

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX041219\  
 Data File : VX008887.D  
 Acq On : 12 Apr 2019 15:30  
 Operator : JC/SP  
 Sample : K2366-08  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SA-PZ148-20190409

Quant Time: Apr 13 04:58:48 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X040319W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Apr 04 04:47:41 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 200027   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 319829   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 277975   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 115560   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 131323   | 45.01 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.02% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 95000    | 46.46 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.92% |          |
| 50) Toluene-d8              | 8.71  | 98   | 399979   | 49.12 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.24% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 131130   | 45.42 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.84% |          |

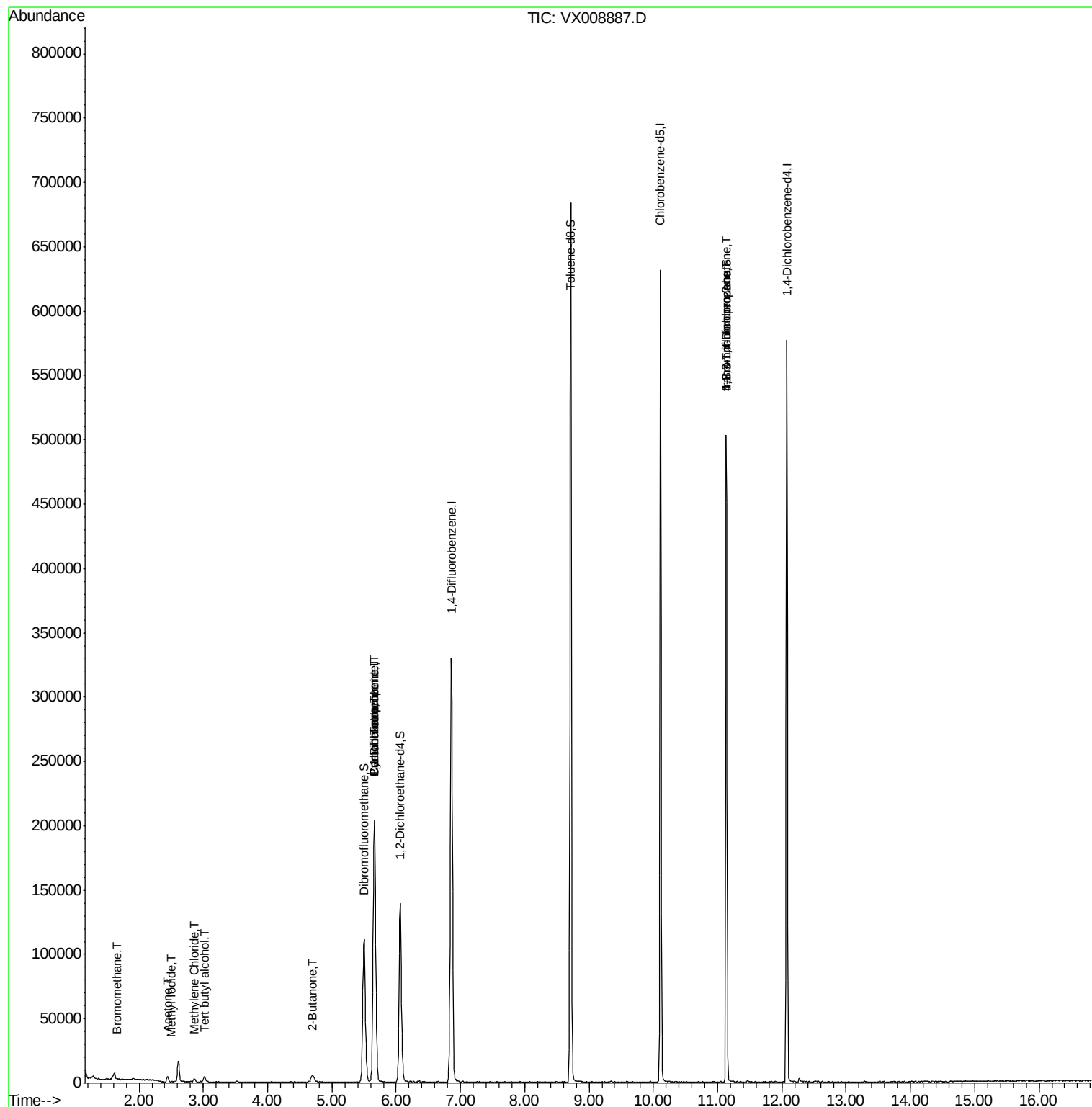
| Target Compounds               | R.T.  | QIon | Response | Conc          | Units | Qvalue |
|--------------------------------|-------|------|----------|---------------|-------|--------|
| 3) Chloromethane               | 1.33  | 50   | 402      | Below Cal     |       | 92     |
| 5) Bromomethane                | 1.65  | 94   | 211      | 2.018 ug/l #  |       | 39     |
| 6) Chloroethane                | 1.75  | 64   | 206      | Below Cal #   |       | 43     |
| 10) Methyl Iodide              | 2.51  | 142  | 92       | 4.045 ug/l #  |       | 42     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 3089     | 4.523 ug/l #  |       | 72     |
| 16) Acetone                    | 2.44  | 43   | 4579     | 2.725 ug/l    |       | 96     |
| 17) Carbon Disulfide           | 2.57  | 76   | 492      | Below Cal #   |       | 75     |
| 20) Methylene Chloride         | 2.85  | 84   | 1023     | 0.364 ug/l    |       | 88     |
| 25) 2-Butanone                 | 4.71  | 43   | 854      | 0.322 ug/l #  |       | 85     |
| 28) Bromochloromethane         | 5.01  | 49   | 19       | Below Cal #   |       | 22     |
| 31) Cyclohexane                | 5.66  | 56   | 4594     | 0.911 ug/l #  |       | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 16072    | 4.597 ug/l #  |       | 50     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 18803    | 6.498 ug/l #  |       | 17     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 67595    | 21.293 ug/l # |       | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 67595    | 58.695 ug/l # |       | 9      |

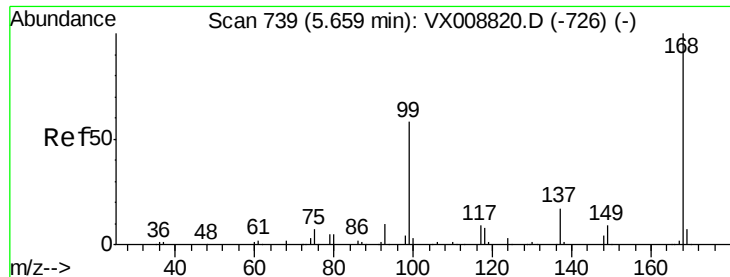
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Apr 13 04:58:48 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X040319W.M  
Quant Title : SW846 8260  
QLast Update : Thu Apr 04 04:47:41 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.01 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

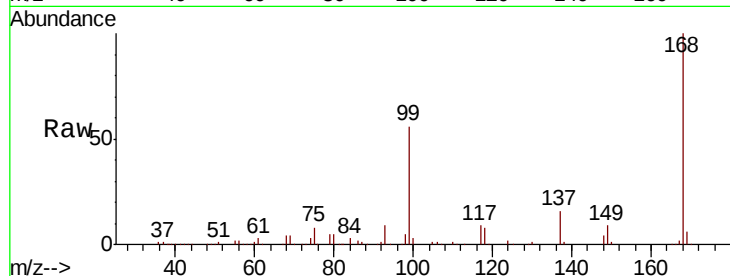
SA-PZ148-20190409

Tot Ion:168 Resp: 200027

Ion Ratio Lower Upper

168 100

99 56.0 46.7 70.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

80000

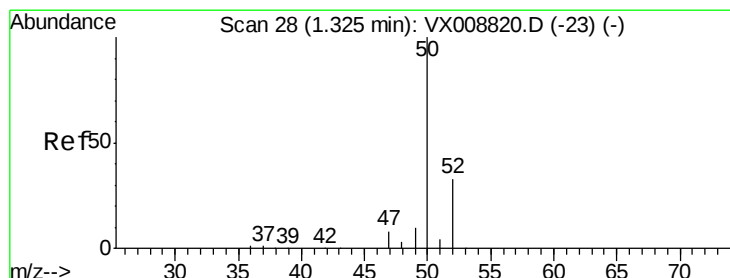
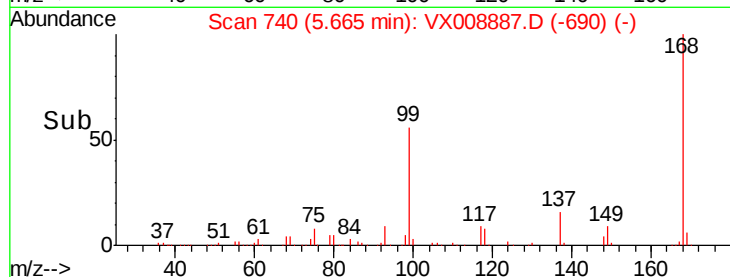
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: Below Cal

RT: 1.33 min Scan# 29

Delta R.T. 0.01 min

Lab File: VX008887.D

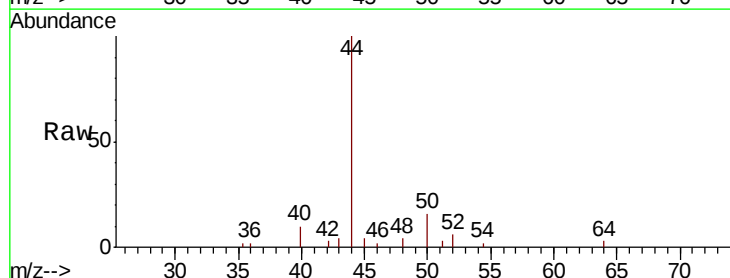
Acq: 12 Apr 2019 15:30

Tgt Ion: 50 Resp: 402

Ion Ratio Lower Upper

50 100

52 36.9 25.8 38.8



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.33

400

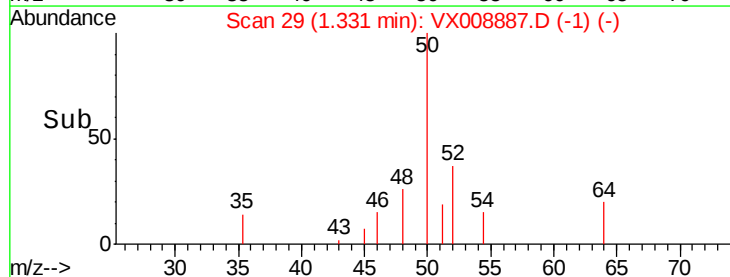
300

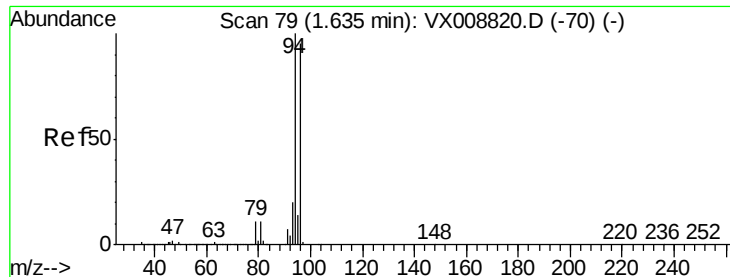
200

100

0

Time--> 1.28 1.30 1.32 1.34 1.36





#5

Bromomethane

Concen: 2.018 ug/l

RT: 1.65 min Scan# 82

Delta R.T. 0.02 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

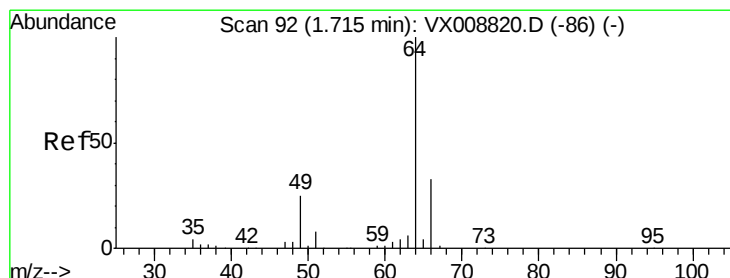
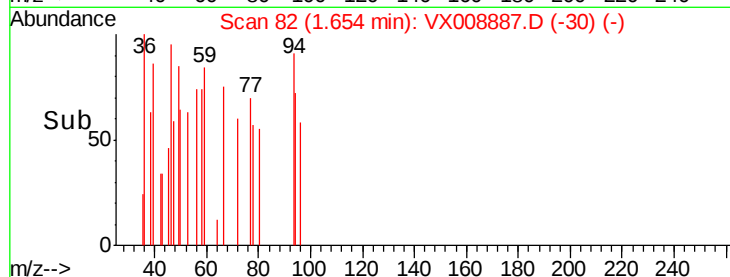
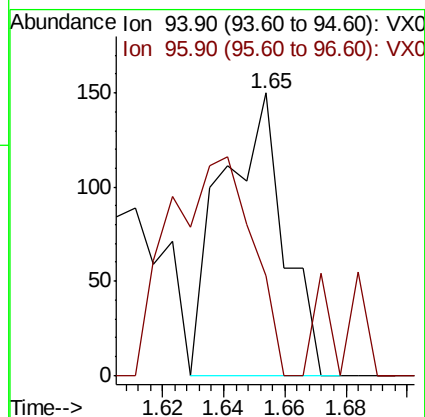
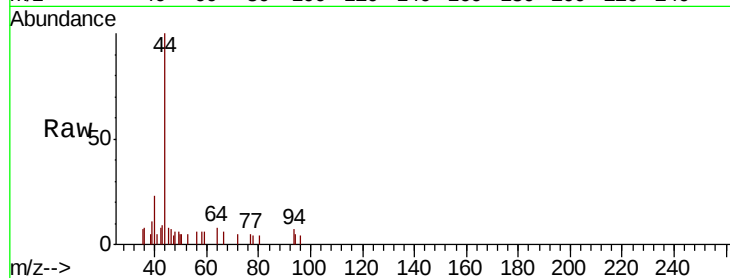
SA-PZ148-20190409

Tot Ion: 94 Resp: 211

Ion Ratio Lower Upper

94 100

96 35.3 75.2 112.8#



#6

Chloroethane

Concen: Below Cal

RT: 1.75 min Scan# 97

Delta R.T. 0.03 min

Lab File: VX008887.D

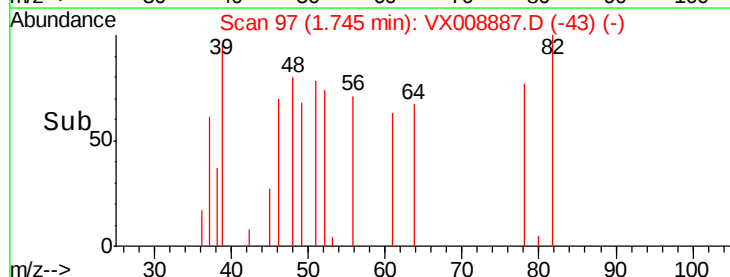
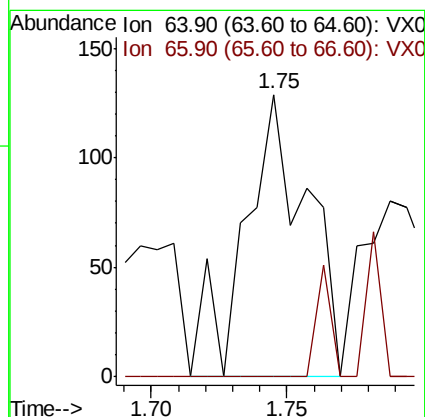
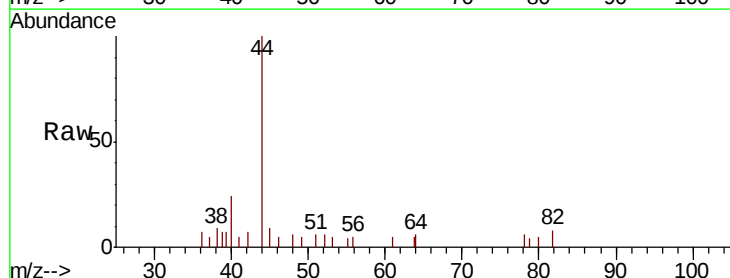
Acq: 12 Apr 2019 15:30

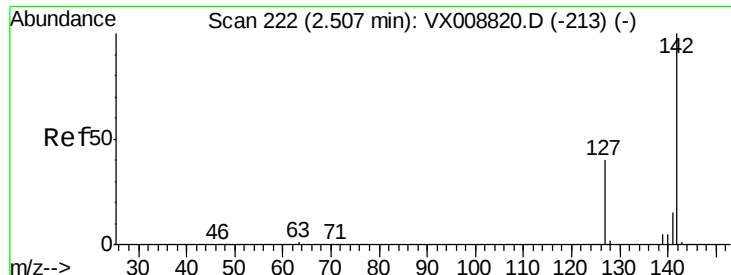
Tgt Ion: 64 Resp: 206

Ion Ratio Lower Upper

64 100

66 0.0 25.4 38.0#

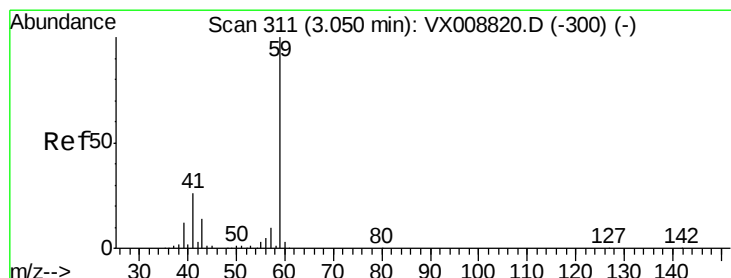
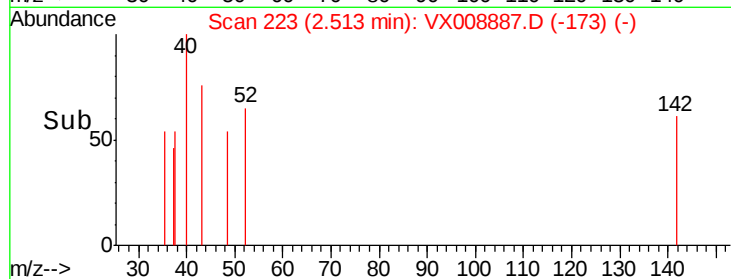
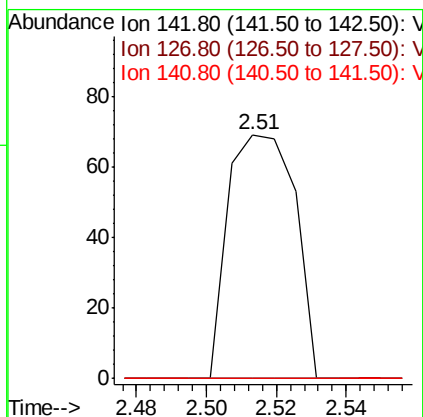
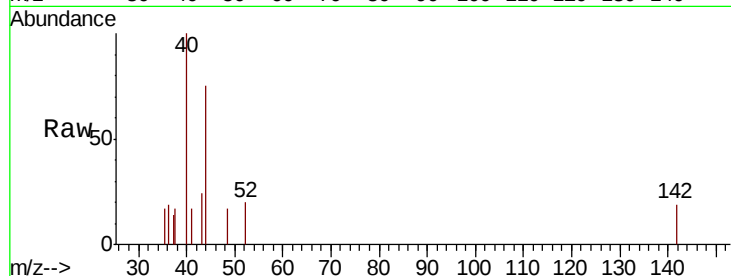




#10  
Methvl Iodide  
Concen: 4.045 ug/l  
RT: 2.51 min Scan# 223  
Delta R.T. 0.01 min  
Lab File: VX008887.D  
Acq: 12 Apr 2019 15:30

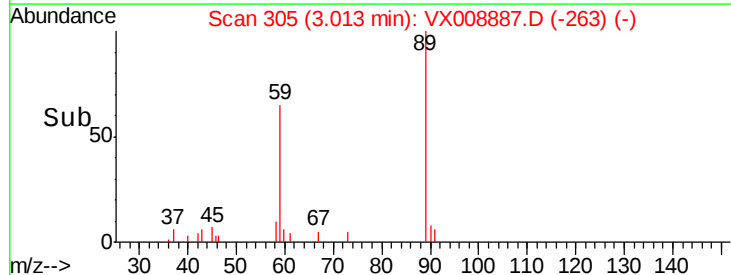
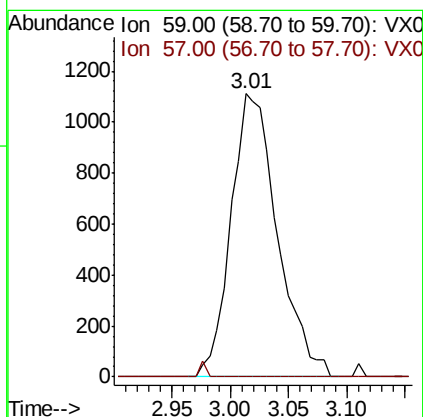
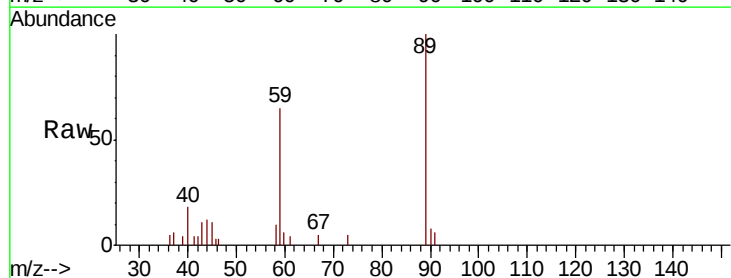
Instrument :  
MSVOA\_X  
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SA-PZ148-20190409

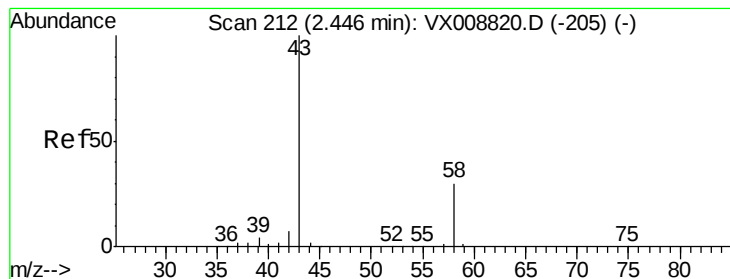
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 127     | 0.0   | 33.0  | 49.6# |
| 141     | 0.0   | 11.4  | 17.2# |



#11  
Tert butyl alcohol  
Concen: 4.523 ug/l  
RT: 3.01 min Scan# 305  
Delta R.T. -0.04 min  
Lab File: VX008887.D  
Acq: 12 Apr 2019 15:30

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 57      | 0.0   | 8.3   | 12.5# |





#16

Acetone

Concen: 2.725 ug/l

RT: 2.44 min Scan# 211

Delta R.T. -0.01 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

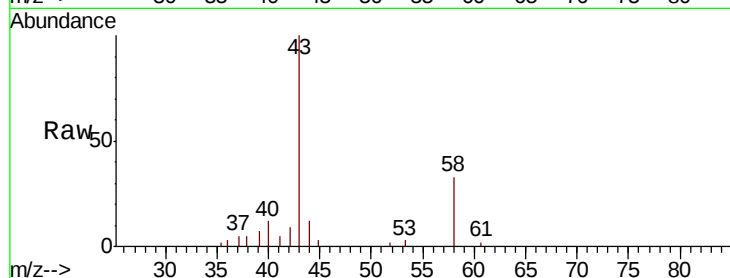
SA-PZ148-20190409

Tot Ion: 43 Resp: 4579

Ion Ratio Lower Upper

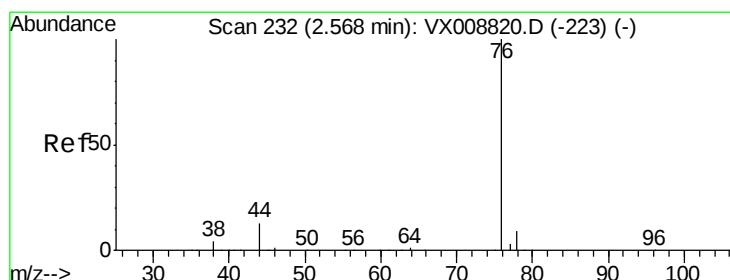
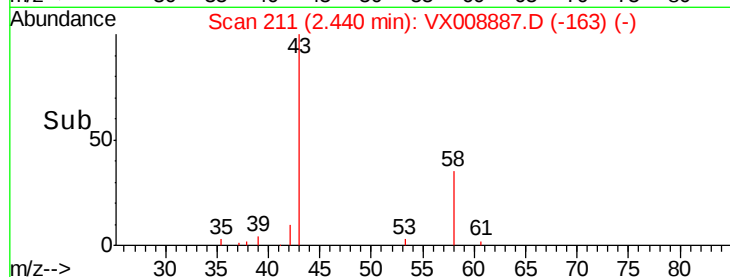
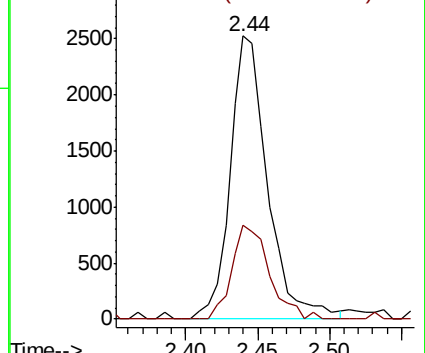
43 100

58 33.1 24.8 37.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#17

Carbon Disulfide

Concen: Below Cal

RT: 2.57 min Scan# 232

Delta R.T. 0.00 min

Lab File: VX008887.D

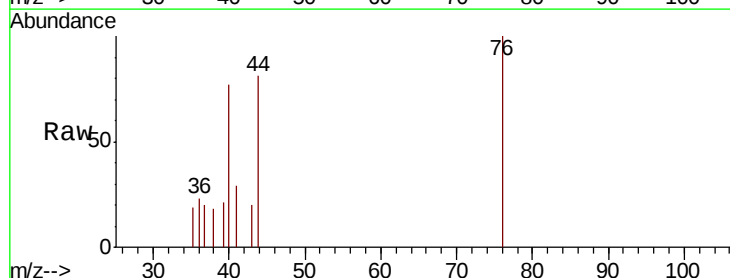
Acq: 12 Apr 2019 15:30

Tgt Ion: 76 Resp: 492

Ion Ratio Lower Upper

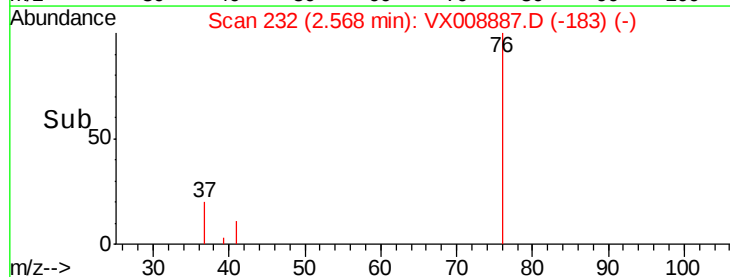
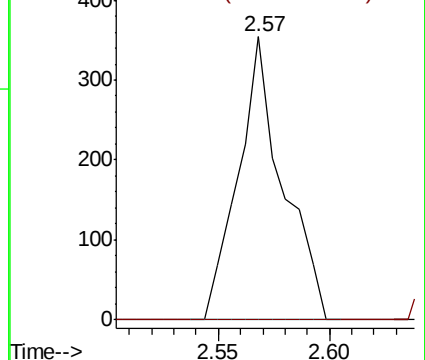
76 100

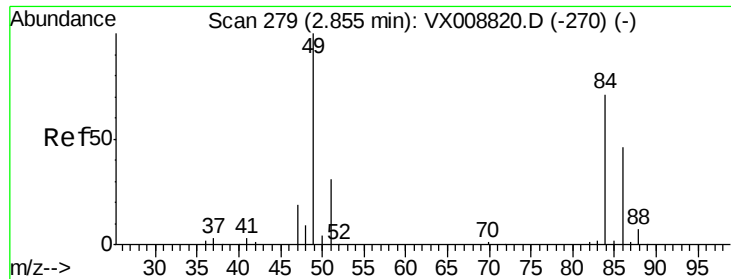
78 0.0 7.1 10.7#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

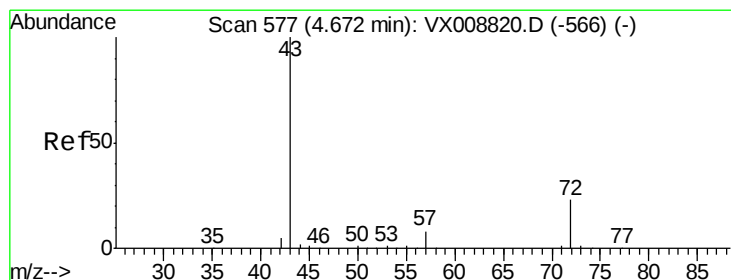
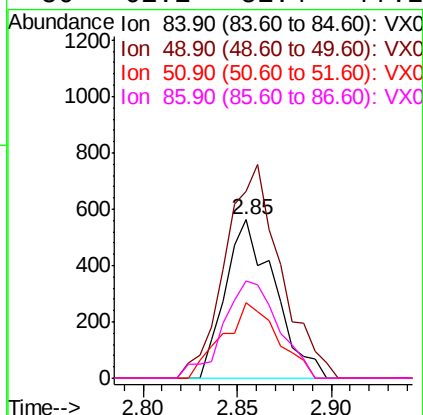
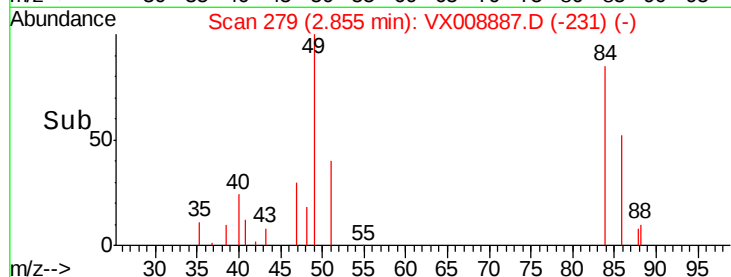
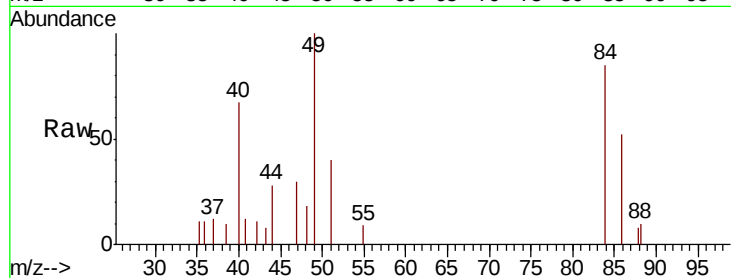




#20  
Methvlene Chloride  
Concen: 0.364 ug/l  
RT: 2.85 min Scan# 279  
Delta R.T. -0.01 min  
Lab File: VX008887.D  
Acq: 12 Apr 2019 15:30

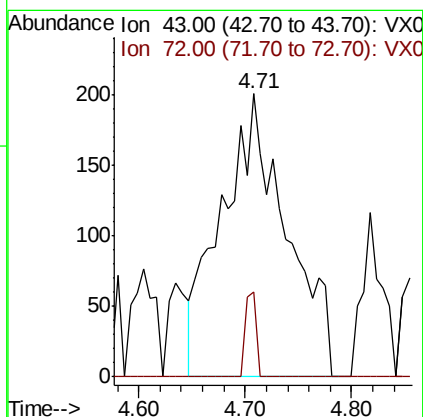
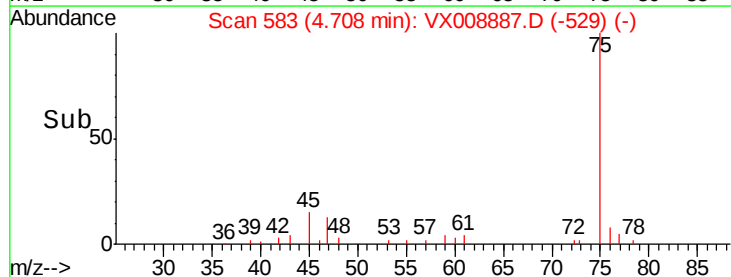
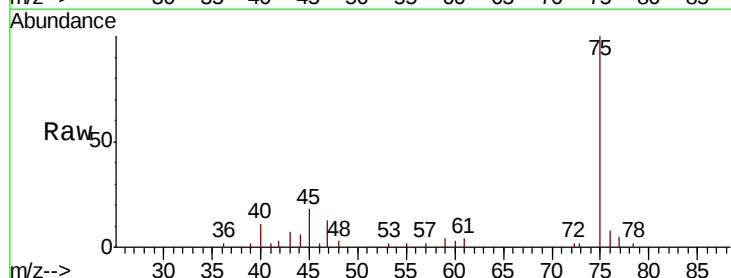
Instrument :  
MSVOA\_X  
ClientSampleId :  
SA-PZ148-20190409

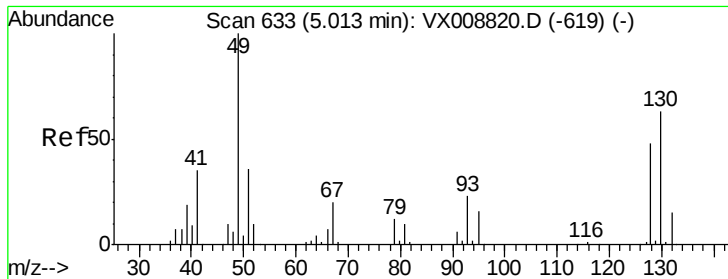
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 1023  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 117.6 | 109.7 | 164.5 |
| 51       | 47.2  | 33.6  | 50.4  |
| 86       | 61.1  | 51.4  | 77.2  |



#25  
2-Butanone  
Concen: 0.322 ug/l  
RT: 4.71 min Scan# 583  
Delta R.T. 0.03 min  
Lab File: VX008887.D  
Acq: 12 Apr 2019 15:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 854   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 29.9  | 18.2  | 27.4# |





#28

Bromochloromethane

Concen: Below Cal

RT: 5.01 min Scan# 633

Delta R.T. -0.01 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

SA-PZ148-20190409

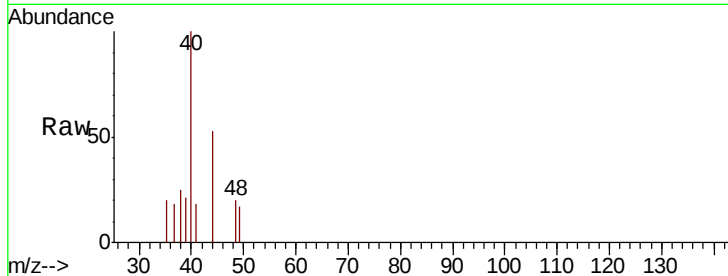
Tot Ion: 49 Resp: 19

Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.6

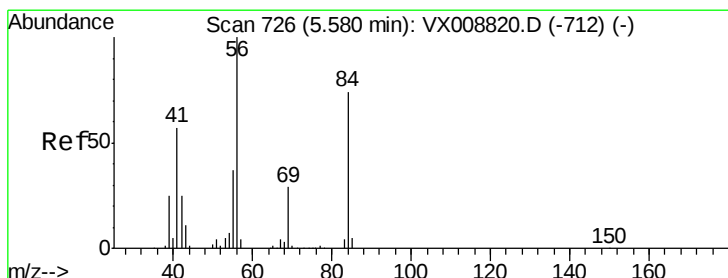
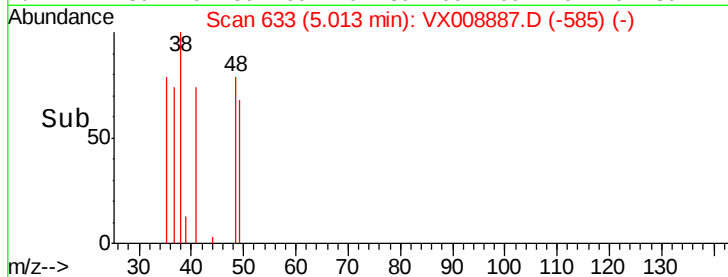
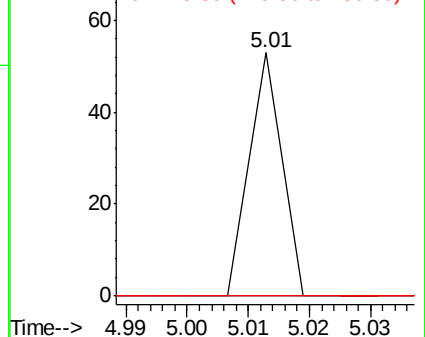
130 0.0 49.3 73.9#



Abundance Ion 48.90 (48.60 to 49.60): VX0

Ion 128.80 (128.50 to 129.50): V

Ion 129.80 (129.50 to 130.50): V



#31

Cyclohexane

Concen: 0.911 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.08 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

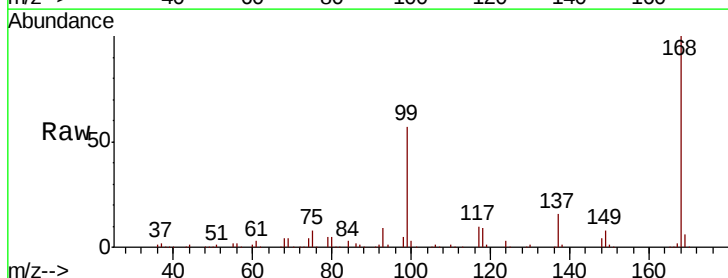
Tgt Ion: 56 Resp: 4594

Ion Ratio Lower Upper

56 100

69 168.9 22.6 33.8#

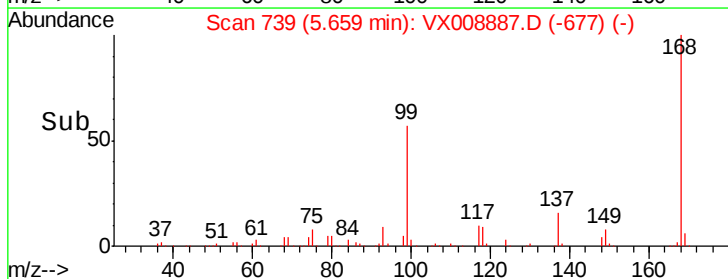
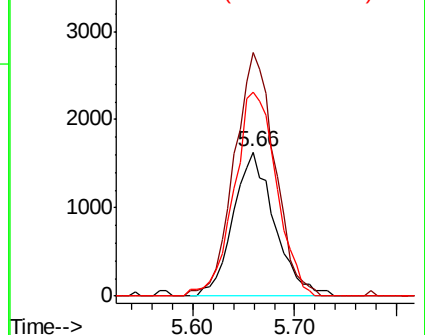
84 141.5 59.3 88.9#

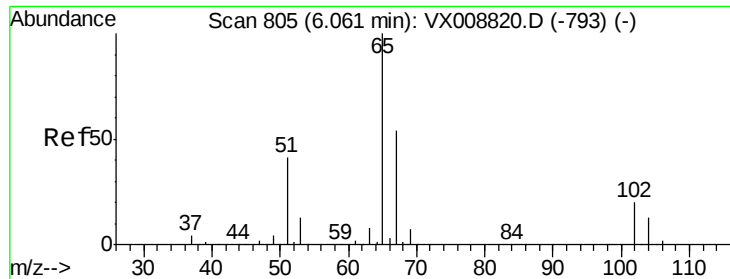


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 45.012 ug/l

RT: 6.06 min Scan# 805

Delta R.T. -0.00 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

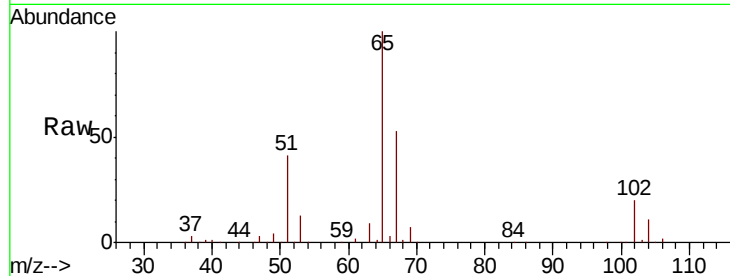
SA-PZ148-20190409

Tot Ion: 65 Resp: 131323

Ion Ratio Lower Upper

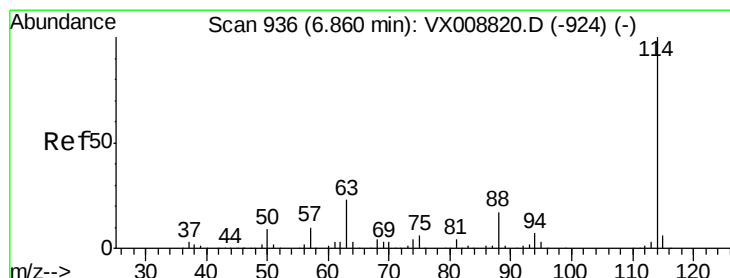
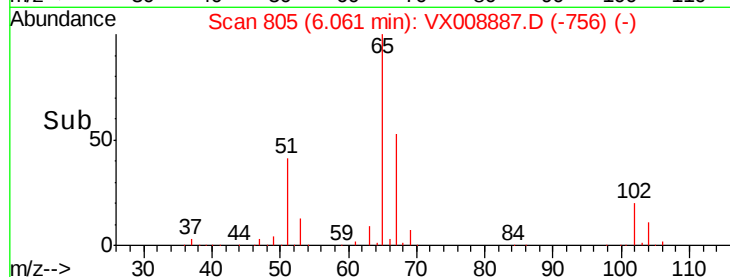
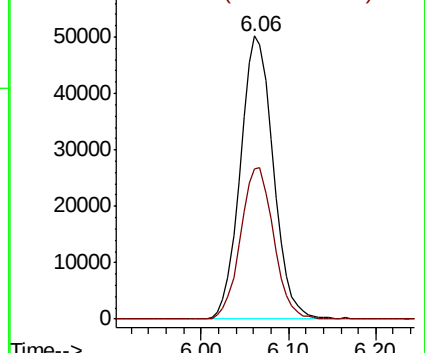
65 100

67 53.9 0.0 107.2



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.00 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

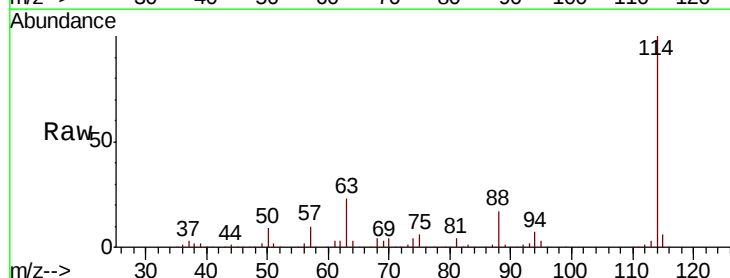
Tgt Ion:114 Resp: 319829

Ion Ratio Lower Upper

114 100

63 22.9 0.0 47.2

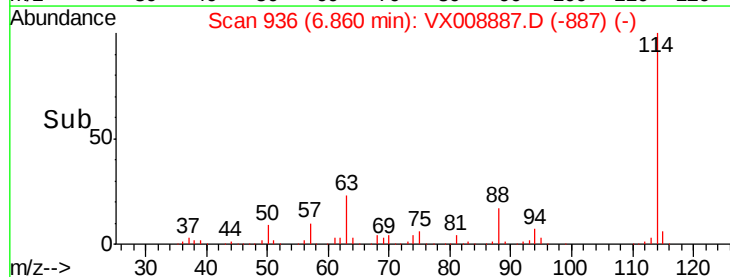
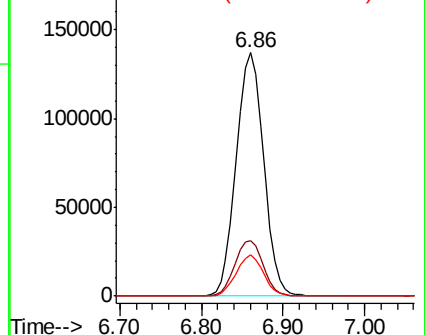
88 16.9 0.0 34.0

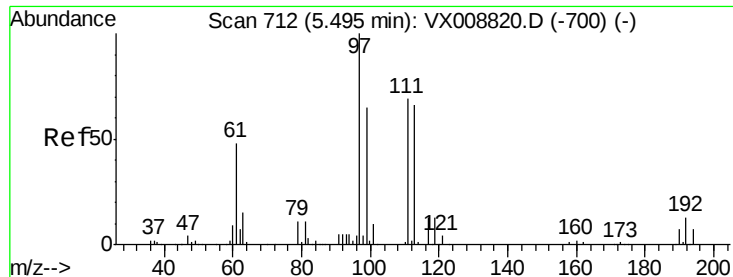


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0

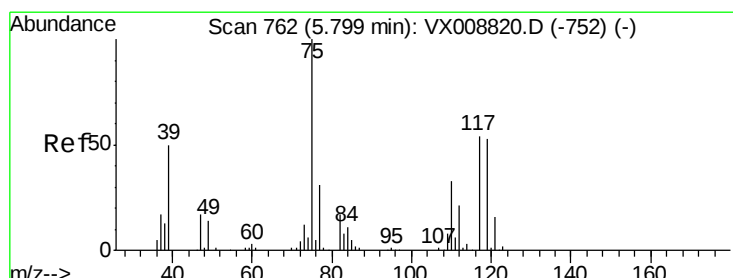
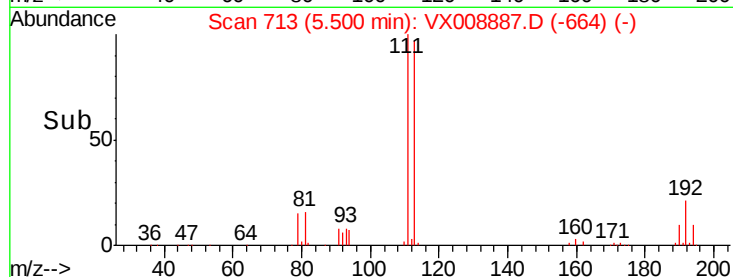
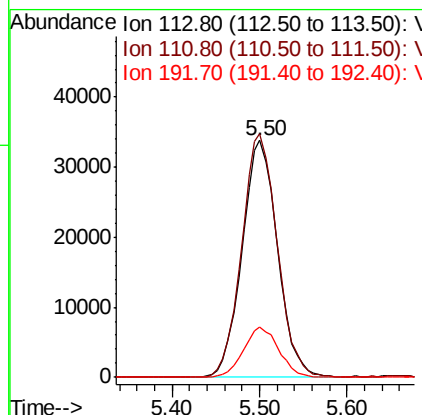
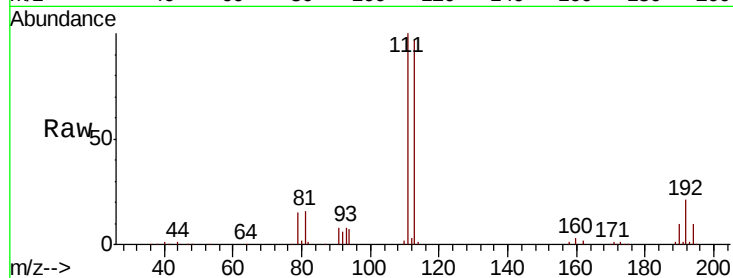




#35  
 Dibromofluoromethane  
 Concen: 46.458 ug/l  
 RT: 5.50 min Scan# 713  
 Delta R.T. -0.00 min  
 Lab File: VX008887.D  
 Acq: 12 Apr 2019 15:30

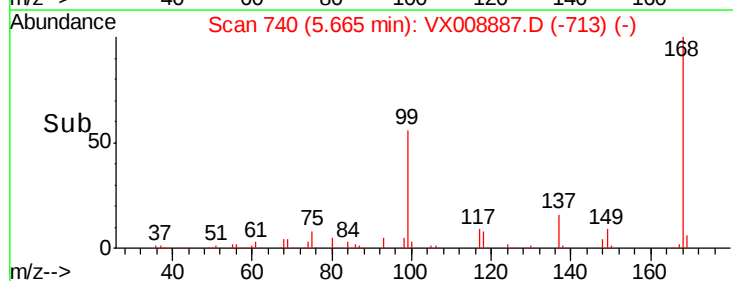
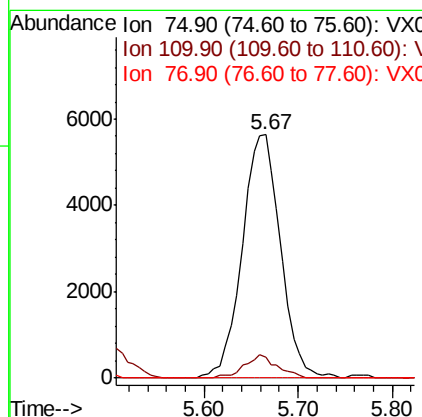
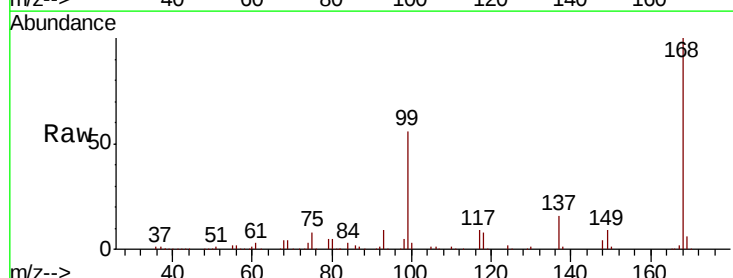
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SA-PZ148-20190409

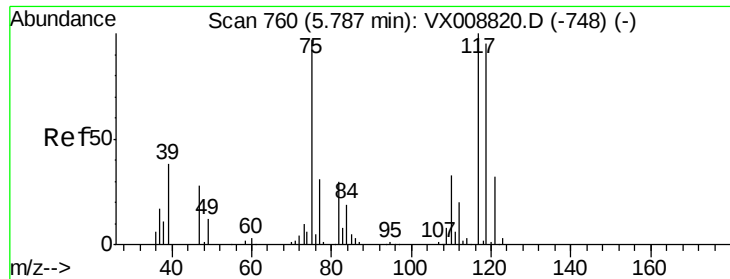
Tot Ion:113 Resp: 95000  
 Ion Ratio Lower Upper  
 113 100  
 111 103.2 83.4 125.2  
 192 21.2 16.1 24.1



#36  
 1,1-Dichloropropene  
 Concen: 4.597 ug/l  
 RT: 5.67 min Scan# 740  
 Delta R.T. -0.13 min  
 Lab File: VX008887.D  
 Acq: 12 Apr 2019 15:30

Tgt Ion: 75 Resp: 16072  
 Ion Ratio Lower Upper  
 75 100  
 110 8.2 16.4 49.2#  
 77 0.0 24.7 37.1#





#38

Carbon Tetrachloride

Concen: 6.498 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.13 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

SA-PZ148-20190409

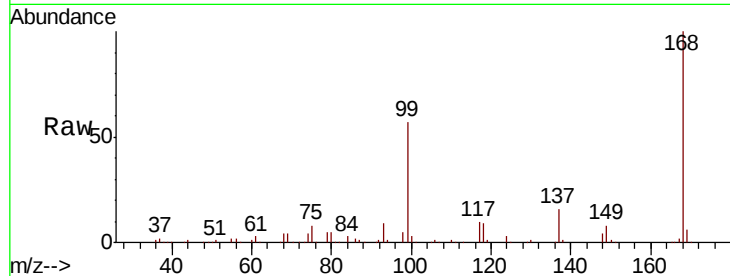
Tot Ion:117 Resp: 18803

Ion Ratio Lower Upper

117 100

119 5.6 75.0 112.6#

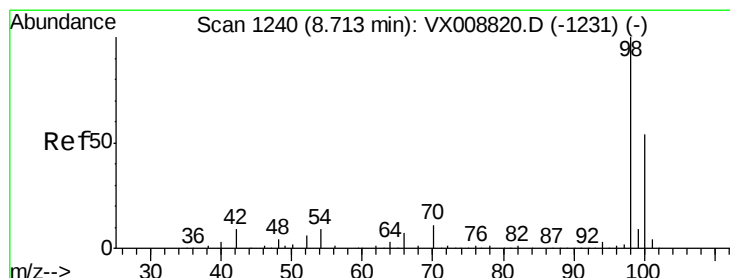
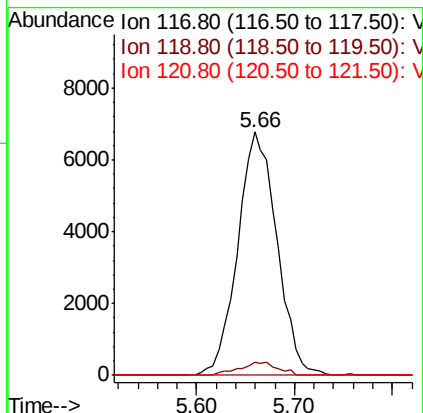
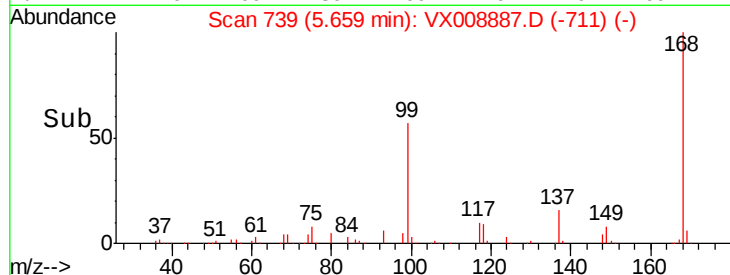
121 0.0 24.3 36.5#



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



#50

Toluene-d8

Concen: 49.125 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX008887.D

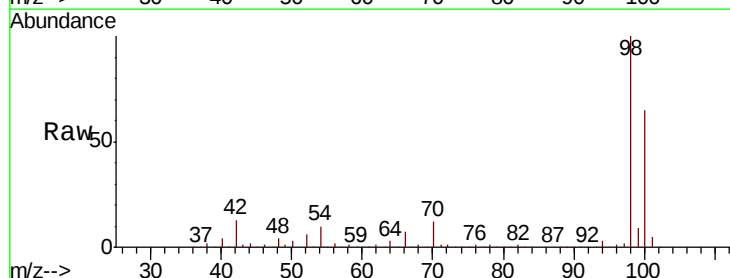
Acq: 12 Apr 2019 15:30

Tgt Ion: 98 Resp: 399979

Ion Ratio Lower Upper

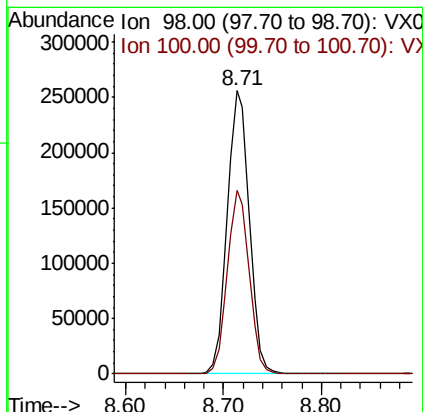
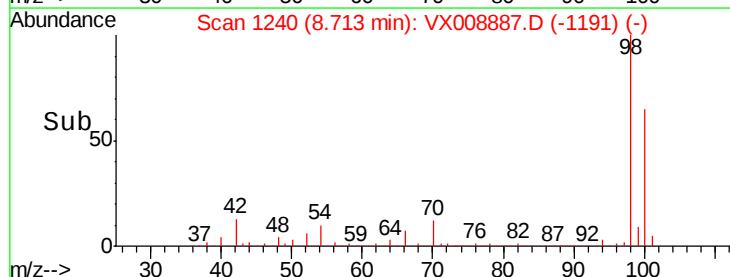
98 100

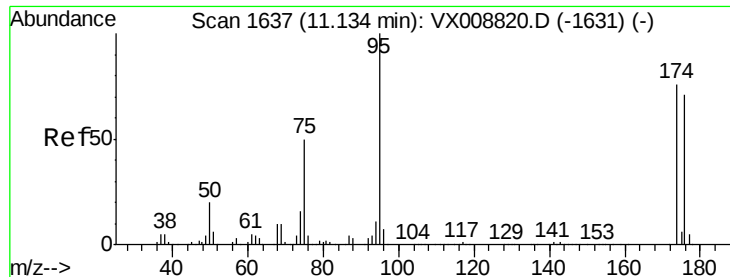
100 64.3 51.4 77.0



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V

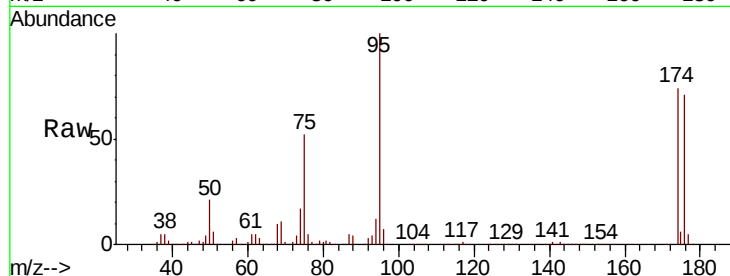




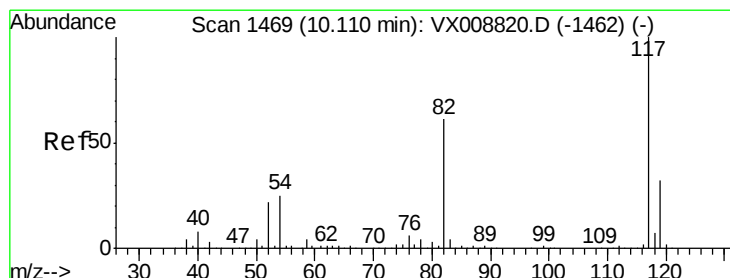
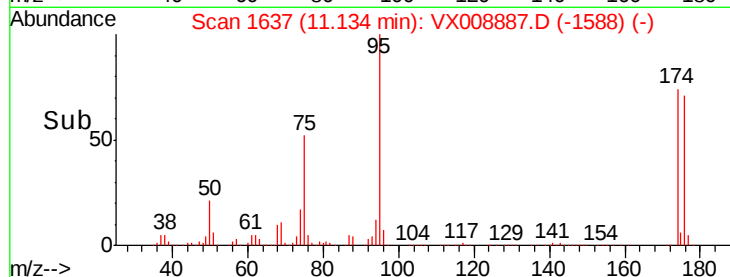
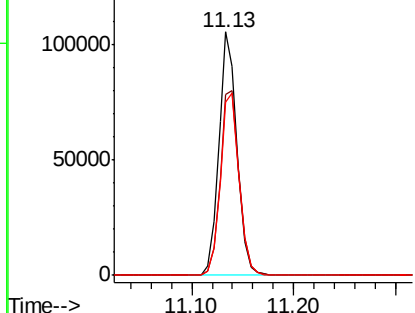
#62  
 4-Bromofluorobenzene  
 Concen: 45.416 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.00 min  
 Lab File: VX008887.D  
 Acq: 12 Apr 2019 15:30

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SA-PZ148-20190409

Tot Ion: 95 Resp: 131130  
 Ion Ratio Lower Upper  
 95 100  
 174 79.3 0.0 151.8  
 176 77.3 0.0 145.8

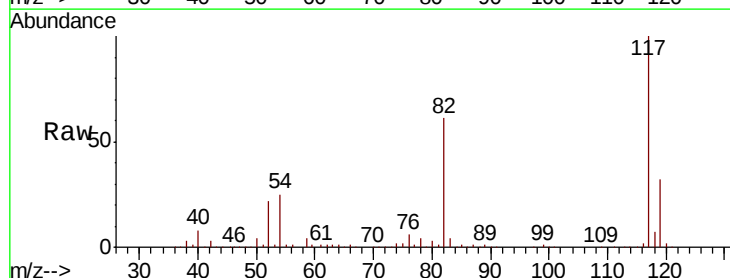


Abundance Ion 94.90 (94.60 to 95.60): VX0  
 Ion 173.80 (173.50 to 174.50): V  
 Ion 175.80 (175.50 to 176.50): V

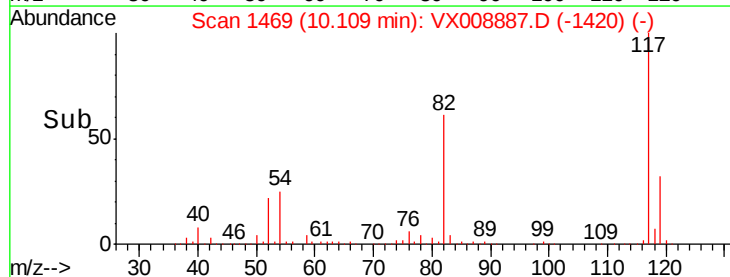
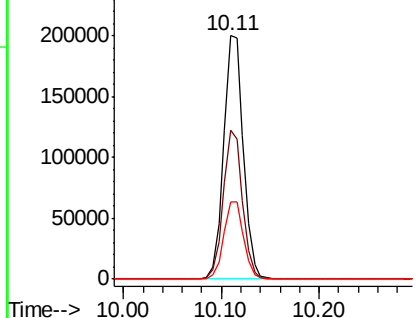


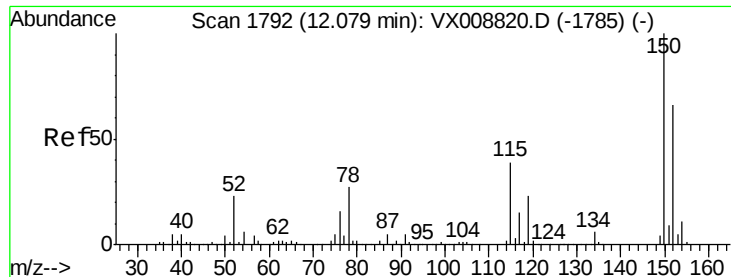
#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 10.11 min Scan# 1469  
 Delta R.T. -0.00 min  
 Lab File: VX008887.D  
 Acq: 12 Apr 2019 15:30

Tgt Ion: 117 Resp: 277975  
 Ion Ratio Lower Upper  
 117 100  
 82 61.3 49.6 74.4  
 119 31.5 25.0 37.4



Abundance Ion 116.90 (116.60 to 117.60): V  
 Ion 82.00 (81.70 to 82.70): VX0  
 Ion 118.90 (118.60 to 119.60): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

SA-PZ148-20190409

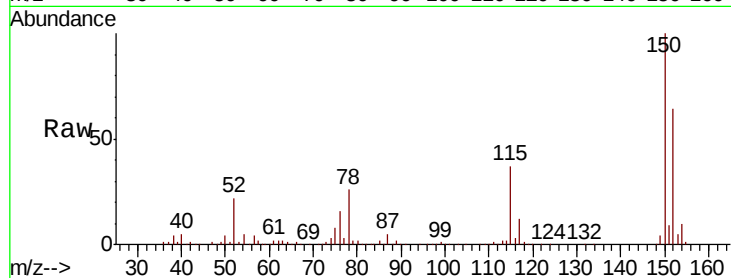
Tot Ion:152 Resp: 115560

Ion Ratio Lower Upper

152 100

115 59.3 43.5 130.5

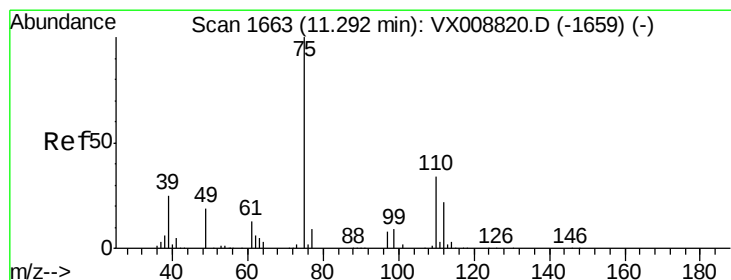
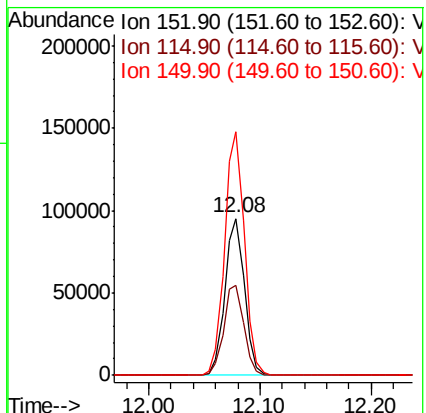
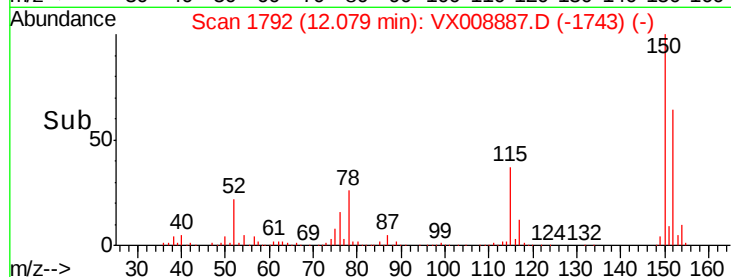
150 156.6 0.0 348.8



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 21.293 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX008887.D

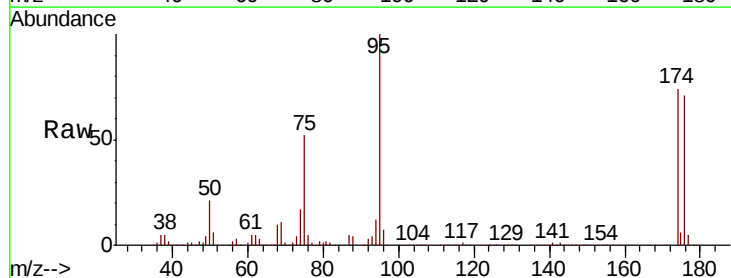
Acq: 12 Apr 2019 15:30

Tgt Ion: 75 Resp: 67595

Ion Ratio Lower Upper

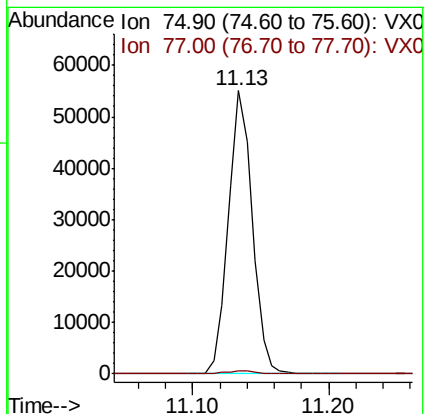
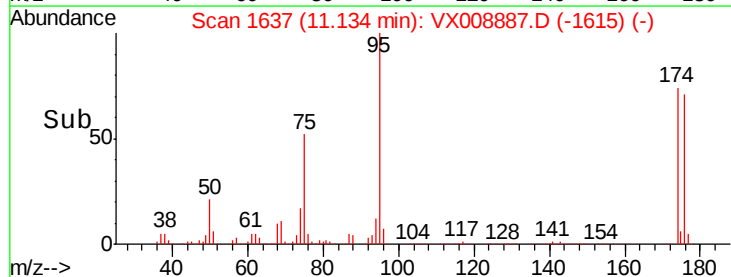
75 100

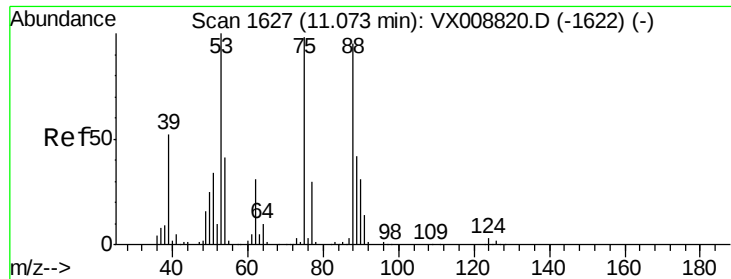
77 1.3 22.3 66.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 58.695 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX008887.D

Acq: 12 Apr 2019 15:30

Instrument :

MSVOA\_X

ClientSampleId :

SA-PZ148-20190409

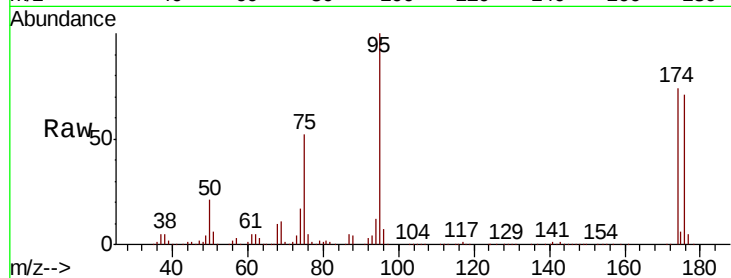
Tot Ion: 75 Resp: 67595

Ion Ratio Lower Upper

75 100

53 0.0 81.3 121.9#

89 0.0 35.6 53.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

