

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN030920\  
 Data File : VN060398.D  
 Acq On : 9 Mar 2020 13:18  
 Operator : JC/MD  
 Sample : PB127354ZHE#03  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB127354ZHE#03

Quant Time: Mar 09 16:25:43 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N022720W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 27 13:52:50 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 199667   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 326706   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 304706   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 136096   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.00   | 65  | 128268   | 50.07 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 100.14% |      |
| 35) Dibromofluoromethane    | 7.57   | 113 | 93877    | 61.91 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 123.82% |      |
| 50) Toluene-d8              | 10.08  | 98  | 403017   | 52.51 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 105.02% |      |
| 62) 4-Bromofluorobenzene    | 12.40  | 95  | 147433   | 50.67 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 101.34% |      |

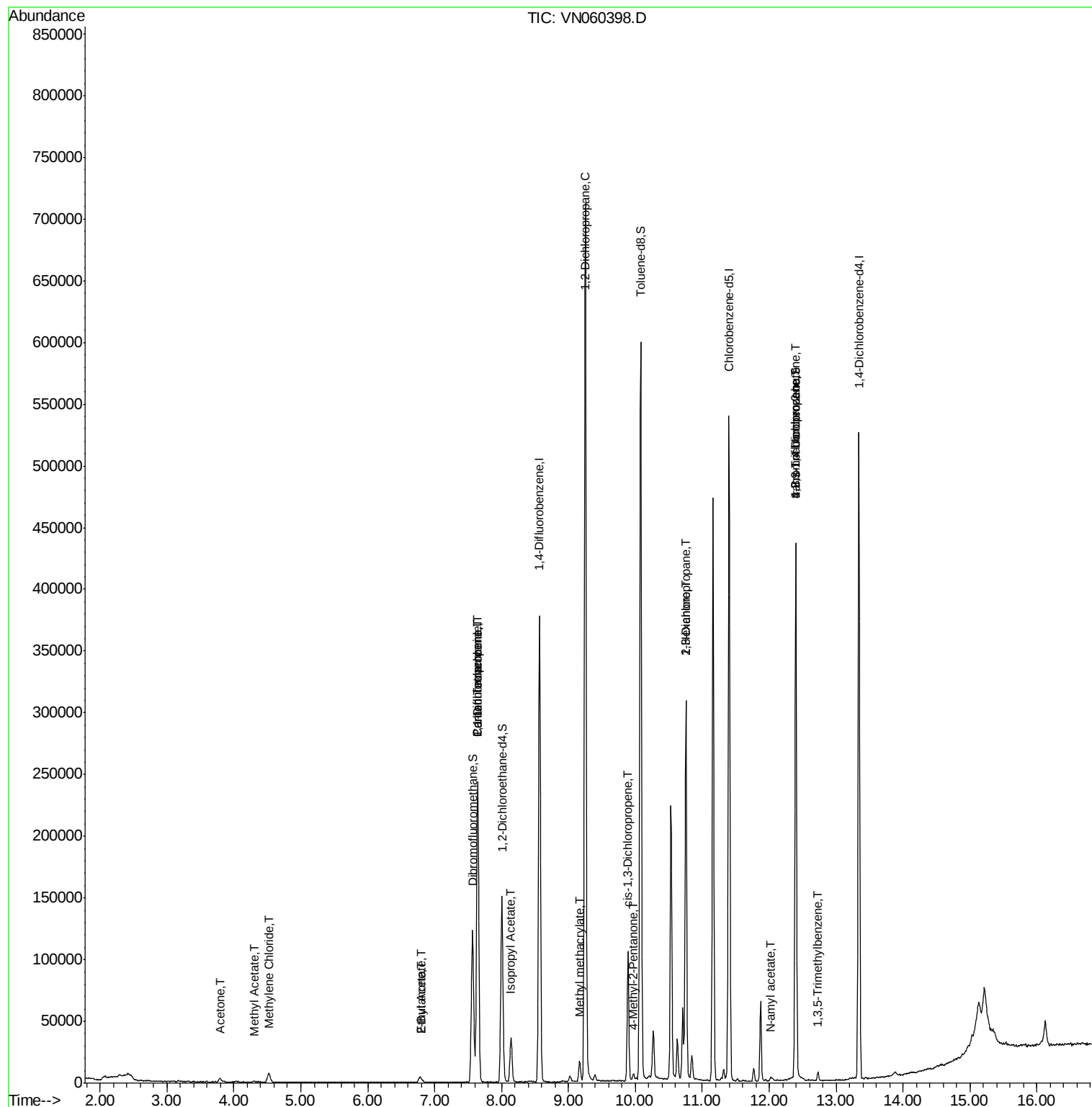
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.79  | 43   | 6030     | 7.29      | ug/l   | 94     |
| 18) Methyl Acetate             | 4.30  | 43   | 1249     | 0.45      | ug/l # | 52     |
| 20) Methylene Chloride         | 4.53  | 84   | 5502     | 2.42      | ug/l   | 99     |
| 25) 2-Butanone                 | 6.81  | 43   | 1065     | 0.80      | ug/l # | 49     |
| 31) Cyclohexane                | 7.64  | 56   | 4358     | Below Cal | #      | 3      |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 15829    | 5.08      | ug/l # | 50     |
| 37) Ethyl Acetate              | 6.81  | 43   | 1065     | 0.36      | ug/l # | 68     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 19123    | 6.31      | ug/l # | 17     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 43173    | 8.36      | ug/l # | 91     |
| 45) 1,2-Dichloropropane        | 9.25  | 63   | 764      | 0.32      | ug/l # | 44     |
| 48) Methyl methacrylate        | 9.16  | 41   | 2536     | 1.08      | ug/l # | 13     |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 3780     | 1.29      | ug/l   | 92     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 19542    | 4.92      | ug/l # | 59     |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 3083     | 0.83      | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.75 | 43   | 45847    | 21.34     | ug/l # | 53     |
| 74) N-amyl acetate             | 12.02 | 43   | 2862     | 0.65      | ug/l # | 44     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 75382    | 25.25     | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 4382     | 0.52      | ug/l   | 91     |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 75382    | 69.69     | ug/l # | 8      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 291      | Below Cal | #      | 25     |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 346      | Below Cal | #      | 17     |
| 95) Naphthalene                | 15.13 | 128  | 810      | Below Cal | #      | 69     |
| 96) 1,2,3-Trichlorobenzene     | 15.31 | 180  | 125      | Below Cal | #      | 1      |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N022720W.M  
Quant Title : SW846 8260  
QLast Update : Thu Feb 27 13:52:50 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 7.64 min Scan# 1826

Delta R.T. -0.00 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

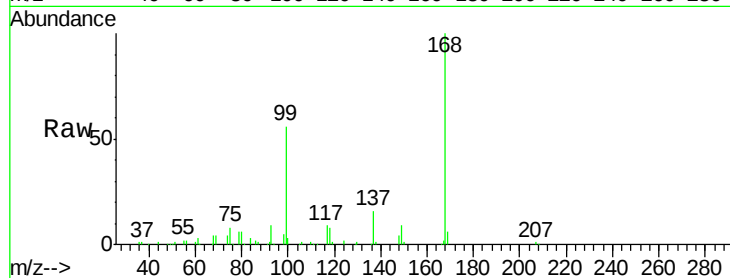
PB127354ZHE#03

Tgt Ion:168 Resp: 199667

Ion Ratio Lower Upper

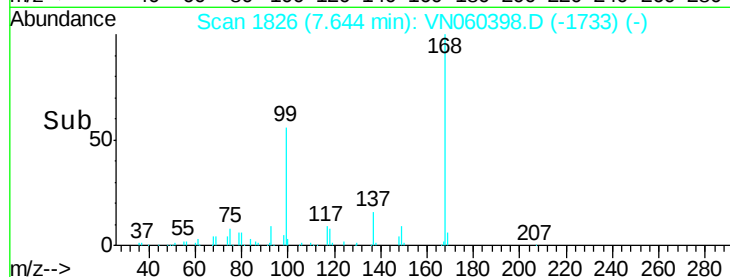
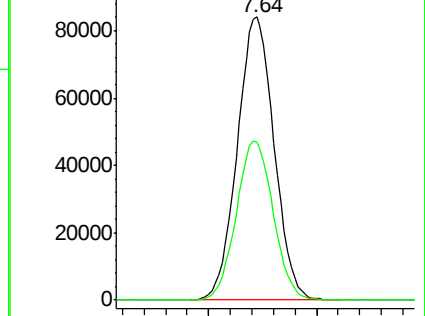
168 100

99 55.9 44.7 67.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN0



#16

Acetone

Concen: 7.29 ug/l

RT: 3.79 min Scan# 628

Delta R.T. 0.01 min

Lab File: VN060398.D

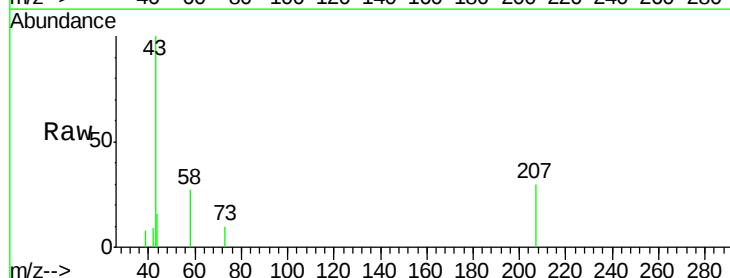
Acq: 9 Mar 2020 13:18

Tgt Ion: 43 Resp: 6030

Ion Ratio Lower Upper

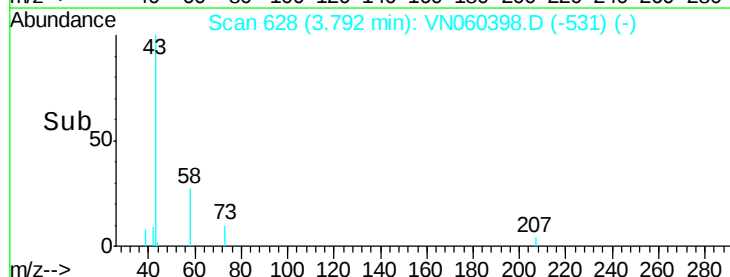
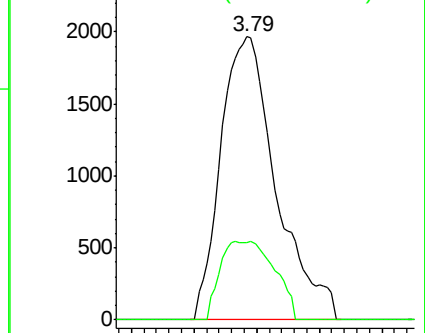
43 100

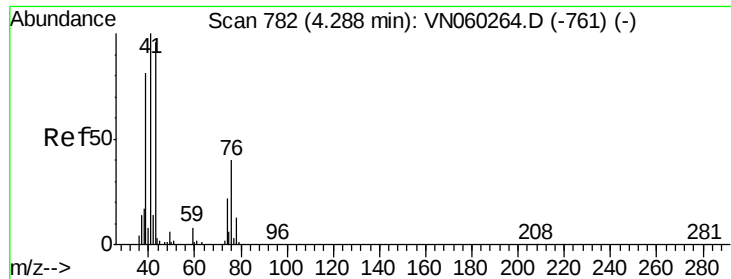
58 27.4 24.6 36.8



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

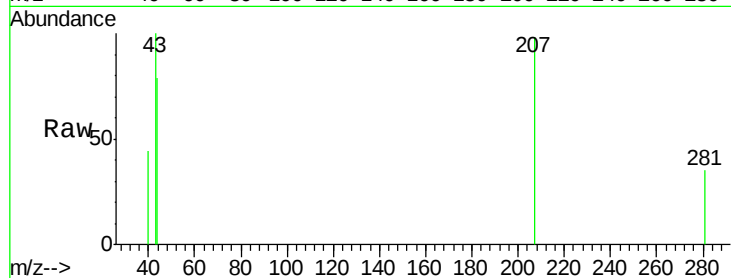




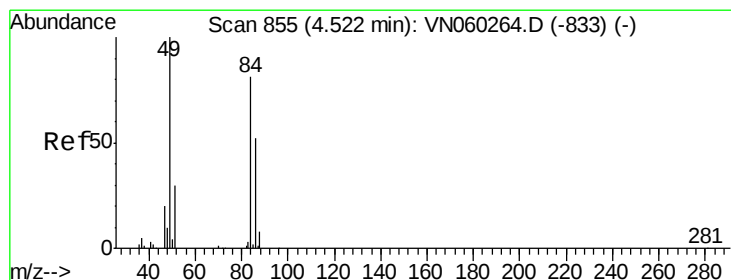
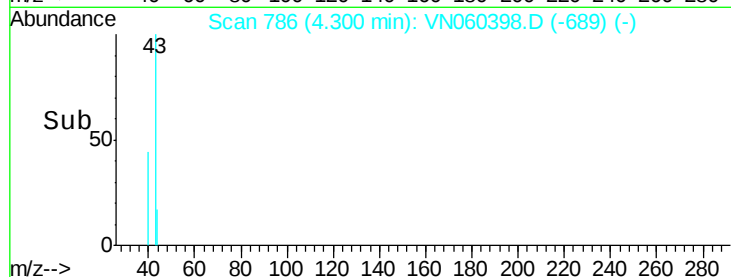
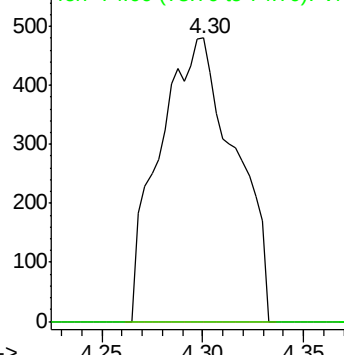
#18  
Methyl Acetate  
Concen: 0.45 ug/l  
RT: 4.30 min Scan# 786  
Delta R.T. 0.01 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Instrument :  
MSVOA\_N  
ClientSampleId :  
PB127354ZHE#03

Tgt Ion: 43 Resp: 1249  
Ion Ratio Lower Upper  
43 100  
74 0.0 18.8 28.2#

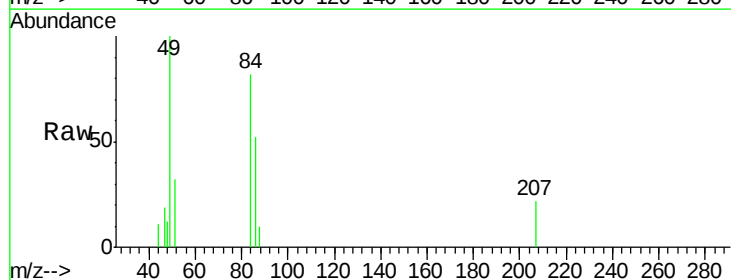


Abundance Ion 43.00 (42.70 to 43.70): VNO  
Ion 74.00 (73.70 to 74.70): VNO

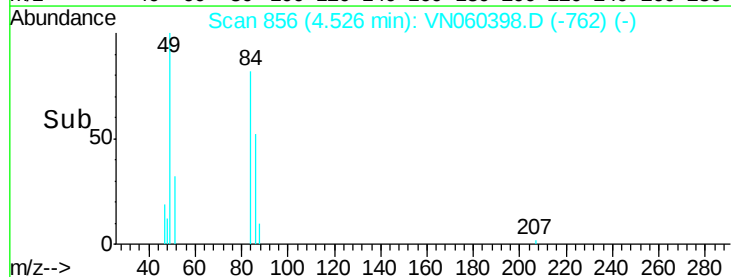
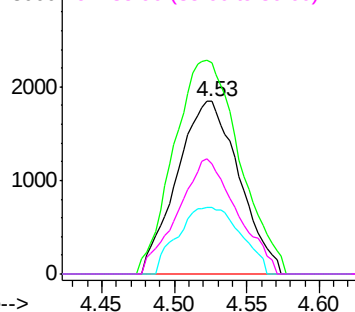


#20  
Methylene Chloride  
Concen: 2.42 ug/l  
RT: 4.53 min Scan# 856  
Delta R.T. 0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Tgt Ion: 84 Resp: 5502  
Ion Ratio Lower Upper  
84 100  
49 122.4 99.3 148.9  
51 38.9 30.1 45.1  
86 63.6 51.1 76.7



Abundance Ion 83.90 (83.60 to 84.60): VNO  
Ion 48.90 (48.60 to 49.60): VNO  
Ion 50.90 (50.60 to 51.60): VNO  
Ion 85.90 (85.60 to 86.60): VNO





#25

2-Butanone

Concen: 0.80 ug/l

RT: 6.81 min Scan# 1565

Delta R.T. 0.01 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

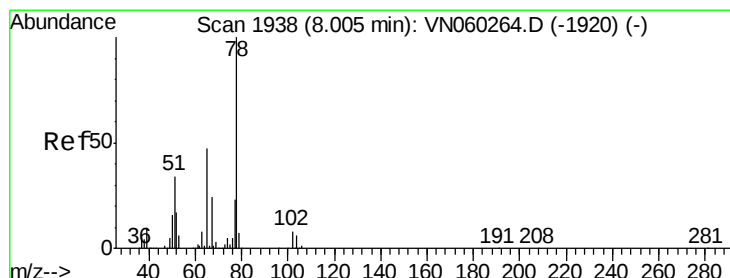
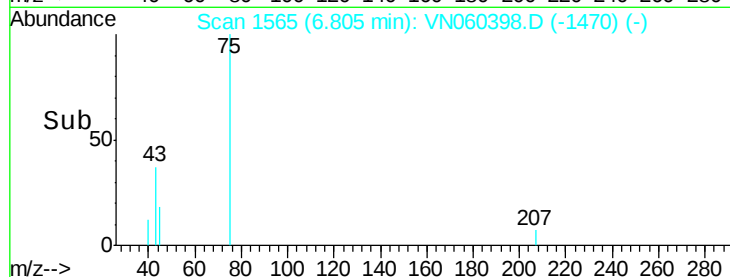
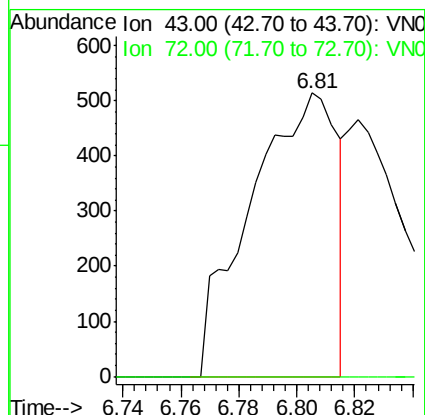
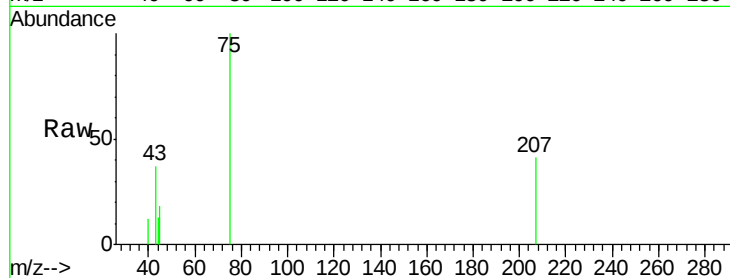
PB127354ZHE#03

Tgt Ion: 43 Resp: 1065

Ion Ratio Lower Upper

43 100

72 0.0 20.9 31.3#



#33

1,2-Dichloroethane-d4

Concen: 50.07 ug/l

RT: 8.00 min Scan# 1938

Delta R.T. -0.00 min

Lab File: VN060398.D

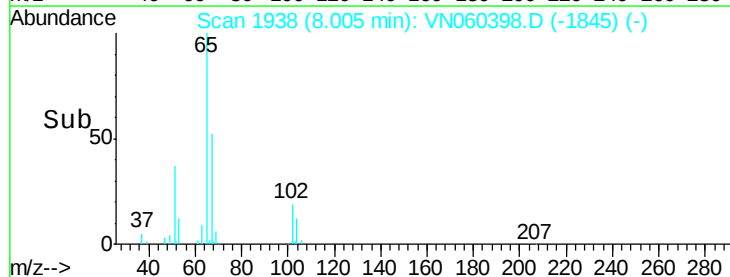
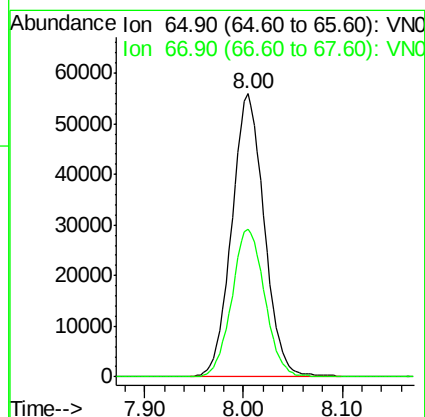
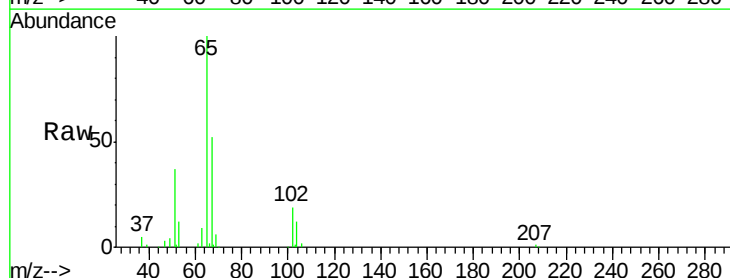
Acq: 9 Mar 2020 13:18

Tgt Ion: 65 Resp: 128268

Ion Ratio Lower Upper

65 100

67 52.8 0.0 103.8

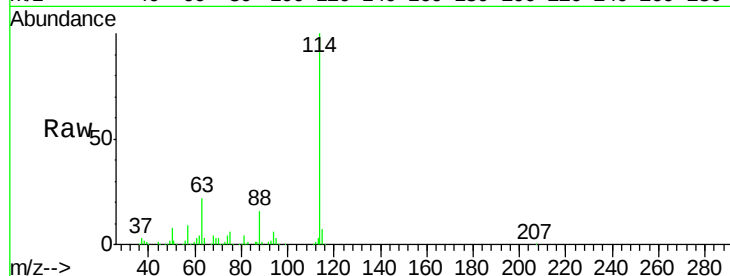




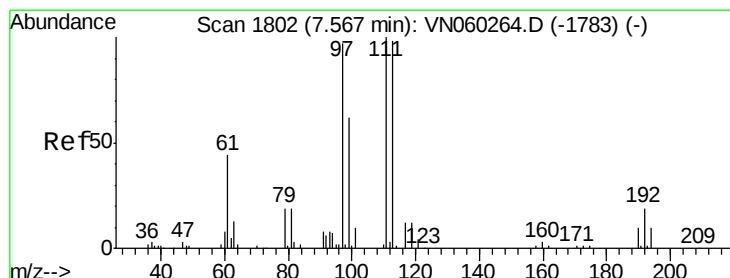
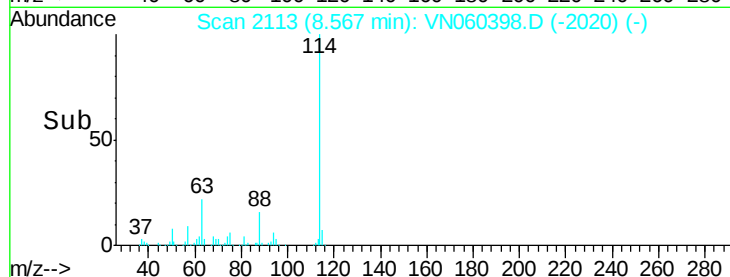
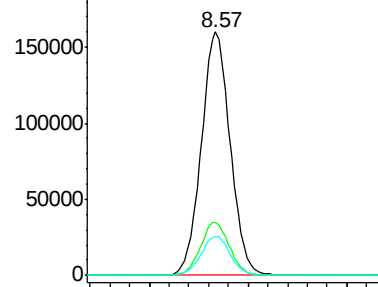
#34  
1,4-Difluorobenzene  
Concen: 50.00 ug/l  
RT: 8.57 min Scan# 2113  
Delta R.T. -0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Instrument :  
MSVOA\_N  
ClientSampleId :  
PB127354ZHE#03

Tgt Ion:114 Resp: 326706  
Ion Ratio Lower Upper  
114 100  
63 21.8 0.0 43.2  
88 16.0 0.0 31.6

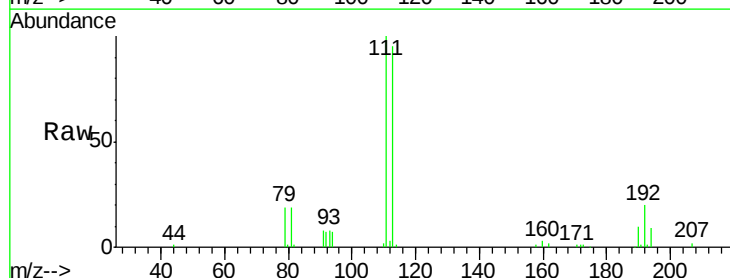


Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): V  
Ion 87.90 (87.60 to 88.60): V

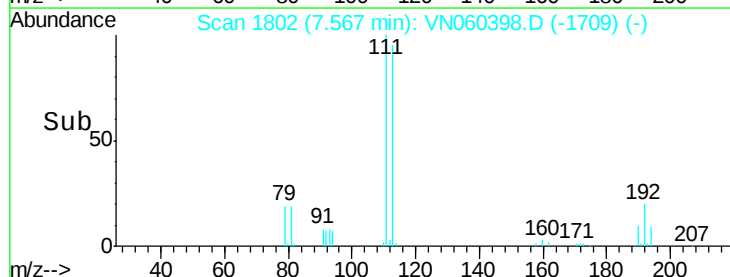
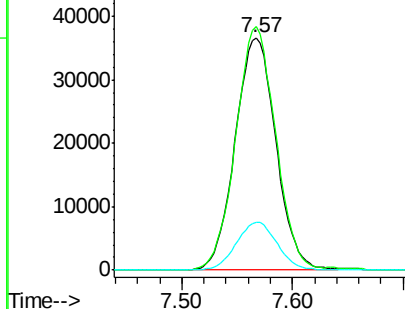


#35  
Dibromofluoromethane  
Concen: 61.91 ug/l  
RT: 7.57 min Scan# 1802  
Delta R.T. -0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Tgt Ion:113 Resp: 93877  
Ion Ratio Lower Upper  
113 100  
111 102.2 82.4 123.6  
192 20.6 16.2 24.2



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: 5.08 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.13 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

PB127354ZHE#03

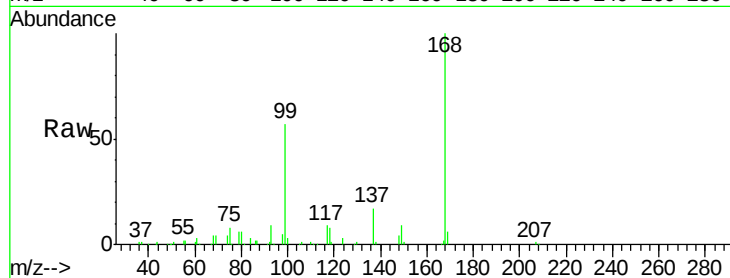
Tgt Ion: 75 Resp: 15829

Ion Ratio Lower Upper

75 100

110 8.4 17.3 52.0#

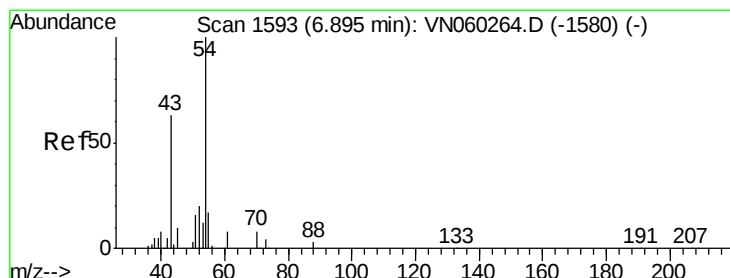
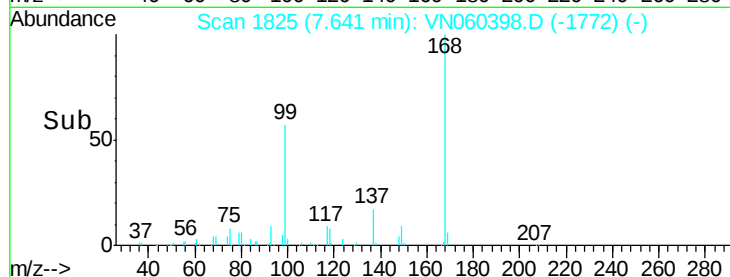
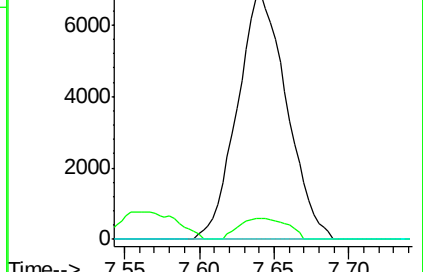
77 0.0 24.2 36.2#



Abundance Ion 74.90 (74.60 to 75.60): VN060398.D (-1772) (-)

Ion 109.90 (109.60 to 110.60): VN060398.D (-1772) (-)

Ion 76.90 (76.60 to 77.60): VN060398.D (-1772) (-)



#37

Ethyl Acetate

Concen: 0.36 ug/l

RT: 6.81 min Scan# 1565

Delta R.T. -0.09 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

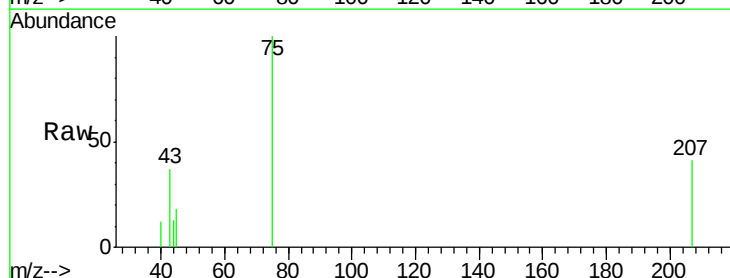
Tgt Ion: 43 Resp: 1065

Ion Ratio Lower Upper

43 100

61 0.0 11.1 16.7#

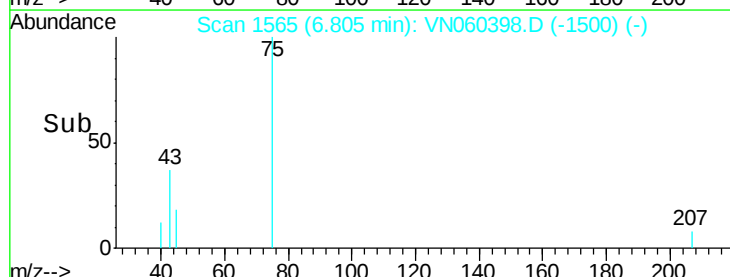
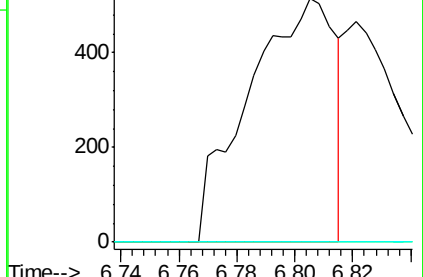
70 0.0 8.4 12.6#

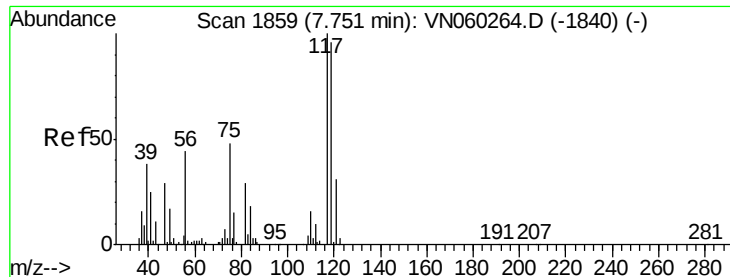


Abundance Ion 43.00 (42.70 to 43.70): VN060398.D (-1500) (-)

Ion 60.90 (60.60 to 61.60): VN060398.D (-1500) (-)

Ion 70.00 (69.70 to 70.70): VN060398.D (-1500) (-)





#38

Carbon Tetrachloride

Concen: 6.31 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.11 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

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ClientSampleId :

PB127354ZHE#03

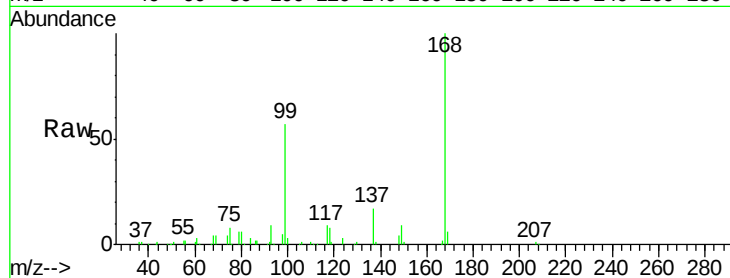
Tgt Ion:117 Resp: 19123

Ion Ratio Lower Upper

117 100

119 6.2 76.7 115.1#

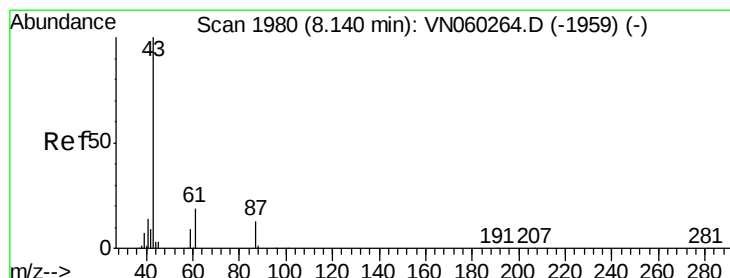
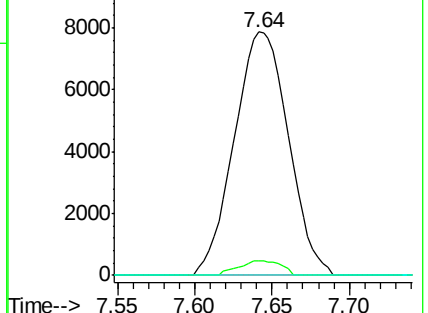
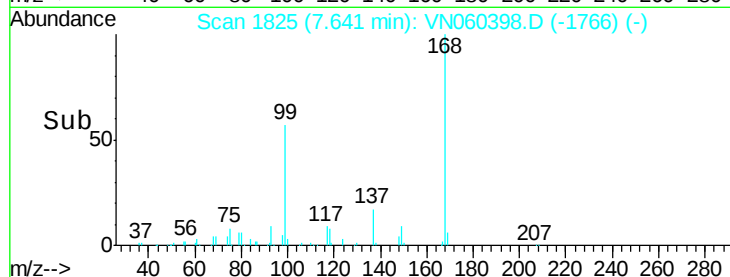
121 0.0 24.5 36.7#



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: 8.36 ug/l

RT: 8.14 min Scan# 1981

Delta R.T. 0.00 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

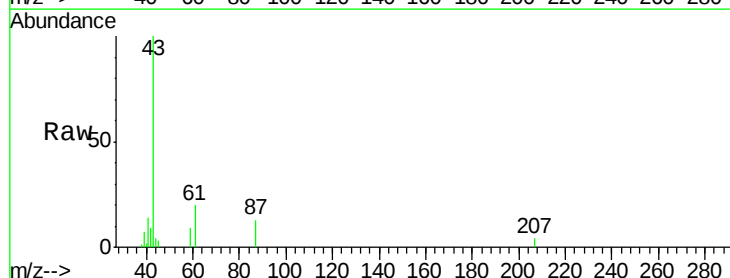
Tgt Ion: 43 Resp: 43173

Ion Ratio Lower Upper

43 100

61 19.3 20.9 31.3#

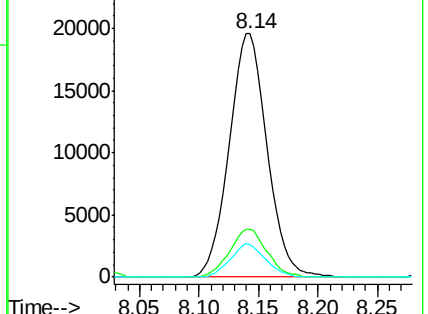
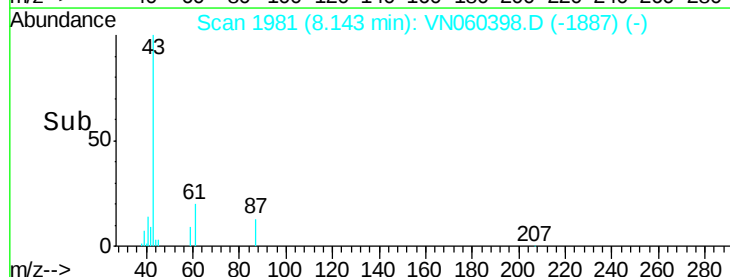
87 12.6 10.6 16.0

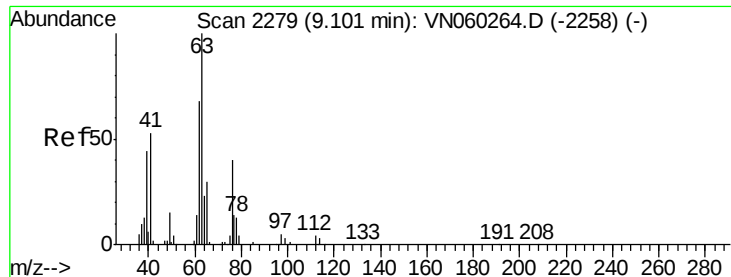


Abundance Ion 43.00 (42.70 to 43.70): V

Ion 61.00 (60.70 to 61.70): V

Ion 87.00 (86.70 to 87.70): V





#45

1,2-Dichloropropane

Concen: 0.32 ug/l

RT: 9.25 min Scan# 2326

Delta R.T. 0.15 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

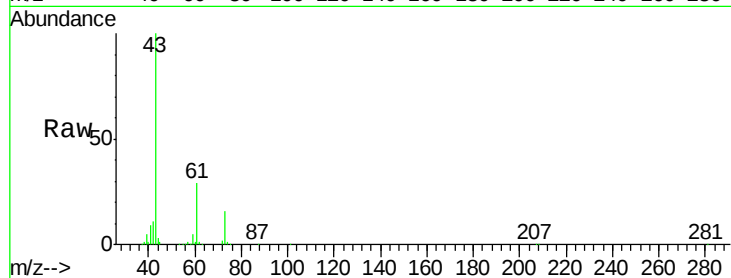
PB127354ZHE#03

Tgt Ion: 63 Resp: 764

Ion Ratio Lower Upper

63 100

65 0.0 24.4 36.6#



Abundance Ion 62.90 (62.60 to 63.60): VNO

Ion 64.90 (64.60 to 65.60): VNO

9.25

450

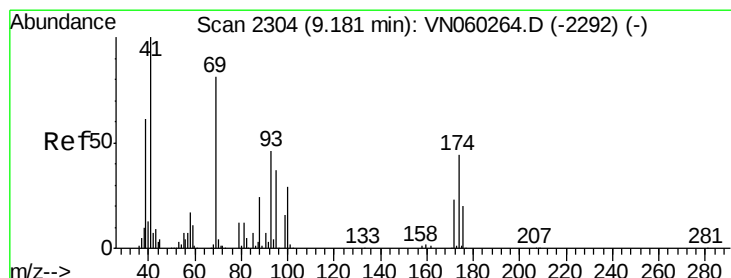
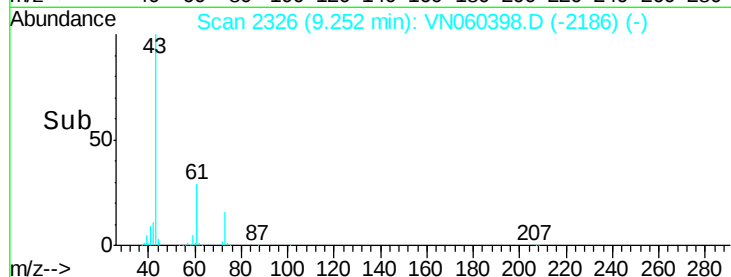
300

200

100

0

Time-->



#48

Methyl methacrylate

Concen: 1.08 ug/l

RT: 9.16 min Scan# 2298

Delta R.T. -0.02 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

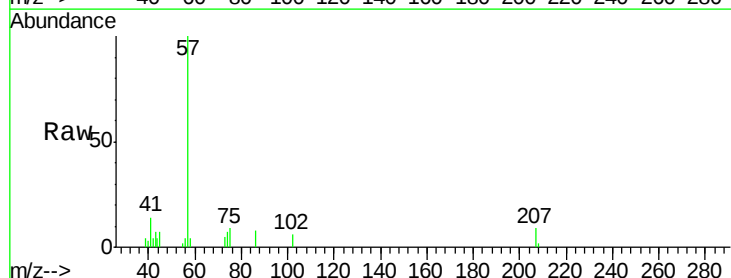
Tgt Ion: 41 Resp: 2536

Ion Ratio Lower Upper

41 100

69 0.0 66.7 100.1#

39 0.0 50.1 75.1#



Abundance Ion 41.00 (40.70 to 41.70): VNO

Ion 69.00 (68.70 to 69.70): VNO

Ion 39.00 (38.70 to 39.70): VNO

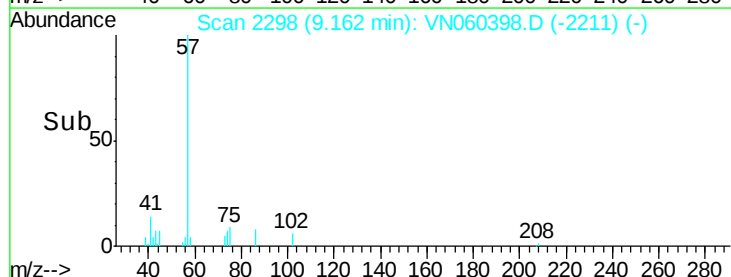
30000

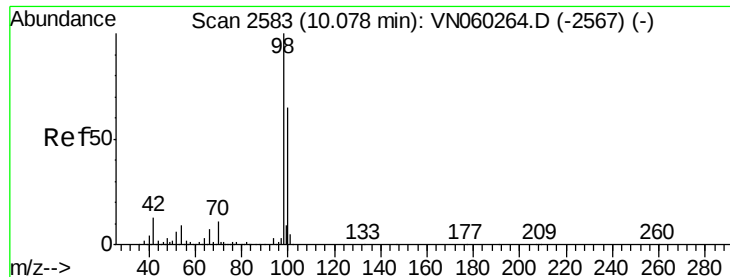
20000

10000

0

Time-->





#50

Toluene-d8

Concen: 52.51 ug/l

RT: 10.08 min Scan# 2583

Delta R.T. -0.00 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

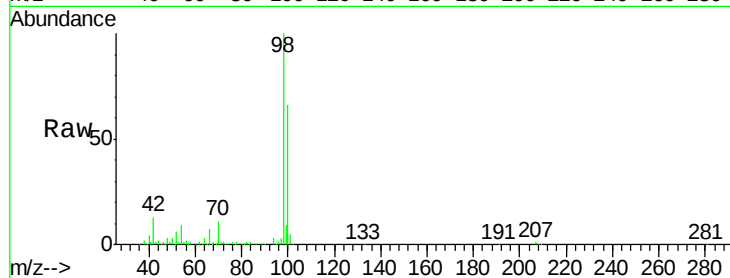
PB127354ZHE#03

Tgt Ion: 98 Resp: 403017

Ion Ratio Lower Upper

98 100

100 65.3 52.2 78.2



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN

10.08

250000

200000

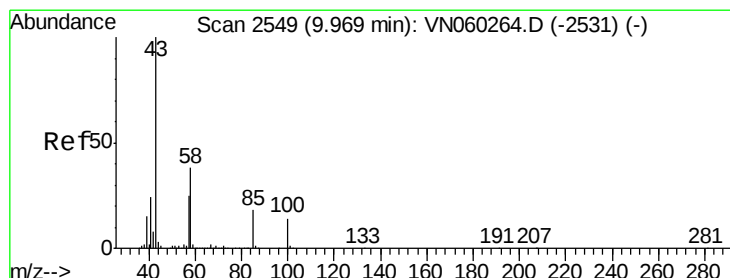
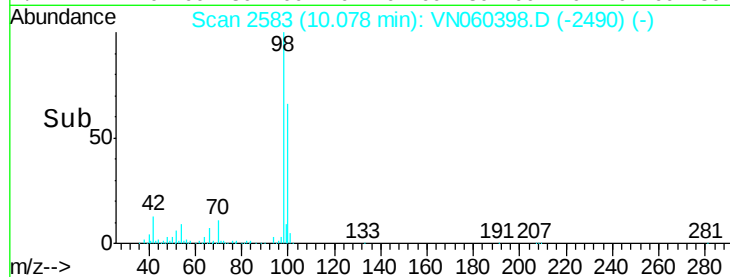
150000

100000

50000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 1.29 ug/l

RT: 9.97 min Scan# 2550

Delta R.T. 0.00 min

Lab File: VN060398.D

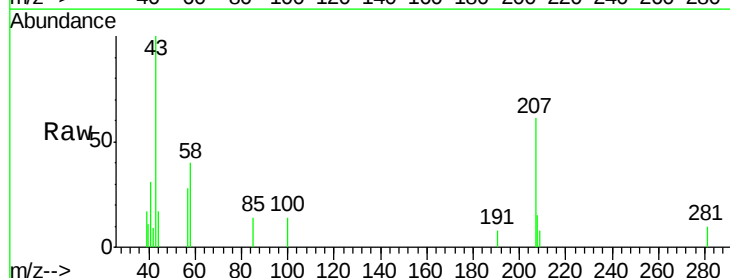
Acq: 9 Mar 2020 13:18

Tgt Ion: 43 Resp: 3780

Ion Ratio Lower Upper

43 100

58 33.7 30.9 46.3



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

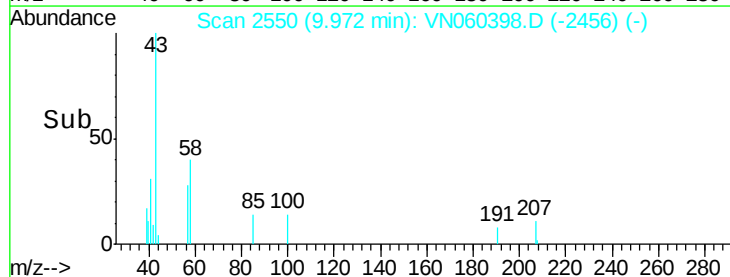
6000

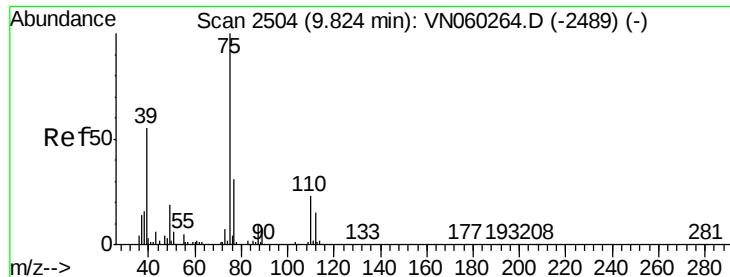
4000

2000

0

Time-->





#54

cis-1,3-Dichloropropene

Concen: 4.92 ug/l

RT: 9.89 min Scan# 2524

Delta R.T. 0.06 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

PB127354ZHE#03

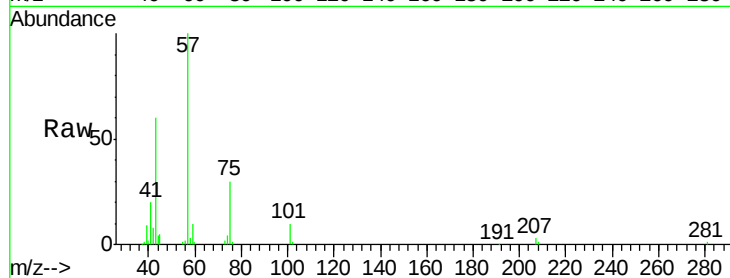
Tgt Ion: 75 Resp: 19542

Ion Ratio Lower Upper

75 100

77 0.0 24.8 37.2#

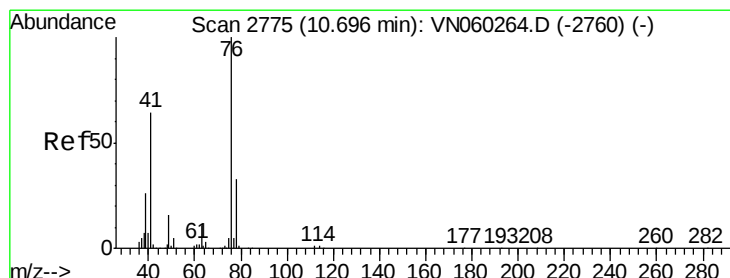
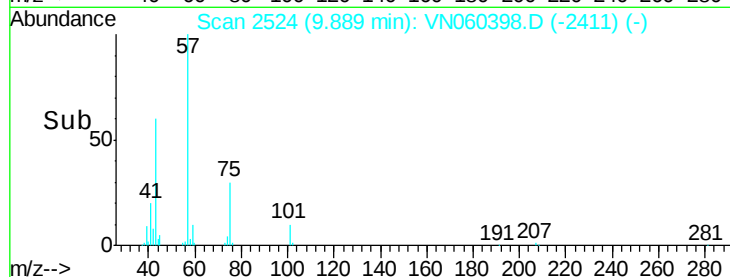
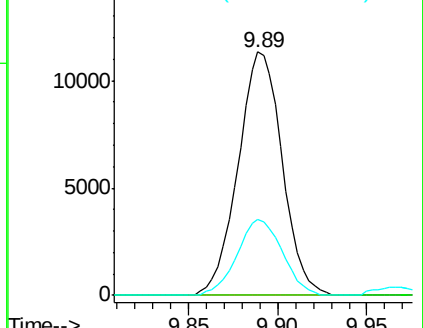
39 31.2 43.8 65.8#



Abundance Ion 74.90 (74.60 to 75.60): VN060398.D (-2411) (-)

Ion 76.90 (76.60 to 77.60): VN060398.D (-2411) (-)

Ion 39.00 (38.70 to 39.70): VN060398.D (-2411) (-)



#57

1,3-Dichloropropane

Concen: 0.83 ug/l

RT: 10.75 min Scan# 2793

Delta R.T. 0.06 min

Lab File: VN060398.D

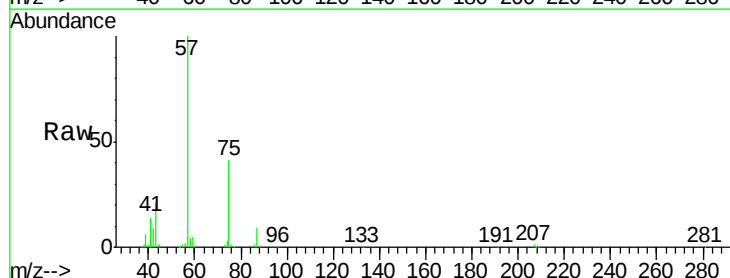
Acq: 9 Mar 2020 13:18

Tgt Ion: 76 Resp: 3083

Ion Ratio Lower Upper

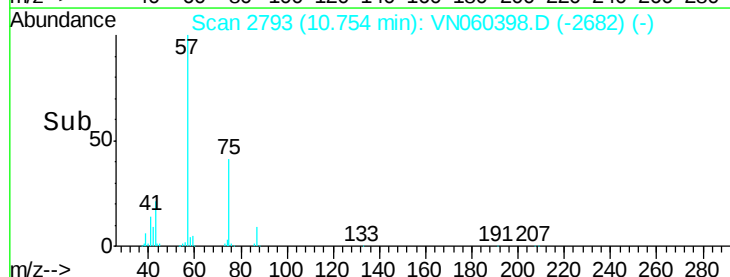
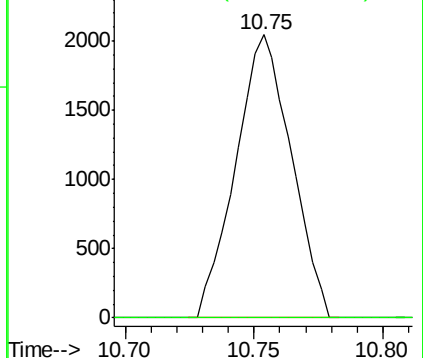
76 100

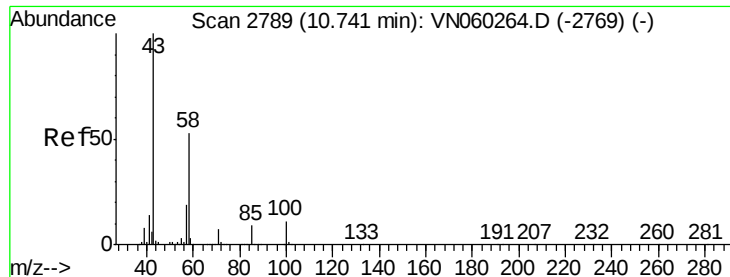
78 0.0 26.2 39.2#



Abundance Ion 75.90 (75.60 to 76.60): VN060398.D (-2682) (-)

Ion 77.90 (77.60 to 78.60): VN060398.D (-2682) (-)

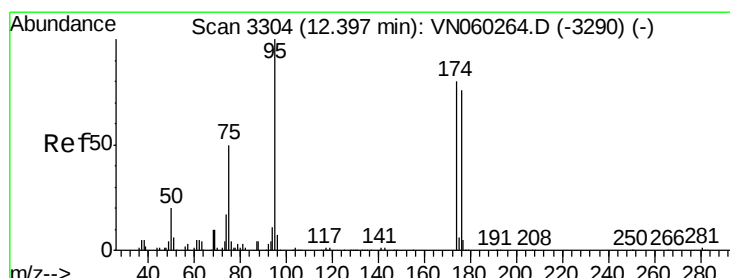
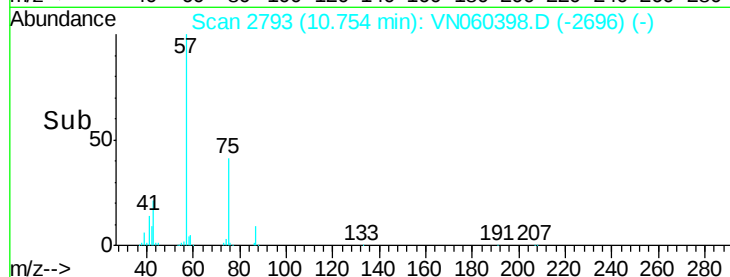
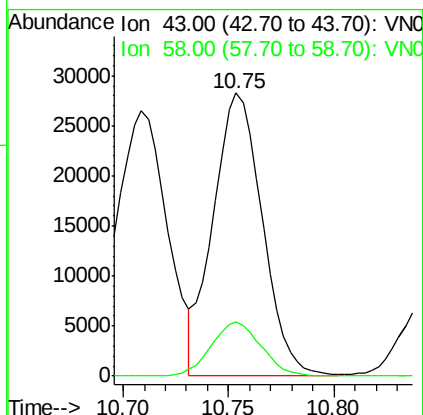
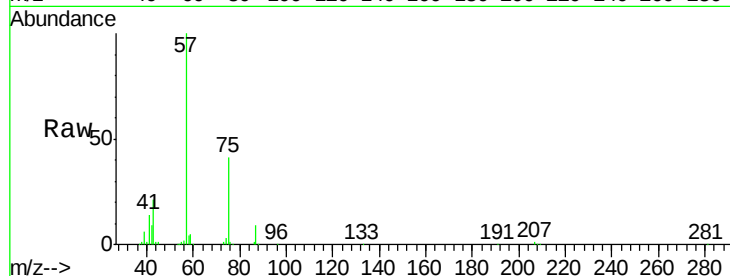




#59  
2-Hexanone  
Concen: 21.34 ug/l  
RT: 10.75 min Scan# 2793  
Delta R.T. 0.01 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

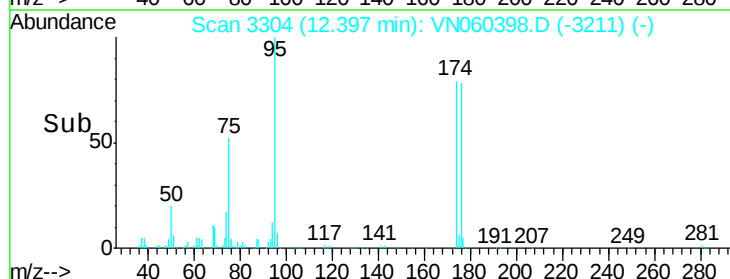
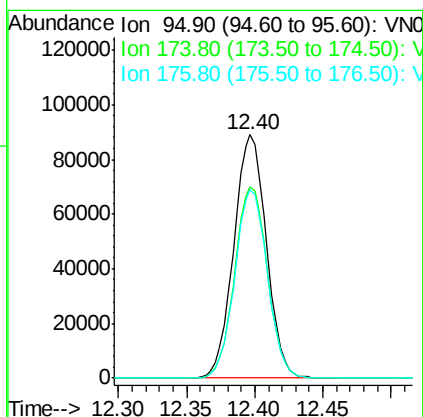
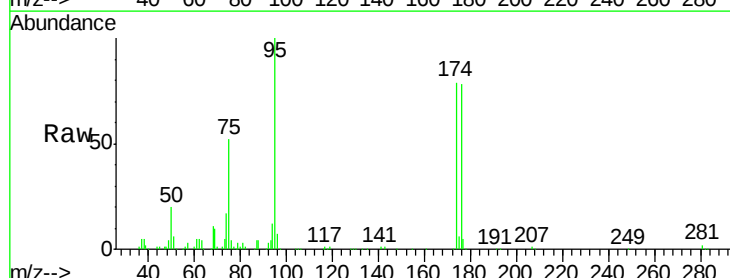
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB127354ZHE#03

Tgt Ion: 43 Resp: 45847  
Ion Ratio Lower Upper  
43 100  
58 19.4 26.5 79.5#



#62  
4-Bromofluorobenzene  
Concen: 50.67 ug/l  
RT: 12.40 min Scan# 3304  
Delta R.T. -0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Tgt Ion: 95 Resp: 147433  
Ion Ratio Lower Upper  
95 100  
174 79.3 0.0 159.2  
176 77.7 0.0 153.8

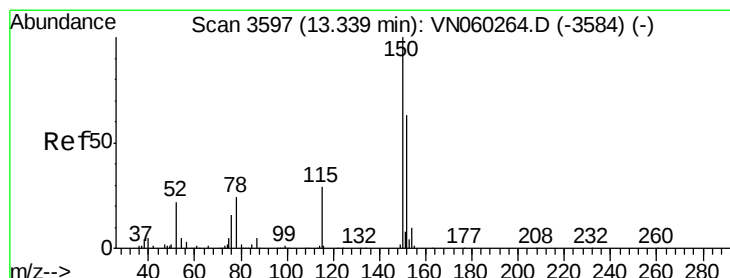
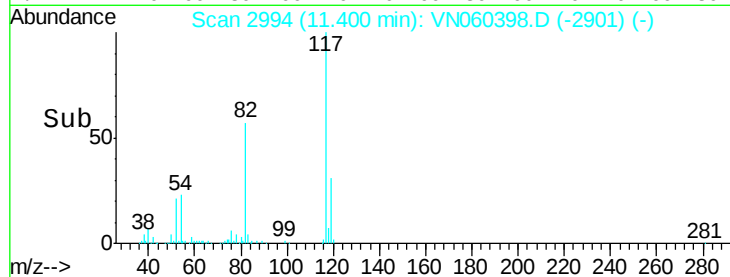
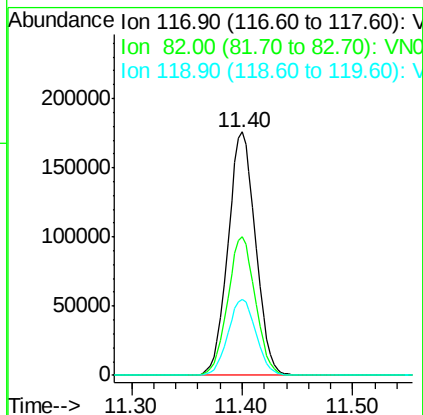
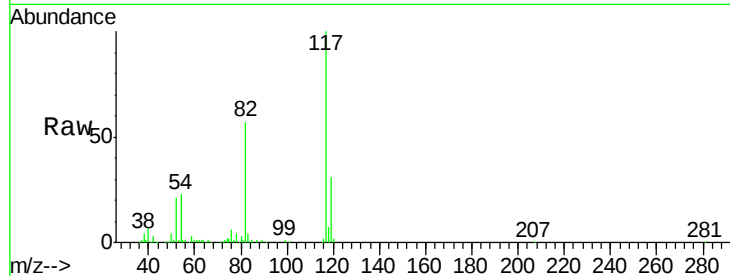




#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.40 min Scan# 2994  
Delta R.T. -0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

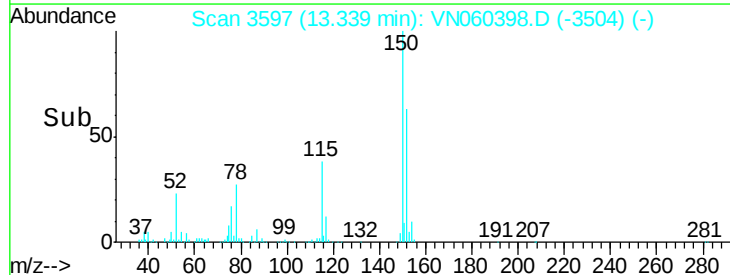
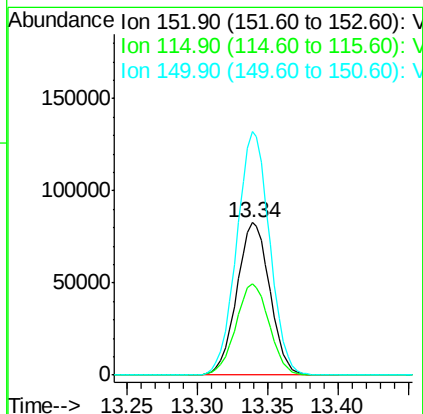
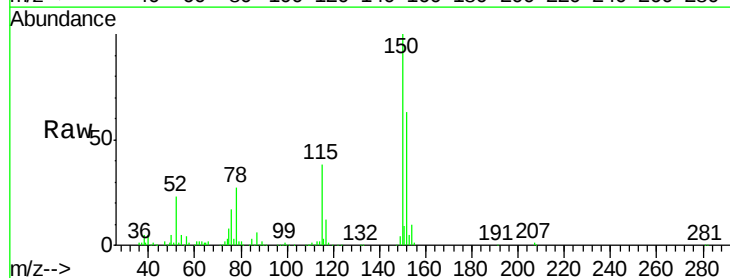
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB127354ZHE#03

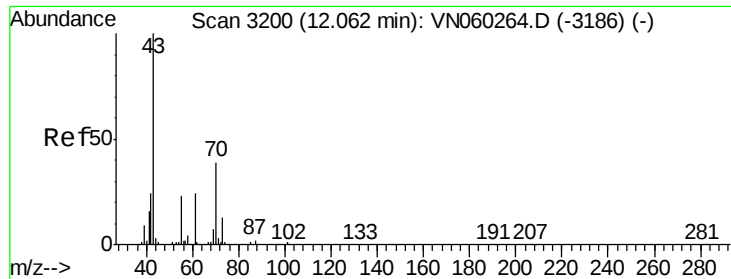
Tgt Ion:117 Resp: 304706  
Ion Ratio Lower Upper  
117 100  
82 57.0 45.8 68.6  
119 31.0 25.8 38.8



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 13.34 min Scan# 3597  
Delta R.T. -0.00 min  
Lab File: VN060398.D  
Acq: 9 Mar 2020 13:18

Tgt Ion:152 Resp: 136096  
Ion Ratio Lower Upper  
152 100  
115 60.3 30.0 90.0  
150 158.8 0.0 349.6





#74

N-ethyl acetate

Concen: 0.65 ug/l

RT: 12.02 min Scan# 3187

Delta R.T. -0.04 min

Lab File: VN060398.D

Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

PB127354ZHE#03

Tgt Ion: 43 Resp: 2862

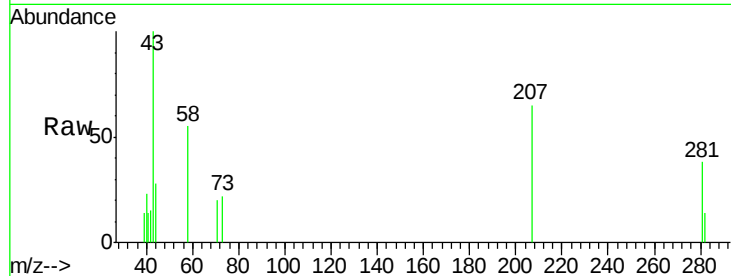
Ion Ratio Lower Upper

43 100

70 0.0 32.2 48.2#

55 0.0 18.2 27.4#

61 0.0 19.2 28.8#

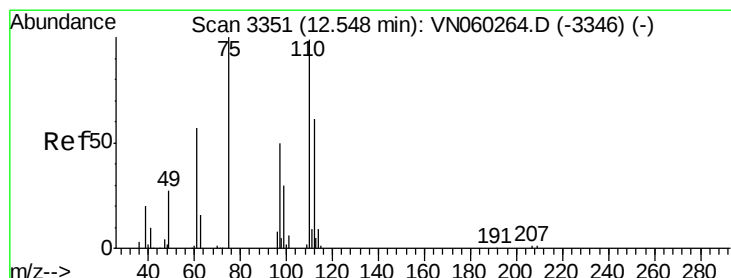
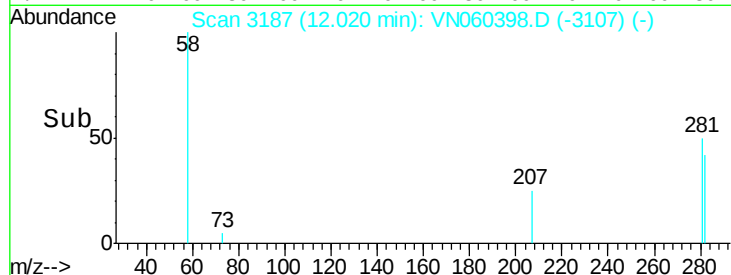
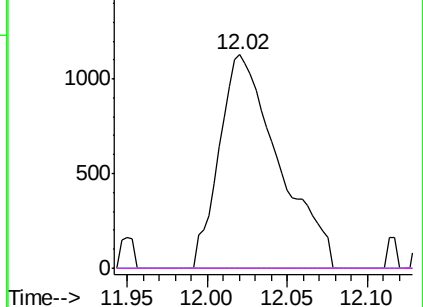


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 70.00 (69.70 to 70.70): VN0

Ion 55.00 (54.70 to 55.70): VN0

Ion 61.00 (60.70 to 61.70): VN0



#76

1,2,3-Trichloropropane

Concen: 25.25 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN060398.D

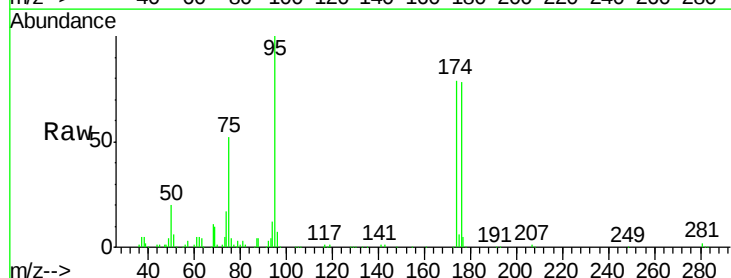
Acq: 9 Mar 2020 13:18

Tgt Ion: 75 Resp: 75382

Ion Ratio Lower Upper

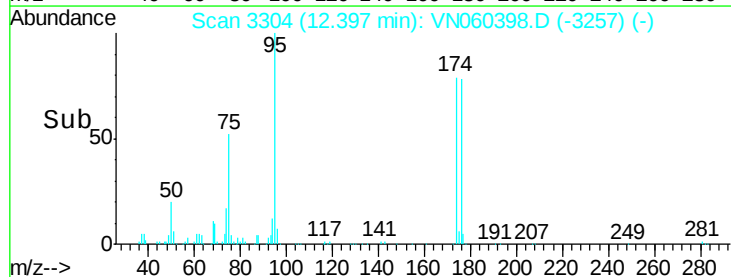
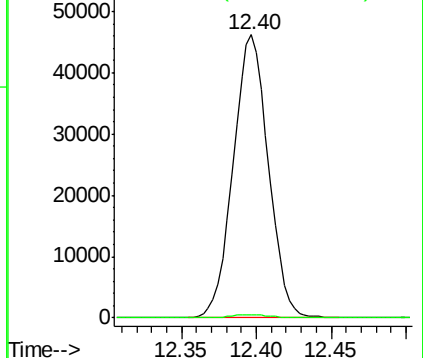
75 100

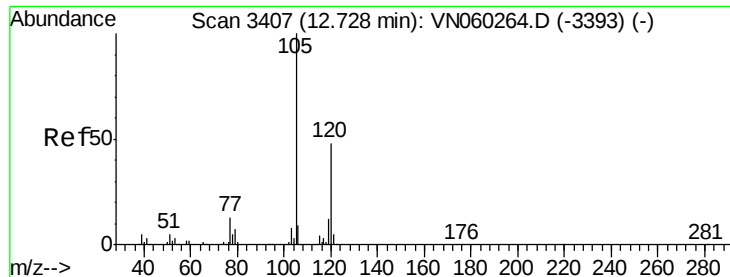
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

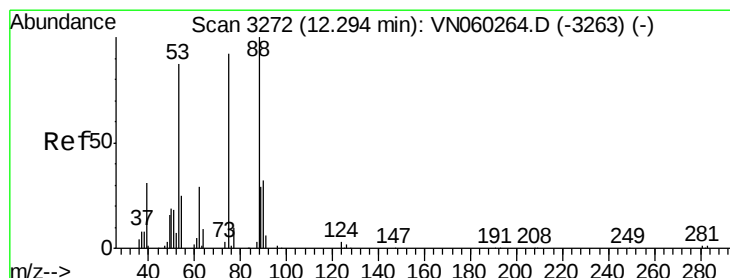
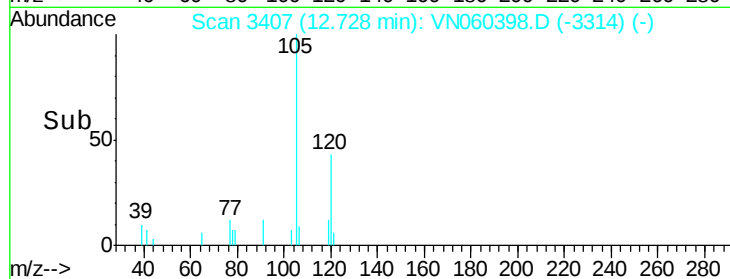
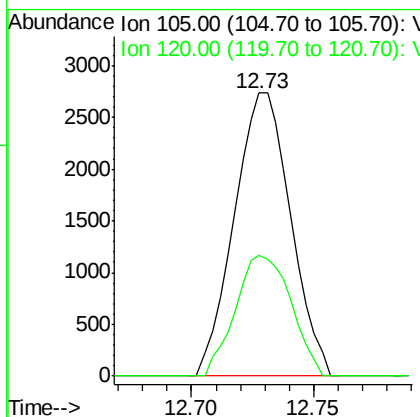
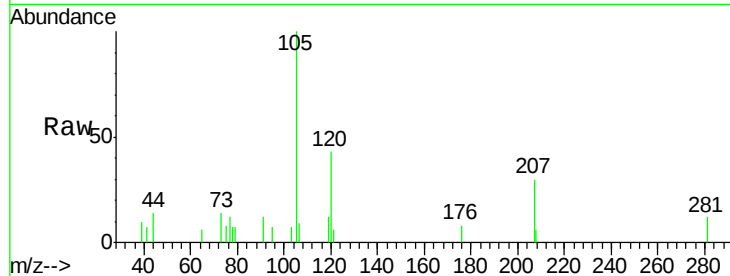




#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.52 ug/l  
 RT: 12.73 min Scan# 3407  
 Delta R.T. -0.00 min  
 Lab File: VN060398.D  
 Acq: 9 Mar 2020 13:18

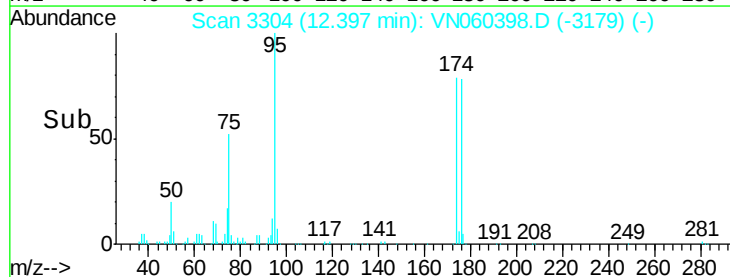
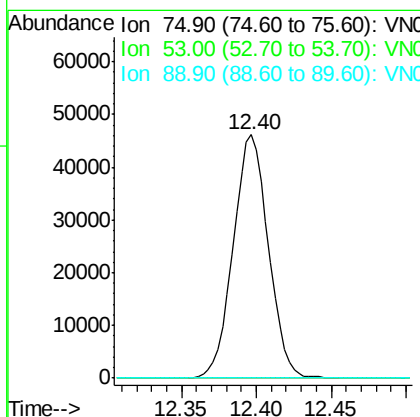
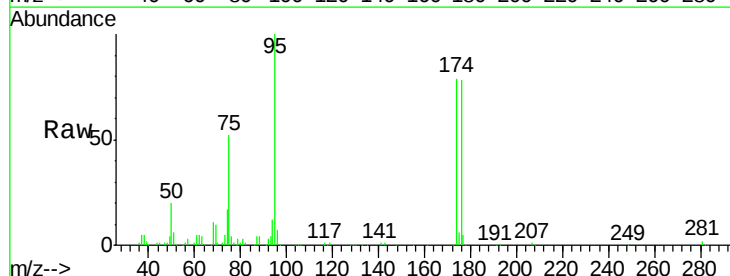
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB127354ZHE#03

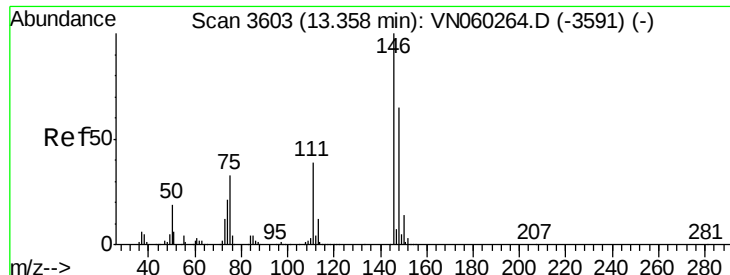
Tgt Ion: 105 Resp: 4382  
 Ion Ratio Lower Upper  
 105 100  
 120 42.1 24.1 72.4



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 69.69 ug/l  
 RT: 12.40 min Scan# 3304  
 Delta R.T. 0.10 min  
 Lab File: VN060398.D  
 Acq: 9 Mar 2020 13:18

Tgt Ion: 75 Resp: 75382  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 73.8 110.6#  
 89 0.0 57.1 85.7#





#88

1,4-Dichlorobenzene

Concen: Below Cal

RT: 13.36 min Scan# 3605

Delta R.T. 0.01 min

Lab File: VN060398.D

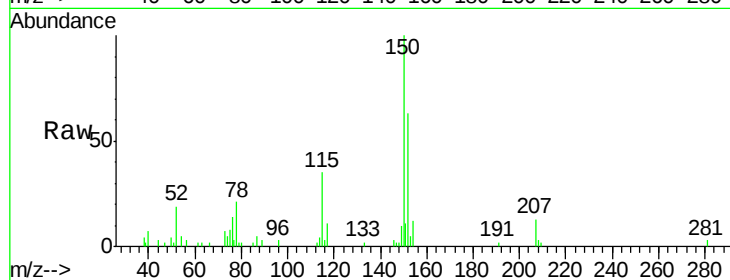
Acq: 9 Mar 2020 13:18

Instrument :

MSVOA\_N

ClientSampleId :

PB127354ZHE#03



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 346   |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 0.0   | 19.8  | 59.4# |
| 148      | 139.0 | 32.3  | 96.9# |

