

Data File : VW012964.D  
Acq On : 13 Sep 2019 20:33  
Operator : SY/VA  
Sample : K4719-02  
Misc : 4.72G/5ML/MSVOA\_W/SOIL  
ALS Vial : 17 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
T4-1(0)-BRUCKNER

Quant Time: Sep 14 04:23:22 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W091419S.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 13 17:26:01 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 243647   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 371669   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 290502   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 110598   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.30   | 65  | 131356   | 58.37 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 116.74% |      |
| 35) Dibromofluoromethane    | 7.88   | 113 | 110422   | 54.75 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 109.50% |      |
| 50) Toluene-d8              | 10.32  | 98  | 425459   | 53.91 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 107.82% |      |
| 62) 4-Bromofluorobenzene    | 12.62  | 95  | 127174   | 44.82 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 89.64%  |      |

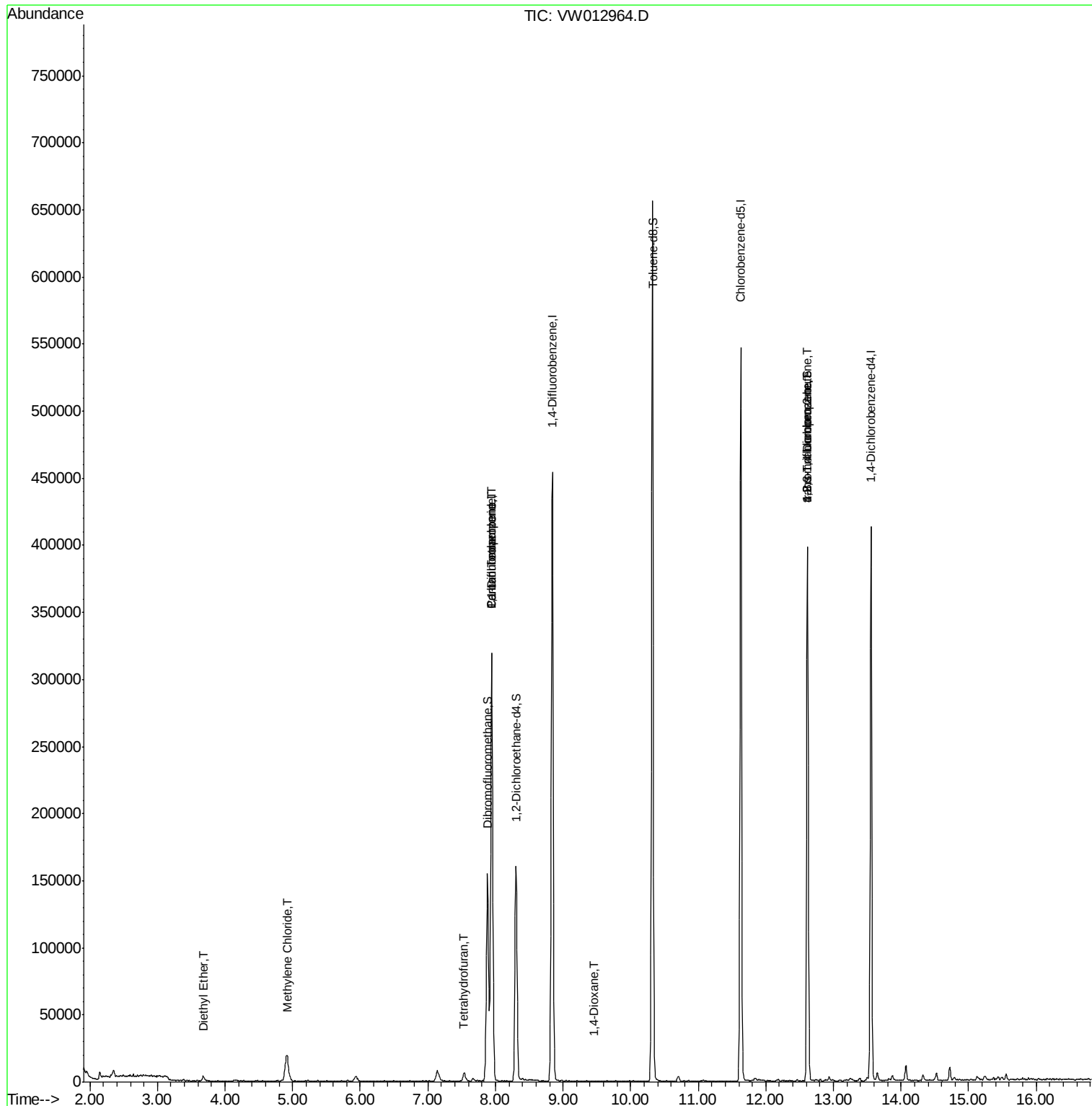
|                                |       |     |        |           |      |     |
|--------------------------------|-------|-----|--------|-----------|------|-----|
| Target Compounds               |       |     | Qvalue |           |      |     |
| 2) Dichlorodifluoromethane     | 2.01  | 85  | 68     | Below Cal | #    | 44  |
| 3) Chloromethane               | 2.20  | 50  | 180    | Below Cal | #    | 41  |
| 8) Diethyl Ether               | 3.68  | 74  | 1730   | 1.817     | ug/l | 72  |
| 11) Tert butyl alcohol         | 5.17  | 59  | 65     | Below Cal | #    | 72  |
| 13) Acrolein                   | 3.90  | 56  | 76     | Below Cal | #    | 15  |
| 16) Acetone                    | 4.15  | 43  | 1436   | Below Cal | #    | 89  |
| 20) Methylene Chloride         | 4.92  | 84  | 14985  | 3.410     | ug/l | 96  |
| 26) 2,2-Dichloropropane        | 7.14  | 77  | 757    | Below Cal | #    | 55  |
| 29) Tetrahydrofuran            | 7.54  | 42  | 5492   | 13.471    | ug/l | 97  |
| 31) Cyclohexane                | 7.94  | 56  | 5283   | Below Cal | #    | 1   |
| 36) 1,1-Dichloropropene        | 7.94  | 75  | 18941  | 6.378     | ug/l | 52  |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 23971  | 7.876     | ug/l | 14  |
| 49) 1,4-Dioxane                | 9.46  | 88  | 22     | 1.244     | ug/l | 1   |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 65522  | 67.636    | ug/l | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 65522  | 153.430   | ug/l | 7   |

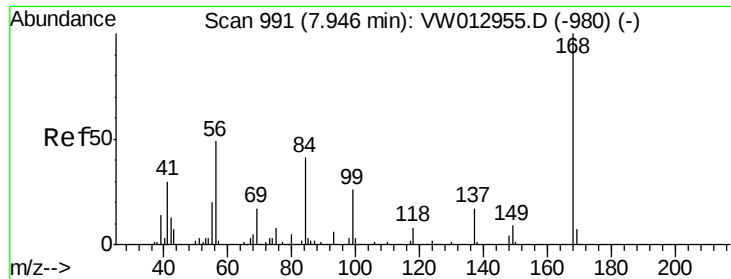
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. 0.00 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

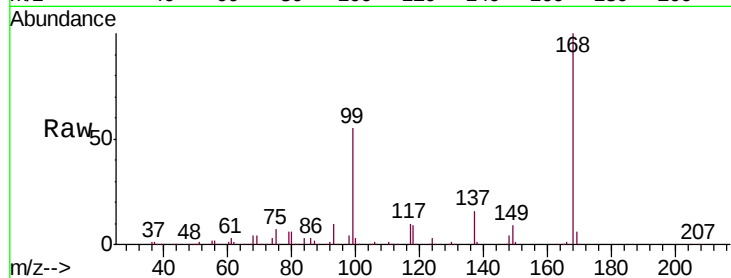
T4-1-(0)-BRUCKNER

Tgt Ion:168 Resp: 243647

Ion Ratio Lower Upper

168 100

99 55.2 46.2 69.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

120000

100000

80000

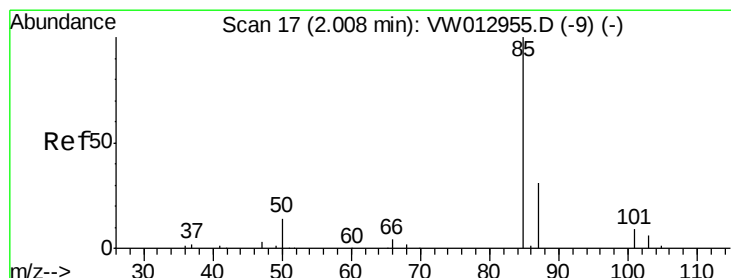
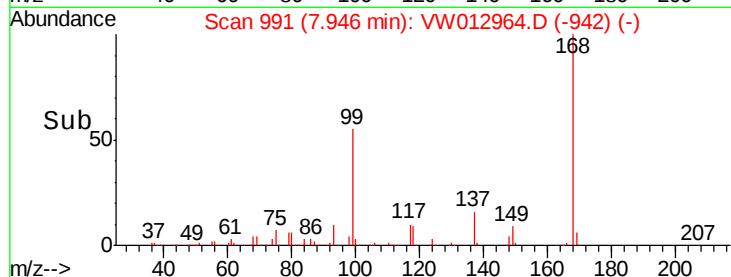
60000

40000

20000

0

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 2.01 min Scan# 17

Delta R.T. 0.00 min

Lab File: VW012964.D

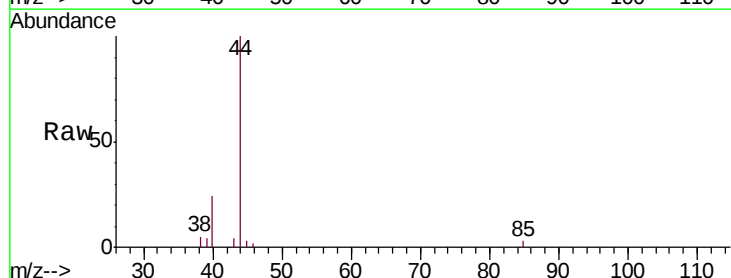
Acq: 13 Sep 2019 20:33

Tgt Ion: 85 Resp: 68

Ion Ratio Lower Upper

85 100

87 0.0 15.4 46.4#



Abundance Ion 84.90 (84.60 to 85.60): VW

Ion 86.90 (86.60 to 87.60): VW

2.01

80

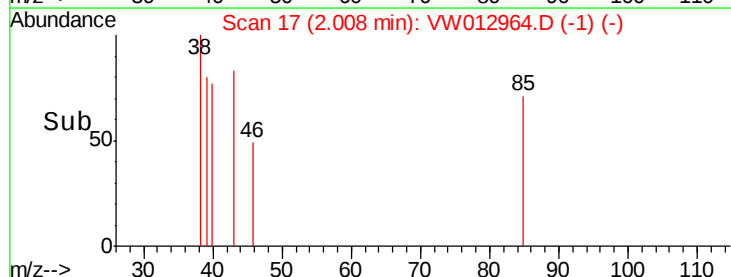
60

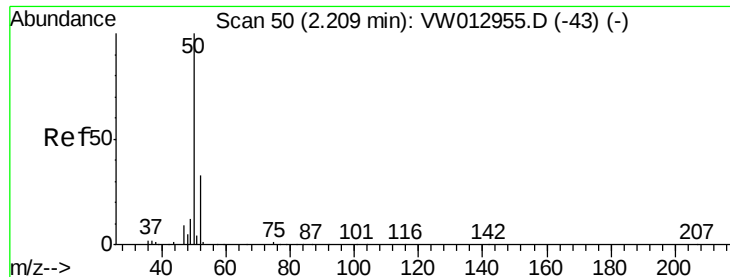
40

20

0

Time-->





#3

Chloromethane

Concen: Below Cal

RT: 2.20 min Scan# 49

Delta R.T. -0.01 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

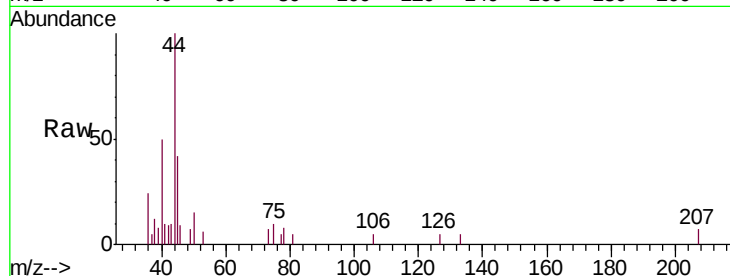
T4-1-(0)-BRUCKNER

Tgt Ion: 50 Resp: 180

Ion Ratio Lower Upper

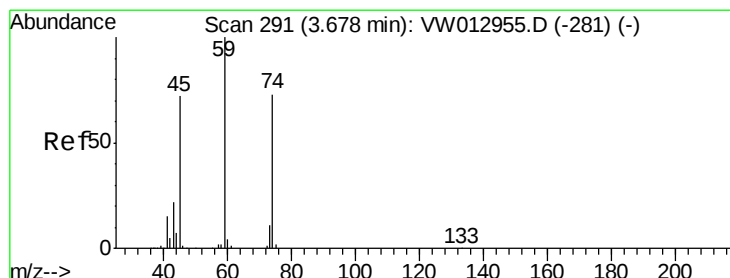
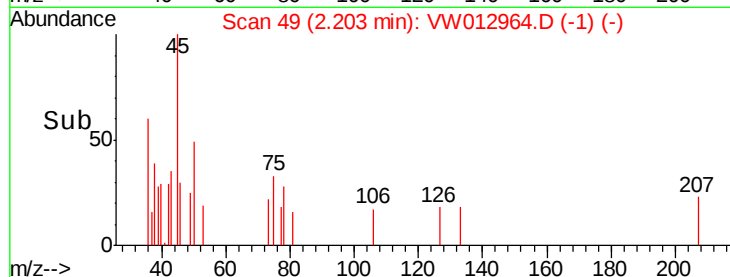
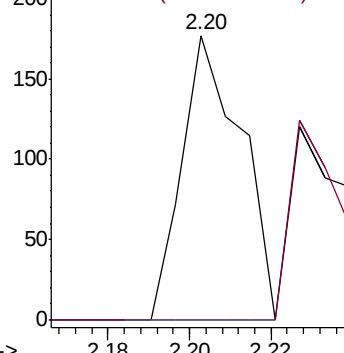
50 100

52 0.0 26.6 39.8#



Abundance Ion 49.90 (49.60 to 50.60): VW

Ion 51.90 (51.60 to 52.60): VW



#8

Diethyl Ether

Concen: 1.817 ug/l

RT: 3.68 min Scan# 291

Delta R.T. 0.00 min

Lab File: VW012964.D

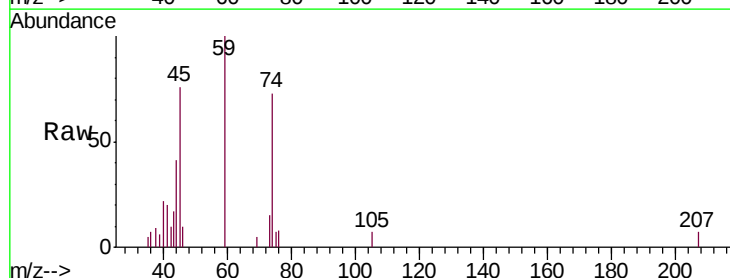
Acq: 13 Sep 2019 20:33

Tgt Ion: 74 Resp: 1730

Ion Ratio Lower Upper

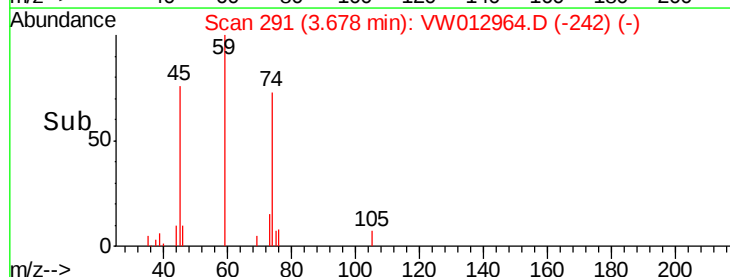
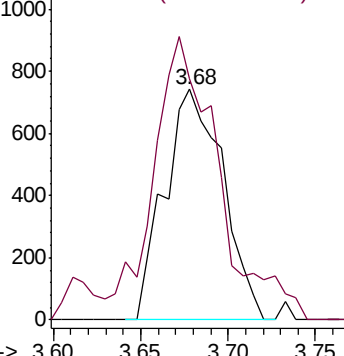
74 100

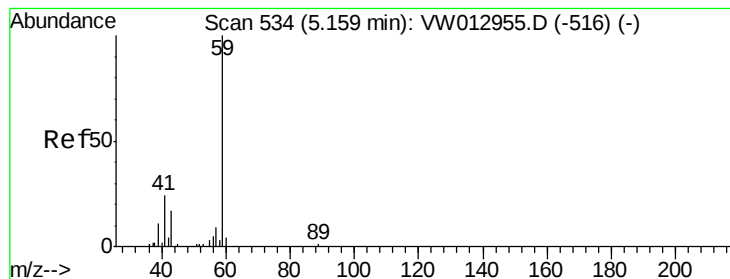
45 136.9 53.8 161.4



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW



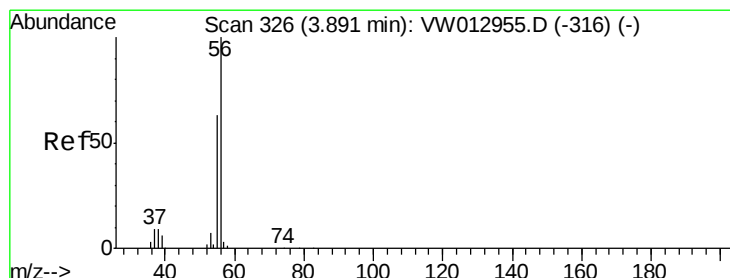
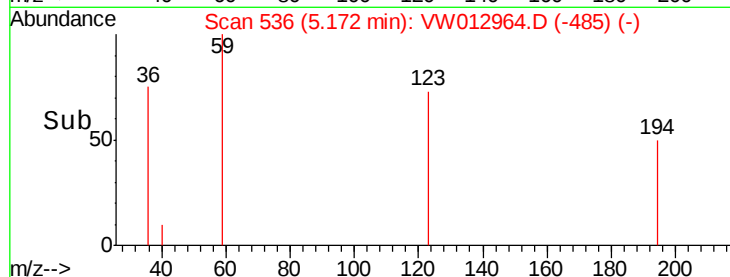
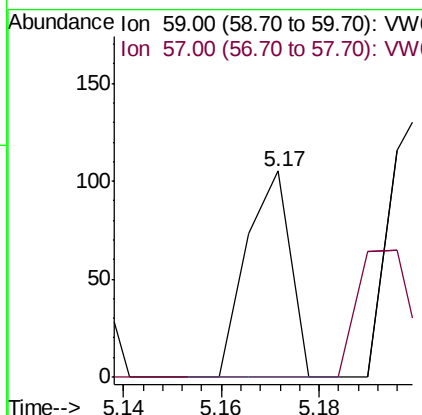
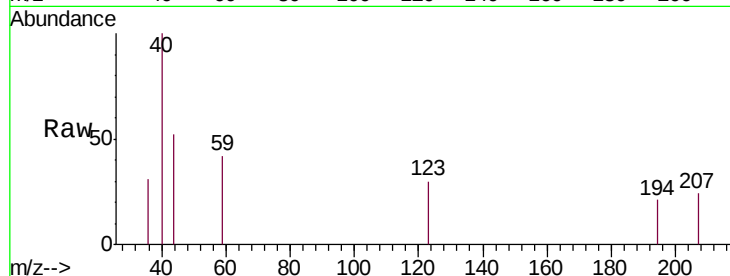


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.17 min Scan# 536  
 Delta R.T. 0.01 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 T4-1-(0)-BRUCKNER

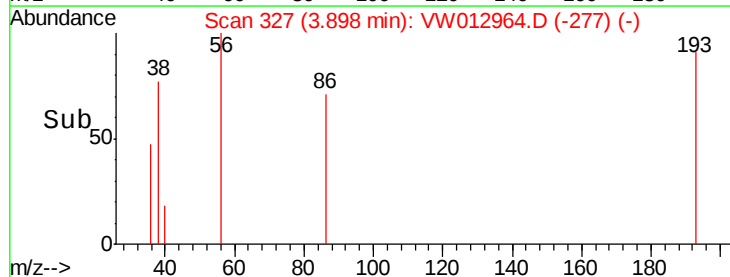
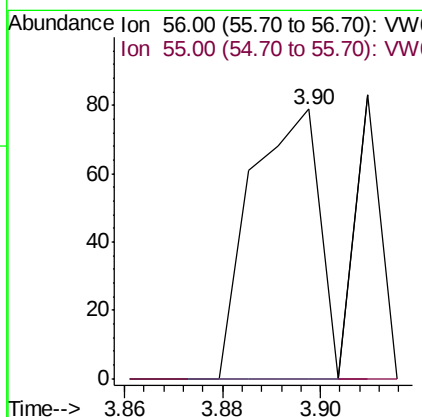
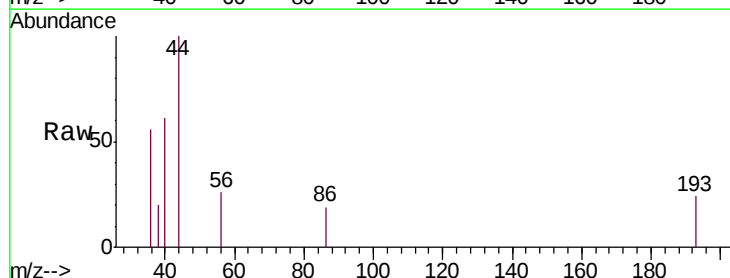
Tgt Ion: 59 Resp: 65  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.5 12.7#

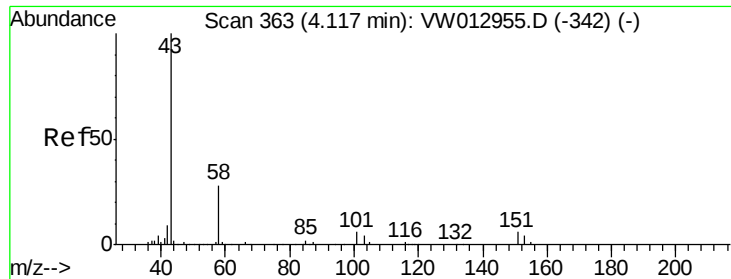


#13

Acrolein  
 Concen: Below Cal  
 RT: 3.90 min Scan# 327  
 Delta R.T. 0.01 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Tgt Ion: 56 Resp: 76  
 Ion Ratio Lower Upper  
 56 100  
 55 0.0 55.8 83.8#





#16

Acetone

Concen: Below Cal

RT: 4.15 min Scan# 368

Delta R.T. 0.03 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

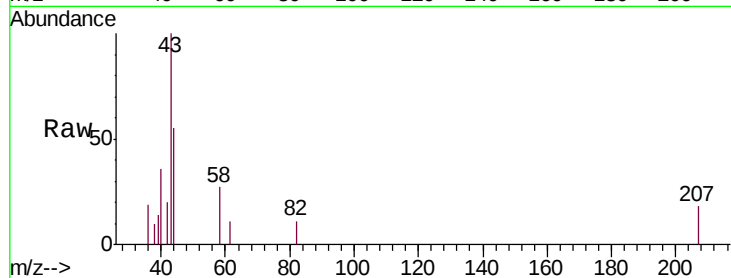
T4-1-(0)-BRUCKNER

Tgt Ion: 43 Resp: 1436

Ion Ratio Lower Upper

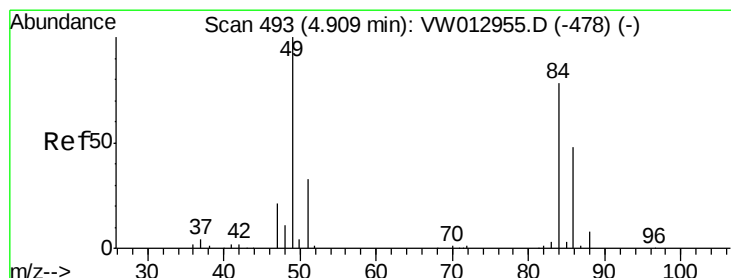
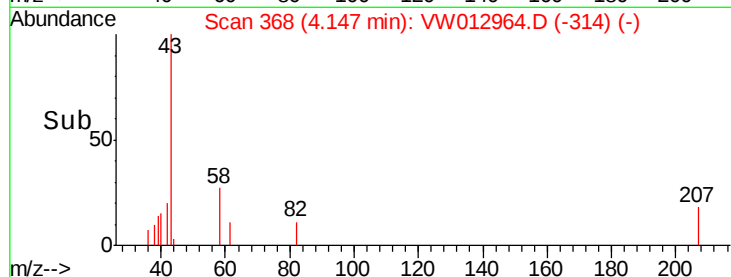
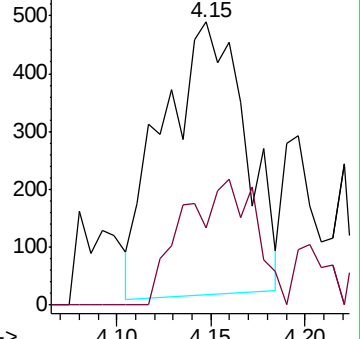
43 100

58 33.8 22.3 33.5#



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#20

Methylene Chloride

Concen: 3.410 ug/l

RT: 4.92 min Scan# 495

Delta R.T. 0.01 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Tgt Ion: 84 Resp: 14985

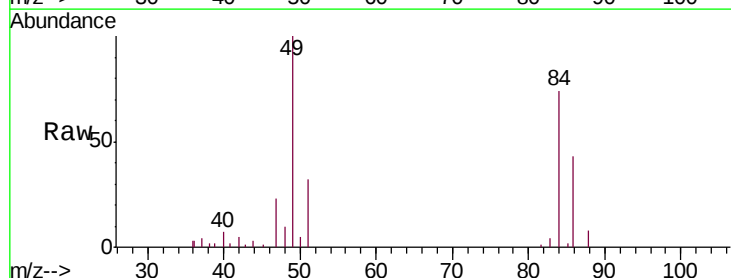
Ion Ratio Lower Upper

84 100

49 134.6 102.0 153.0

51 43.4 34.0 51.0

86 58.5 48.5 72.7

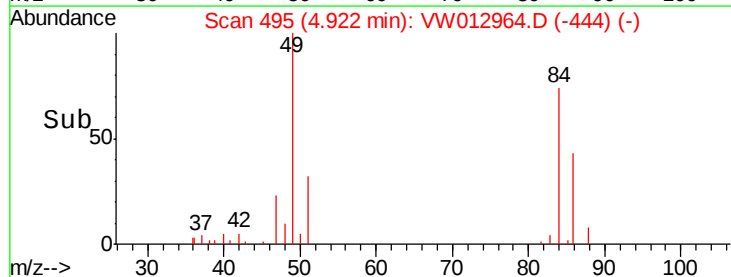
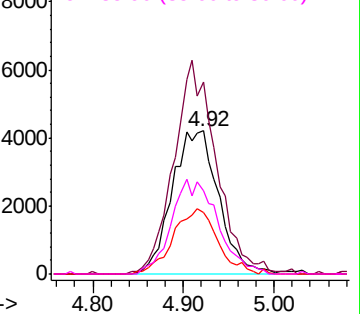


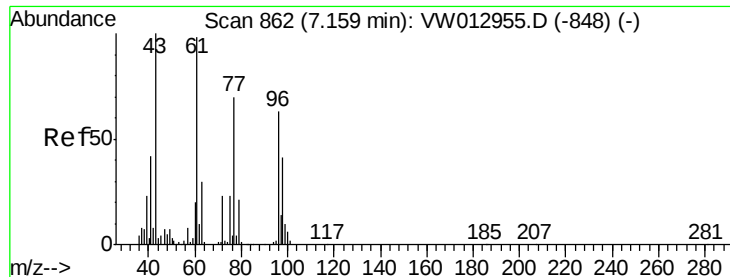
Abundance Ion 83.90 (83.60 to 84.60): VW

Ion 48.90 (48.60 to 49.60): VW

Ion 50.90 (50.60 to 51.60): VW

Ion 85.90 (85.60 to 86.60): VW

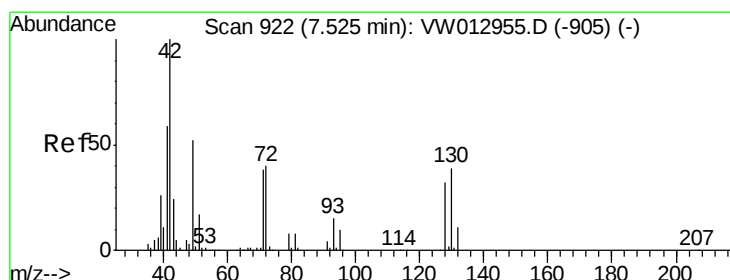
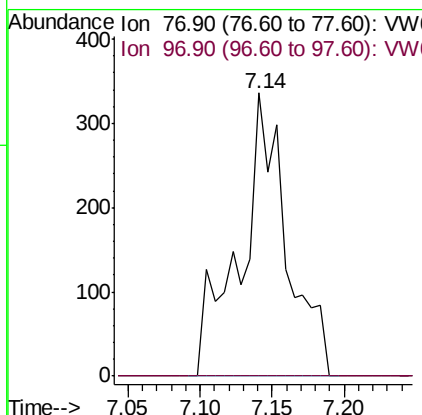
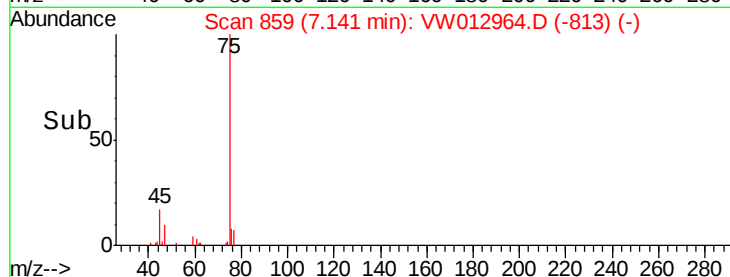
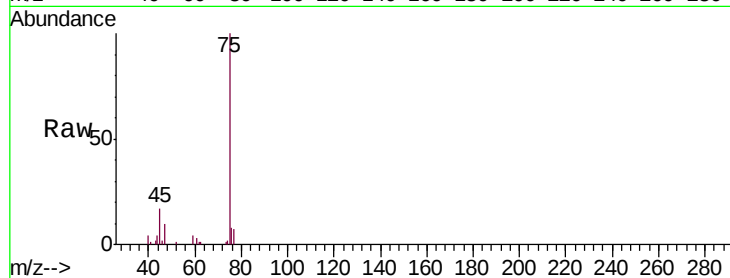




#26  
 2,2-Dichloropropane  
 Concen: Below Cal  
 RT: 7.14 min Scan# 859  
 Delta R.T. -0.02 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

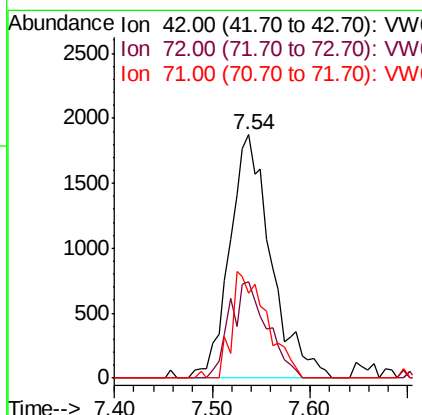
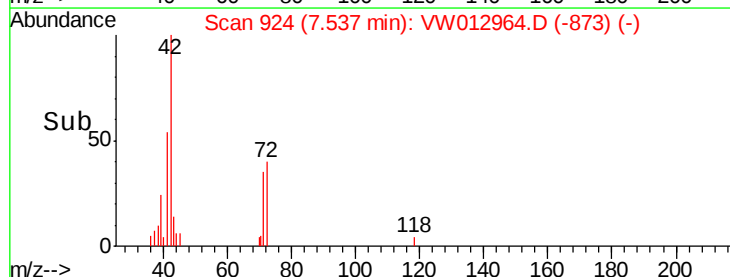
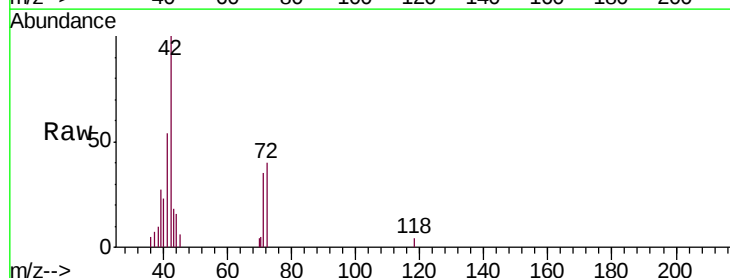
Instrument :  
 MSVOA\_W  
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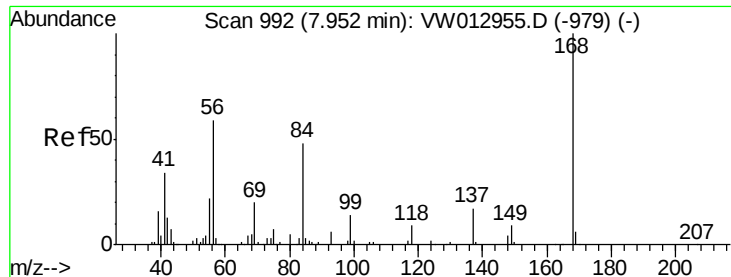
Tgt Ion: 77 Resp: 757  
 Ion Ratio Lower Upper  
 77 100  
 97 0.0 10.7 32.1#



#29  
 Tetrahydrofuran  
 Concen: 13.471 ug/l  
 RT: 7.54 min Scan# 924  
 Delta R.T. 0.01 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Tgt Ion: 42 Resp: 5492  
 Ion Ratio Lower Upper  
 42 100  
 72 35.9 31.4 47.0  
 71 36.9 29.8 44.8

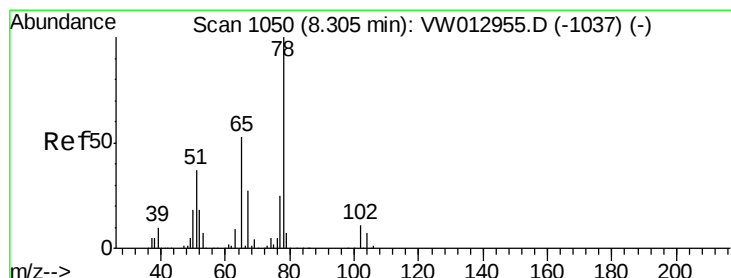
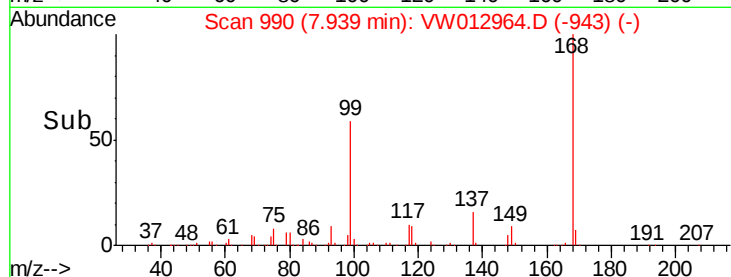
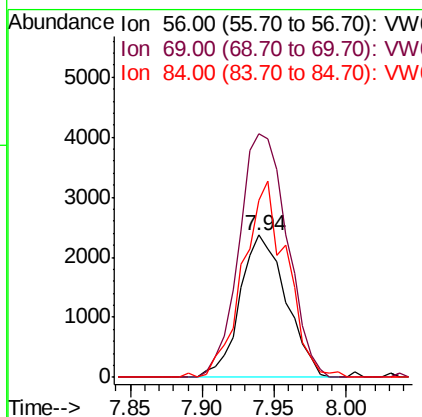
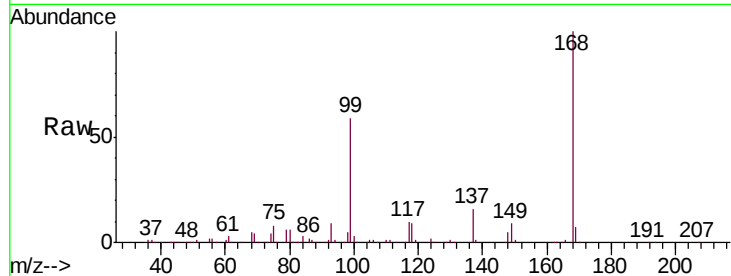




#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.94 min Scan# 990  
Delta R.T. -0.01 min  
Lab File: VW012964.D  
Acq: 13 Sep 2019 20:33

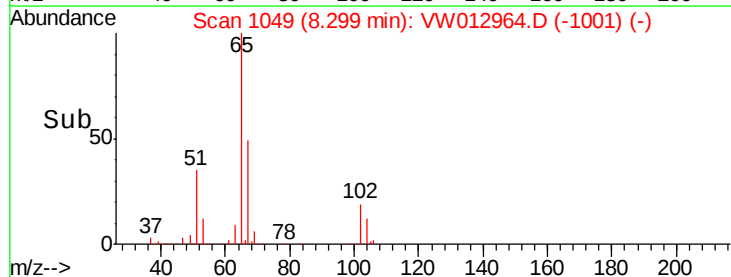
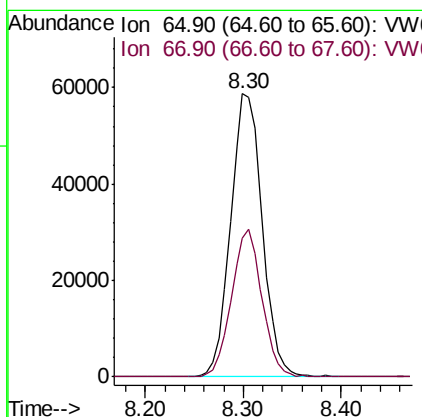
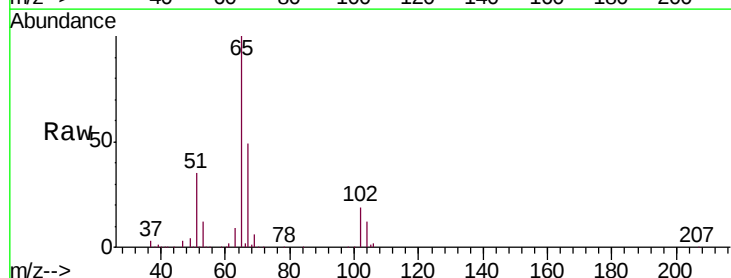
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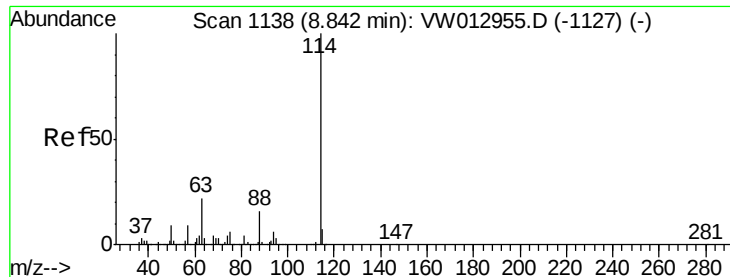
Tgt Ion: 56 Resp: 5283  
Ion Ratio Lower Upper  
56 100  
69 171.0 27.0 40.6#  
84 121.2 66.2 99.2#



#33  
1,2-Dichloroethane-d4  
Concen: 58.374 ug/l  
RT: 8.30 min Scan# 1049  
Delta R.T. -0.01 min  
Lab File: VW012964.D  
Acq: 13 Sep 2019 20:33

Tgt Ion: 65 Resp: 131356  
Ion Ratio Lower Upper  
65 100  
67 50.1 0.0 101.2

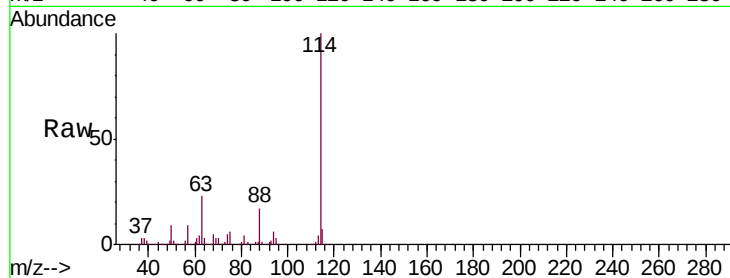




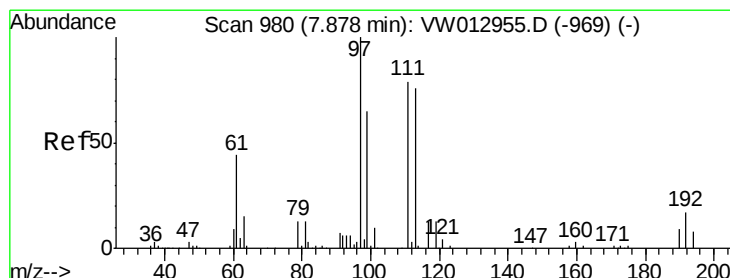
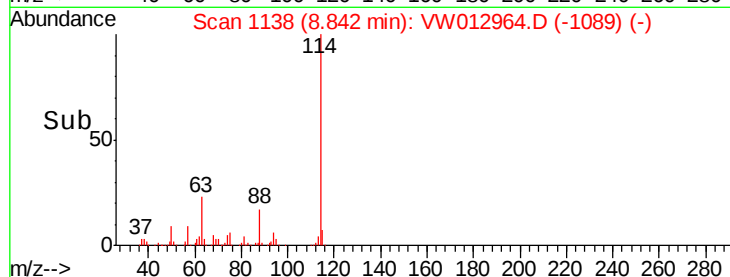
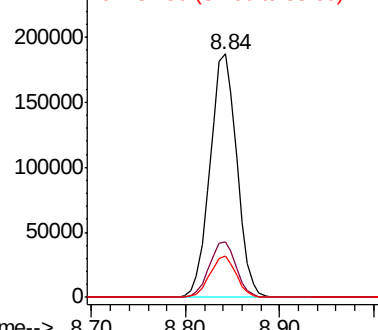
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. 0.00 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 T4-1-(0)-BRUCKNER

Tgt Ion:114 Resp: 371669  
 Ion Ratio Lower Upper  
 114 100  
 63 22.7 0.0 43.4  
 88 17.0 0.0 31.6

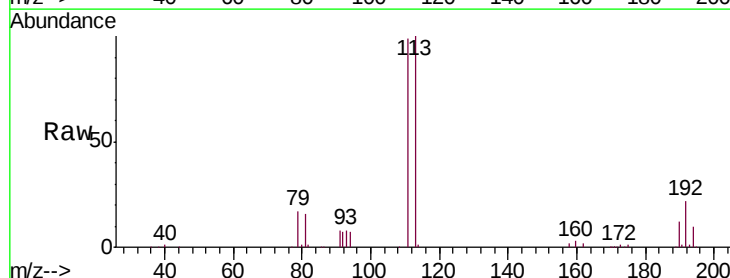


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

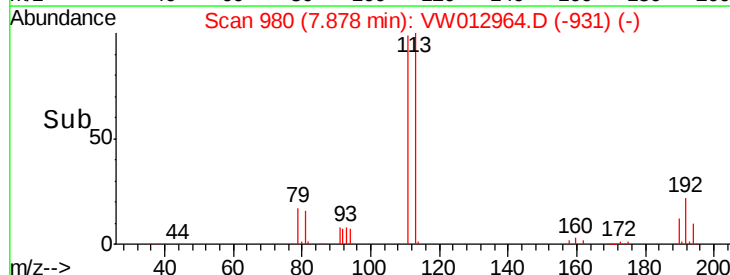
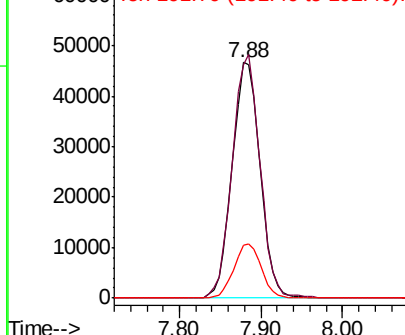


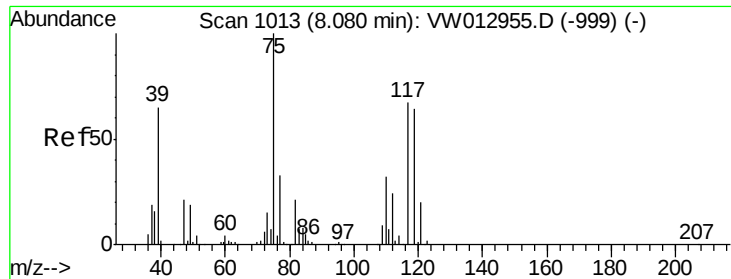
#35  
 Dibromofluoromethane  
 Concen: 54.753 ug/l  
 RT: 7.88 min Scan# 980  
 Delta R.T. 0.00 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Tgt Ion:113 Resp: 110422  
 Ion Ratio Lower Upper  
 113 100  
 111 102.4 82.8 124.2  
 192 22.5 17.8 26.8



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

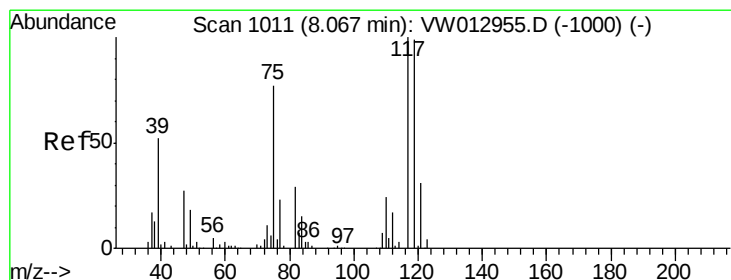
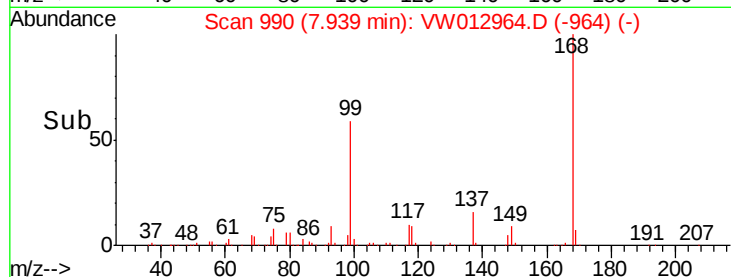
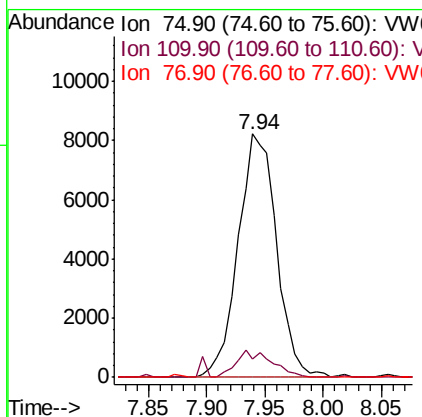
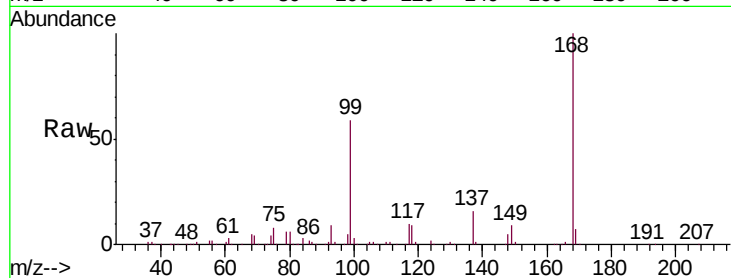




#36  
 1,1-Dichloropropene  
 Concen: 6.378 ug/l  
 RT: 7.94 min Scan# 990  
 Delta R.T. -0.14 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

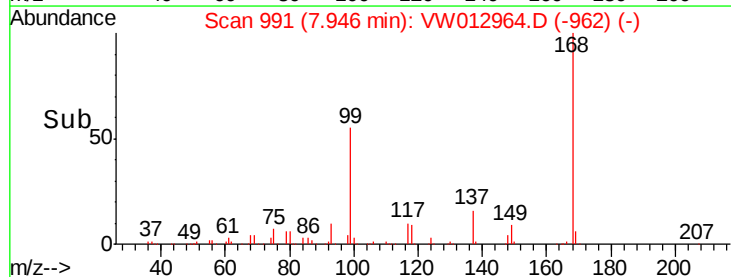
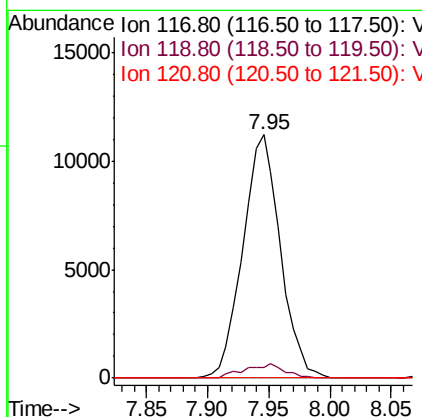
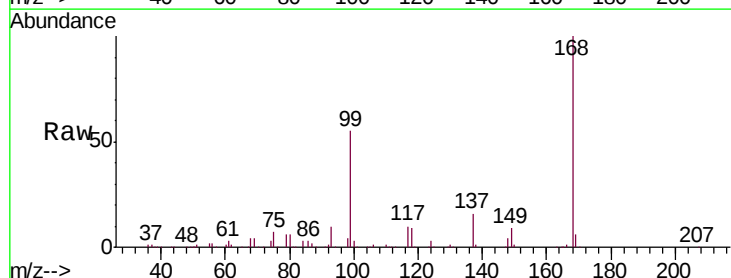
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 T4-1-(0)-BRUCKNER

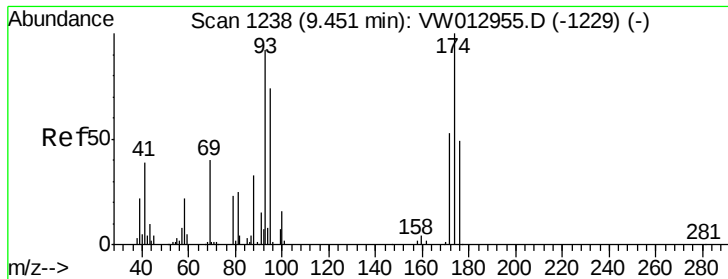
Tgt Ion: 75 Resp: 18941  
 Ion Ratio Lower Upper  
 75 100  
 110 10.4 16.4 49.1#  
 77 0.0 25.1 37.7#



#38  
 Carbon Tetrachloride  
 Concen: 7.876 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.12 min  
 Lab File: VW012964.D  
 Acq: 13 Sep 2019 20:33

Tgt Ion: 117 Resp: 23971  
 Ion Ratio Lower Upper  
 117 100  
 119 4.1 79.4 119.0#  
 121 0.0 24.6 36.8#





#49

1,4-Dioxane

Concen: 1.244 ug/l

RT: 9.46 min Scan# 1240

Delta R.T. 0.01 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

T4-1(0)-BRUCKNER

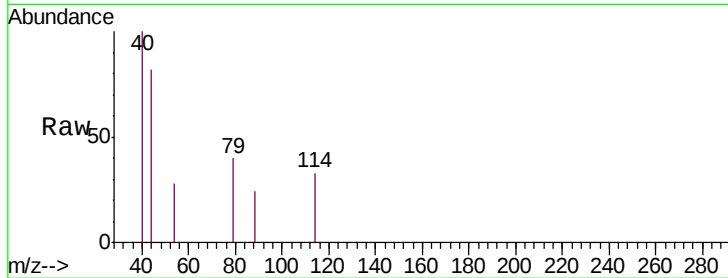
Tgt Ion: 88 Resp: 22

Ion Ratio Lower Upper

88 100

43 309.1 31.3 46.9#

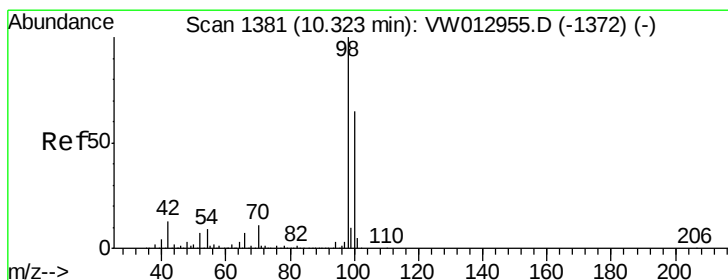
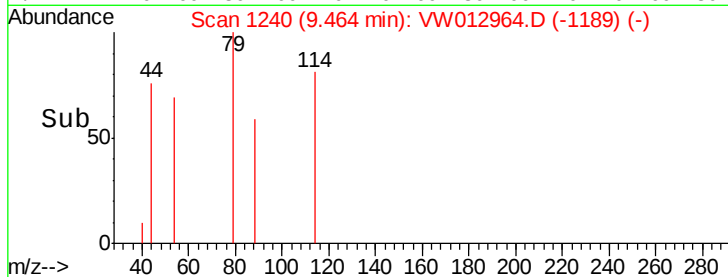
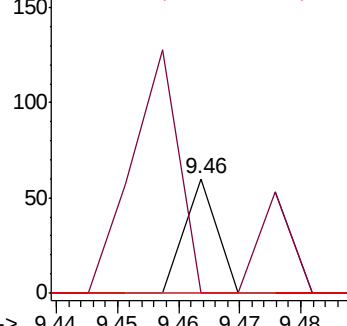
58 0.0 60.2 90.2#



Abundance Ion 88.00 (87.70 to 88.70): VW

Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#50

Toluene-d8

Concen: 53.913 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. 0.00 min

Lab File: VW012964.D

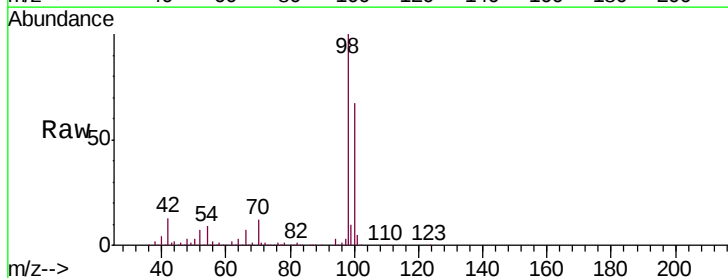
Acq: 13 Sep 2019 20:33

Tgt Ion: 98 Resp: 425459

Ion Ratio Lower Upper

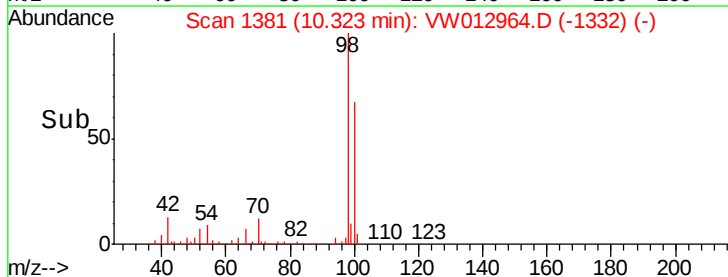
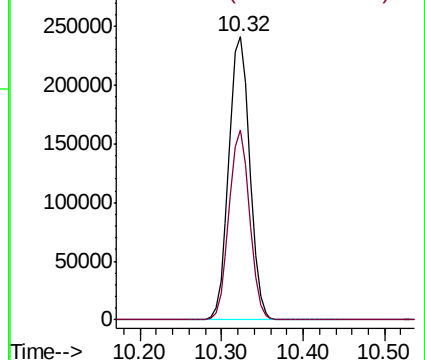
98 100

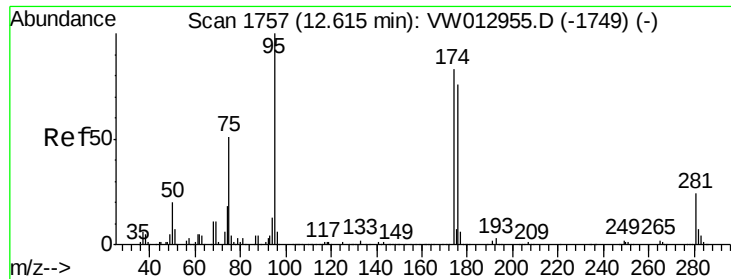
100 65.9 52.1 78.1



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW

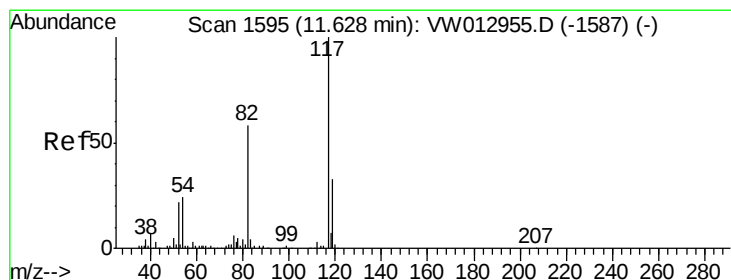
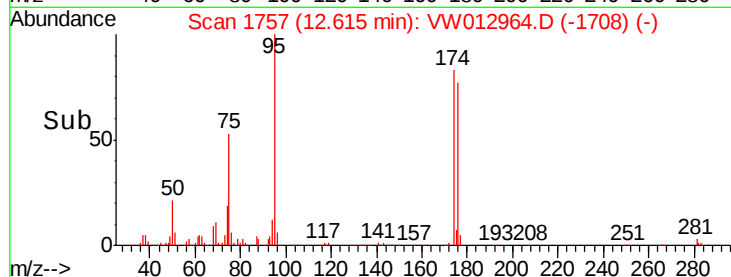
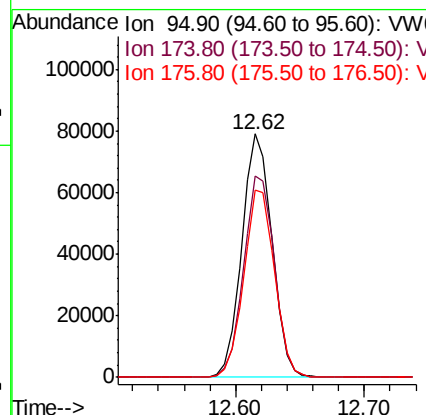
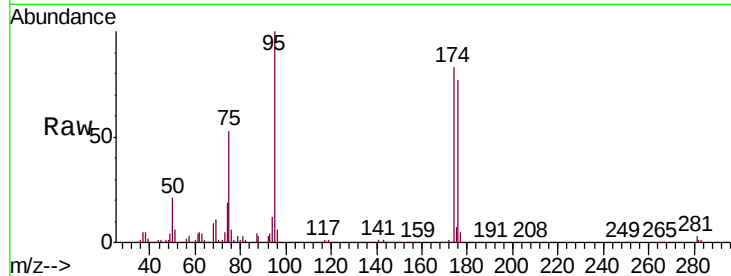




#62  
4-Bromofluorobenzene  
Concen: 44.816 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. 0.00 min  
Lab File: VW012964.D  
Acq: 13 Sep 2019 20:33

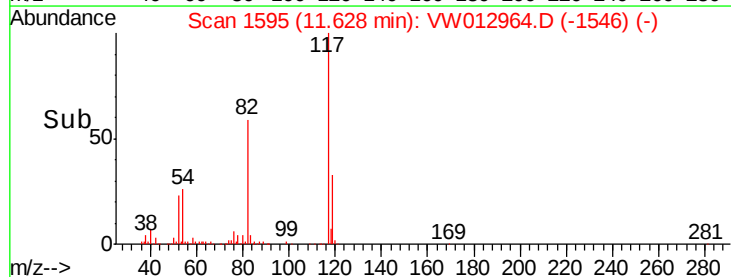
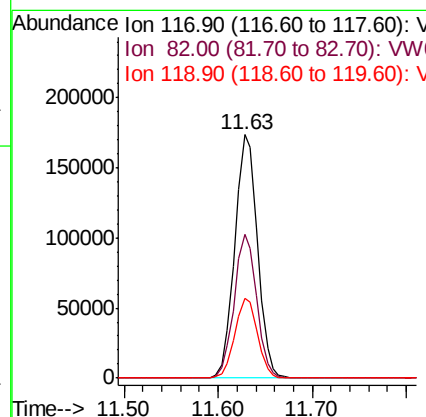
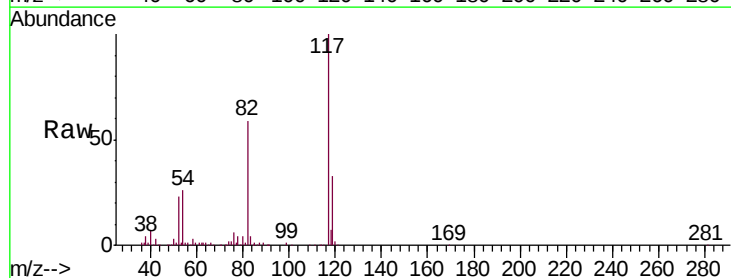
Instrument :  
MSVOA\_W  
ClientSampleId :  
T4-1-(0)-BRUCKNER

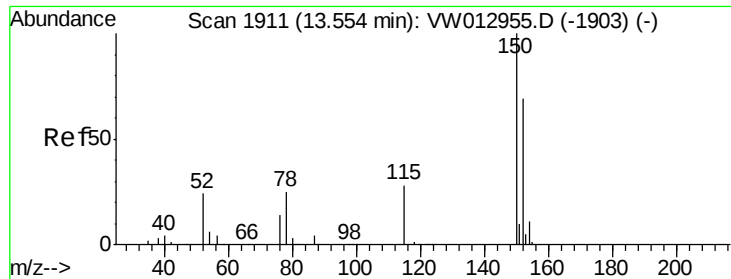
Tgt Ion: 95 Resp: 127174  
Ion Ratio Lower Upper  
95 100  
174 84.5 0.0 170.4  
176 78.7 0.0 164.6



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1595  
Delta R.T. 0.00 min  
Lab File: VW012964.D  
Acq: 13 Sep 2019 20:33

Tgt Ion: 117 Resp: 290502  
Ion Ratio Lower Upper  
117 100  
82 59.2 46.3 69.5  
119 32.9 26.2 39.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.55 min Scan# 1911

Delta R.T. 0.00 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

T4-1(0)-BRUCKNER

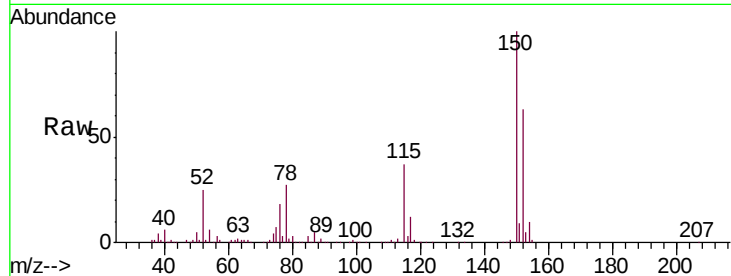
Tgt Ion:152 Resp: 110598

Ion Ratio Lower Upper

152 100

115 57.3 28.8 86.4

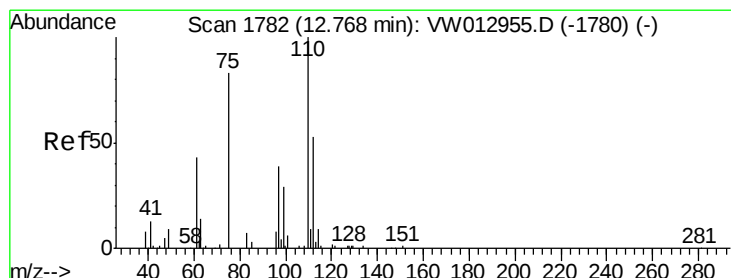
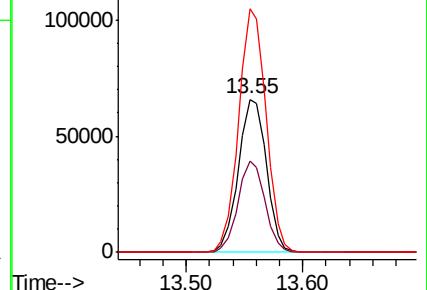
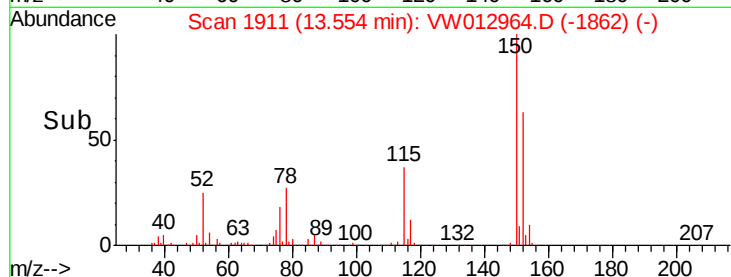
150 156.0 0.0 340.2



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: 67.636 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW012964.D

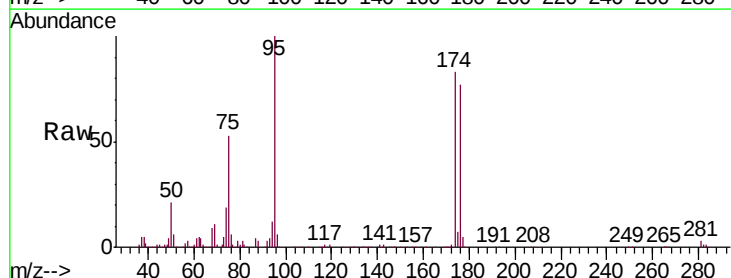
Acq: 13 Sep 2019 20:33

Tgt Ion: 75 Resp: 65522

Ion Ratio Lower Upper

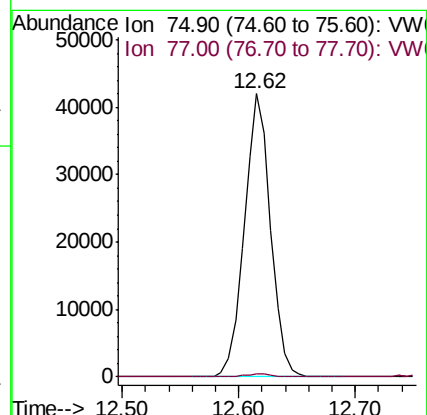
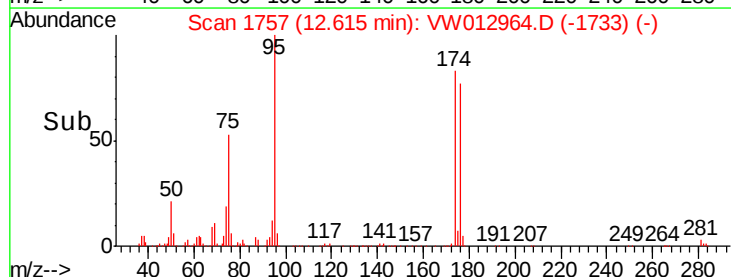
75 100

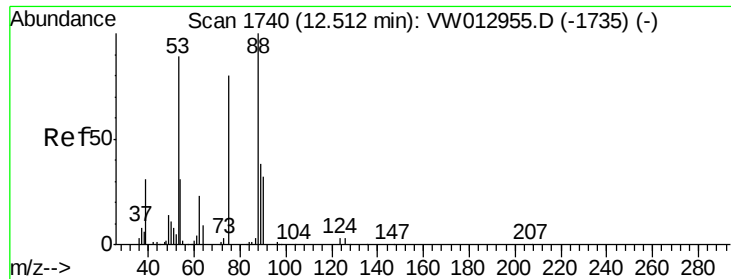
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW





#81

trans-1,4-Dichloro-2-butene

Concen: 153.430 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW012964.D

Acq: 13 Sep 2019 20:33

Instrument :

MSVOA\_W

ClientSampleId :

T4-1-(0)-BRUCKNER

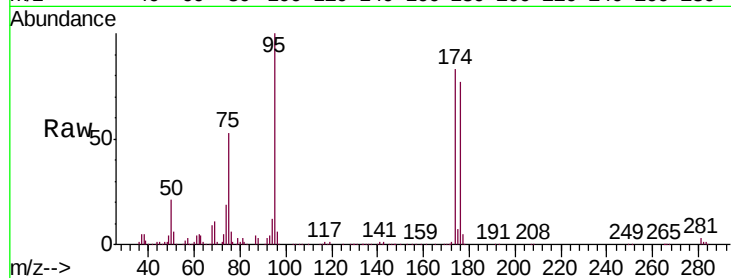
Tgt Ion: 75 Resp: 65522

Ion Ratio Lower Upper

75 100

53 0.1 85.6 128.4#

89 0.0 37.2 55.8#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW

