

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD071619\  
 Data File : VD063112.D  
 Acq On : 16 Jul 2019 17:50  
 Operator : VA/AP  
 Sample : K3623-05  
 Misc : 6.21g/5ml/MSVOA D/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 EO-02-071519-C

Quant Time: Jul 17 07:37:18 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D071519S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 16 08:11:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.03  | 168  | 504418   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.20  | 114  | 659747   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.36 | 117  | 436888   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.51 | 152  | 170116   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.44  | 65   | 295020   | 46.95 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.90% |          |
| 35) Dibromofluoromethane    | 6.90  | 113  | 312808   | 47.60 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.20% |          |
| 50) Toluene-d8              | 10.40 | 98   | 545397   | 38.64 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 77.28% |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 204273   | 31.28 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 62.56% |          |

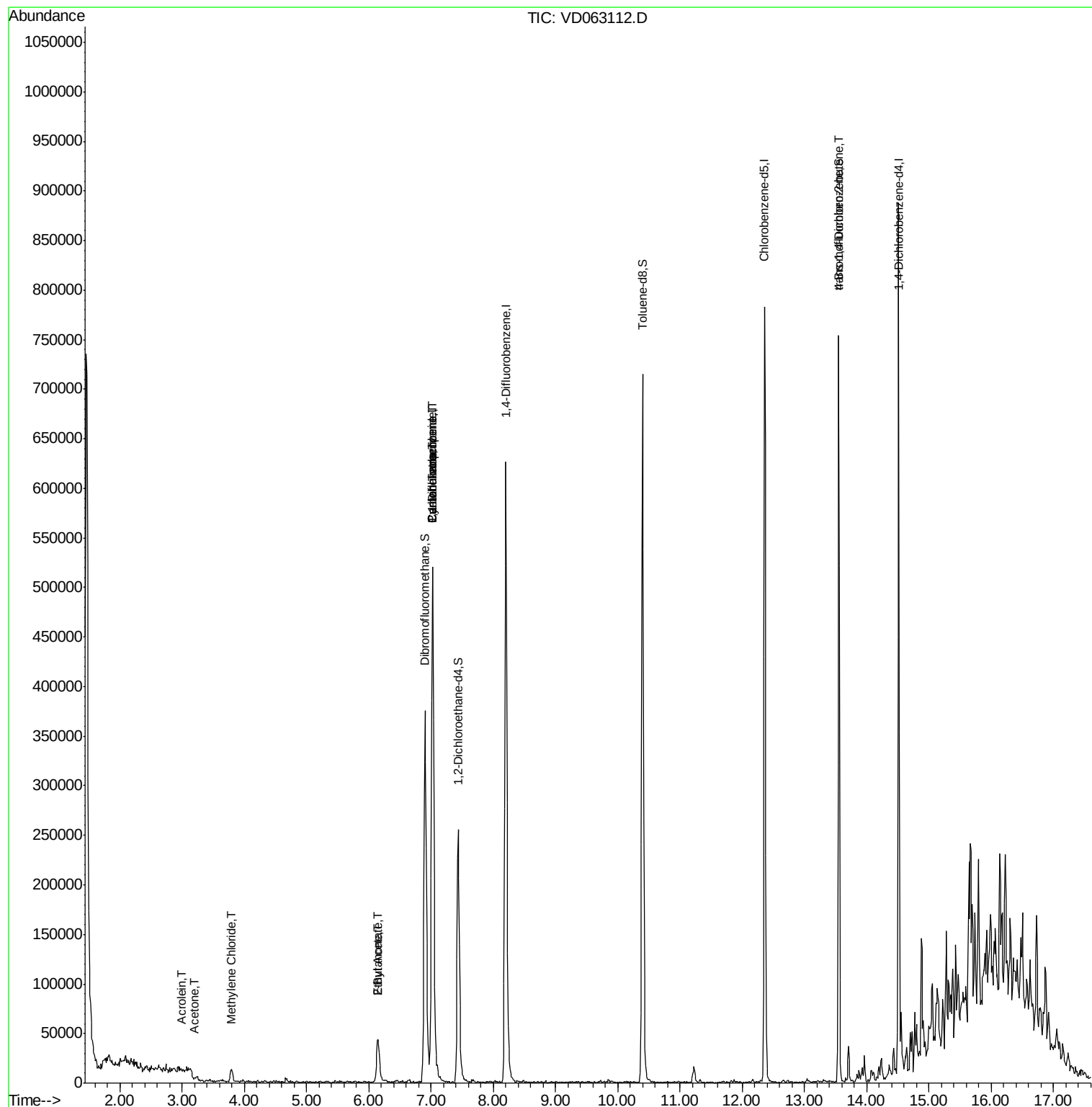
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.57  | 85   | 188      | Below Cal | #      | 43     |
| 3) Chloromethane               | 1.75  | 50   | 181      | Below Cal | #      | 1      |
| 5) Bromomethane                | 2.08  | 94   | 675      | Below Cal | #      | 13     |
| 13) Acrolein                   | 2.98  | 56   | 251      | 2.293     | ug/l # | 73     |
| 16) Acetone                    | 3.20  | 43   | 3779     | 2.490     | ug/l # | 62     |
| 18) Methyl Acetate             | 3.63  | 43   | 1996     | Below Cal | #      | 63     |
| 20) Methylene Chloride         | 3.79  | 84   | 8259     | 1.440     | ug/l # | 69     |
| 25) 2-Butanone                 | 6.15  | 43   | 3751     | 2.588     | ug/l # | 61     |
| 31) Cyclohexane                | 7.02  | 56   | 11426    | 1.910     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.03  | 75   | 40987    | 5.524     | ug/l # | 46     |
| 37) Ethyl Acetate              | 6.15  | 43   | 3751     | 1.181     | ug/l # | 16     |
| 38) Carbon Tetrachloride       | 7.02  | 117  | 49767    | 4.414     | ug/l # | 15     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 97486    | 141.464   | ug/l # | 1      |

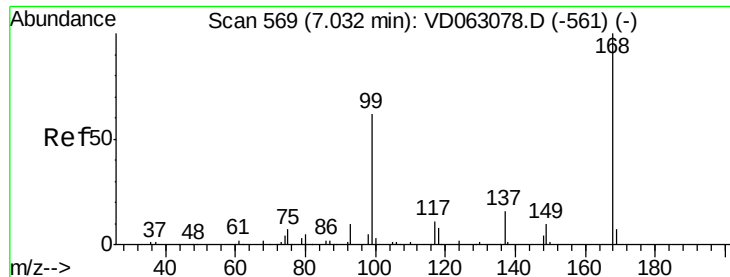
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Tue Jul 16 08:11:56 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.00 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

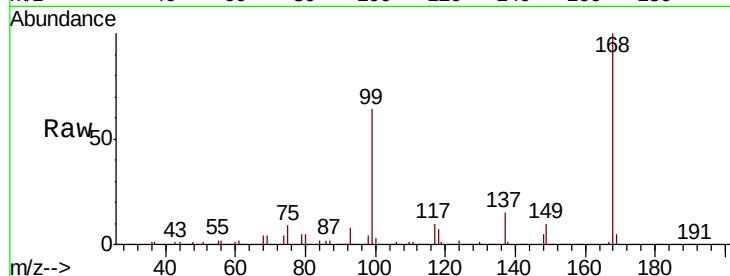
EO-02-071519-C

Tot Ion:168 Resp: 504418

Ion Ratio Lower Upper

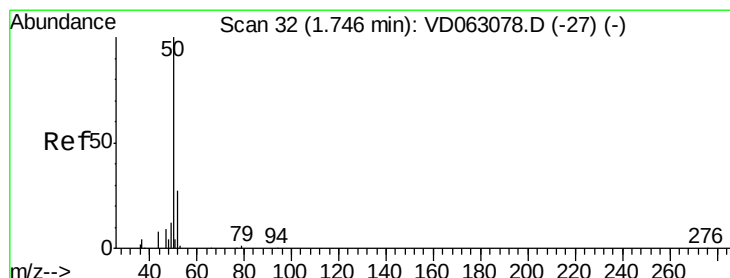
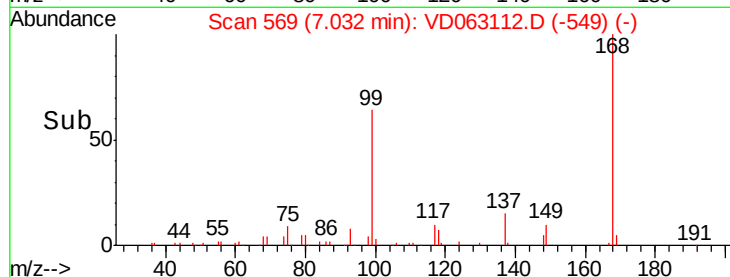
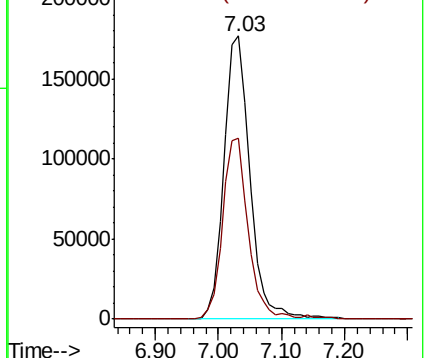
168 100

99 63.9 50.8 76.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#3

Chloromethane

Concen: Below Cal

RT: 1.75 min Scan# 32

Delta R.T. 0.00 min

Lab File: VD063112.D

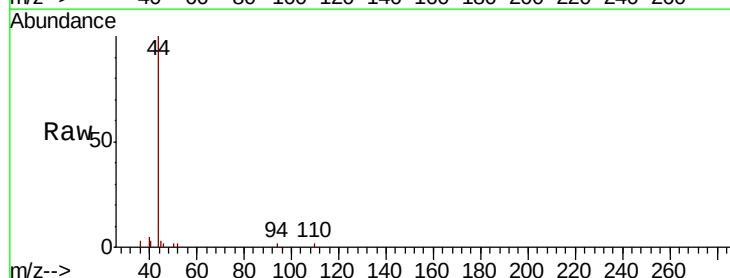
Acq: 16 Jul 2019 17:50

Tgt Ion: 50 Resp: 181

Ion Ratio Lower Upper

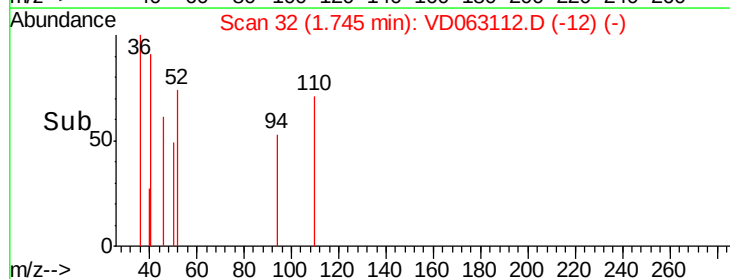
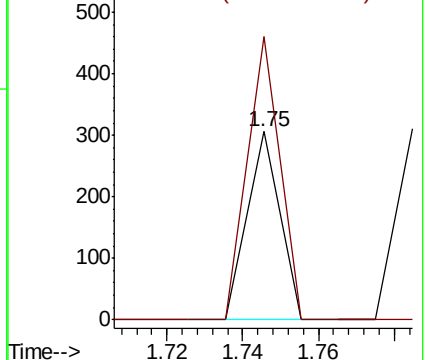
50 100

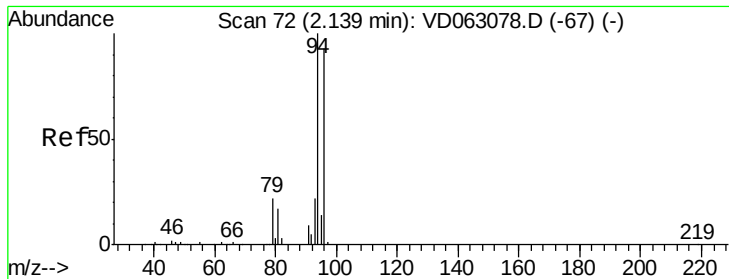
52 150.3 21.4 32.2#



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC





#5

Bromomethane

Concen: Below Cal

RT: 2.08 min Scan# 66

Delta R.T. -0.06 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

EO-02-071519-C

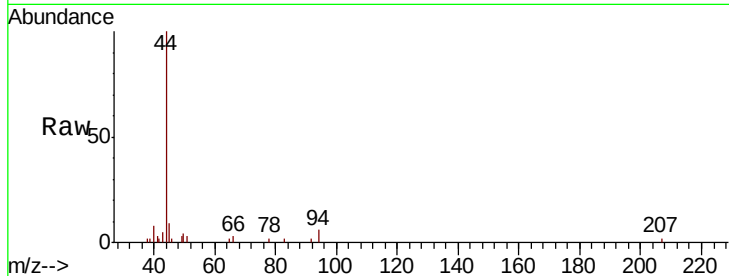
Tot Ion: 94 Resp: 675

Ion Ratio Lower Upper

94 100

96 0.0 74.2 111.2#

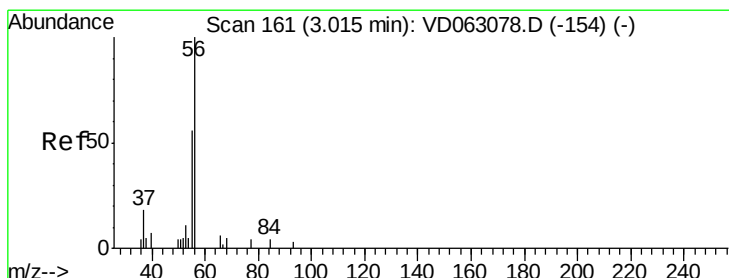
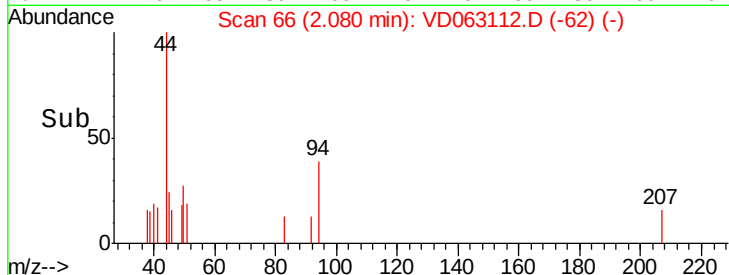
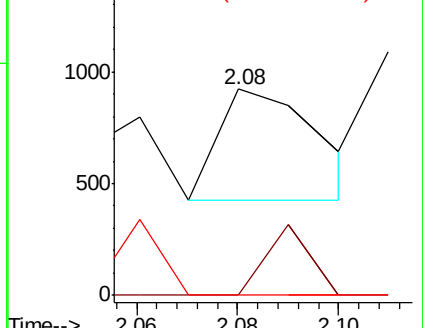
93 0.0 17.8 26.6#



Abundance Ion 94.00 (93.70 to 94.70): VDC

Ion 96.00 (95.70 to 96.70): VDC

Ion 93.00 (92.70 to 93.70): VDC



#13

Acrolein

Concen: 2.293 ug/l

RT: 2.98 min Scan# 157

Delta R.T. -0.04 min

Lab File: VD063112.D

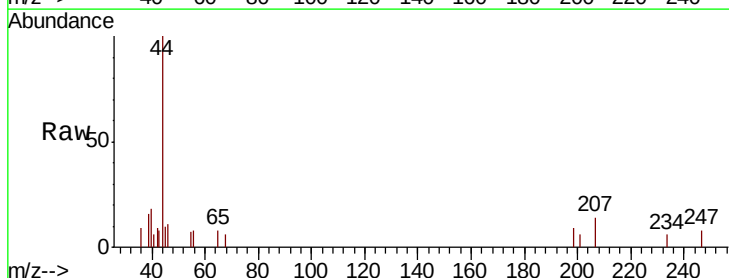
Acq: 16 Jul 2019 17:50

Tgt Ion: 56 Resp: 251

Ion Ratio Lower Upper

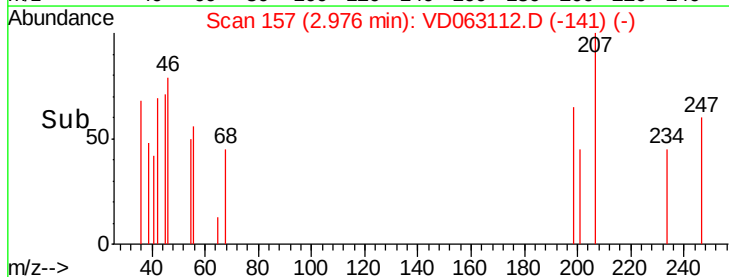
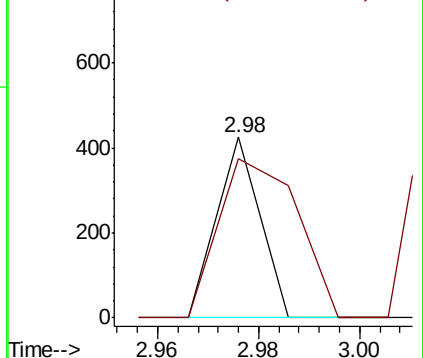
56 100

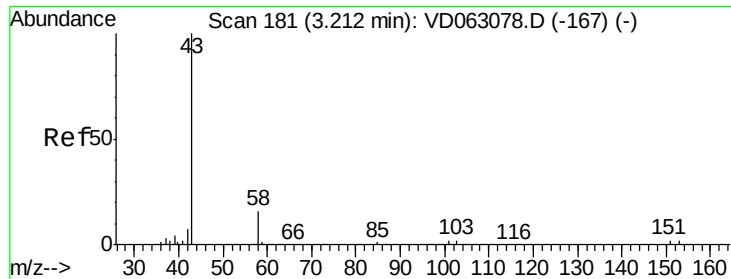
55 88.0 53.0 79.4#



Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 55.00 (54.70 to 55.70): VDC





#16

Acetone

Concen: 2.490 ug/l

RT: 3.20 min Scan# 180

Delta R.T. -0.01 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

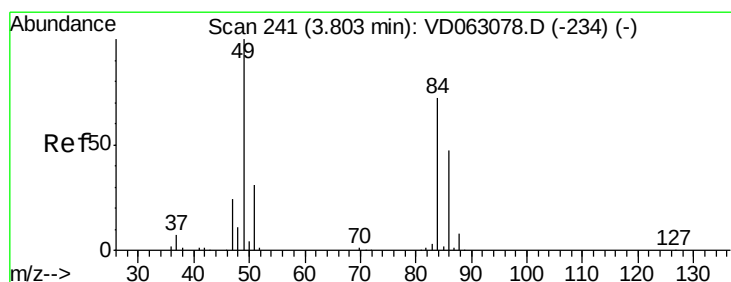
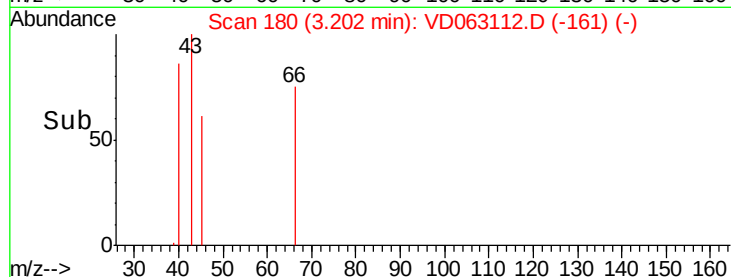
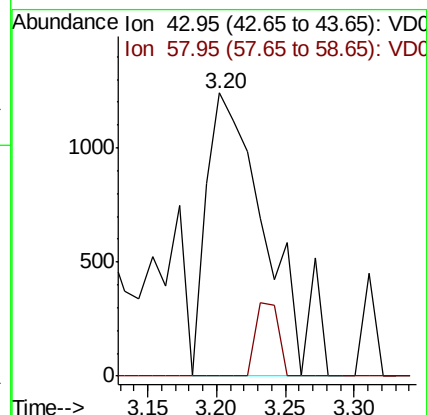
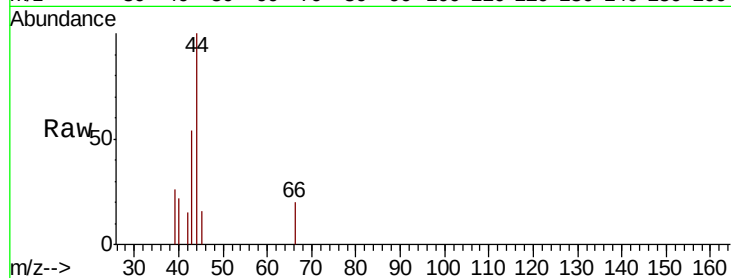
EO-02-071519-C

Tot Ion: 43 Resp: 3779

Ion Ratio Lower Upper

43 100

58 0.0 13.0 19.4#



#20

Methylene Chloride

Concen: 1.440 ug/l

RT: 3.79 min Scan# 240

Delta R.T. -0.01 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Tgt Ion: 84 Resp: 8259

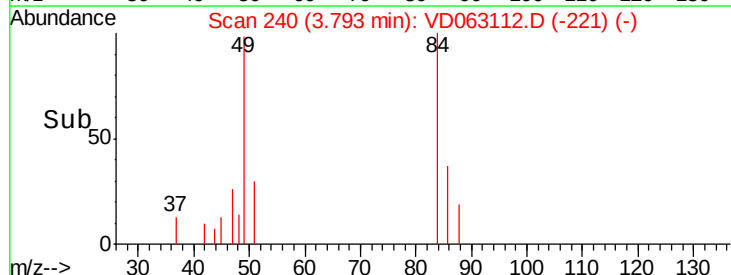
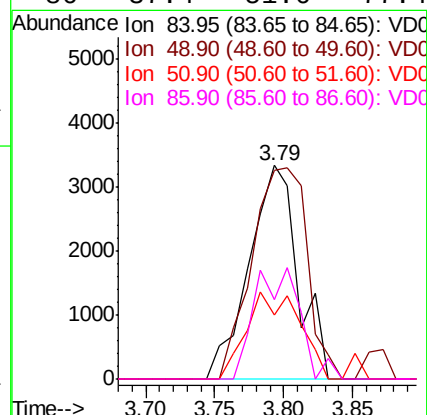
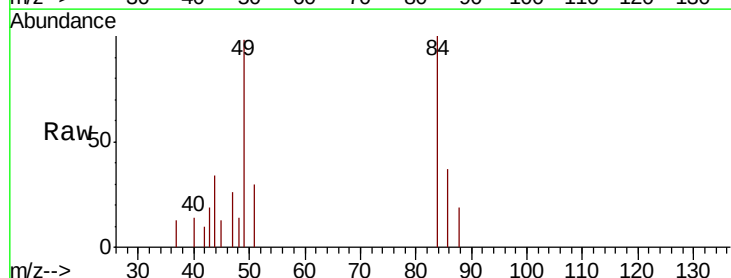
Ion Ratio Lower Upper

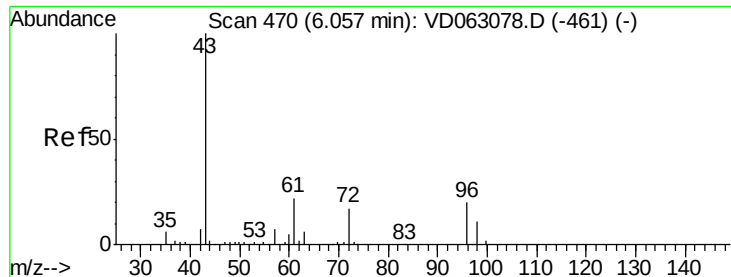
84 100

49 97.8 110.5 165.7#

51 30.3 34.6 51.8#

86 37.4 51.6 77.4#





#25

2-Butanone

Concen: 2.588 ug/l

RT: 6.15 min Scan# 479

Delta R.T. 0.09 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

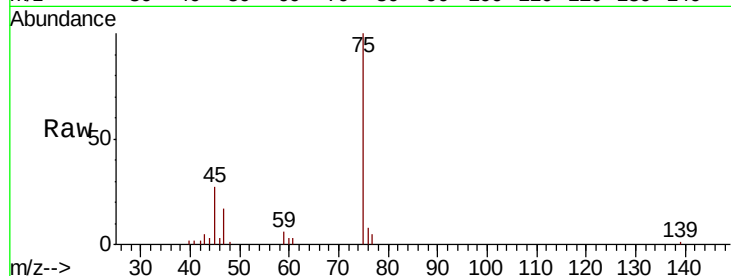
EO-02-071519-C

Tot Ion: 43 Resp: 3751

Ion Ratio Lower Upper

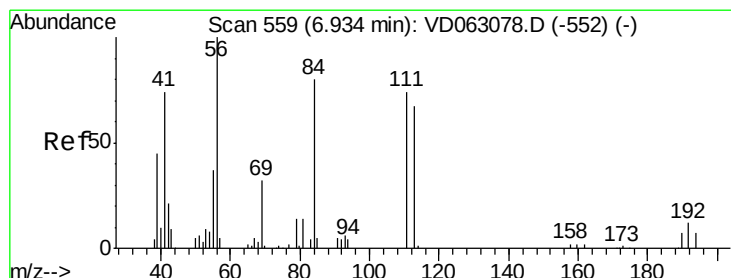
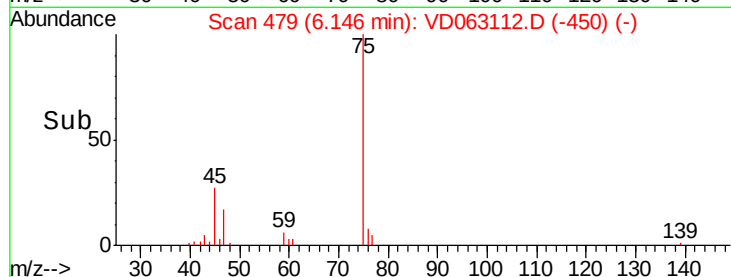
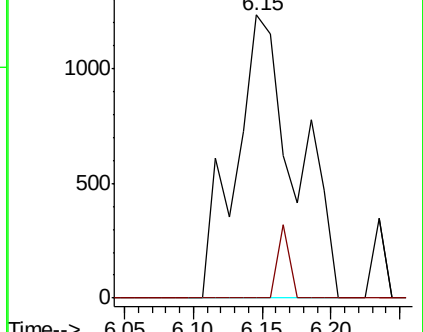
43 100

72 0.0 13.4 20.0#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC



#31

Cyclohexane

Concen: 1.910 ug/l

RT: 7.02 min Scan# 568

Delta R.T. 0.09 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

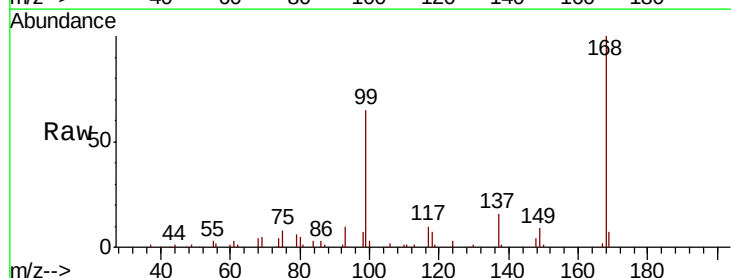
Tgt Ion: 56 Resp: 11426

Ion Ratio Lower Upper

56 100

69 216.9 25.3 37.9#

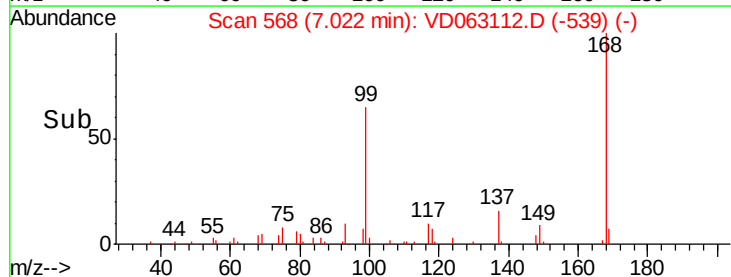
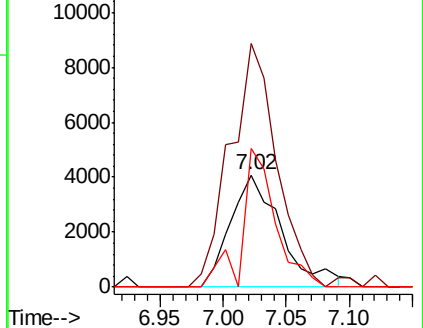
84 123.3 64.2 96.4#

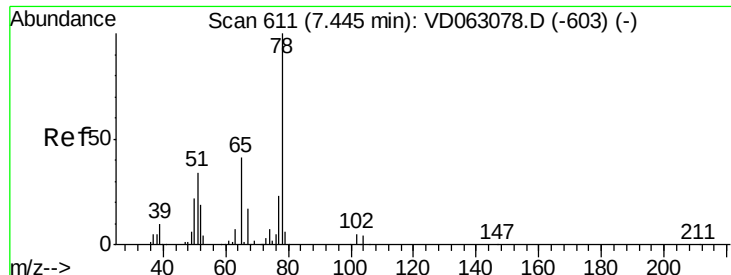


Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 69.00 (68.70 to 69.70): VDC

Ion 84.05 (83.75 to 84.75): VDC

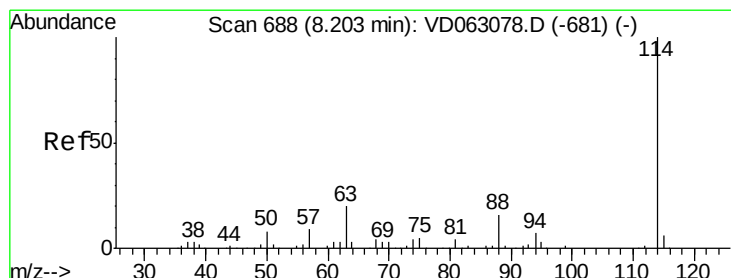
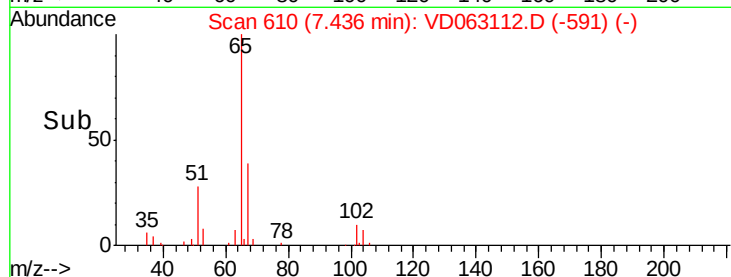
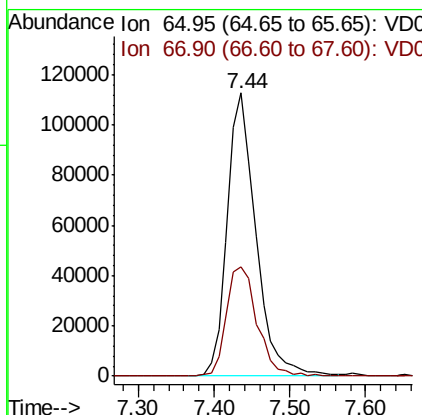
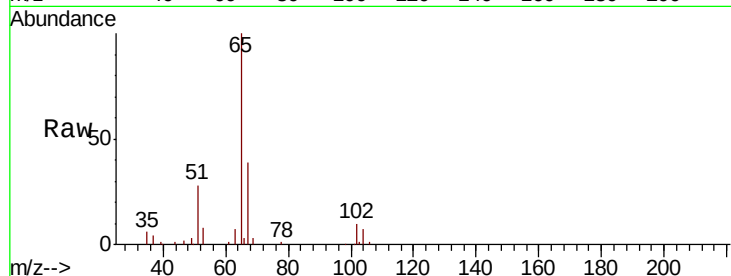




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.952 ug/l  
 RT: 7.44 min Scan# 610  
 Delta R.T. -0.01 min  
 Lab File: VD063112.D  
 Acq: 16 Jul 2019 17:50

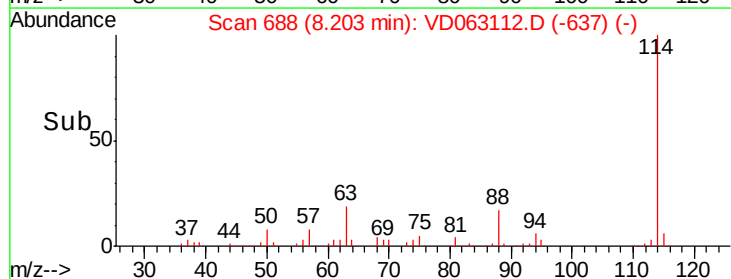
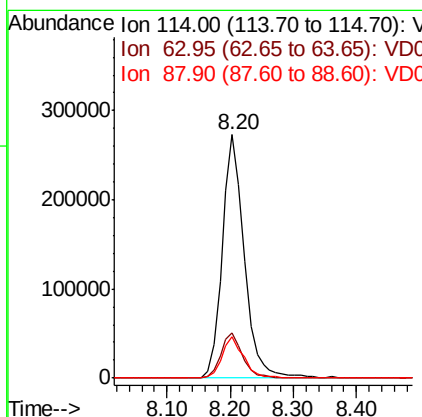
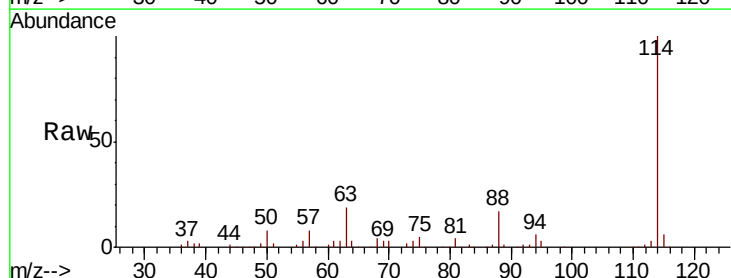
Instrument :  
 MSVOA\_D  
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 EO-02-071519-C

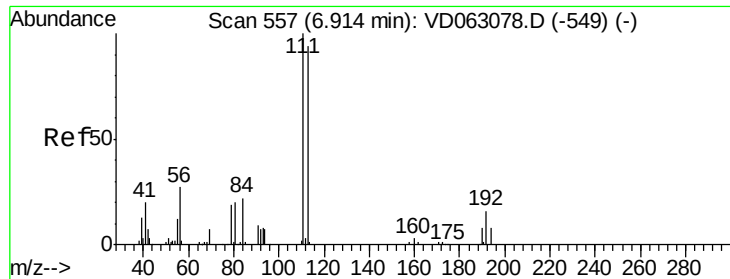
Tot Ion: 65 Resp: 295020  
 Ion Ratio Lower Upper  
 65 100  
 67 38.5 0.0 86.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.20 min Scan# 688  
 Delta R.T. -0.00 min  
 Lab File: VD063112.D  
 Acq: 16 Jul 2019 17:50

Tgt Ion: 114 Resp: 659747  
 Ion Ratio Lower Upper  
 114 100  
 63 18.6 0.0 40.6  
 88 17.0 0.0 32.6





#35

Dibromofluoromethane

Concen: 47.603 ug/l

RT: 6.90 min Scan# 556

Delta R.T. -0.01 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

EO-02-071519-C

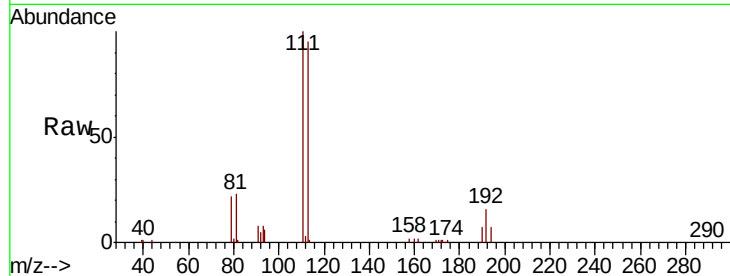
Tot Ion:113 Resp: 312808

Ion Ratio Lower Upper

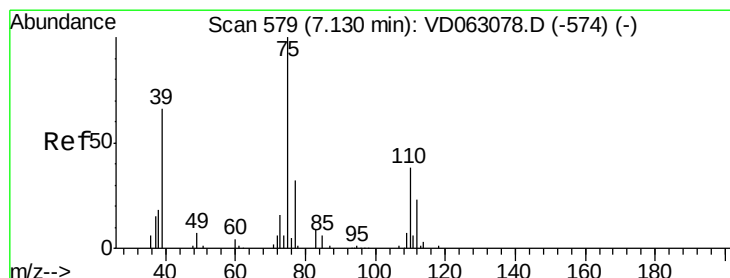
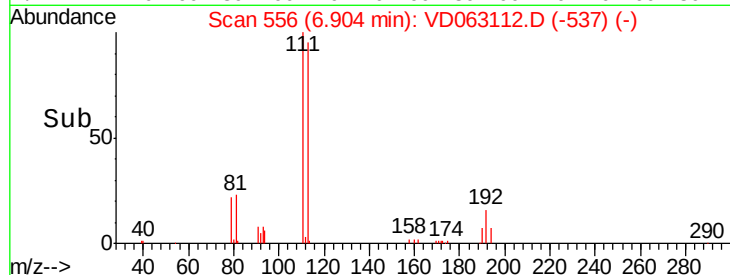
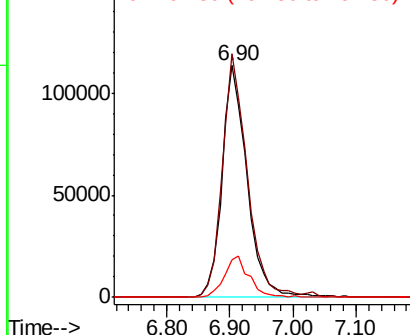
113 100

111 104.9 84.8 127.2

192 16.3 13.4 20.0



Abundance Ion 112.90 (112.60 to 113.60): V  
Ion 110.90 (110.60 to 111.60): V  
Ion 191.80 (191.50 to 192.50): V



#36

1,1-Dichloropropene

Concen: 5.524 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.10 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

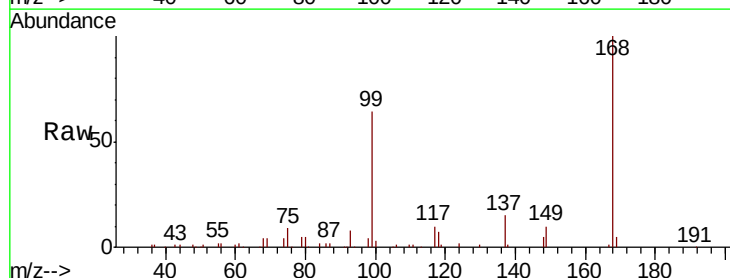
Tgt Ion: 75 Resp: 40987

Ion Ratio Lower Upper

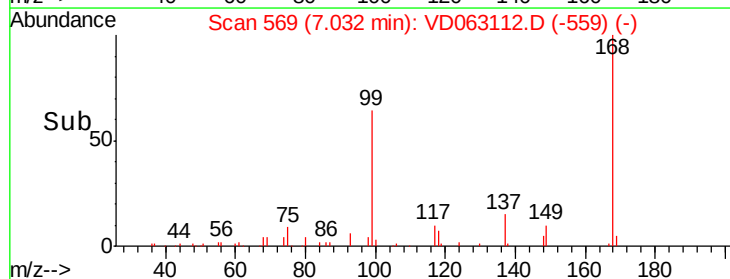
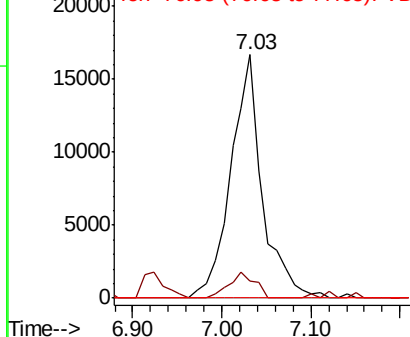
75 100

110 6.8 18.9 56.5#

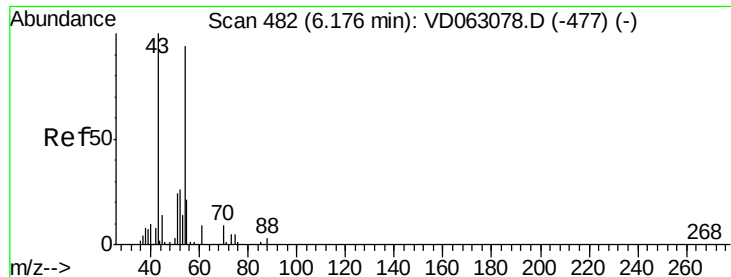
77 0.0 25.2 37.8#



Abundance Ion 75.00 (74.70 to 75.70): V  
Ion 109.90 (109.60 to 110.60): V  
Ion 76.95 (76.65 to 77.65): V







#37

Ethyl Acetate

Concen: 1.181 ug/l

RT: 6.15 min Scan# 479

Delta R.T. -0.03 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

EO-02-071519-C

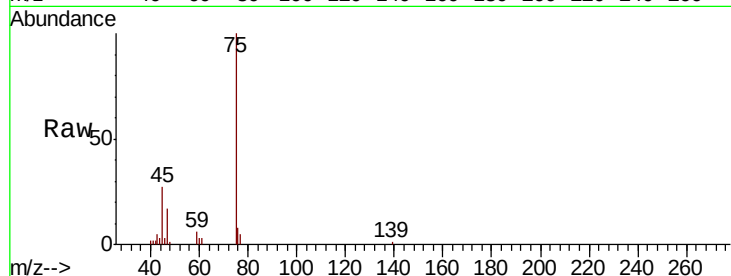
Tot Ion: 43 Resp: 3751

Ion Ratio Lower Upper

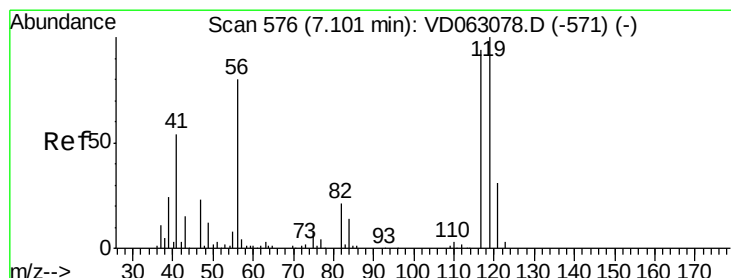
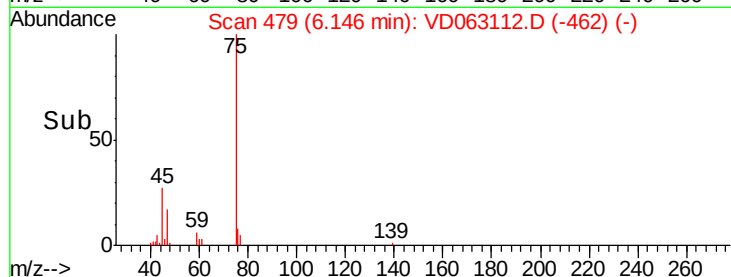
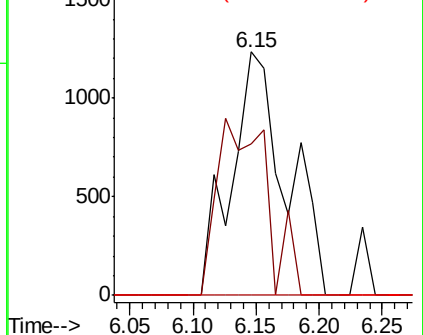
43 100

61 62.2 10.6 16.0#

70 0.0 6.6 9.8#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
Ion 60.95 (60.65 to 61.65): VDC  
Ion 70.00 (69.70 to 70.70): VDC



#38

Carbon Tetrachloride

Concen: 4.414 ug/l

RT: 7.02 min Scan# 568

Delta R.T. -0.08 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

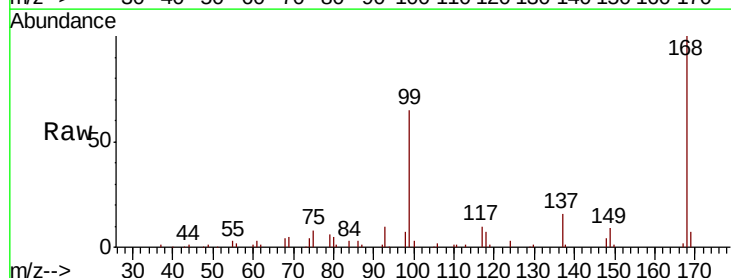
Tgt Ion: 117 Resp: 49767

Ion Ratio Lower Upper

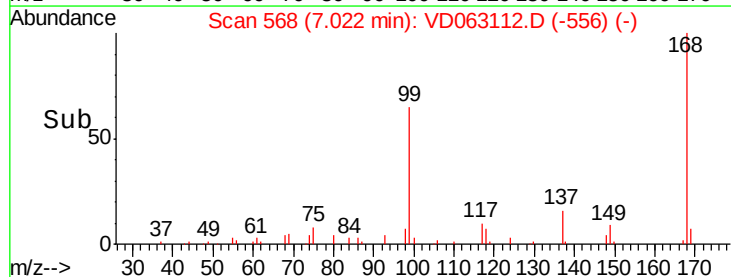
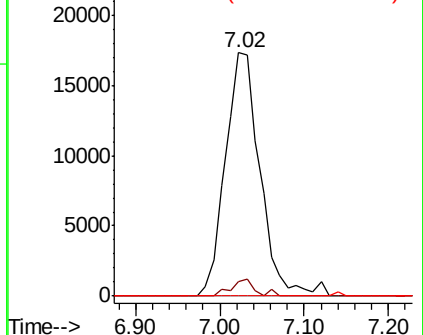
117 100

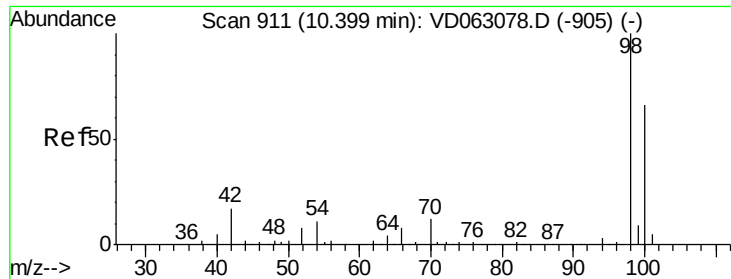
119 5.9 80.0 120.0#

121 0.0 25.0 37.4#



Abundance Ion 116.85 (116.55 to 117.55): V  
Ion 118.85 (118.55 to 119.55): V  
Ion 120.85 (120.55 to 121.55): V

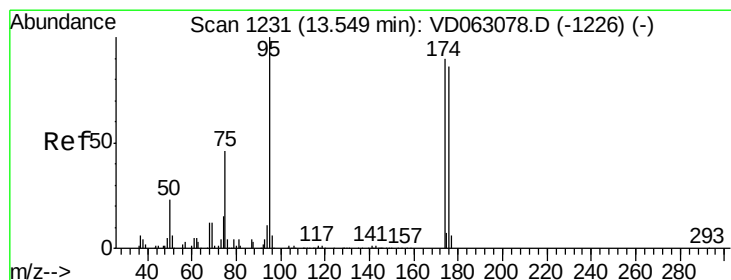
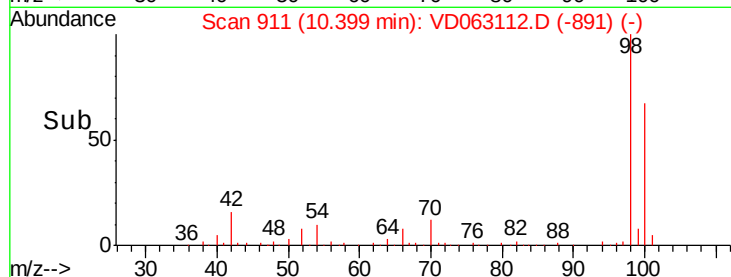
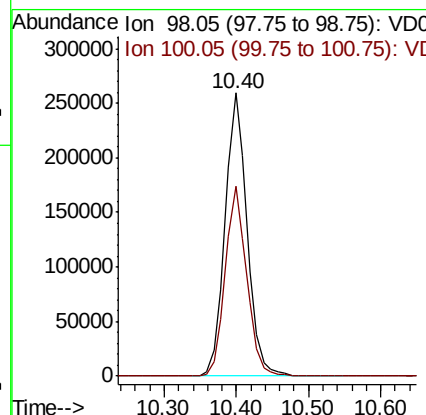
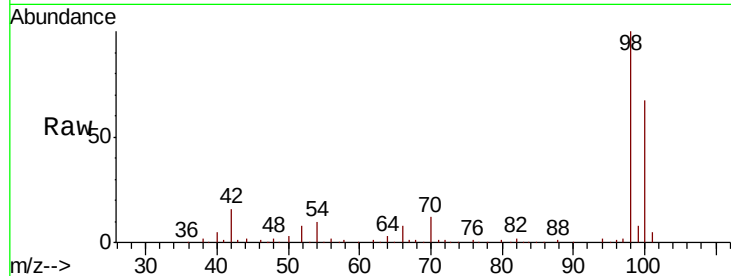




#50  
Toluene-d8  
Concen: 38.639 ug/l  
RT: 10.40 min Scan# 911  
Delta R.T. -0.00 min  
Lab File: VD063112.D  
Acq: 16 Jul 2019 17:50

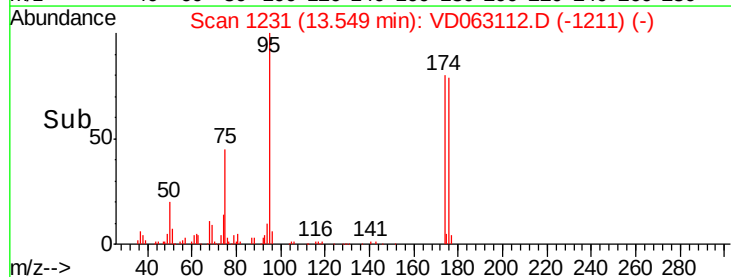
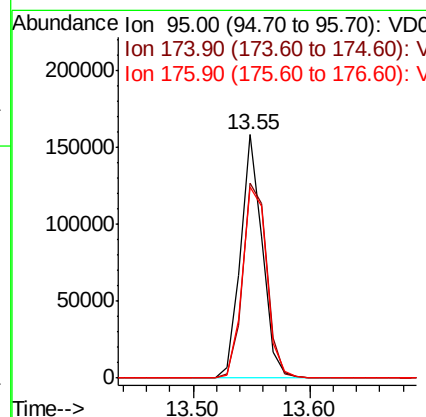
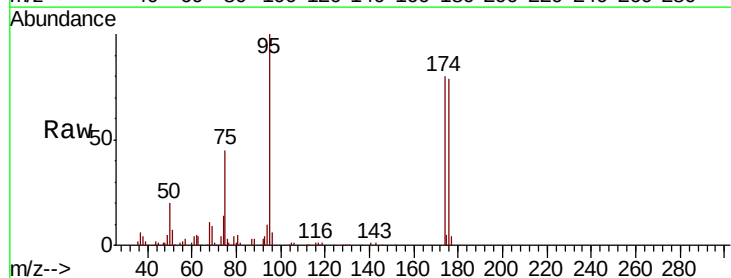
Instrument :  
MSVOA\_D  
ClientSampleId :  
EO-02-071519-C

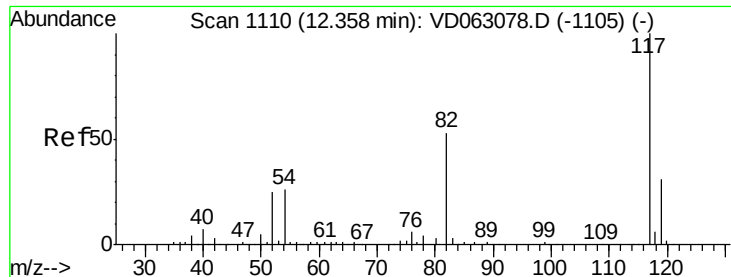
Tot Ion: 98 Resp: 545397  
Ion Ratio Lower Upper  
98 100  
100 67.0 53.5 80.3



#62  
4-Bromofluorobenzene  
Concen: 31.282 ug/l  
RT: 13.55 min Scan# 1231  
Delta R.T. -0.00 min  
Lab File: VD063112.D  
Acq: 16 Jul 2019 17:50

Tgt Ion: 95 Resp: 204273  
Ion Ratio Lower Upper  
95 100  
174 80.1 0.0 180.6  
176 78.7 0.0 172.2

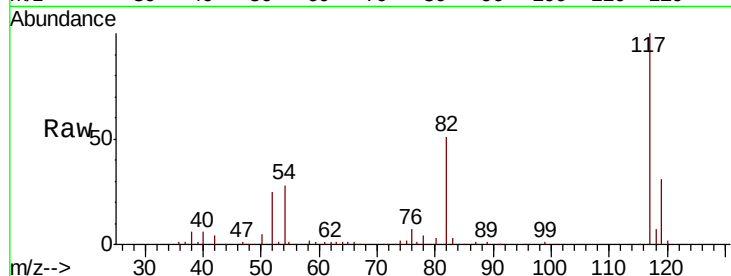




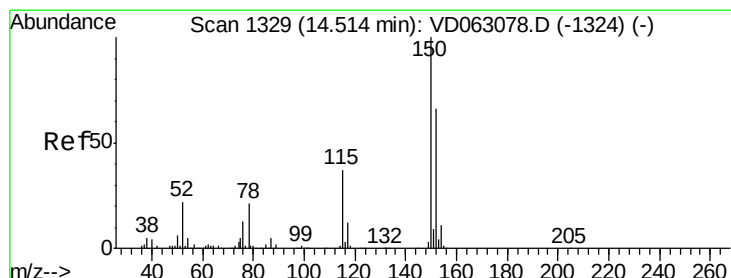
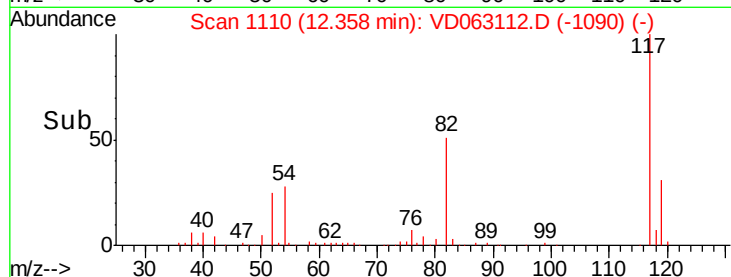
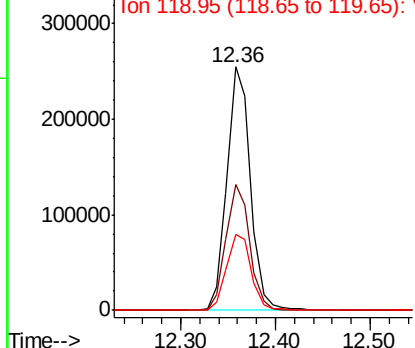
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.36 min Scan# 1110  
Delta R.T. -0.00 min  
Lab File: VD063112.D  
Acq: 16 Jul 2019 17:50

Instrument :  
MSVOA\_D  
ClientSampleId :  
EO-02-071519-C

Tot Ion:117 Resp: 436888  
Ion Ratio Lower Upper  
117 100  
82 51.4 42.3 63.5  
119 31.0 25.2 37.8

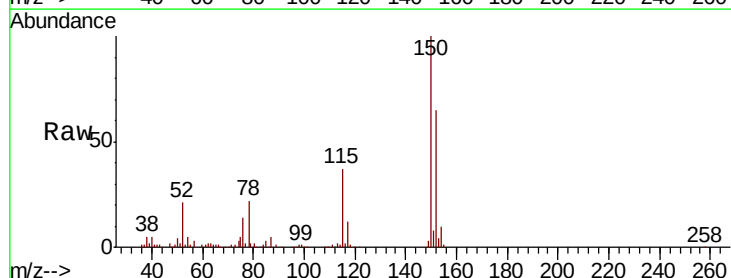


Abundance Ion 116.95 (116.65 to 117.65): V  
Ion 82.05 (81.75 to 82.75): V  
Ion 118.95 (118.65 to 119.65): V

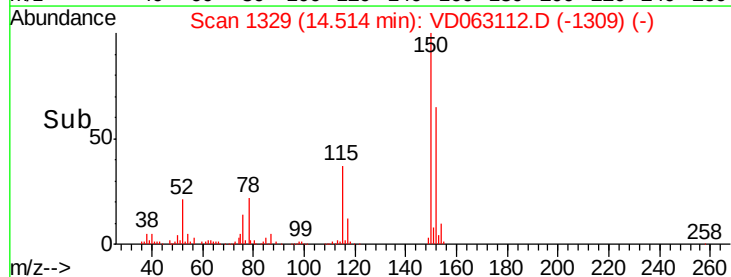
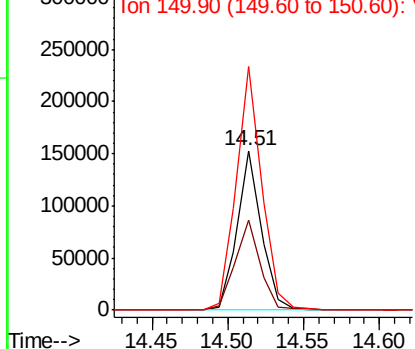


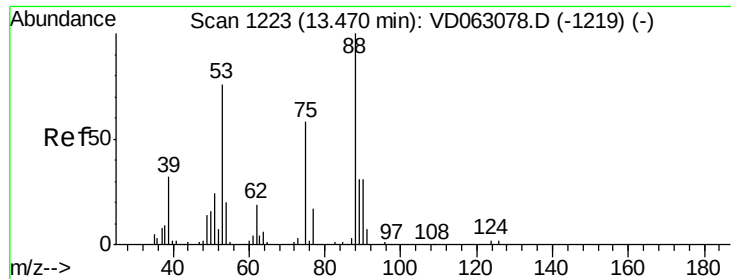
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.51 min Scan# 1329  
Delta R.T. -0.00 min  
Lab File: VD063112.D  
Acq: 16 Jul 2019 17:50

Tgt Ion:152 Resp: 170116  
Ion Ratio Lower Upper  
152 100  
115 56.3 28.9 86.8  
150 152.8 0.0 313.8



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 115.00 (114.70 to 115.70): V  
Ion 149.90 (149.60 to 150.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 141.464 ug/l

RT: 13.55 min Scan# 1231

Delta R.T. 0.08 min

Lab File: VD063112.D

Acq: 16 Jul 2019 17:50

Instrument :

MSVOA\_D

ClientSampleId :

EO-02-071519-C

Tot Ion: 75 Resp: 97486

Ion Ratio Lower Upper

75 100

53 0.0 104.4 156.6#

89 0.0 43.1 64.7#

