

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN070620\  
 Data File : VN062379.D  
 Acq On : 6 Jul 2020 21:57  
 Operator : JC/MD  
 Sample : L3192-16  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-MW180-SOIL-614-616

Quant Time: Jul 07 05:21:36 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N070620W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 07 05:08:51 2020  
 Response via : Initial Calibration

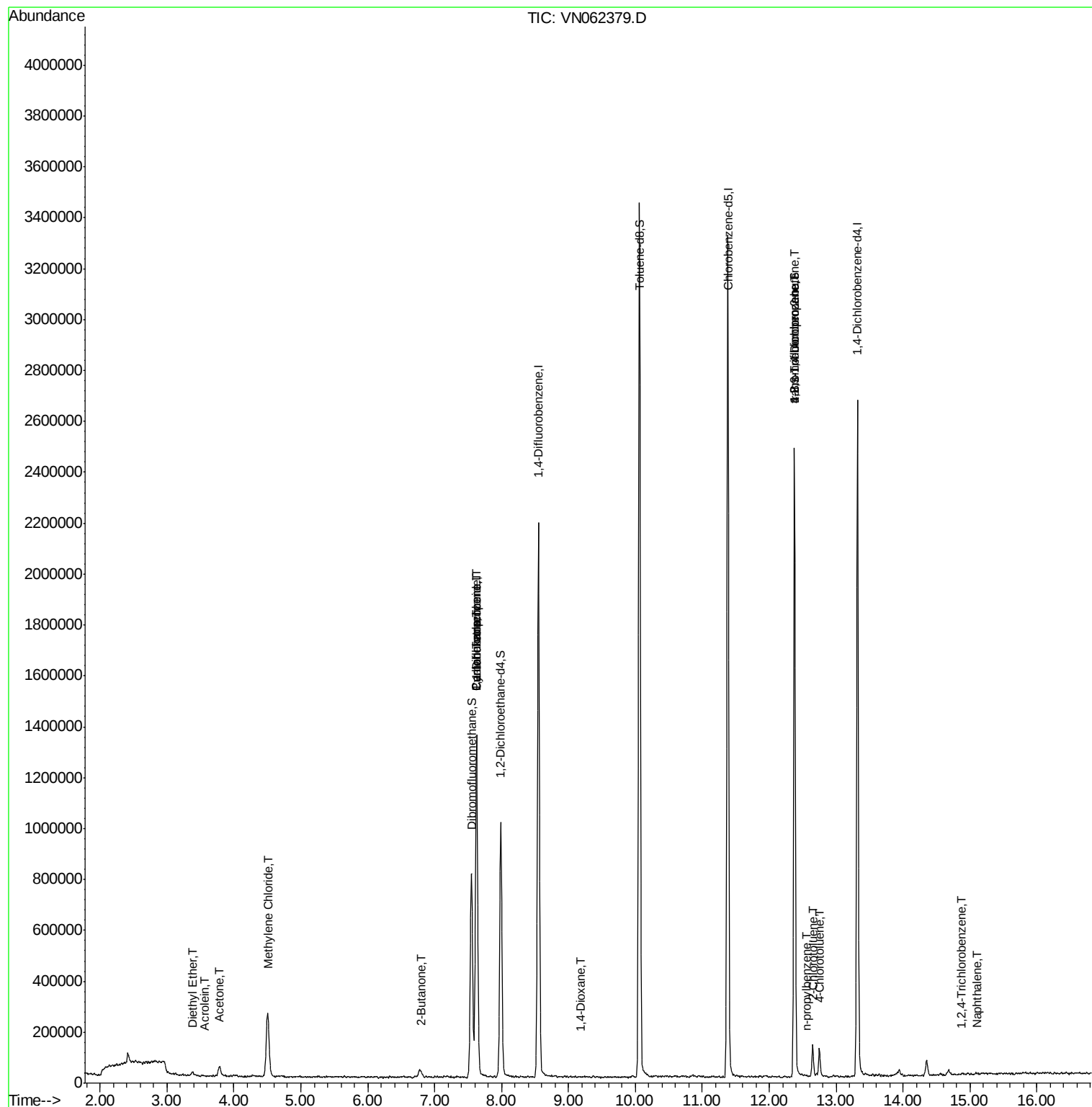
| Internal Standards             | R.T.  | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|-------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 7.63  | 168  | 970890   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 8.55  | 114  | 1742152  | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 11.38 | 117  | 1672394  | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 13.32 | 152  | 628347   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |       |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 7.99  | 65   | 874139   | 49.77     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 99.54%  |          |
| 35) Dibromofluoromethane       | 7.55  | 113  | 584794   | 49.20     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 98.40%  |          |
| 50) Toluene-d8                 | 10.06 | 98   | 2248315  | 50.61     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 101.22% |          |
| 62) 4-Bromofluorobenzene       | 12.38 | 95   | 790712   | 46.47     | ug/l    | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 92.94%  |          |
| Target Compounds               |       |      |          |           |         |          |
|                                |       |      |          |           | Qvalue  |          |
| 8) Diethyl Ether               | 3.37  | 74   | 5379     | 0.724     | ug/l    | 54       |
| 13) Acrolein                   | 3.56  | 56   | 283      | 0.610     | ug/l #  | 72       |
| 16) Acetone                    | 3.78  | 43   | 71487    | 8.829     | ug/l    | 100      |
| 18) Methyl Acetate             | 4.29  | 43   | 4928     | Below Cal | #       | 71       |
| 20) Methylene Chloride         | 4.50  | 84   | 165481   | 12.872    | ug/l    | 97       |
| 23) Vinyl Acetate              | 5.84  | 43   | 836      | Below Cal | #       | 77       |
| 25) 2-Butanone                 | 6.80  | 43   | 3714     | 0.364     | ug/l #  | 55       |
| 31) Cyclohexane                | 7.62  | 56   | 31116    | 1.397     | ug/l #  | 37       |
| 36) 1,1-Dichloropropene        | 7.63  | 75   | 91741    | 5.012     | ug/l #  | 51       |
| 38) Carbon Tetrachloride       | 7.63  | 117  | 106604   | 5.791     | ug/l #  | 17       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 471      | 1.872     | ug/l #  | 53       |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75   | 463273   | 30.525    | ug/l #  | 100      |
| 78) n-propylbenzene            | 12.57 | 91   | 2402     | 0.321     | ug/l #  | 66       |
| 79) 2-Chlorotoluene            | 12.65 | 91   | 67081    | 1.988     | ug/l    | 96       |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 463273   | 87.291    | ug/l #  | 4        |
| 82) 4-Chlorotoluene            | 12.75 | 91   | 61147    | 1.772     | ug/l    | 96       |
| 93) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 249      | 2.754     | ug/l #  | 12       |
| 94) Hexachlorobutadiene        | 14.97 | 225  | 394      | Below Cal | #       | 19       |
| 95) Naphthalene                | 15.11 | 128  | 3590     | 2.195     | ug/l #  | 82       |

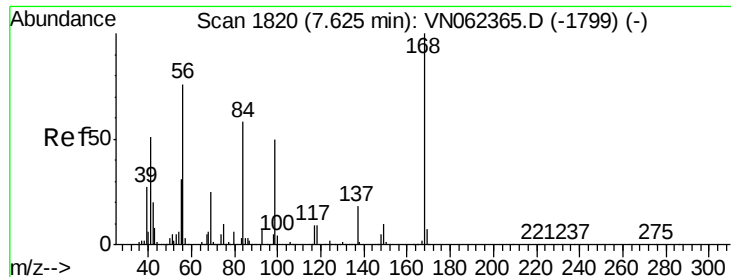
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Jul 07 05:08:51 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: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

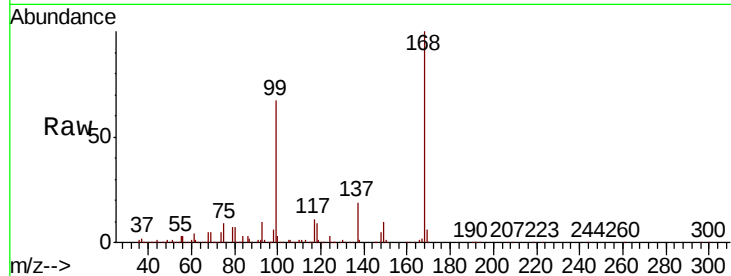
BP-MW180-SOIL-614-616

Tot Ion:168 Resp: 970890

Ion Ratio Lower Upper

168 100

99 66.9 52.9 79.3



Abundance Ion 167.90 (167.60 to 168.60): VN062365.D (-1799) (-)

Ion 98.90 (98.60 to 99.60): VN062365.D (-1799) (-)

7.63

400000

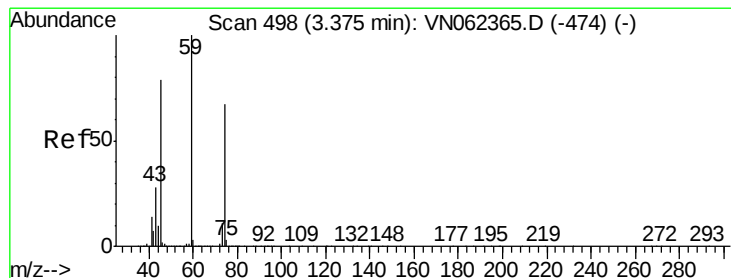
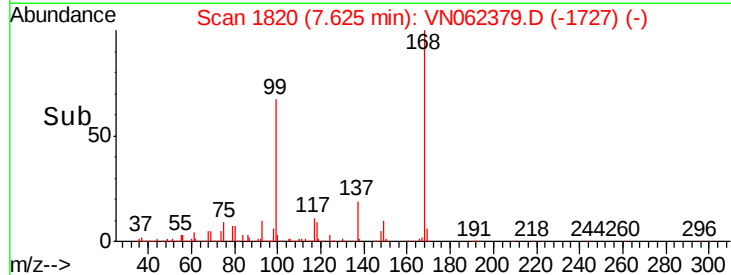
300000

200000

100000

0

Time-->



#8

Diethyl Ether

Concen: 0.724 ug/l

RT: 3.37 min Scan# 497

Delta R.T. -0.00 min

Lab File: VN062379.D

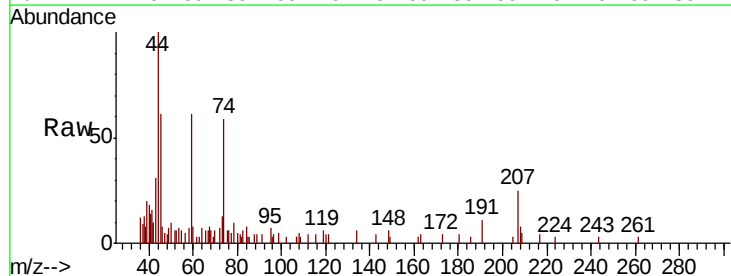
Acq: 6 Jul 2020 21:57

Tgt Ion: 74 Resp: 5379

Ion Ratio Lower Upper

74 100

45 68.6 59.9 179.7



Abundance Ion 74.00 (73.70 to 74.70): VN062365.D (-474) (-)

Ion 45.00 (44.70 to 45.70): VN062365.D (-474) (-)

3.37

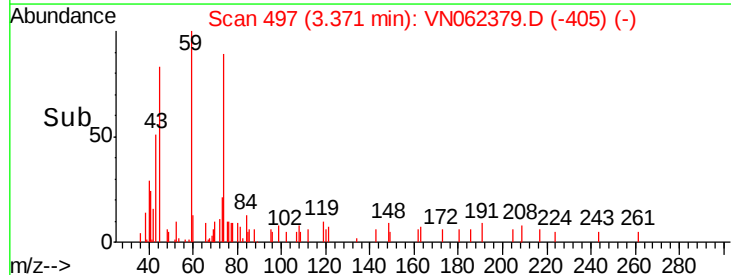
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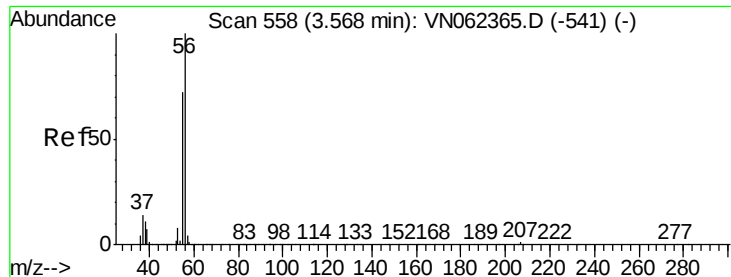
2000

1000

0

Time-->

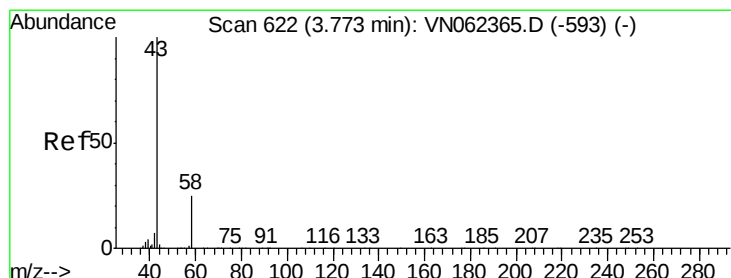
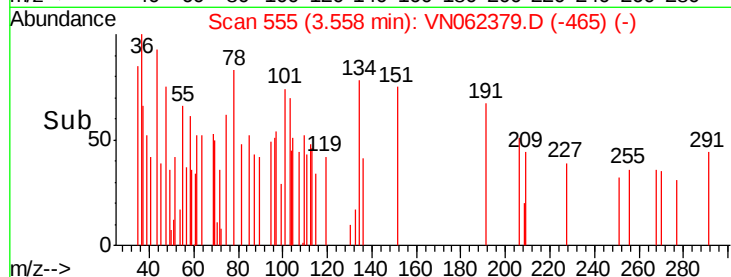
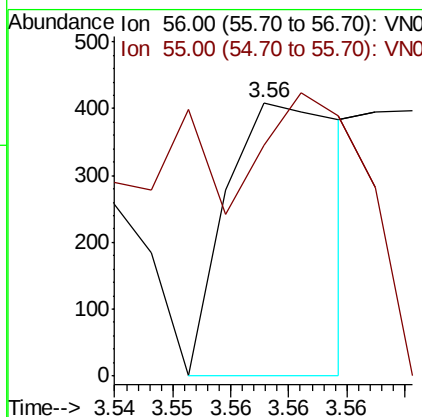
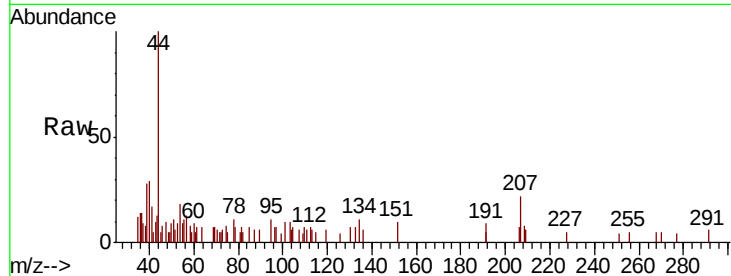




#13  
Acrolein  
Concen: 0.610 ug/l  
RT: 3.56 min Scan# 555  
Delta R.T. -0.01 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

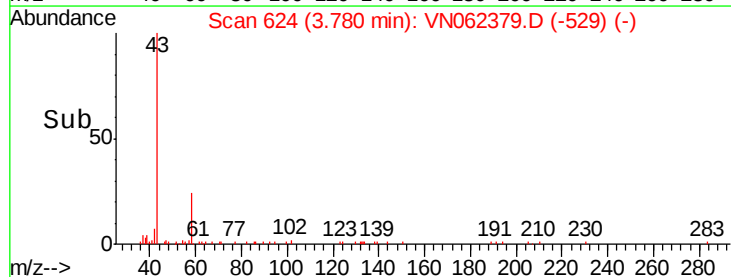
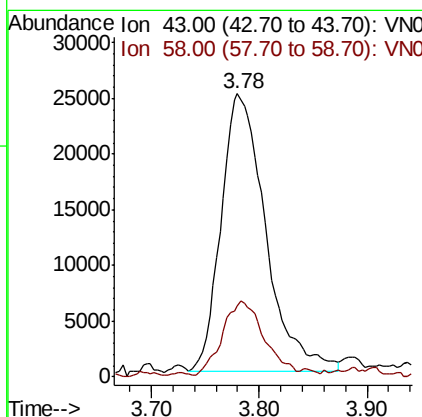
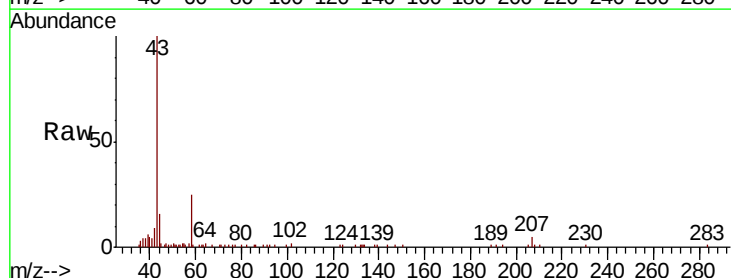
Instrument :  
MSVOA\_N  
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BP-MW180-SOIL-614-616

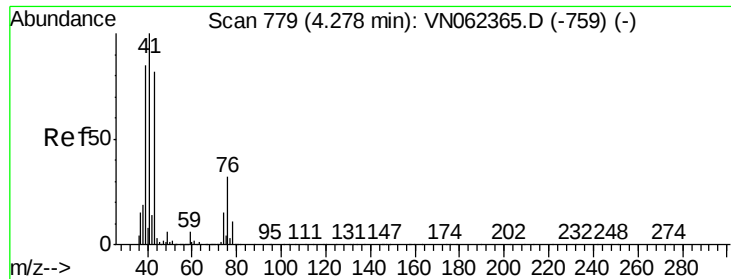
Tot Ion: 56 Resp: 283  
Ion Ratio Lower Upper  
56 100  
55 98.2 59.6 89.4#



#16  
Acetone  
Concen: 8.829 ug/l  
RT: 3.78 min Scan# 624  
Delta R.T. 0.01 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Tgt Ion: 43 Resp: 71487  
Ion Ratio Lower Upper  
43 100  
58 24.6 19.8 29.8

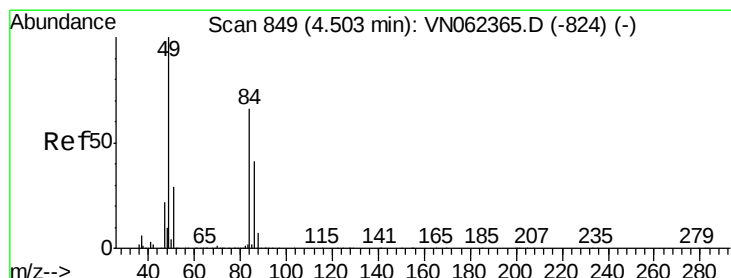
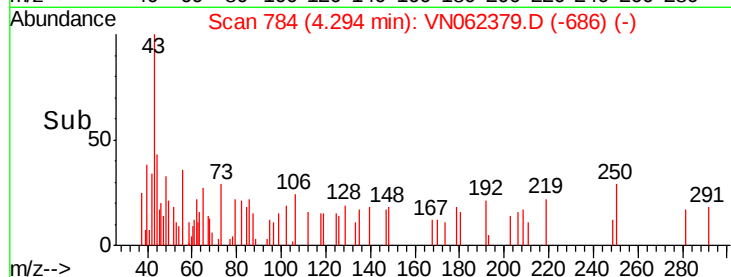
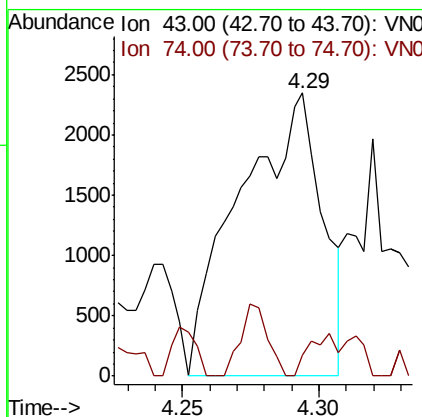
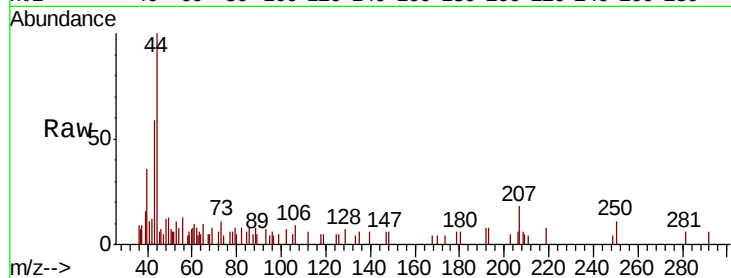




#18  
Methyl Acetate  
Concen: Below Cal  
RT: 4.29 min Scan# 784  
Delta R.T. 0.02 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

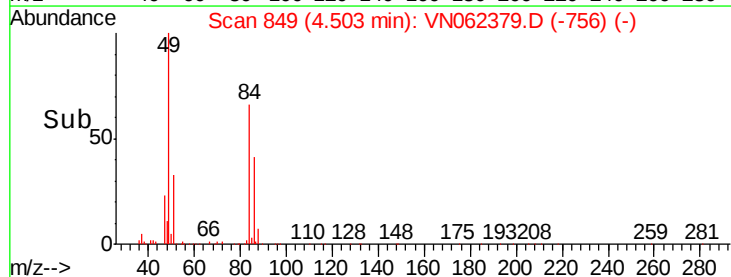
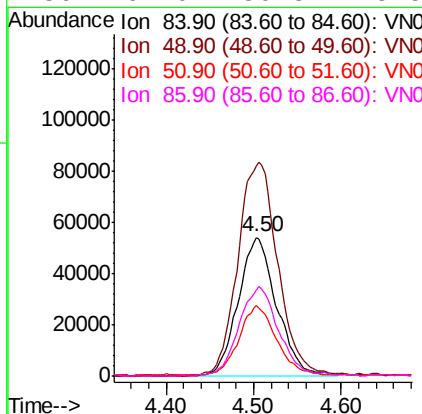
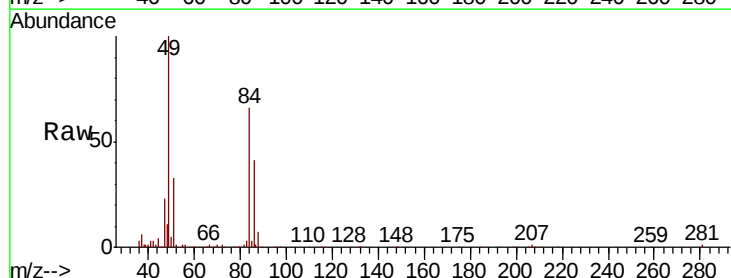
Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-MW180-SOIL-614-616

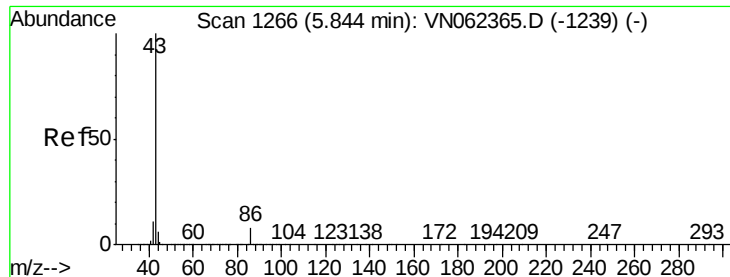
Tot Ion: 43 Resp: 4928  
Ion Ratio Lower Upper  
43 100  
74 5.0 14.2 21.4#



#20  
Methylene Chloride  
Concen: 12.872 ug/l  
RT: 4.50 min Scan# 849  
Delta R.T. 0.00 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Tgt Ion: 84 Resp: 165481  
Ion Ratio Lower Upper  
84 100  
49 150.7 121.8 182.6  
51 49.6 35.0 52.4  
86 62.0 50.3 75.5

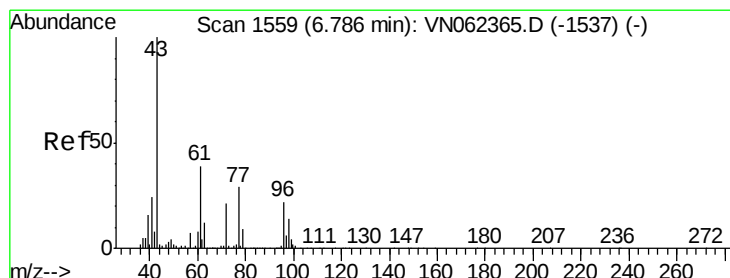
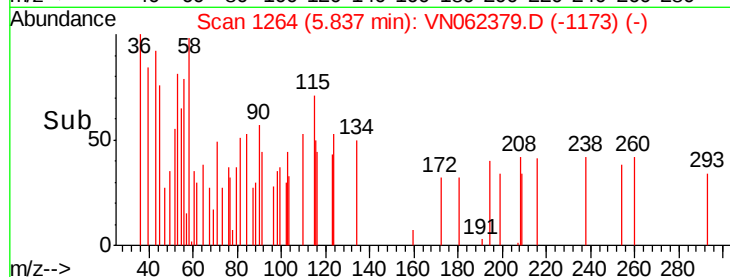
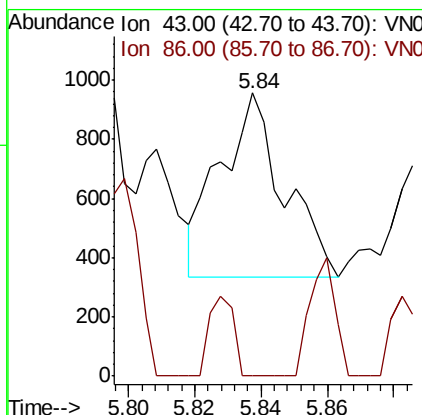
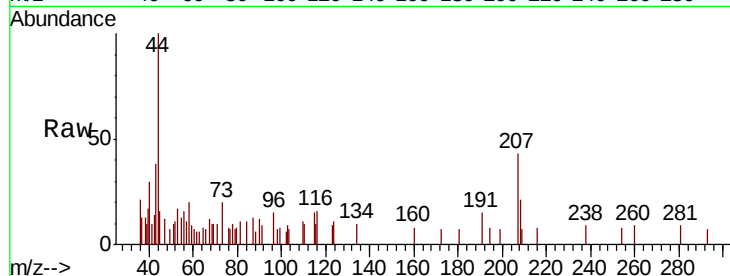




#23  
 Vinyl Acetate  
 Concen: Below Cal  
 RT: 5.84 min Scan# 1264  
 Delta R.T. -0.01 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

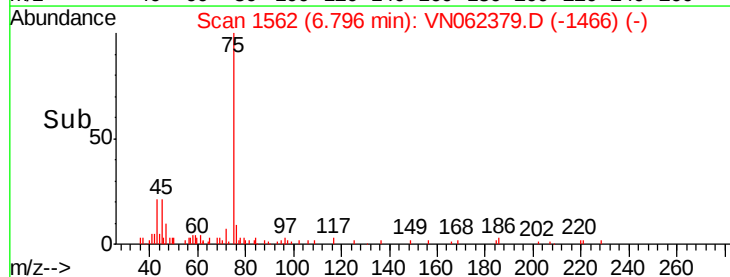
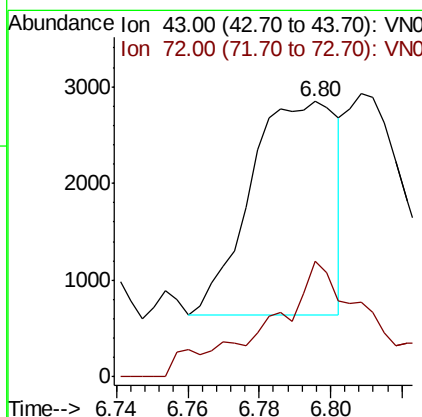
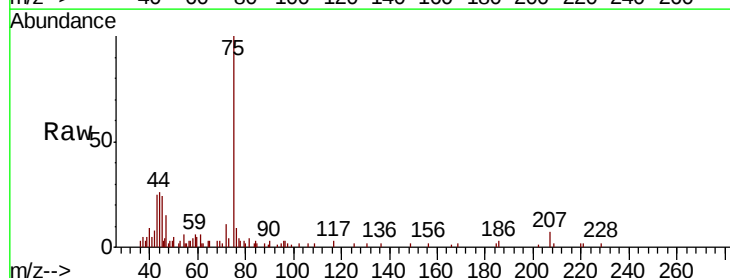
Instrument :  
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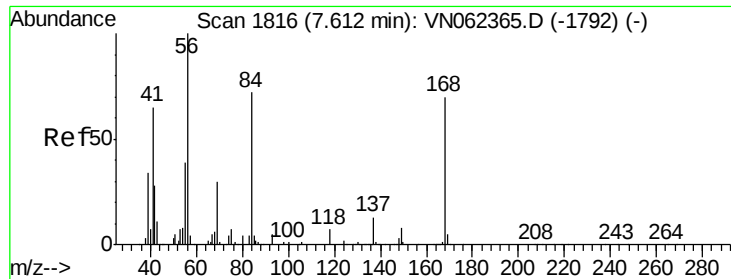
Tot Ion: 43 Resp: 836  
 Ion Ratio Lower Upper  
 43 100  
 86 0.0 6.6 9.8#



#25  
 2-Butanone  
 Concen: 0.364 ug/l  
 RT: 6.80 min Scan# 1562  
 Delta R.T. 0.01 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

Tgt Ion: 43 Resp: 3714  
 Ion Ratio Lower Upper  
 43 100  
 72 41.4 16.4 24.6#

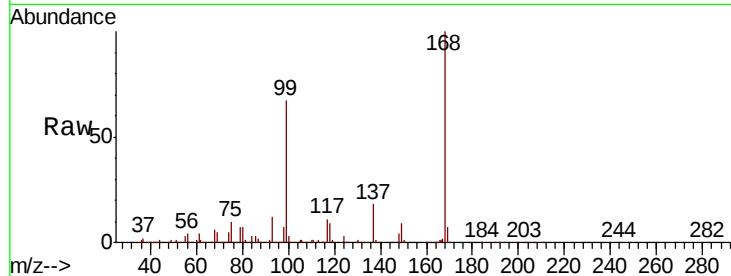




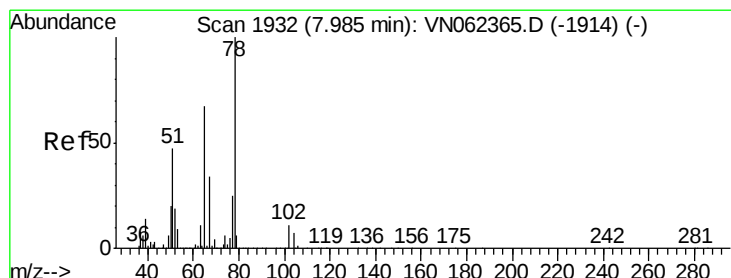
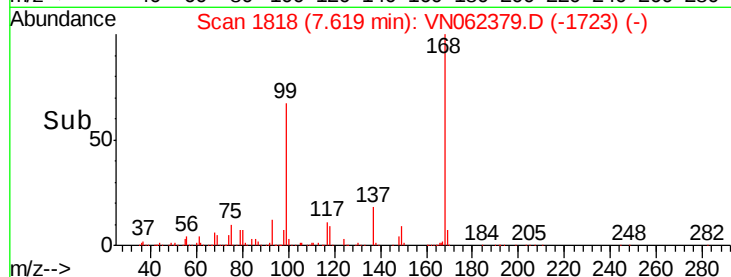
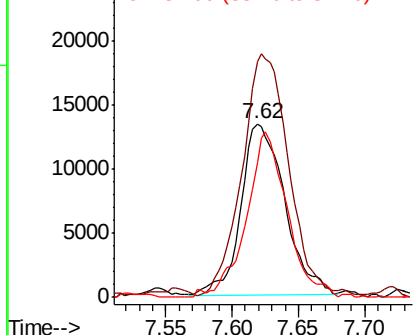
#31  
Cyclohexane  
Concen: 1.397 ug/l  
RT: 7.62 min Scan# 1816  
Delta R.T. 0.01 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-MW180-SOIL-614-616

Tot Ion: 56 Resp: 31116  
Ion Ratio Lower Upper  
56 100  
69 134.7 23.7 35.5#  
84 78.7 57.2 85.8

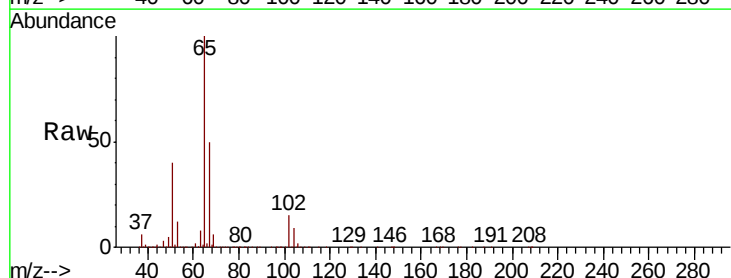


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

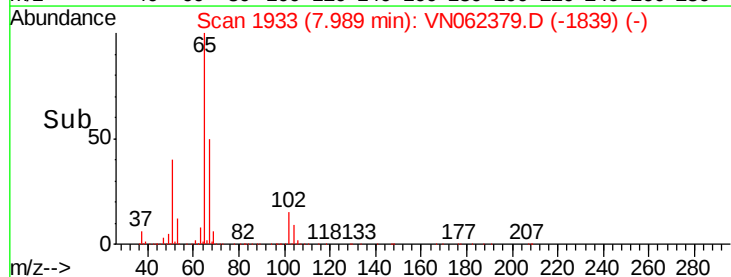
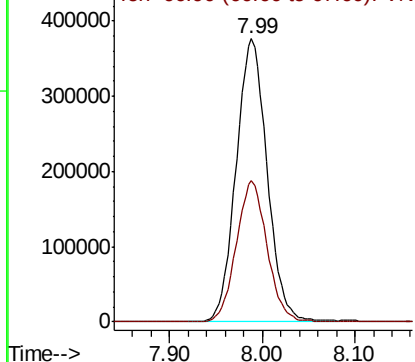


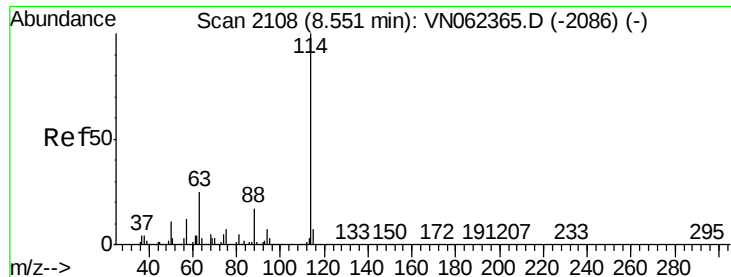
#33  
1,2-Dichloroethane-d4  
Concen: 49.773 ug/l  
RT: 7.99 min Scan# 1933  
Delta R.T. 0.00 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Tgt Ion: 65 Resp: 874139  
Ion Ratio Lower Upper  
65 100  
67 49.5 0.0 101.0



Abundance Ion 64.90 (64.60 to 65.60): VN0  
Ion 66.90 (66.60 to 67.60): VN0

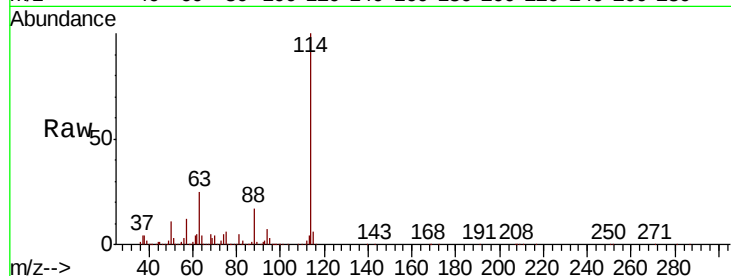




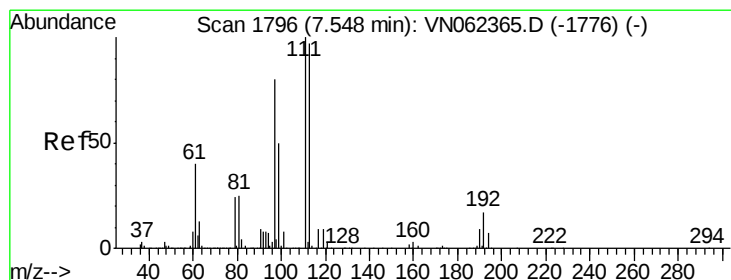
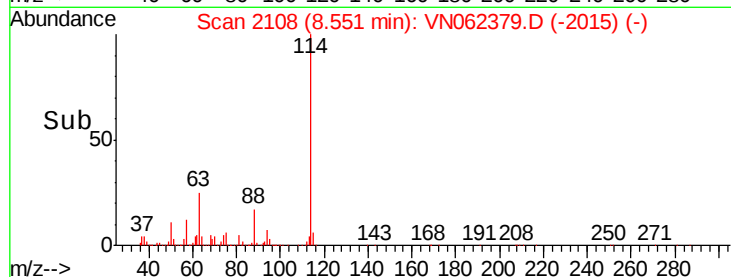
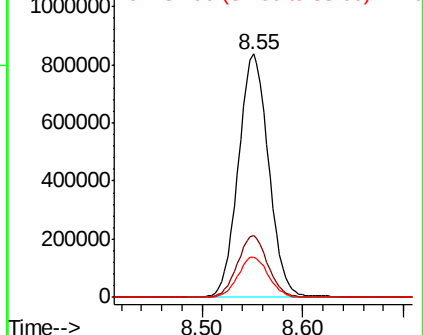
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.55 min Scan# 2108  
Delta R.T. -0.00 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Instrument :  
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BP-MW180-SOIL-614-616

Tot Ion:114 Resp: 1742152  
Ion Ratio Lower Upper  
114 100  
63 25.3 0.0 49.0  
88 16.6 0.0 34.0

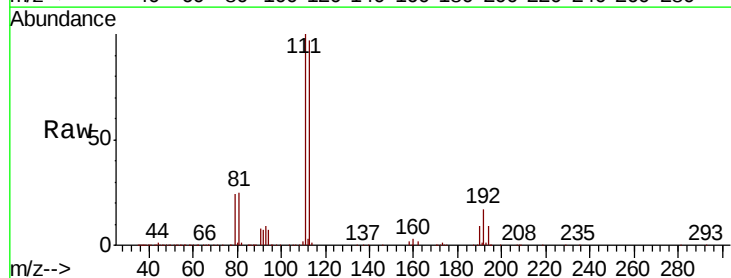


Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): VN  
Ion 87.90 (87.60 to 88.60): VN

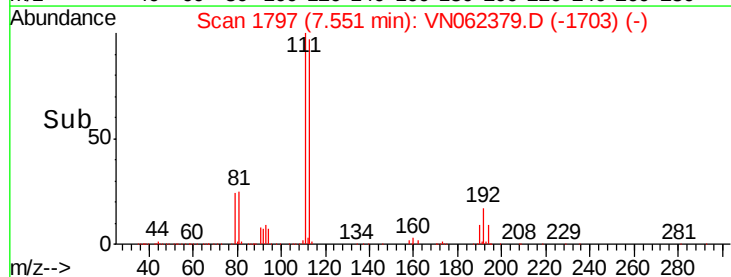
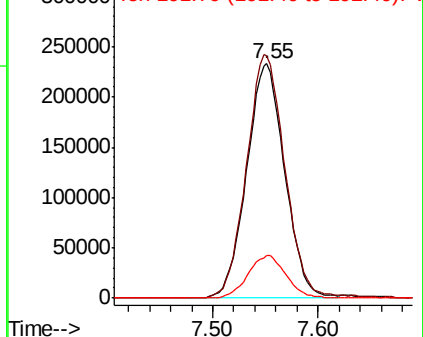


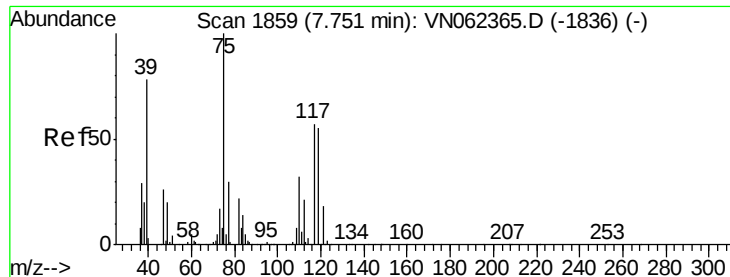
#35  
Dibromofluoromethane  
Concen: 49.205 ug/l  
RT: 7.55 min Scan# 1797  
Delta R.T. 0.00 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Tgt Ion:113 Resp: 584794  
Ion Ratio Lower Upper  
113 100  
111 105.0 83.2 124.8  
192 18.1 14.2 21.2



Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V

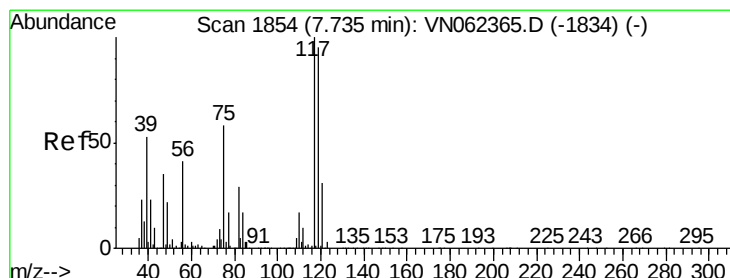
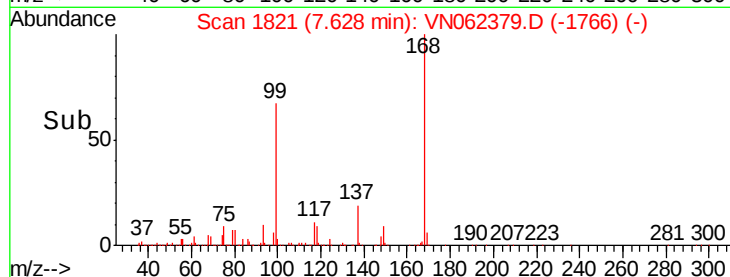
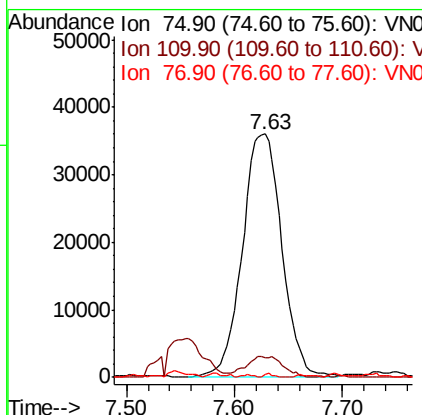
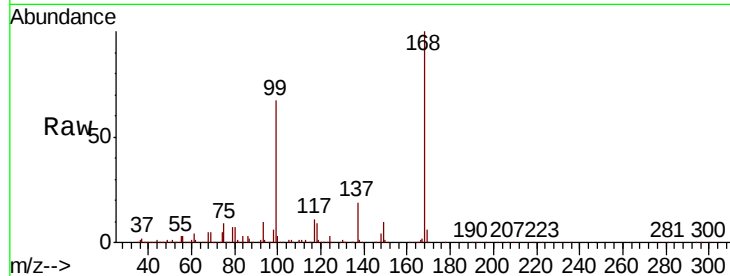




#36  
 1,1-Dichloropropene  
 Concen: 5.012 ug/l  
 RT: 7.63 min Scan# 1821  
 Delta R.T. -0.12 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

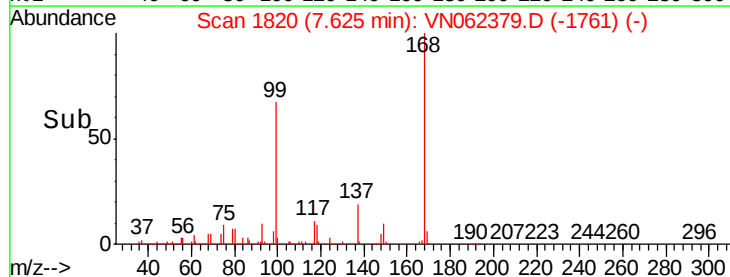
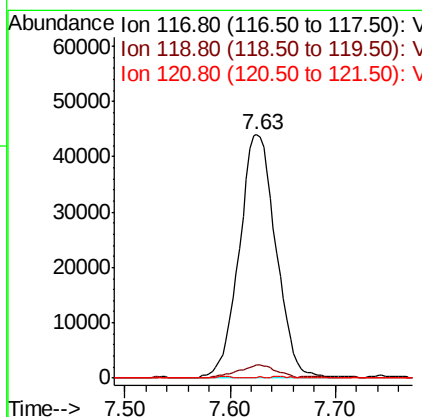
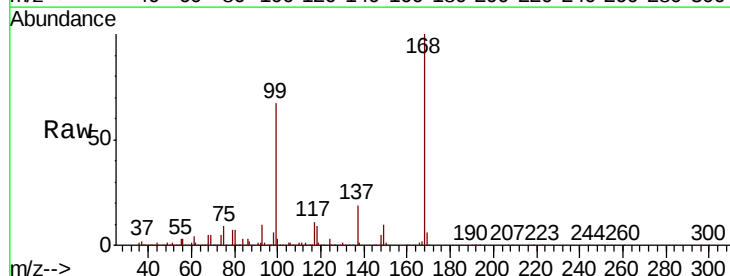
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-MW180-SOIL-614-616

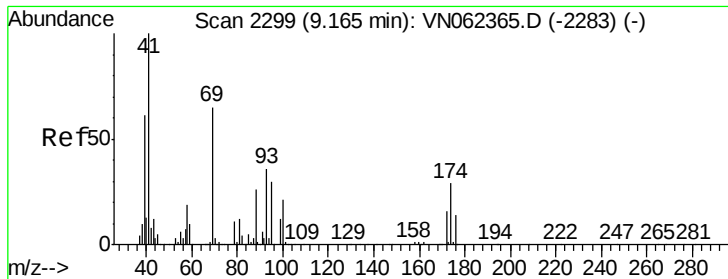
| Tot Ion | 75    | 110   | 77    |
|---------|-------|-------|-------|
| Resp:   | 91741 |       |       |
| Ratio   | 100   | 7.9   | 0.3   |
| Lower   |       | 15.7  | 24.3  |
| Upper   |       | 47.1# | 36.5# |



#38  
 Carbon Tetrachloride  
 Concen: 5.791 ug/l  
 RT: 7.63 min Scan# 1820  
 Delta R.T. -0.11 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

| Tgt Ion | 117    | 119    | 121   |
|---------|--------|--------|-------|
| Resp:   | 106604 |        |       |
| Ratio   | 100    | 5.4    | 0.4   |
| Lower   |        | 75.9   | 24.6  |
| Upper   |        | 113.9# | 36.8# |





#49

1,4-Dioxane

Concen: 1.872 ug/l

RT: 9.18 min Scan# 2305

Delta R.T. 0.02 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

BP-MW180-SOIL-614-616

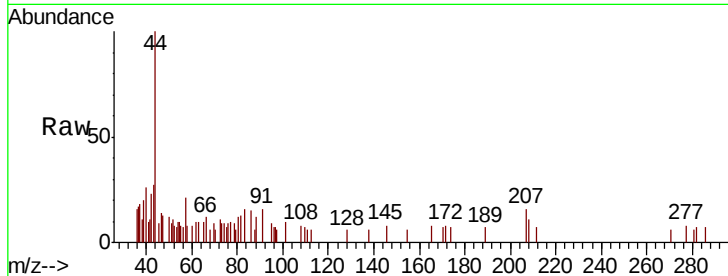
Tot Ion: 88 Resp: 471

Ion Ratio Lower Upper

88 100

43 0.0 34.0 51.0#

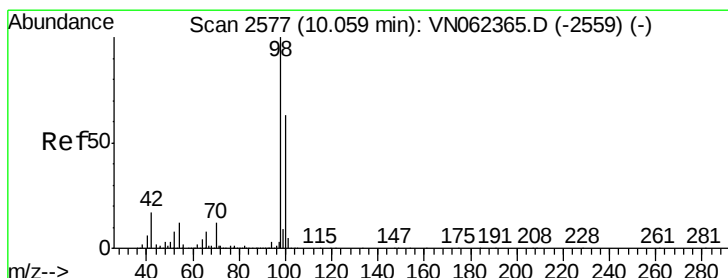
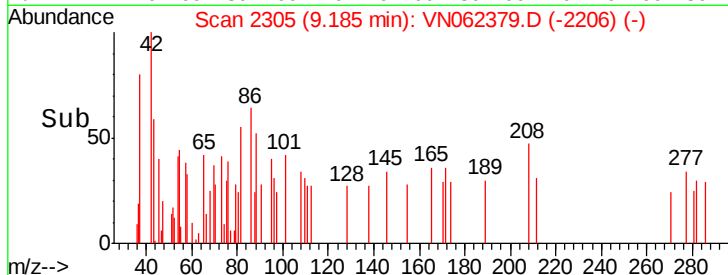
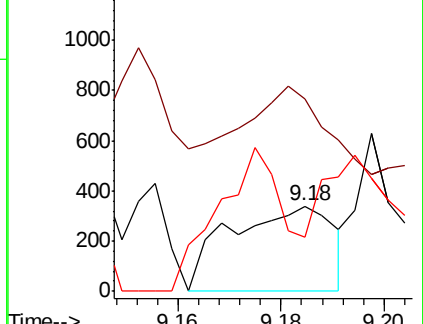
58 110.0 63.0 94.4#



Abundance Ion 88.00 (87.70 to 88.70): VN0

Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#50

Toluene-d8

Concen: 50.606 ug/l

RT: 10.06 min Scan# 2577

Delta R.T. -0.00 min

Lab File: VN062379.D

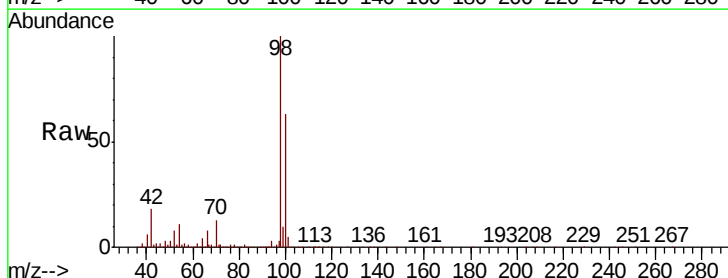
Acq: 6 Jul 2020 21:57

Tgt Ion: 98 Resp: 2248315

Ion Ratio Lower Upper

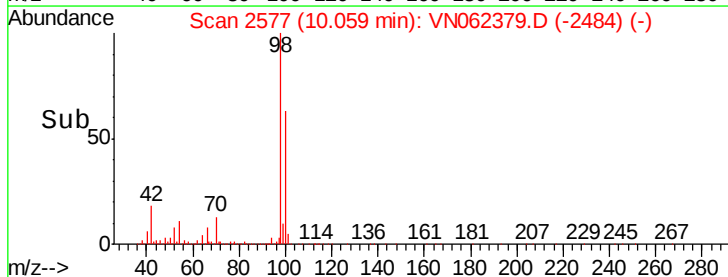
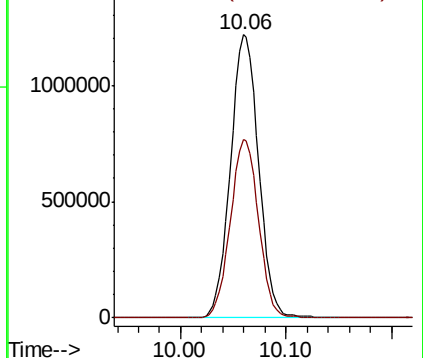
98 100

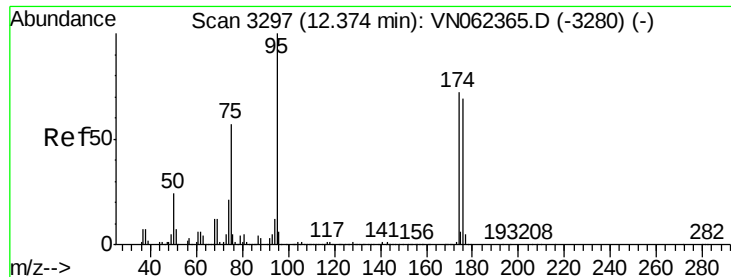
100 63.2 50.2 75.2



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN0





#62

4-Bromofluorobenzene

Concen: 46.470 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. 0.00 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

BP-MW180-SOIL-614-616

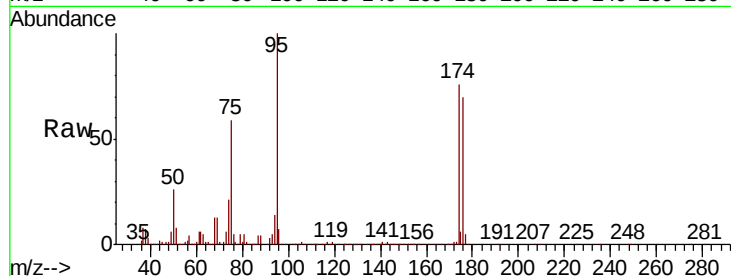
Tot Ion: 95 Resp: 790712

Ion Ratio Lower Upper

95 100

174 73.0 0.0 145.8

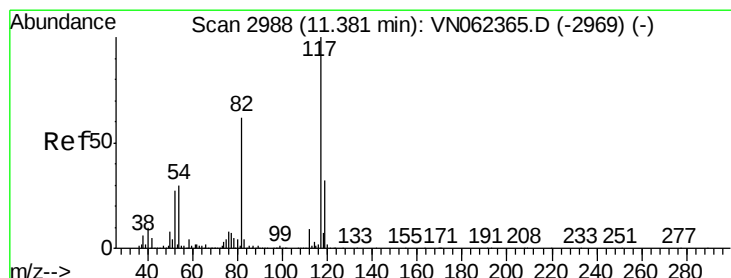
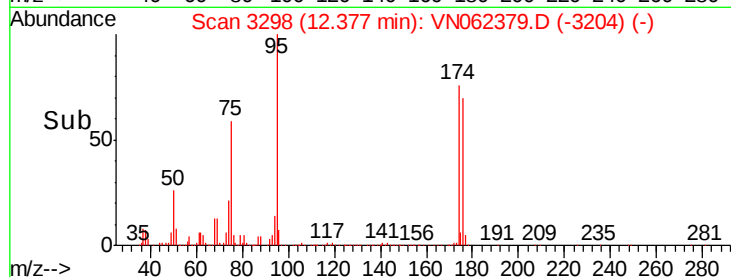
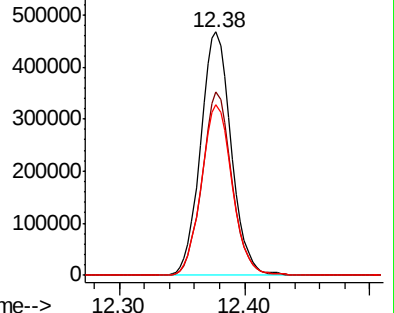
176 70.7 0.0 140.2



Abundance Ion 94.90 (94.60 to 95.60): VN062379.D (-3204) (-)

Ion 173.80 (173.50 to 174.50): VN062379.D (-3204) (-)

Ion 175.80 (175.50 to 176.50): VN062379.D (-3204) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.38 min Scan# 2988

Delta R.T. -0.00 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

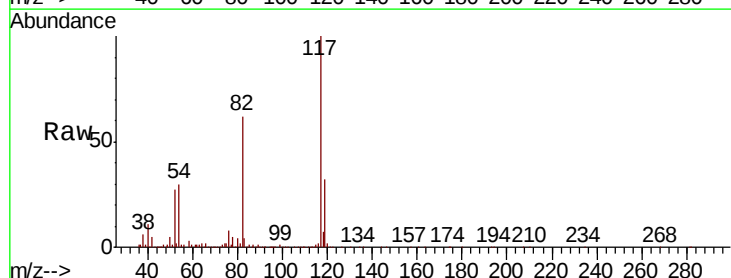
Tgt Ion: 117 Resp: 1672394

Ion Ratio Lower Upper

117 100

82 61.8 49.4 74.2

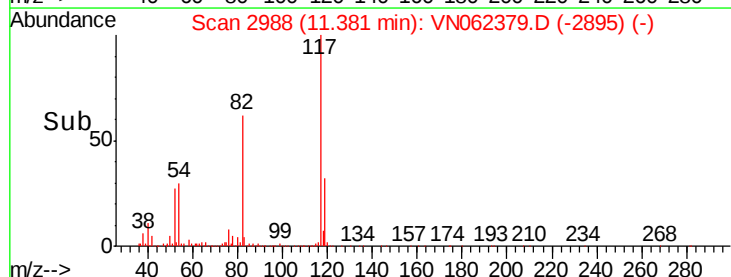
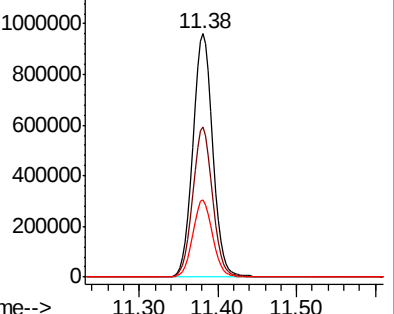
119 31.8 25.6 38.4

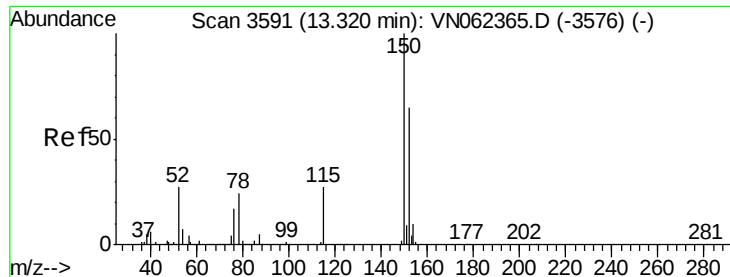


Abundance Ion 116.90 (116.60 to 117.60): VN062379.D (-2895) (-)

Ion 82.00 (81.70 to 82.70): VN062379.D (-2895) (-)

Ion 118.90 (118.60 to 119.60): VN062379.D (-2895) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3591

Delta R.T. -0.00 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

BP-MW180-SOIL-614-616

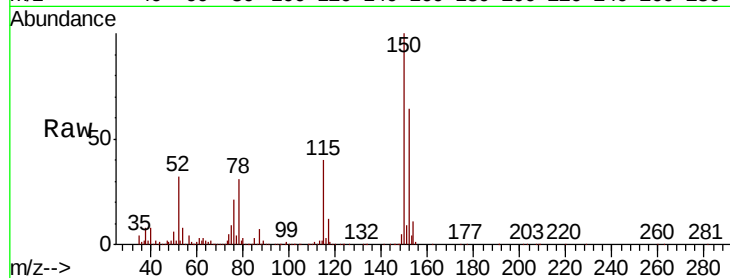
Tot Ion:152 Resp: 628347

Ion Ratio Lower Upper

152 100

115 63.0 30.5 91.5

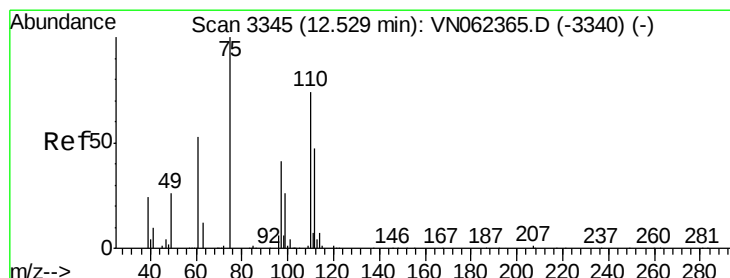
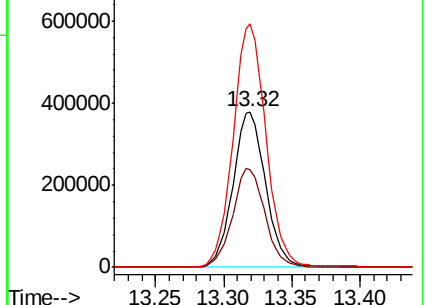
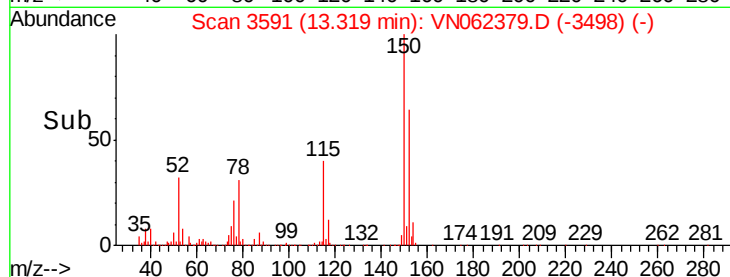
150 158.2 0.0 346.8



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



#76

1,2,3-Trichloropropane

Concen: 30.525 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. -0.15 min

Lab File: VN062379.D

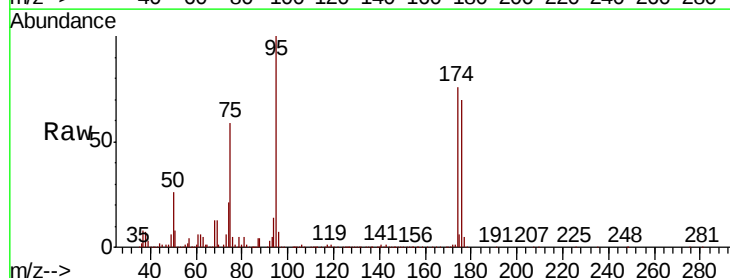
Acq: 6 Jul 2020 21:57

Tgt Ion: 75 Resp: 463273

Ion Ratio Lower Upper

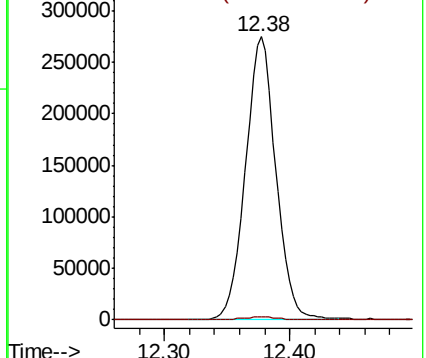
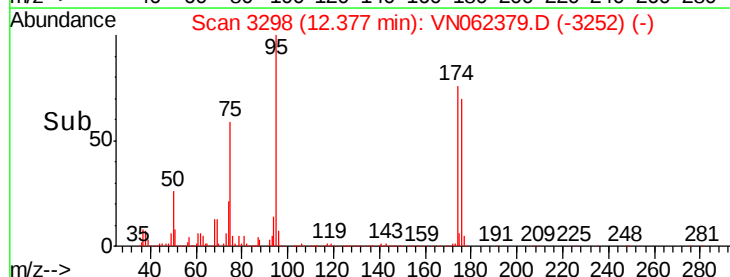
75 100

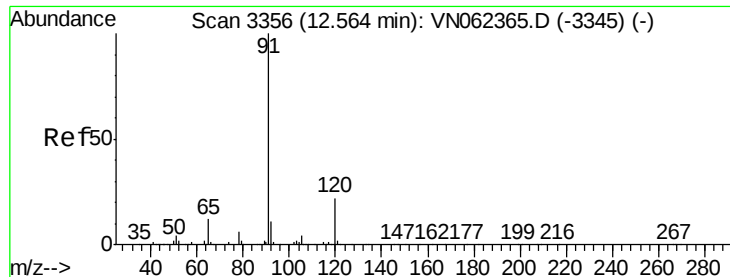
77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0





#78

n-propylbenzene

Concen: 0.321 ug/l

RT: 12.57 min Scan# 3357

Delta R.T. 0.00 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

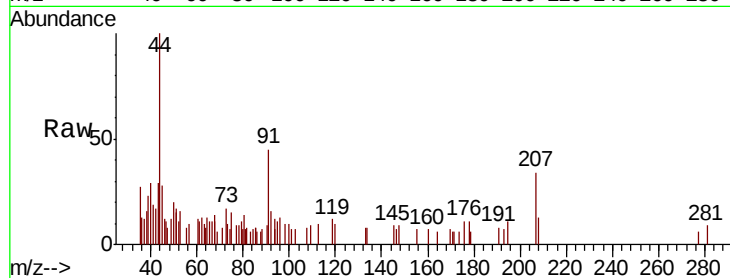
BP-MW180-SOIL-614-616

Tot Ion: 91 Resp: 2402

Ion Ratio Lower Upper

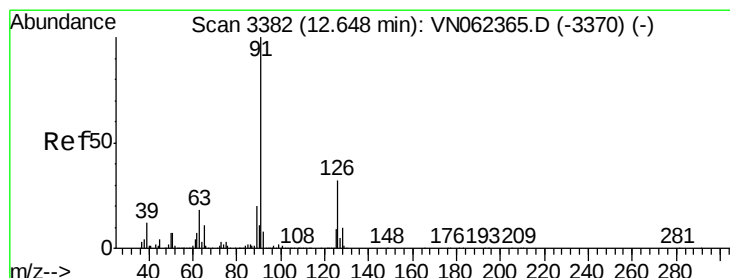
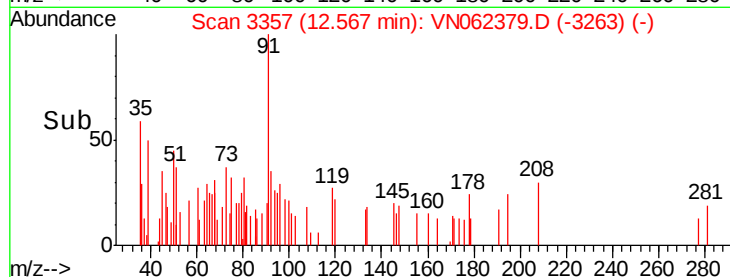
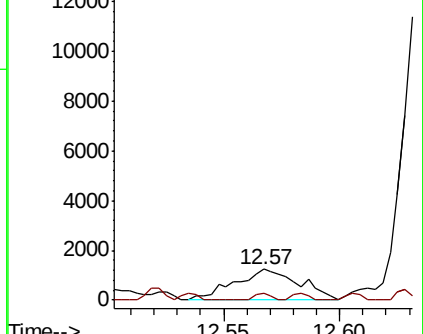
91 100

120 5.7 10.9 32.6#



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 120.00 (119.70 to 120.70): V



#79

2-Chlorotoluene

Concen: 1.988 ug/l

RT: 12.65 min Scan# 3382

Delta R.T. -0.00 min

Lab File: VN062379.D

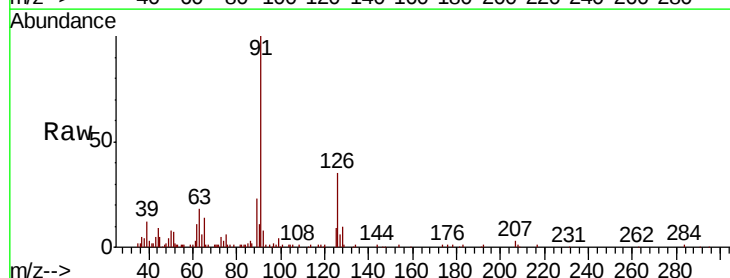
Acq: 6 Jul 2020 21:57

Tgt Ion: 91 Resp: 67081

Ion Ratio Lower Upper

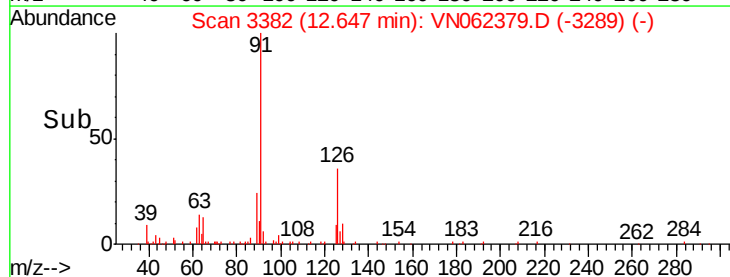
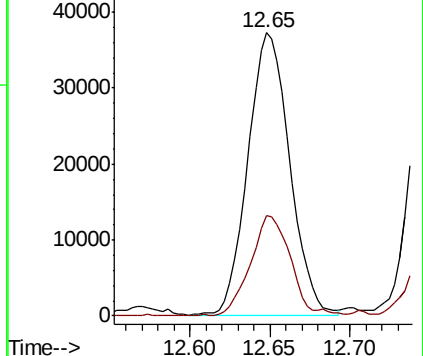
91 100

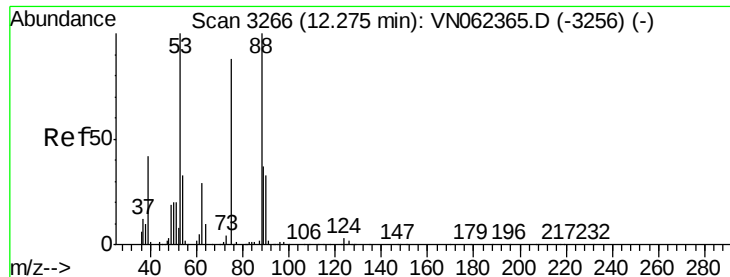
126 33.9 15.8 47.4



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 125.90 (125.60 to 126.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 87.291 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. 0.10 min

Lab File: VN062379.D

Acq: 6 Jul 2020 21:57

Instrument :

MSVOA\_N

ClientSampleId :

BP-MW180-SOIL-614-616

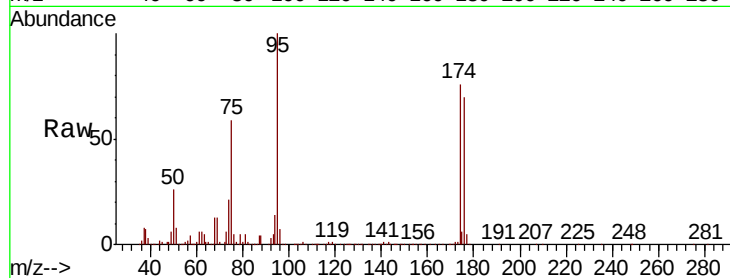
Tot Ion: 75 Resp: 463273

Ion Ratio Lower Upper

75 100

53 0.1 92.3 138.5#

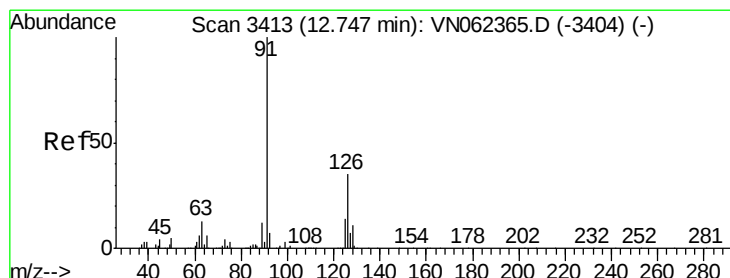
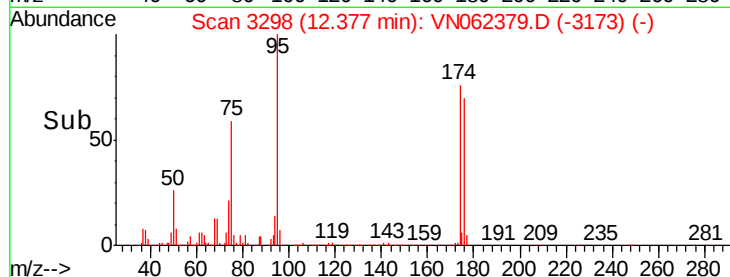
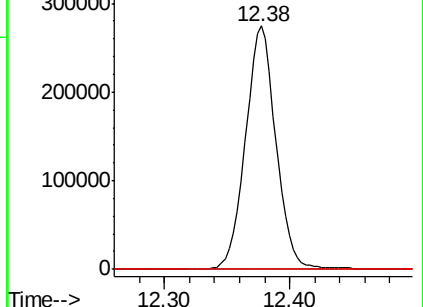
89 0.0 37.0 55.4#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0



#82

4-Chlorotoluene

Concen: 1.772 ug/l

RT: 12.75 min Scan# 3414

Delta R.T. 0.00 min

Lab File: VN062379.D

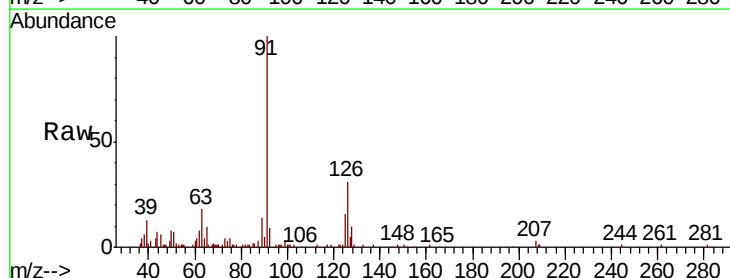
Acq: 6 Jul 2020 21:57

Tgt Ion: 91 Resp: 61147

Ion Ratio Lower Upper

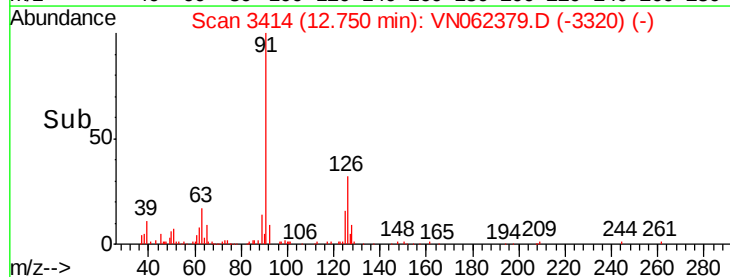
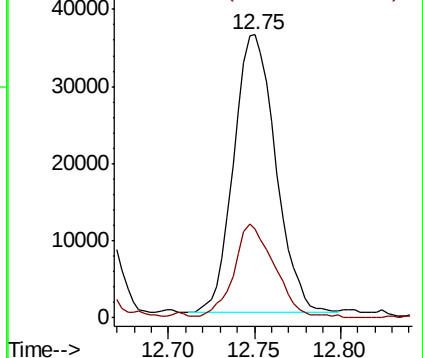
91 100

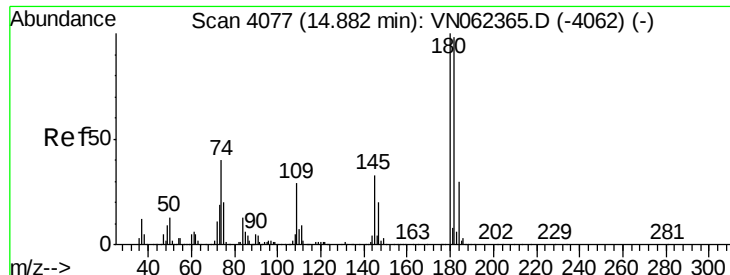
126 33.0 15.6 46.7



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 125.90 (125.60 to 126.60): V

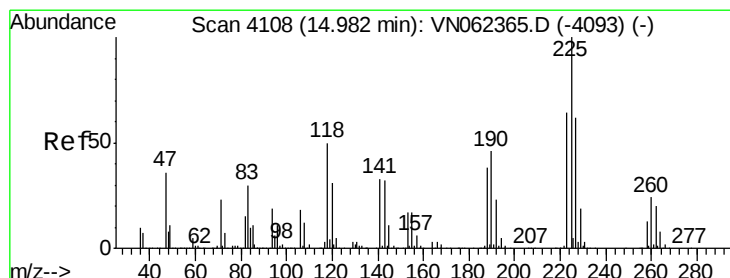
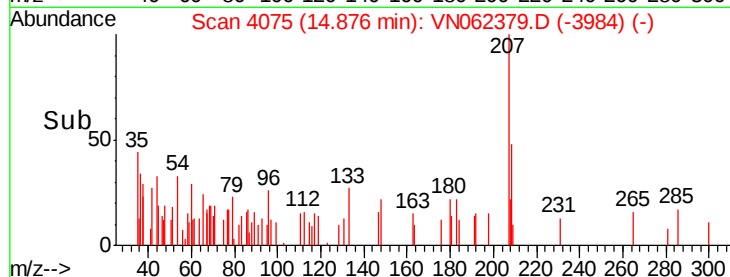
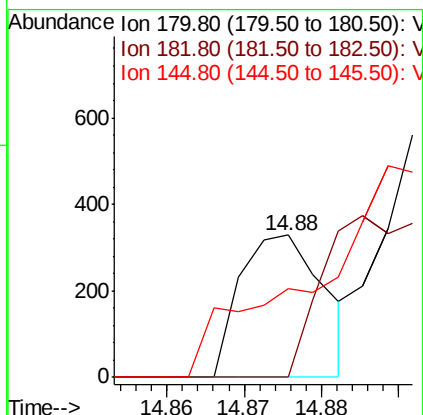
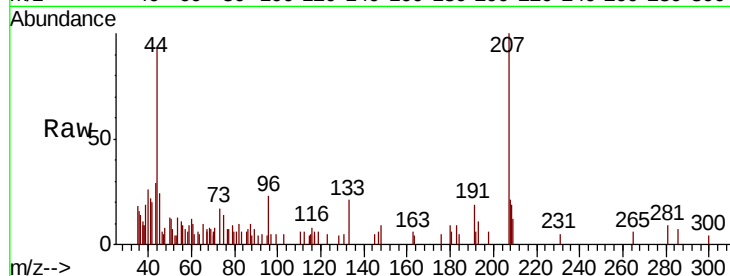




#93  
 1,2,4-Trichlorobenzene  
 Concen: 2.754 ug/l  
 RT: 14.88 min Scan# 4075  
 Delta R.T. -0.01 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

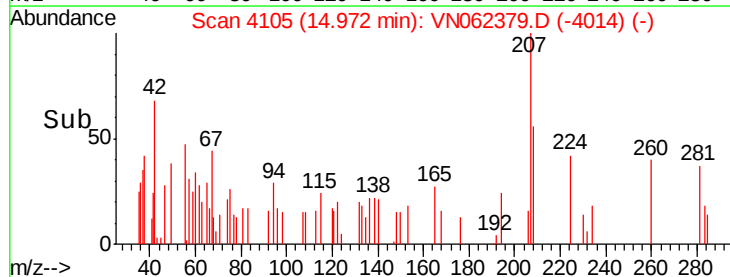
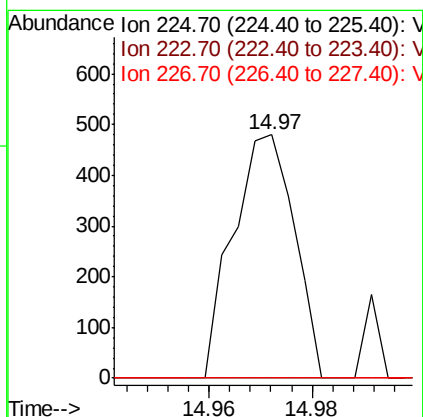
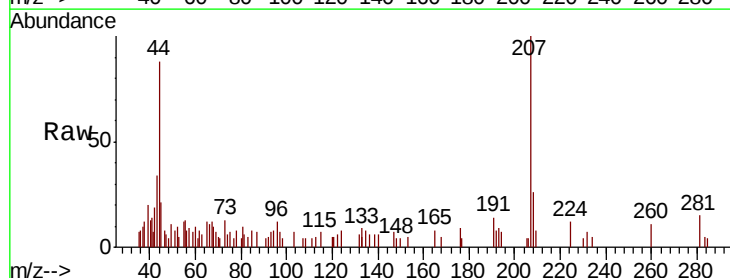
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BP-MW180-SOIL-614-616

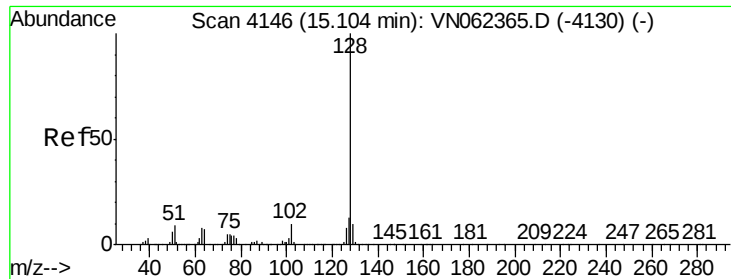
Tot Ion:180 Resp: 249  
 Ion Ratio Lower Upper  
 180 100  
 182 0.0 47.6 142.8#  
 145 0.0 15.9 47.7#



#94  
 Hexachlorobutadiene  
 Concen: Below Cal  
 RT: 14.97 min Scan# 4105  
 Delta R.T. -0.01 min  
 Lab File: VN062379.D  
 Acq: 6 Jul 2020 21:57

Tgt Ion:225 Resp: 394  
 Ion Ratio Lower Upper  
 225 100  
 223 0.0 31.7 95.1#  
 227 0.0 30.3 90.8#





#95  
Naphthalene  
Concen: 2.195 ug/l  
RT: 15.11 min Scan# 4147  
Delta R.T. 0.00 min  
Lab File: VN062379.D  
Acq: 6 Jul 2020 21:57

Instrument :  
MSVOA\_N  
ClientSampleId :  
BP-MW180-SOIL-614-616

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 2.3   | 10.8  | 16.2# |
| 129     | 8.9   | 8.6   | 12.8  |

