

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD102519\  
 Data File : VD064076.D  
 Acq On : 25 Oct 2019 20:19  
 Operator : VA/SY  
 Sample : K5541-18  
 Misc : 7.07G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Oct 26 00:07:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Oct 05 03:51:17 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 64234    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 107654   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 120167   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 60834    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 44900    | 71.80 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 143.60% |      |
| 35) Dibromofluoromethane  | 7.93   | 113 | 38179    | 58.03 | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 116.06% |      |
| 50) Toluene-d8            | 10.34  | 98  | 147461   | 55.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 110.44% |      |
| 62) 4-Bromofluorobenzene  | 12.63  | 95  | 47403    | 51.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.16% |      |

## Target Compounds

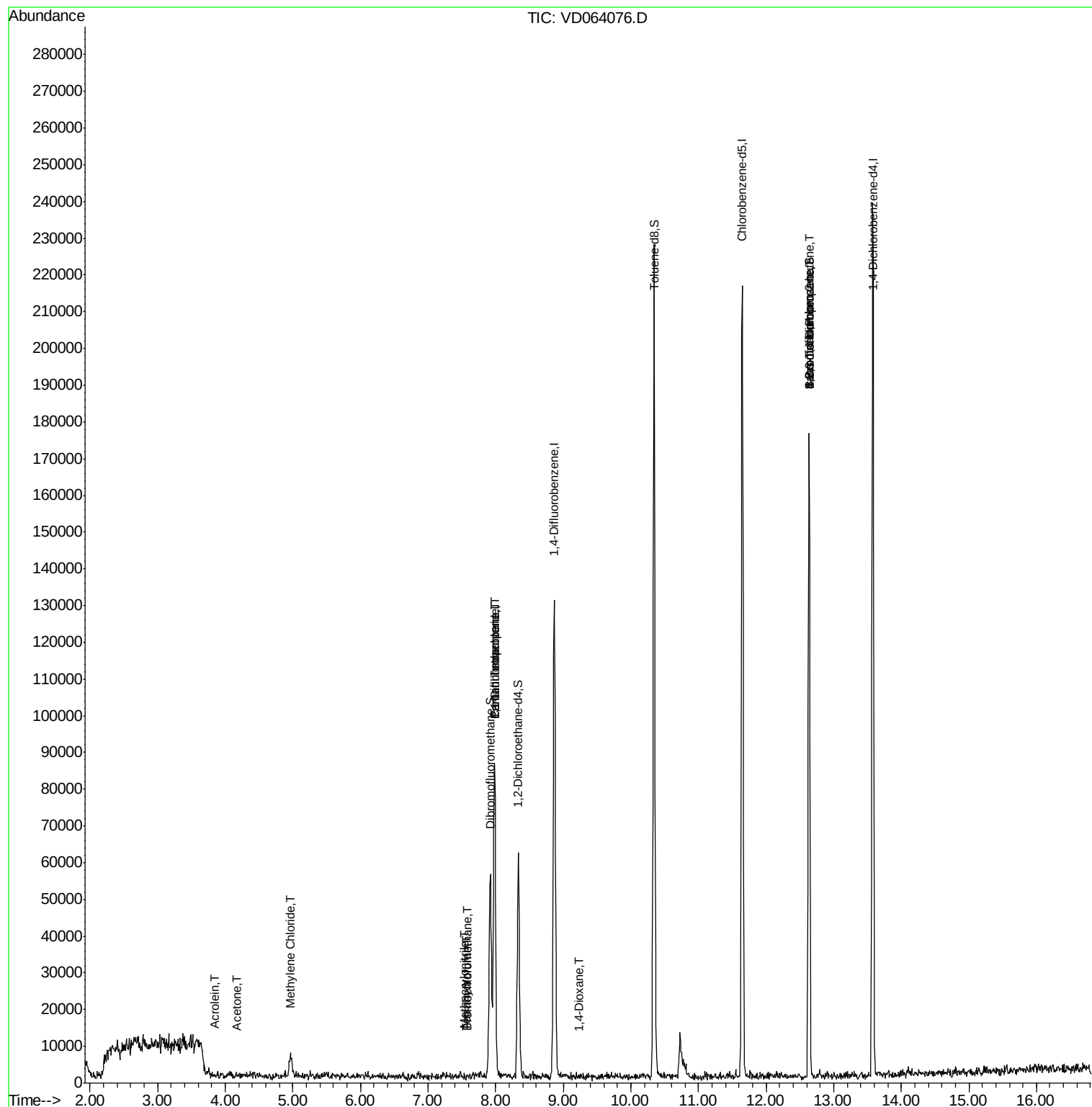
|                                |       |     |       |           | Qvalue |     |
|--------------------------------|-------|-----|-------|-----------|--------|-----|
| 3) Chloromethane               | 2.22  | 50  | 214   | Below Cal | #      | 1   |
| 11) Tert butyl alcohol         | 5.27  | 59  | 71    | Below Cal | #      | 71  |
| 13) Acrolein                   | 3.84  | 56  | 85    | 1.522     | ug/l   | 89  |
| 16) Acetone                    | 4.17  | 43  | 181   | 1.112     | ug/l # | 42  |
| 20) Methylene Chloride         | 4.96  | 84  | 4313  | 3.150     | ug/l # | 85  |
| 28) Bromochloromethane         | 7.58  | 49  | 56    | 1.990     | ug/l # | 10  |
| 29) Tetrahydrofuran            | 7.56  | 42  | 351   | 3.117     | ug/l # | 43  |
| 31) Cyclohexane                | 7.98  | 56  | 2145  | Below Cal | #      | 46  |
| 36) 1,1-Dichloropropene        | 7.98  | 75  | 5620  | 5.710     | ug/l # | 46  |
| 37) Ethyl Acetate              | 7.33  | 43  | 103   | Below Cal | #      | 68  |
| 38) Carbon Tetrachloride       | 7.98  | 117 | 6483  | 6.518     | ug/l # | 28  |
| 41) Methacrylonitrile          | 7.54  | 41  | 319   | 1.398     | ug/l # | 25  |
| 49) 1,4-Dioxane                | 9.23  | 88  | 88    | 16.396    | ug/l # | 24  |
| 71) Bromoform                  | 12.63 | 173 | 560   | 1.173     | ug/l # | 28  |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75  | 26858 | 65.917    | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75  | 26858 | 116.647   | ug/l # | 12  |
| 92) 1,2-Dibromo-3-Chloropropan | 14.64 | 75  | 62    | Below Cal | #      | 1   |

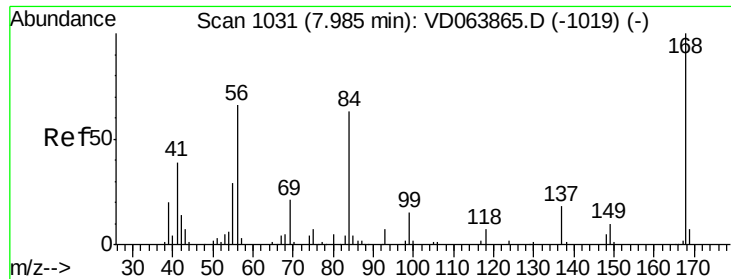
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD102519\  
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Sample : K5541-18  
Misc : 7.07G/5.00ml/MSVOA D/SOIL  
ALS Vial : 17 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :

Quant Time: Oct 26 00:07:12 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D100219S.M  
Quant Title : SW846 8260  
QLast Update : Sat Oct 05 03:51:17 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. -0.00 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

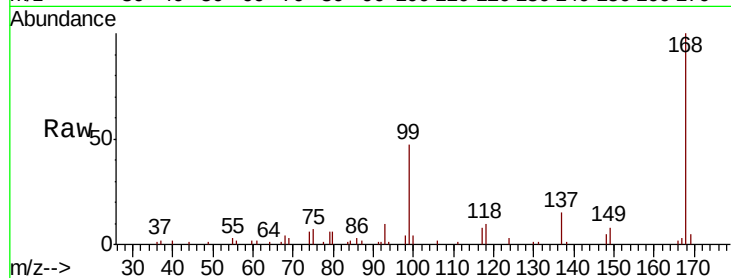
ClientSampleId :

Tot Ion:168 Resp: 64234

Ion Ratio Lower Upper

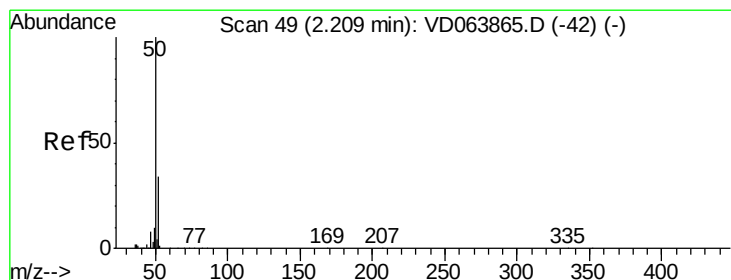
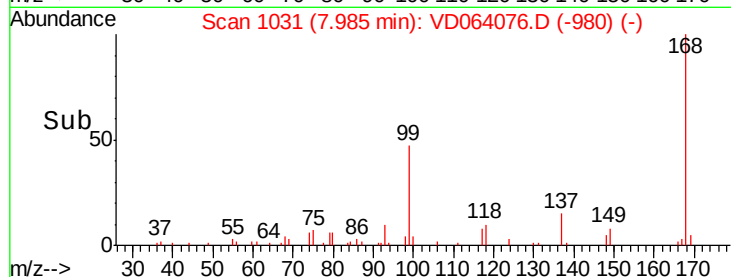
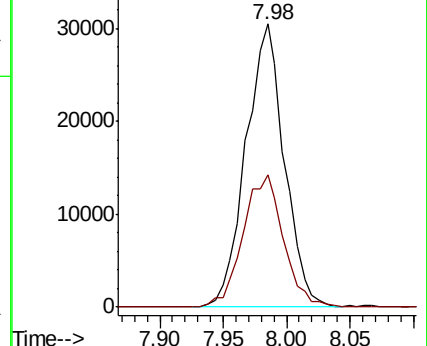
168 100

99 46.7 43.0 64.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC



#3

Chloromethane

Concen: Below Cal

RT: 2.22 min Scan# 51

Delta R.T. 0.01 min

Lab File: VD064076.D

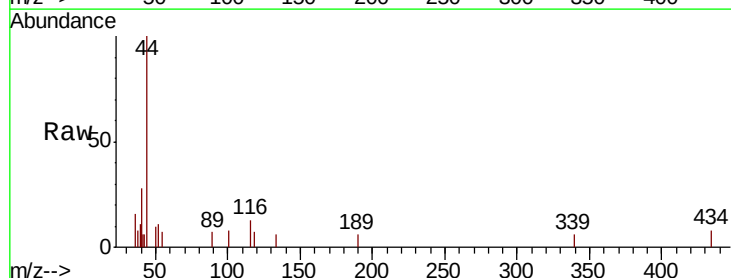
Acq: 25 Oct 2019 20:19

Tgt Ion: 50 Resp: 214

Ion Ratio Lower Upper

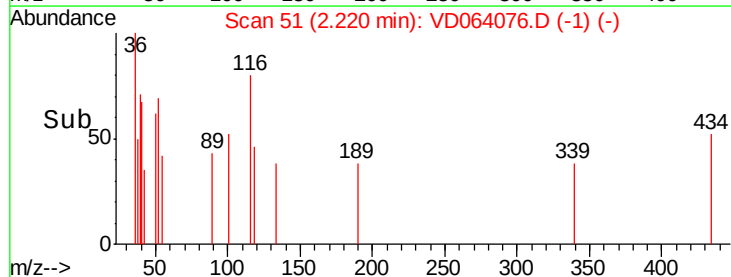
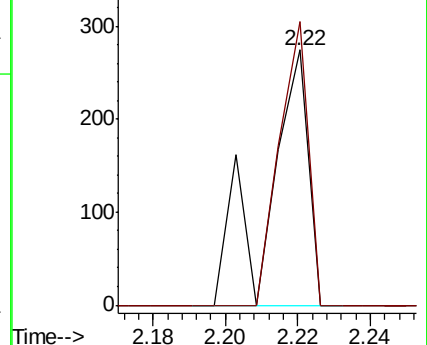
50 100

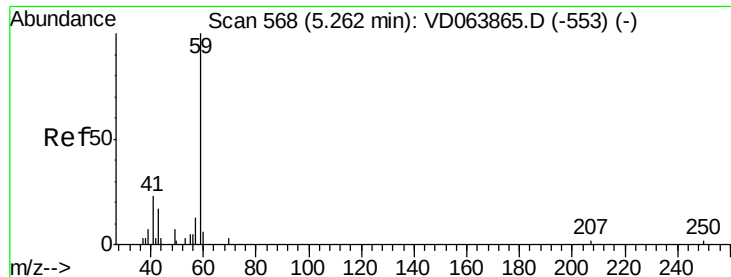
52 110.9 27.5 41.3#



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC



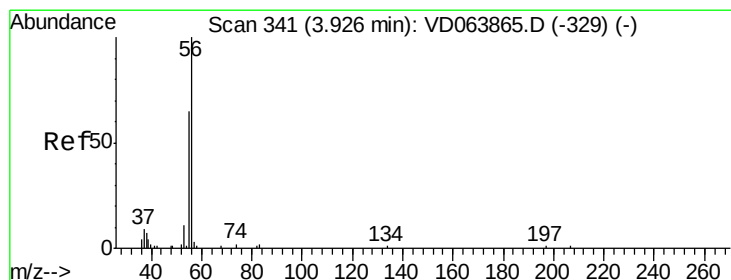
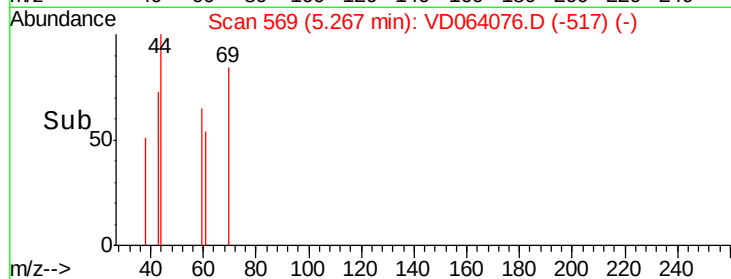
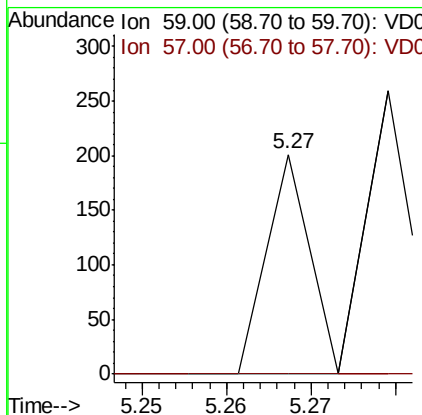
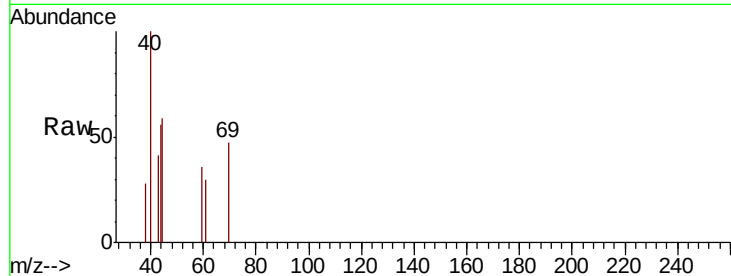


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.27 min Scan# 569  
 Delta R.T. 0.01 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

Instrument :  
 MSVOA\_D  
 ClientSampled :

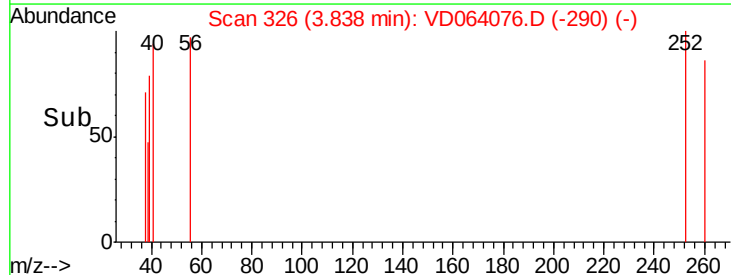
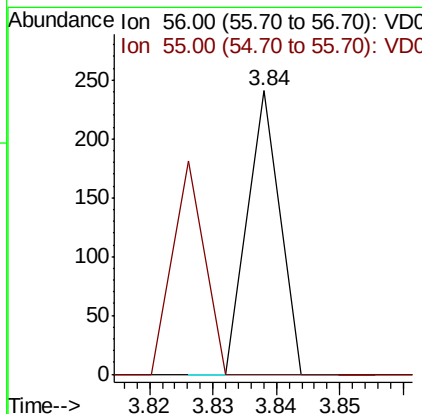
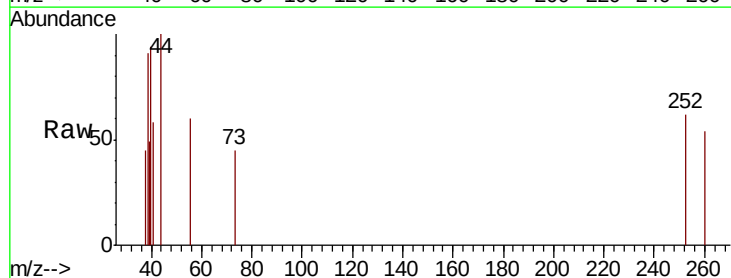
Tot Ion: 59 Resp: 71  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.8 13.2#

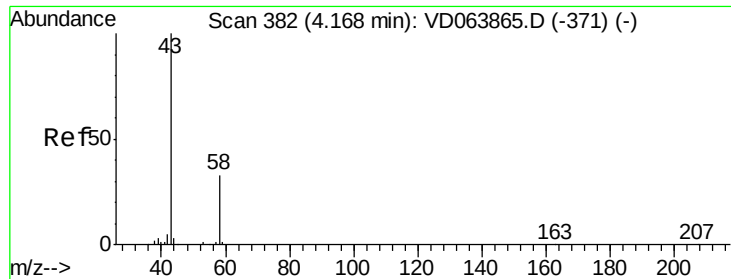


#13

Acrolein  
 Concen: 1.522 ug/l  
 RT: 3.84 min Scan# 326  
 Delta R.T. -0.09 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

Tgt Ion: 56 Resp: 85  
 Ion Ratio Lower Upper  
 56 100  
 55 75.3 53.0 79.6





#16

Acetone

Concen: 1.112 ug/l

RT: 4.17 min Scan# 383

Delta R.T. 0.01 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

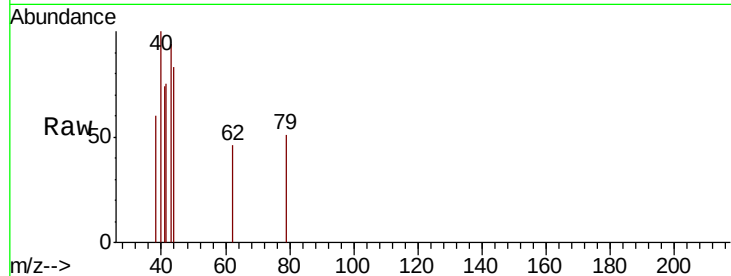
ClientSampleId :

Tot Ion: 43 Resp: 181

Ion Ratio Lower Upper

43 100

58 0.0 26.2 39.4#



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC

4.17

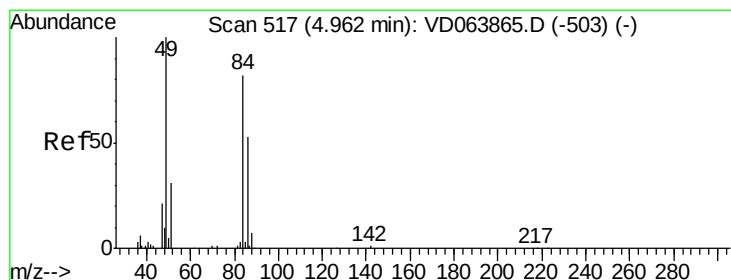
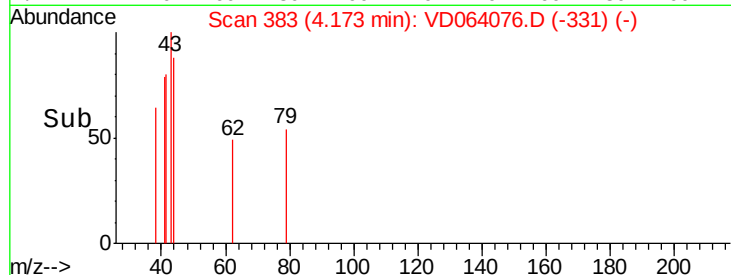
300

200

100

0

Time-->



#20

Methylene Chloride

Concen: 3.150 ug/l

RT: 4.96 min Scan# 517

Delta R.T. 0.00 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Tgt Ion: 84 Resp: 4313

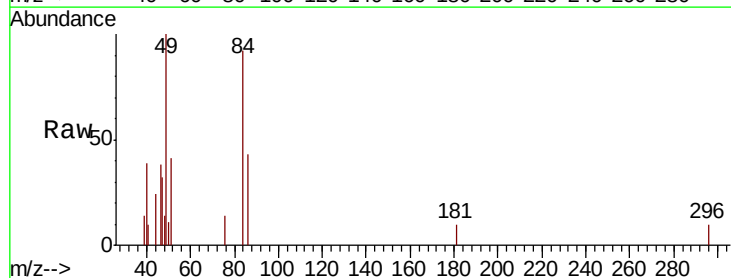
Ion Ratio Lower Upper

84 100

49 108.4 97.3 145.9

51 44.4 30.1 45.1

86 46.9 51.4 77.2#



Abundance Ion 83.90 (83.60 to 84.60): VDC

Ion 48.90 (48.60 to 49.60): VDC

Ion 50.90 (50.60 to 51.60): VDC

Ion 85.90 (85.60 to 86.60): VDC

2500

2000

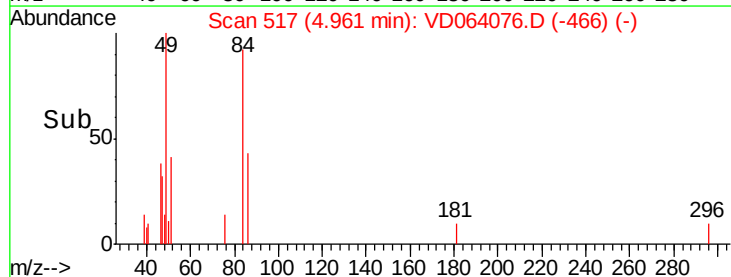
1500

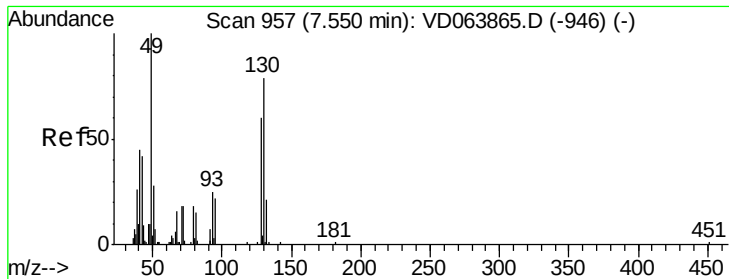
1000

500

0

Time-->

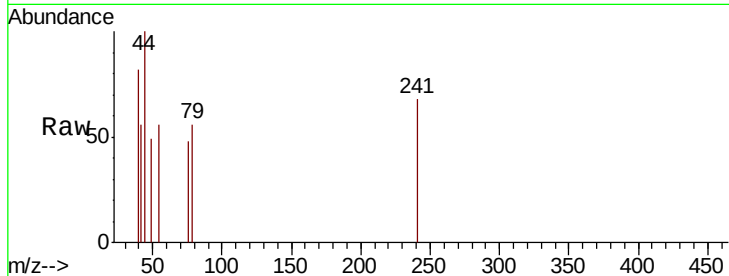




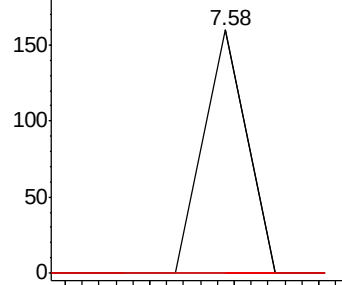
#28  
Bromochloromethane  
Concen: 1.990 ug/l  
RT: 7.58 min Scan# 962  
Delta R.T. 0.03 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Instrument :  
MSVOA\_D  
ClientSampleId :

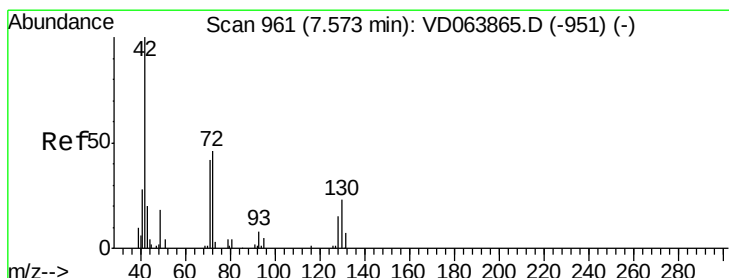
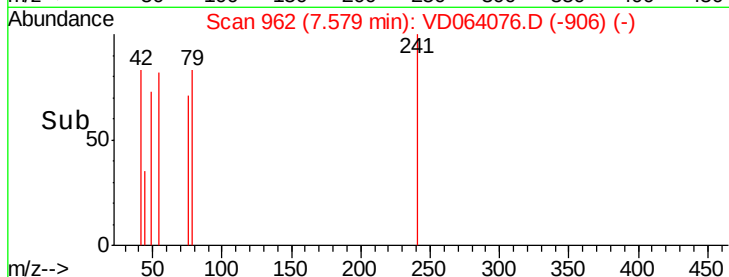
Tot Ion: 49 Resp: 56  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 5.6  
130 0.0 66.8 100.2#



Abundance Ion 48.90 (48.60 to 49.60): VDC  
Ion 128.80 (128.50 to 129.50): VDC  
Ion 129.80 (129.50 to 130.50): VDC

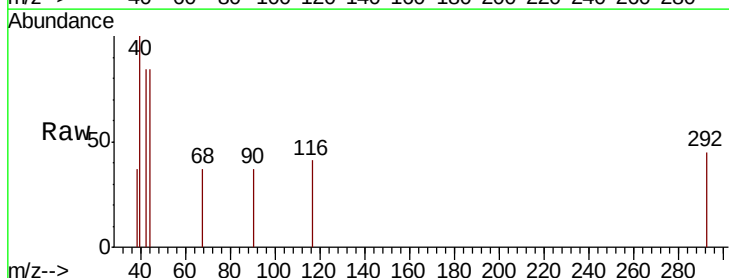


Time--> 7.56 7.57 7.58 7.59

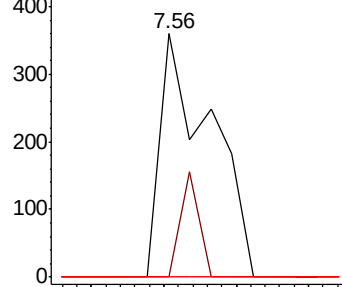


#29  
Tetrahydrofuran  
Concen: 3.117 ug/l  
RT: 7.56 min Scan# 959  
Delta R.T. -0.01 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

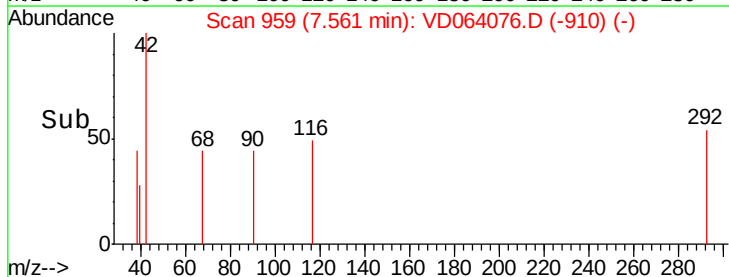
Tgt Ion: 42 Resp: 351  
Ion Ratio Lower Upper  
42 100  
72 15.7 37.6 56.4#  
71 0.0 35.0 52.6#

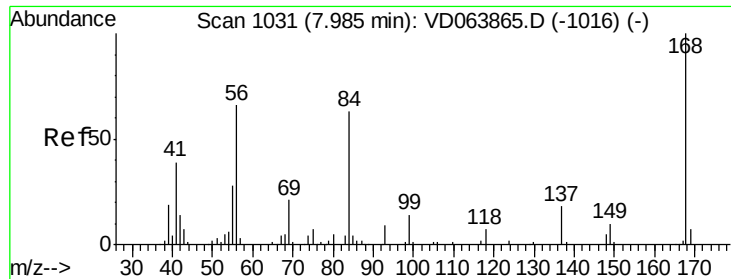


Abundance Ion 42.00 (41.70 to 42.70): VDC  
Ion 72.00 (71.70 to 72.70): VDC  
Ion 71.00 (70.70 to 71.70): VDC



Time--> 7.54 7.56 7.58 7.60

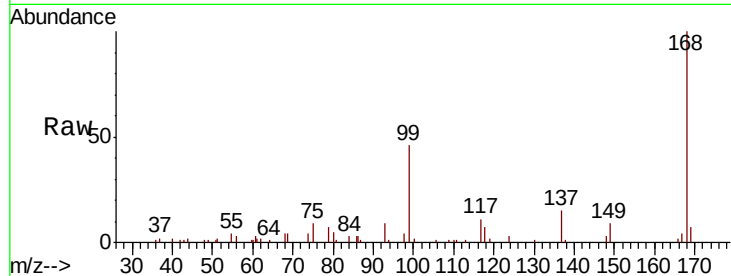




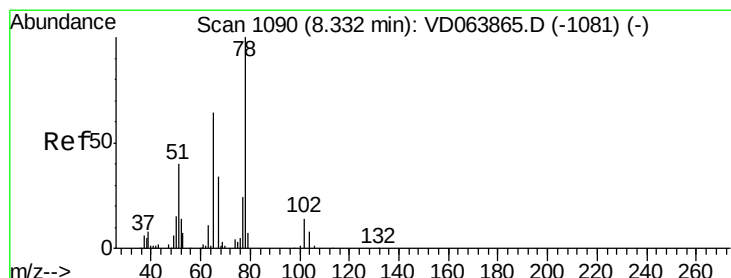
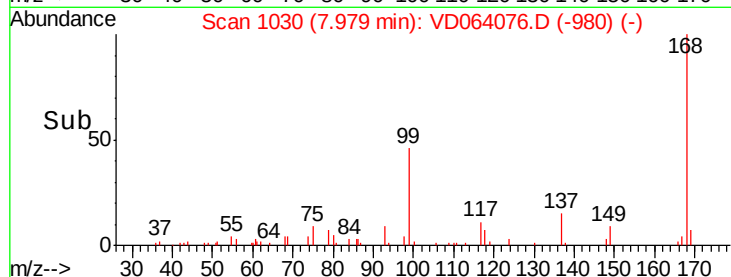
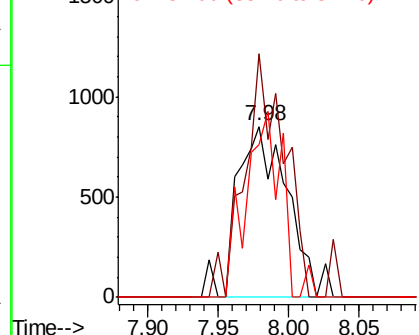
#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.98 min Scan# 1030  
Delta R.T. -0.01 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Instrument :  
MSVOA\_D  
ClientSampled :

Tot Ion: 56 Resp: 2145  
Ion Ratio Lower Upper  
56 100  
69 142.4 25.0 37.4#  
84 89.7 76.3 114.5

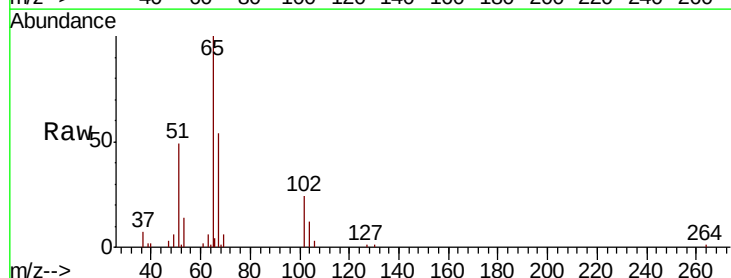


Abundance Ion 56.00 (55.70 to 56.70): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.00 (83.70 to 84.70): VDC

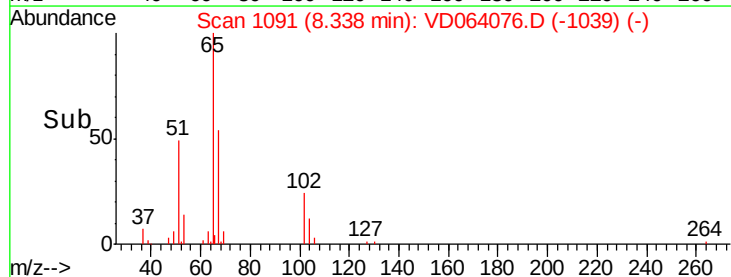
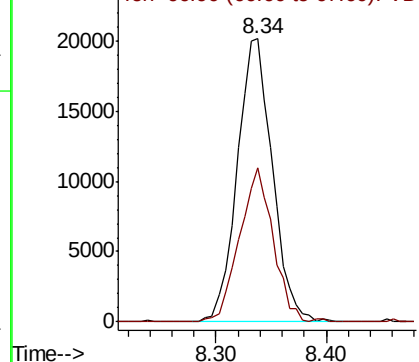


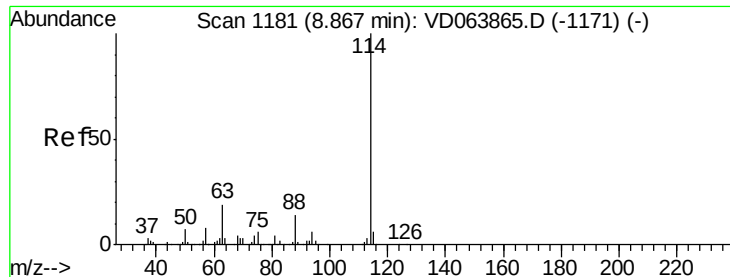
#33  
1,2-Dichloroethane-d4  
Concen: 71.798 ug/l  
RT: 8.34 min Scan# 1091  
Delta R.T. 0.01 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Tgt Ion: 65 Resp: 44900  
Ion Ratio Lower Upper  
65 100  
67 52.1 0.0 106.4



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

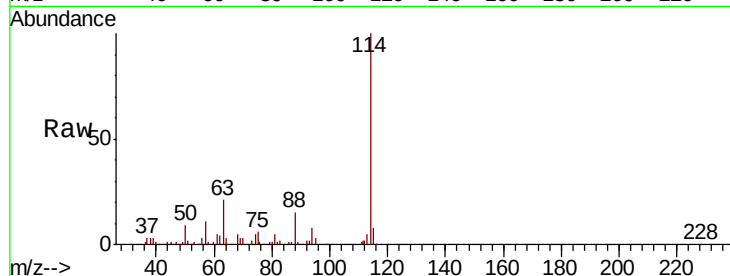




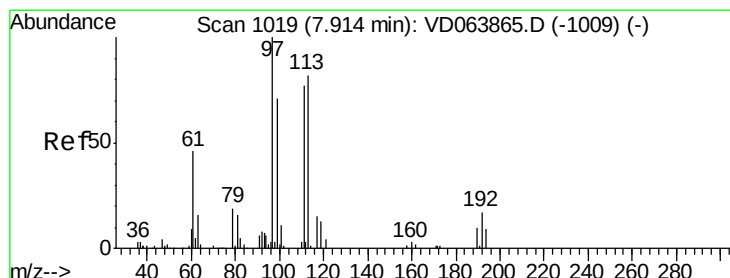
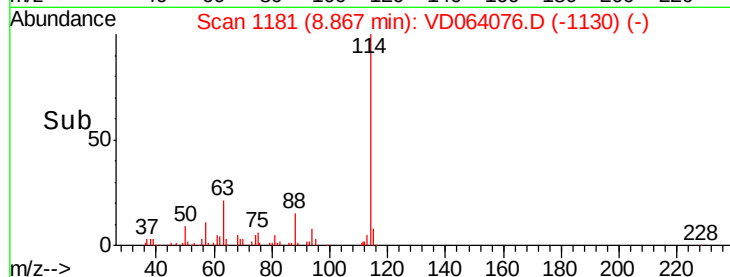
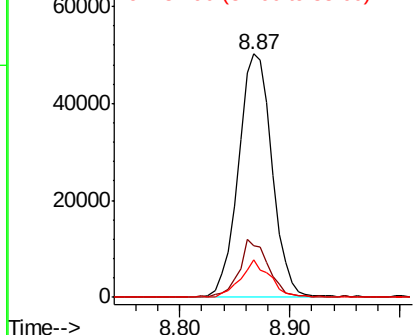
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.87 min Scan# 1181  
 Delta R.T. -0.00 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tot Ion:114 Resp: 107654  
 Ion Ratio Lower Upper  
 114 100  
 63 21.3 0.0 38.4  
 88 15.3 0.0 27.4

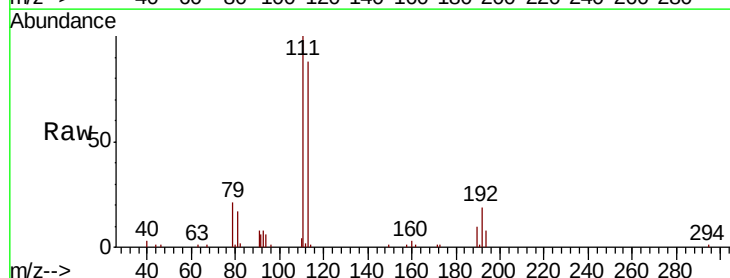


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): V  
 Ion 87.90 (87.60 to 88.60): V

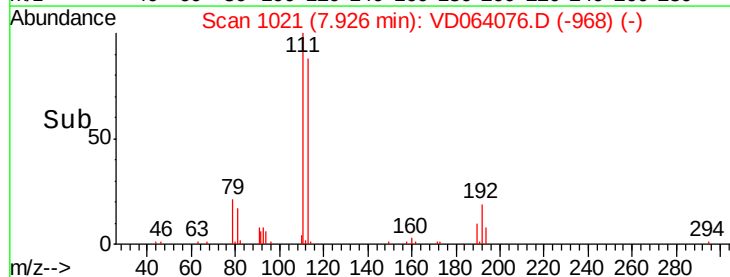
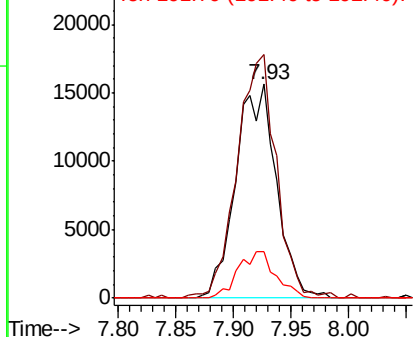


#35  
 Dibromofluoromethane  
 Concen: 58.031 ug/l  
 RT: 7.93 min Scan# 1021  
 Delta R.T. 0.01 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

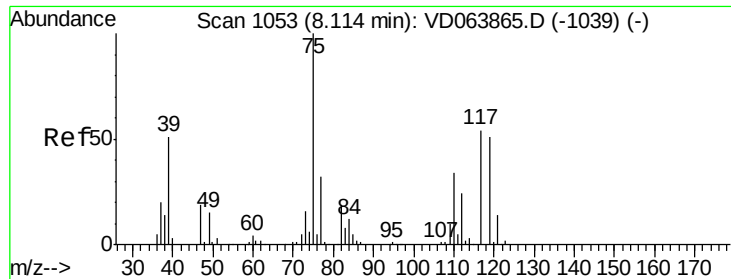
Tgt Ion:113 Resp: 38179  
 Ion Ratio Lower Upper  
 113 100  
 111 109.8 82.6 123.8  
 192 19.9 17.1 25.7



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



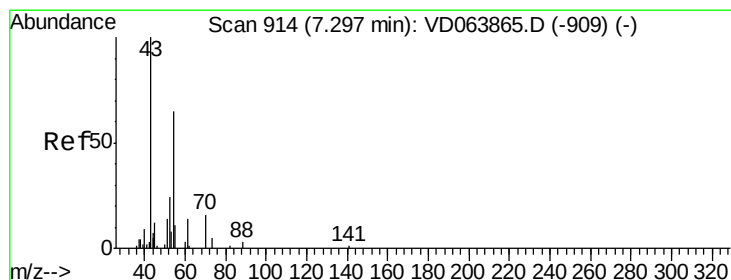
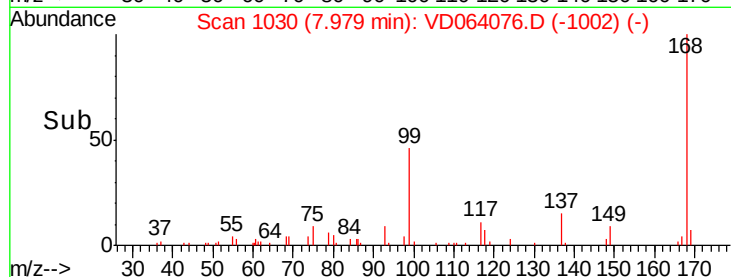
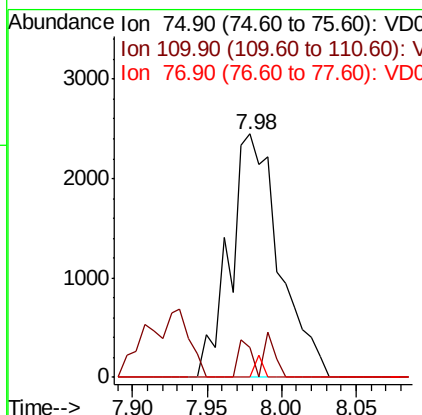
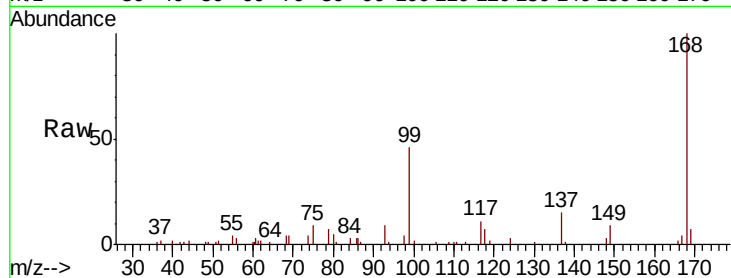




#36  
 1,1-Dichloropropene  
 Concen: 5.710 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.14 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

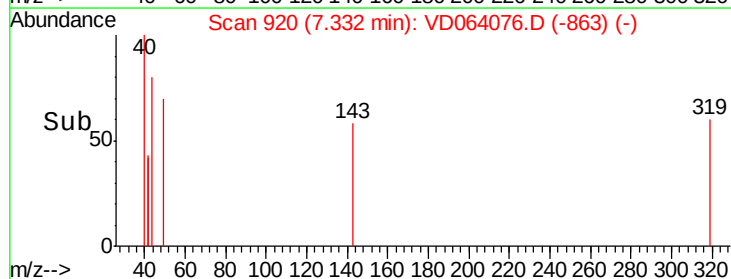
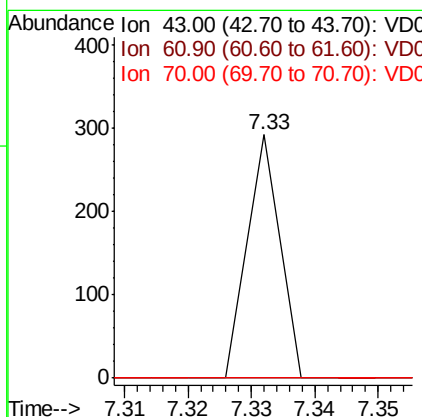
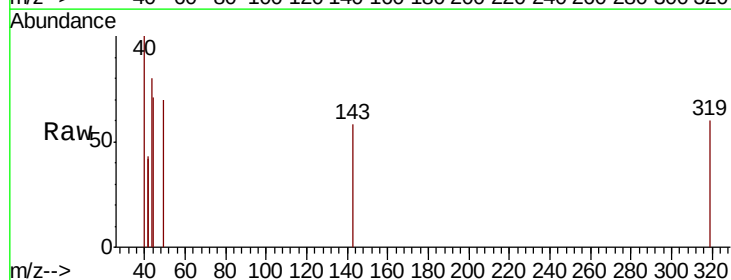
Instrument :  
 MSVOA\_D  
 ClientSampleId :

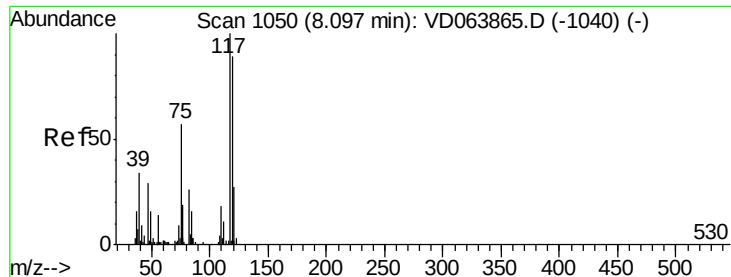
Tot Ion: 75 Resp: 5620  
 Ion Ratio Lower Upper  
 75 100  
 110 4.0 17.4 52.3#  
 77 1.4 25.4 38.0#



#37  
 Ethyl Acetate  
 Concen: Below Cal  
 RT: 7.33 min Scan# 920  
 Delta R.T. 0.04 min  
 Lab File: VD064076.D  
 Acq: 25 Oct 2019 20:19

Tgt Ion: 43 Resp: 103  
 Ion Ratio Lower Upper  
 43 100  
 61 0.0 11.5 17.3#  
 70 0.0 8.2 12.4#





#38

Carbon Tetrachloride

Concen: 6.518 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.12 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

ClientSampleId :

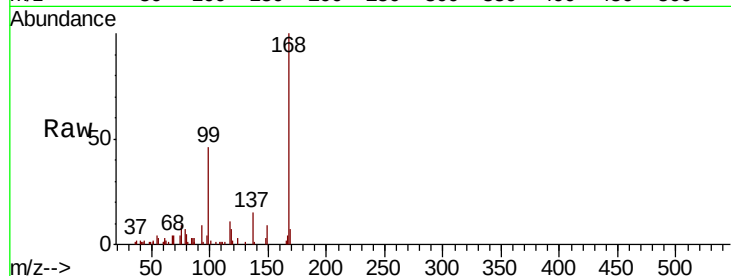
Tot Ion:117 Resp: 6483

Ion Ratio Lower Upper

117 100

119 15.3 70.8 106.2#

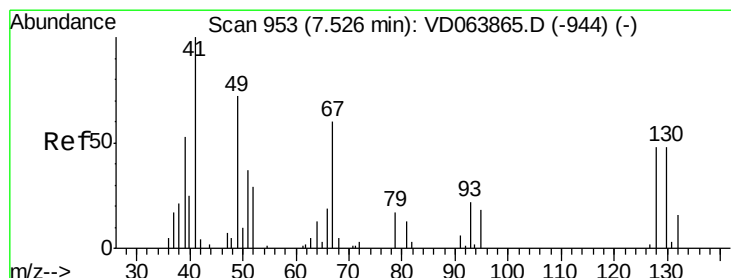
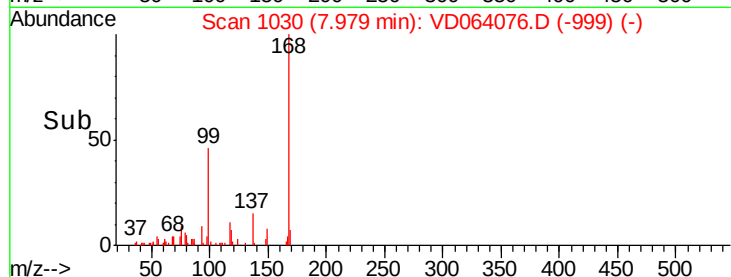
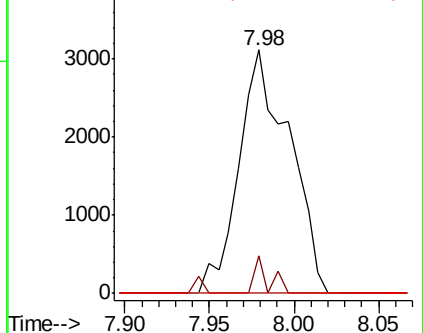
121 0.0 21.4 32.0#



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



#41

Methacrylonitrile

Concen: 1.398 ug/l

RT: 7.54 min Scan# 956

Delta R.T. 0.02 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Tgt Ion: 41 Resp: 319

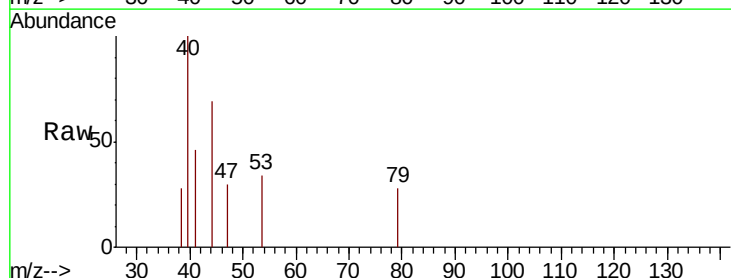
Ion Ratio Lower Upper

41 100

39 26.0 52.6 78.8#

67 0.0 74.2 111.2#

52 0.0 34.0 51.0#

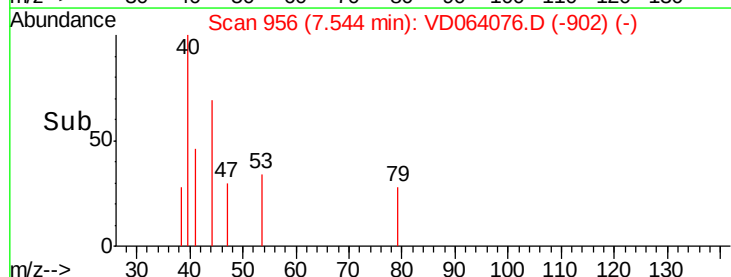
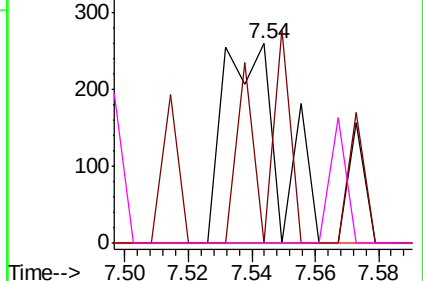


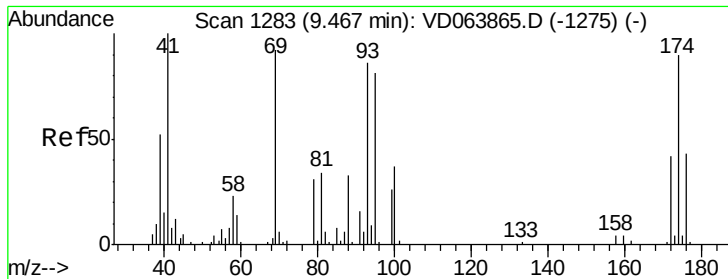
Abundance Ion 41.00 (40.70 to 41.70): VDC

Ion 39.00 (38.70 to 39.70): VDC

Ion 67.00 (66.70 to 67.70): VDC

Ion 52.00 (51.70 to 52.70): VDC

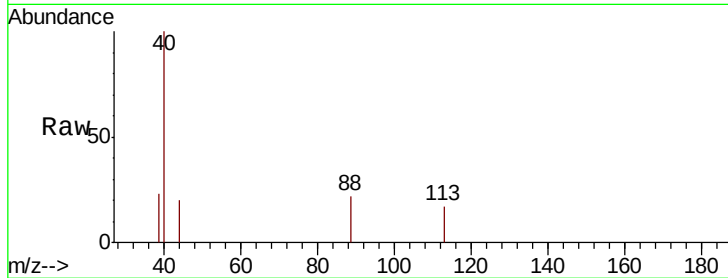




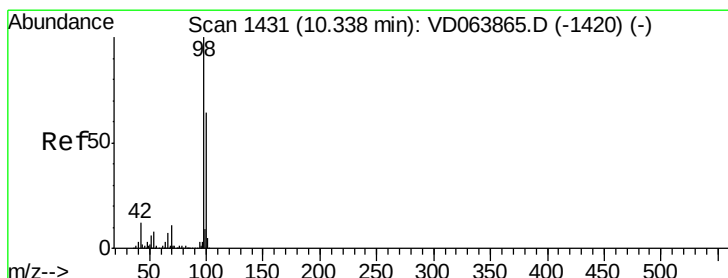
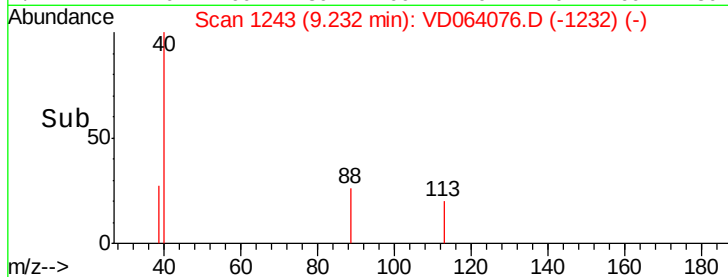
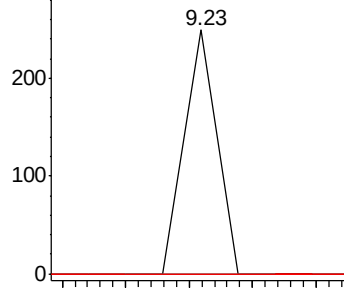
#49  
1,4-Dioxane  
Concen: 16.396 ug/l  
RT: 9.23 min Scan# 1243  
Delta R.T. -0.24 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 88 Resp: 88  
Ion Ratio Lower Upper  
88 100  
43 0.0 27.6 41.4#  
58 0.0 54.1 81.1#

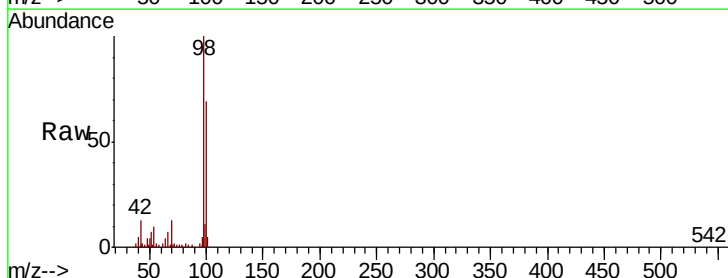


Abundance Ion 88.00 (87.70 to 88.70): VDC  
Ion 43.00 (42.70 to 43.70): VDC  
Ion 58.00 (57.70 to 58.70): VDC

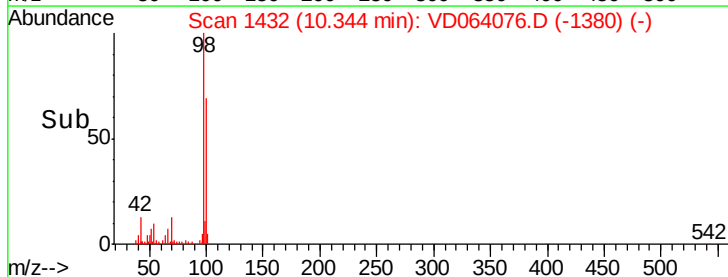
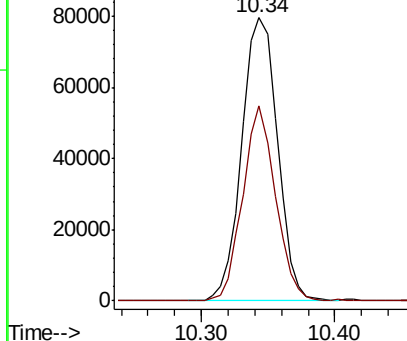


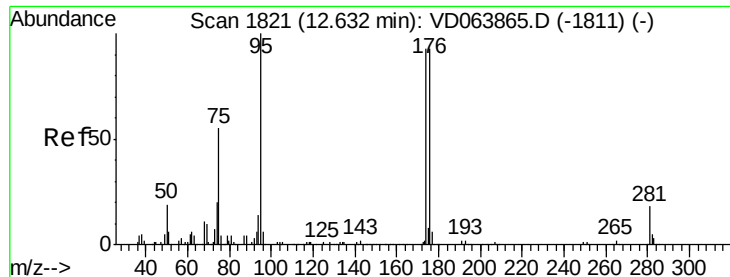
#50  
Toluene-d8  
Concen: 55.222 ug/l  
RT: 10.34 min Scan# 1432  
Delta R.T. 0.01 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Tgt Ion: 98 Resp: 147461  
Ion Ratio Lower Upper  
98 100  
100 63.0 52.1 78.1



Abundance Ion 98.00 (97.70 to 98.70): VDC  
Ion 100.00 (99.70 to 100.70): VDC

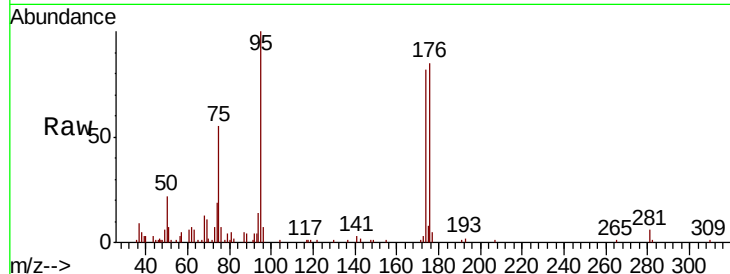




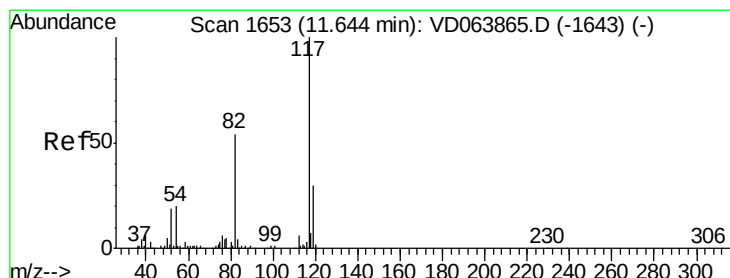
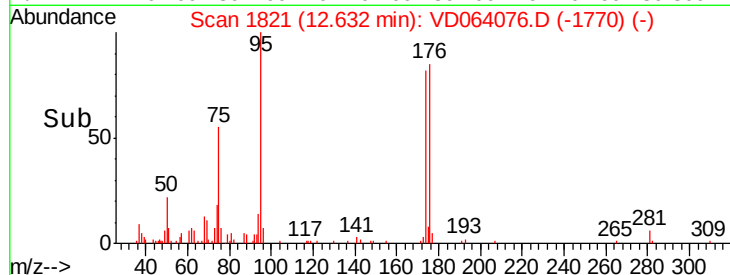
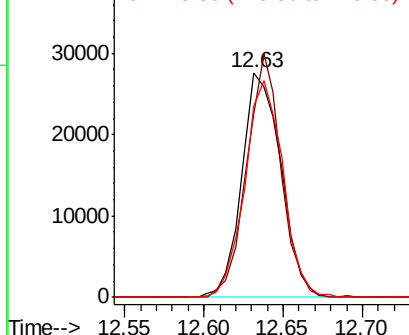
#62  
4-Bromofluorobenzene  
Concen: 51.084 ug/l  
RT: 12.63 min Scan# 1821  
Delta R.T. -0.00 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 95 Resp: 47403  
Ion Ratio Lower Upper  
95 100  
174 94.8 0.0 186.4  
176 94.3 0.0 184.2

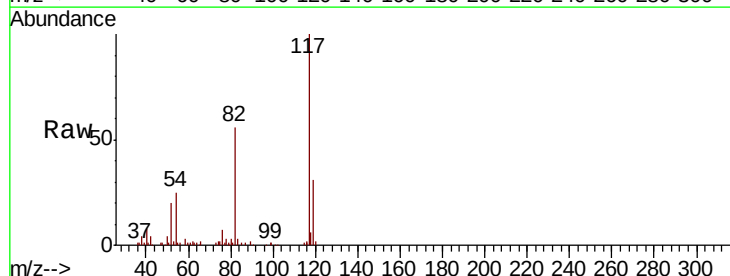


Abundance Ion 94.90 (94.60 to 95.60): V  
Ion 173.80 (173.50 to 174.50): V  
Ion 175.80 (175.50 to 176.50): V

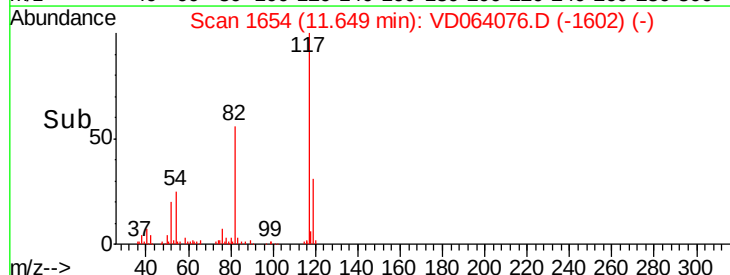
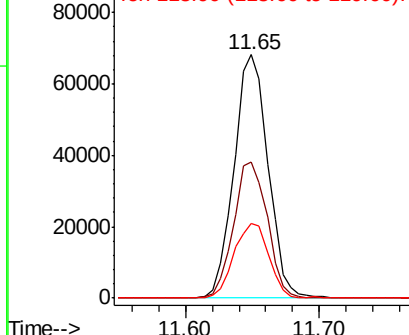


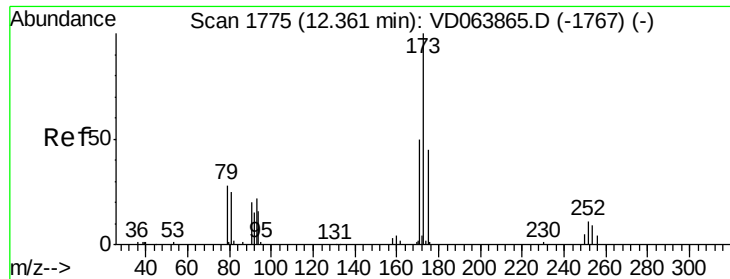
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. 0.01 min  
Lab File: VD064076.D  
Acq: 25 Oct 2019 20:19

Tgt Ion: 117 Resp: 120167  
Ion Ratio Lower Upper  
117 100  
82 56.0 42.8 64.2  
119 30.6 24.4 36.6



Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V





#71

Bromoform

Concen: 1.173 ug/l

RT: 12.63 min Scan# 1821

Delta R.T. 0.27 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

ClientSampleId :

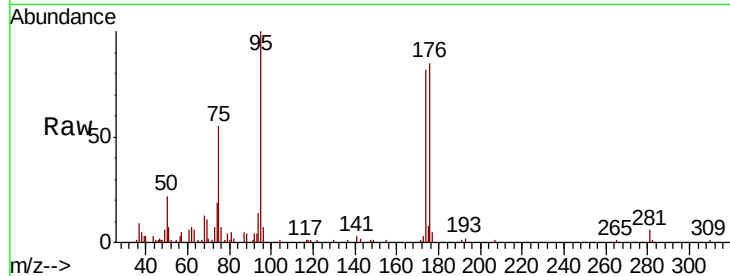
Tot Ion:173 Resp: 560

Ion Ratio Lower Upper

173 100

175 0.0 24.6 74.0#

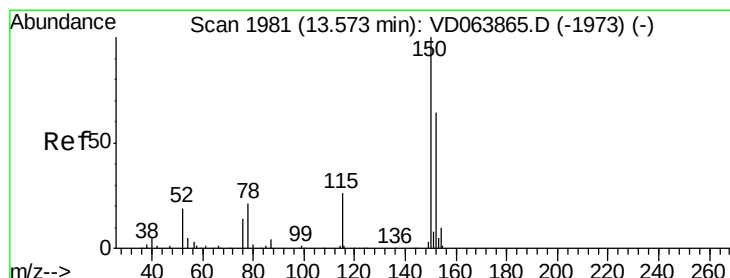
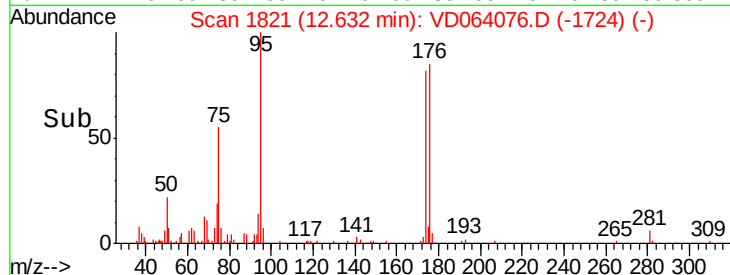
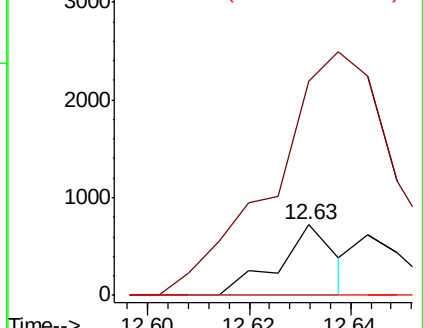
254 0.0 0.0 0.0



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: 13.58 min Scan# 1982

Delta R.T. 0.01 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

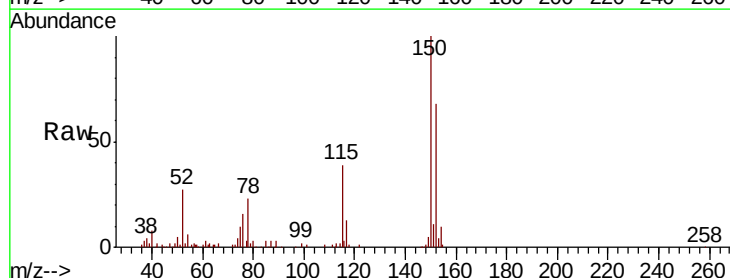
Tgt Ion:152 Resp: 60834

Ion Ratio Lower Upper

152 100

115 54.9 25.9 77.7

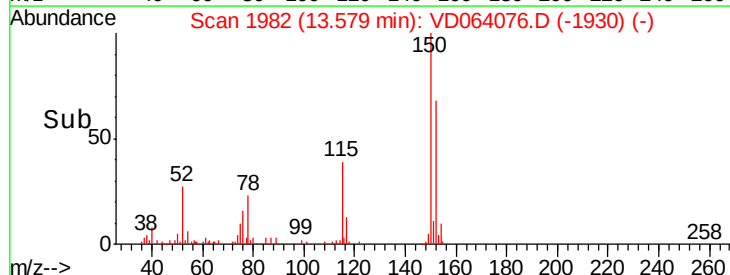
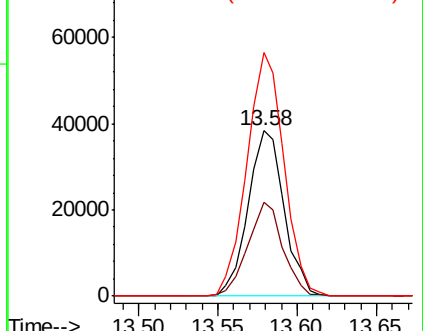
150 151.2 0.0 344.2

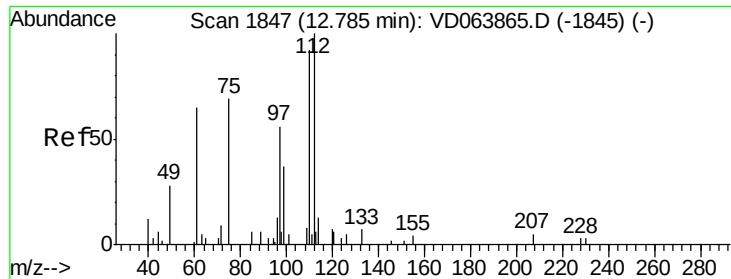


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 65.917 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. -0.15 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

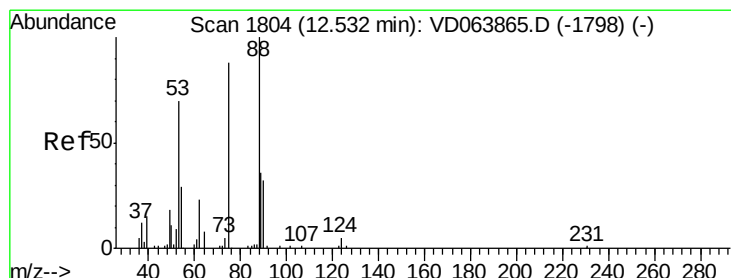
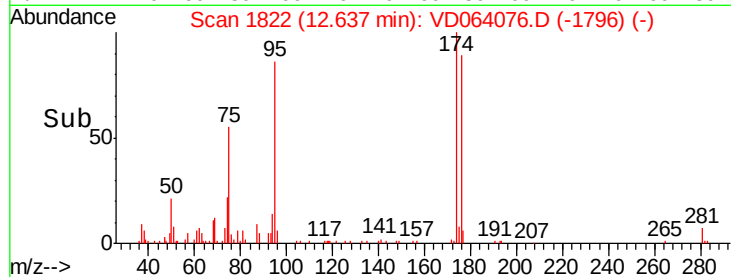
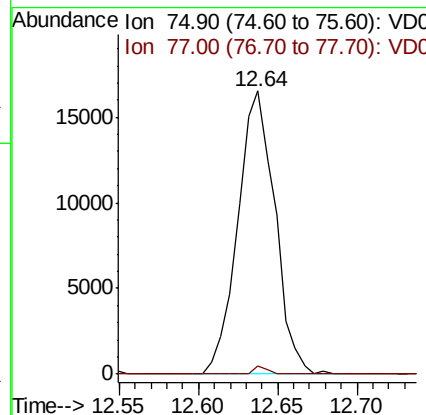
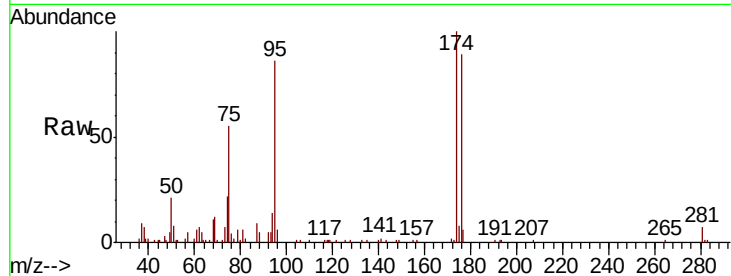
ClientSampleId :

Tot Ion: 75 Resp: 26858

Ion Ratio Lower Upper

75 100

77 1.0 0.0 0.0#



#81

trans-1,4-Dichloro-2-butene

Concen: 116.647 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.11 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

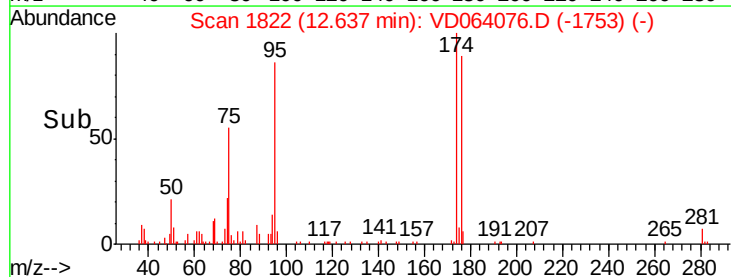
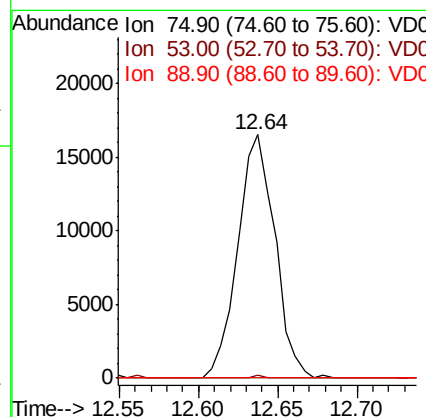
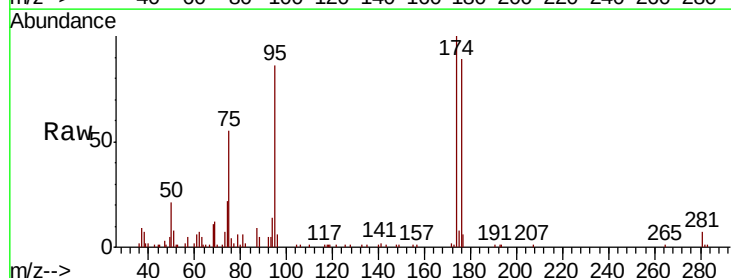
Tgt Ion: 75 Resp: 26858

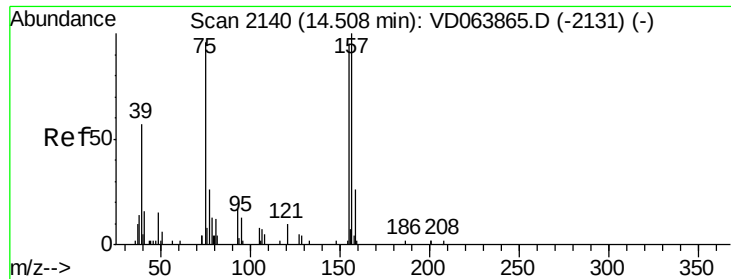
Ion Ratio Lower Upper

75 100

53 0.2 75.0 112.6#

89 0.0 38.2 57.4#





#92

1,2-Dibromo-3-Chloropropane

Concen: Below Cal

RT: 14.64 min Scan# 2162

Delta R.T. 0.13 min

Lab File: VD064076.D

Acq: 25 Oct 2019 20:19

Instrument :

MSVOA\_D

ClientSampleId :

Tot Ion: 75 Resp: 62

Ion Ratio Lower Upper

75 100

155 0.0 43.9 131.6#

157 0.0 56.0 167.9#

