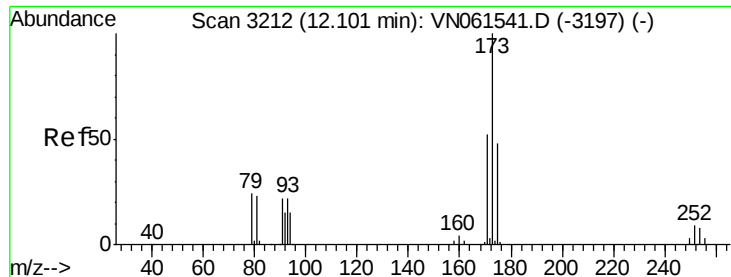
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 77.5  | 0.0   | 172.8 |
| 176     | 74.2  | 0.0   | 164.8 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.38 min Scan# 2988  
Delta R.T. -0.00 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 54.0  | 41.5  | 62.3  |
| 119     | 32.3  | 25.6  | 38.4  |





#71

Bromoform

Concen: 0.650 ug/l

RT: 12.37 min Scan# 3297

Delta R.T. 0.27 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

Instrument :

MSVOA\_N

ClientSampleId :

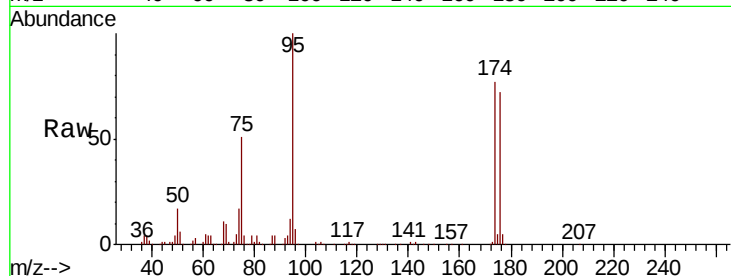
Tot Ion:173 Resp: 1933

Ion Ratio Lower Upper

173 100

175 567.8 24.4 73.2#

254 0.0 0.0 0.0

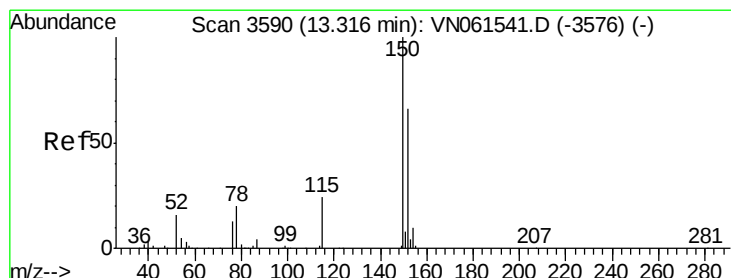
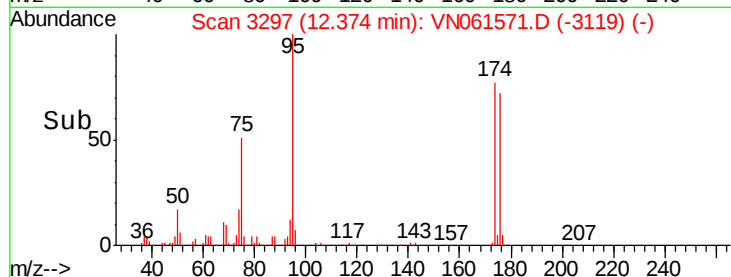
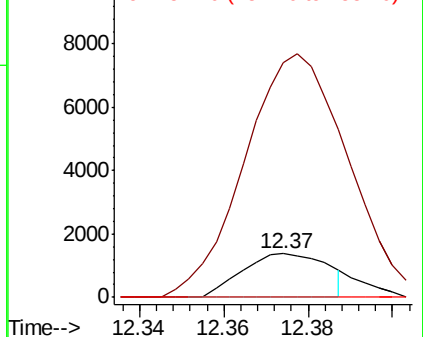


Abundance

Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3591

Delta R.T. 0.00 min

Lab File: VN061571.D

Acq: 29 May 2020 16:46

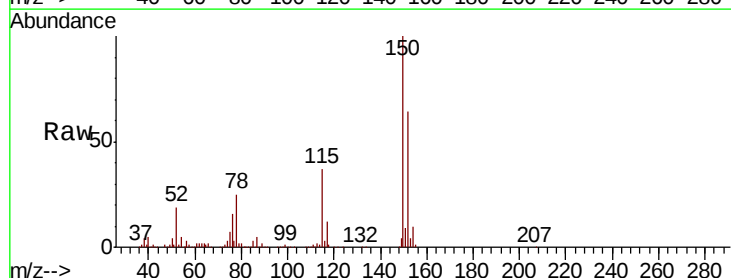
Tgt Ion:152 Resp: 227005

Ion Ratio Lower Upper

152 100

115 58.9 28.0 84.0

150 156.7 0.0 344.0

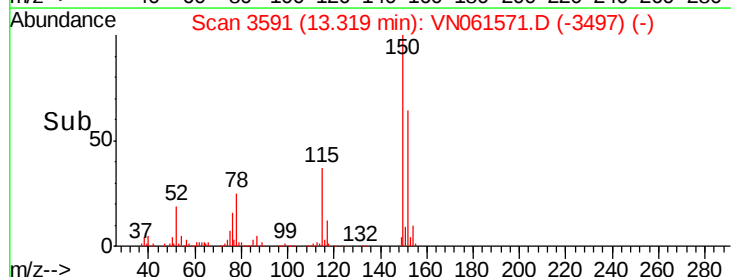
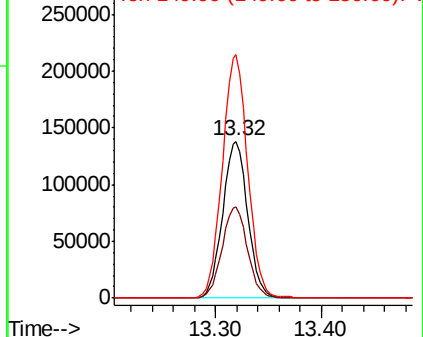


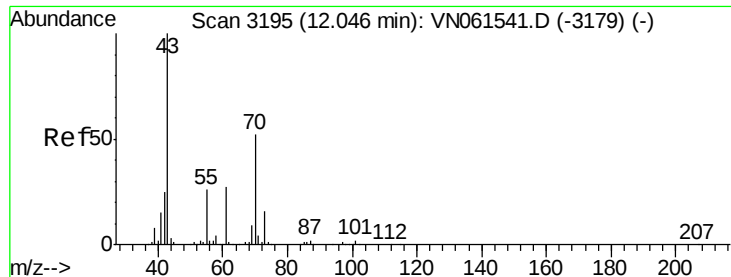
Abundance

Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V

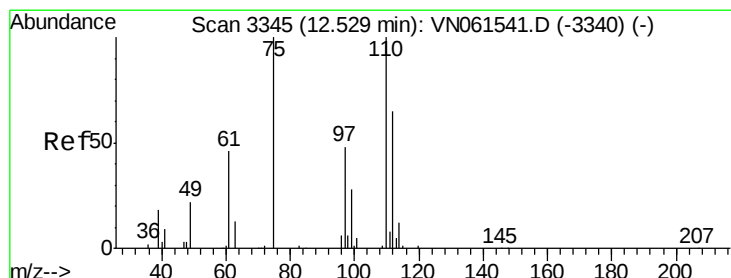
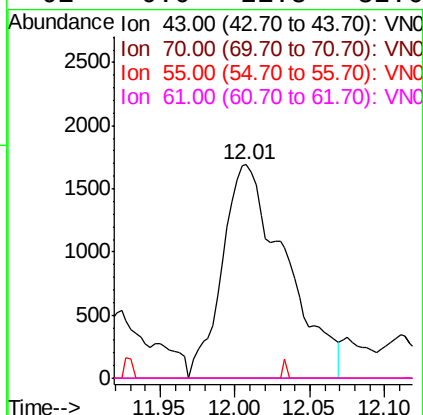
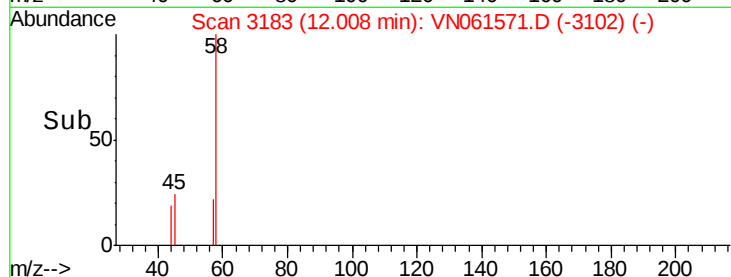
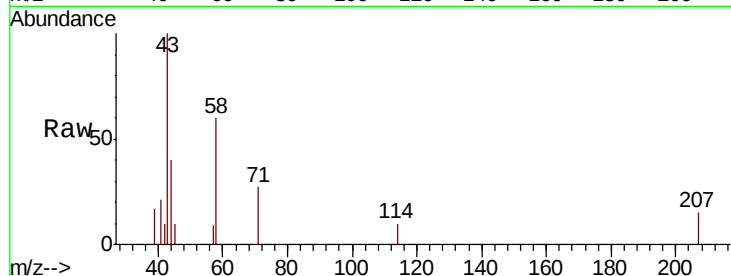




#74  
N-amvl acetate  
Concen: 0.954 ug/l  
RT: 12.01 min Scan# 3183  
Delta R.T. -0.04 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

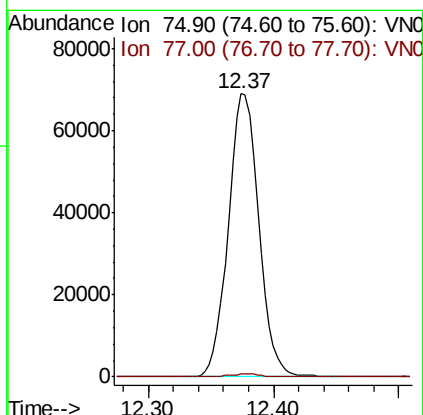
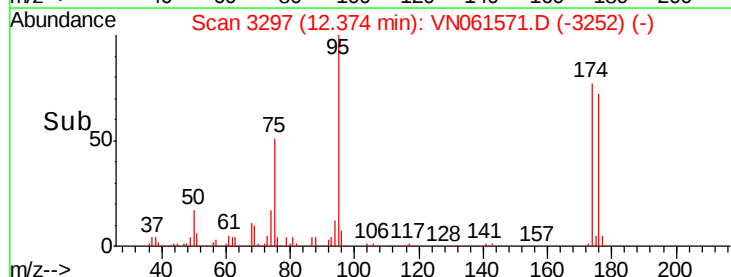
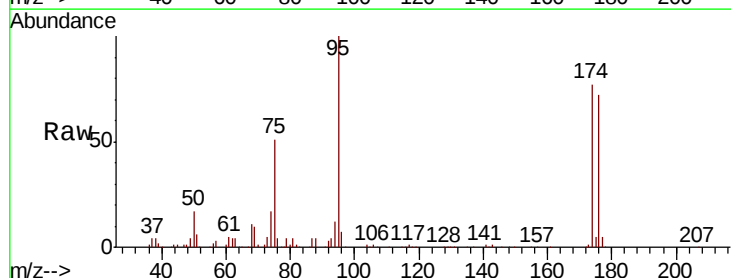
Instrument :  
MSVOA\_N  
ClientSampled :

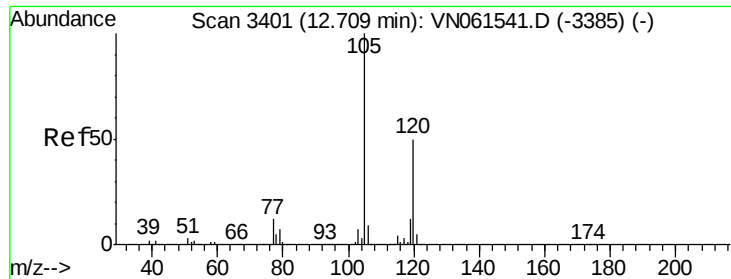
Tot Ion: 43 Resp: 4979  
Ion Ratio Lower Upper  
43 100  
70 0.0 40.5 60.7#  
55 0.0 20.6 31.0#  
61 0.0 21.8 32.6#



#76  
1,2,3-Trichloropropane  
Concen: 28.260 ug/l  
RT: 12.37 min Scan# 3297  
Delta R.T. -0.15 min  
Lab File: VN061571.D  
Acq: 29 May 2020 16:46

Tgt Ion: 75 Resp: 116651  
Ion Ratio Lower Upper  
75 100  
77 0.9 0.0 0.0#

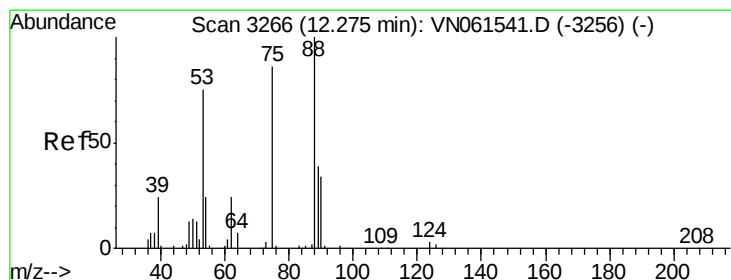
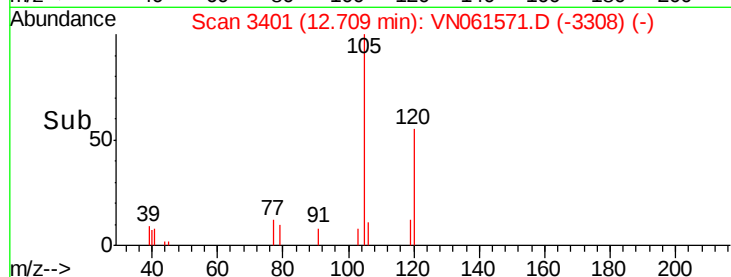
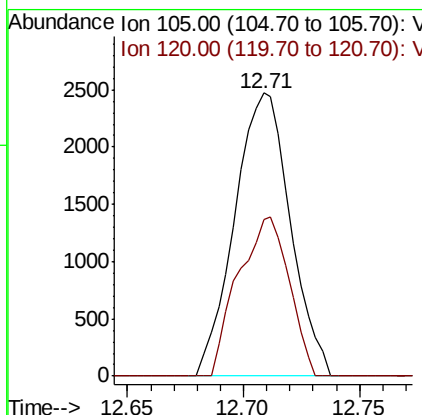
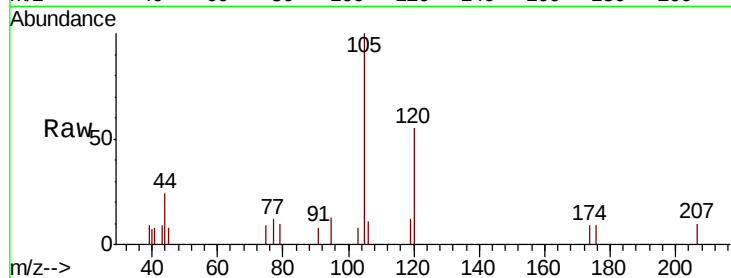




#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.297 ug/l  
 RT: 12.71 min Scan# 3401  
 Delta R.T. -0.00 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:105 Resp: 4115  
 Ion Ratio Lower Upper  
 105 100  
 120 51.4 25.1 75.2



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 72.267 ug/l  
 RT: 12.37 min Scan# 3297  
 Delta R.T. 0.10 min  
 Lab File: VN061571.D  
 Acq: 29 May 2020 16:46

Tgt Ion: 75 Resp: 116651  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 67.8 101.8#  
 89 0.0 37.1 55.7#

