

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL010419\  
 Data File : VL033079.D  
 Acq On : 4 Jan 2019 22:22  
 Operator : SY/AP  
 Sample : J6594-03  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SVI-IA1D-2018-12-19

Quant Time: Jan 05 01:52:22 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL010419AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jan 04 16:09:05 2019  
 QLast Update : Fri Jan 04 16:09:05 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 961914   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2190454  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 1994700  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 1517219  | 9.92     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.20% |

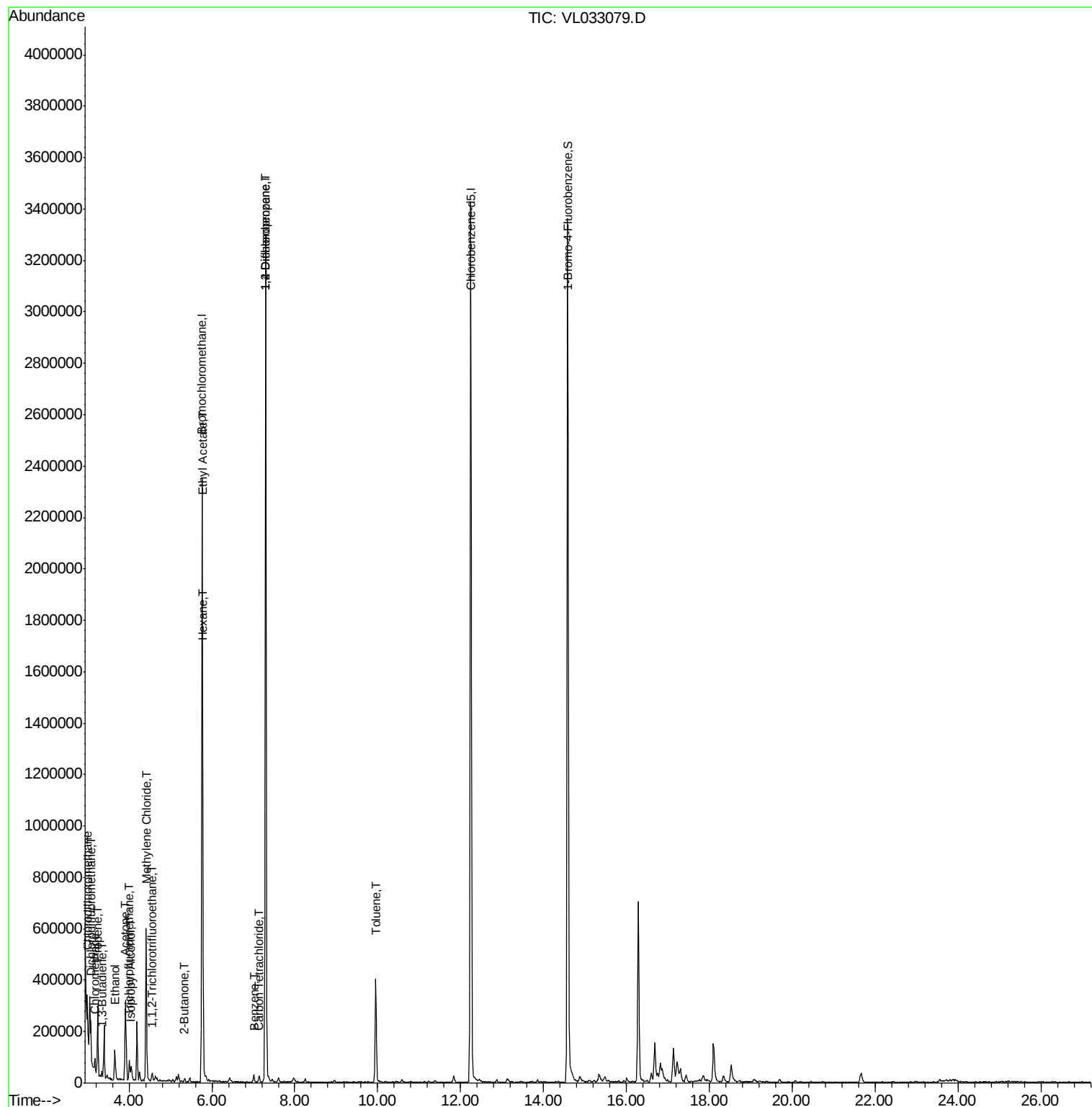
| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Qvalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 108419   | 0.606 | ppbv   | 94     |
| 3) Chlorodifluoromethane       | 2.99 | 51   | 132572   | 1.218 | ppbv # | 70     |
| 4) Chloromethane               | 3.17 | 50   | 35756    | 0.573 | ppbv   | 98     |
| 9) Propene                     | 3.24 | 41   | 40506    | 0.996 | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.01 | 101  | 51718    | 0.261 | ppbv   | 93     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101  | 3910     | 0.031 | ppbv # | 13     |
| 13) Ethanol                    | 3.66 | 45   | 127951   | 7.888 | ppbv   | 95     |
| 15) Acetone                    | 3.91 | 43   | 322922   | 2.425 | ppbv   | 95     |
| 16) 1,3-Butadiene              | 3.35 | 39   | 2568     | 0.051 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 4.05 | 45   | 25133    | 0.274 | ppbv # | 70     |
| 20) Methylene Chloride         | 4.41 | 84   | 201255   | 3.626 | ppbv   | 94     |
| 25) Ethyl Acetate              | 5.78 | 43   | 53931    | 0.240 | ppbv # | 85     |
| 26) Hexane                     | 5.79 | 57   | 62591    | 0.591 | ppbv # | 46     |
| 34) 2-Butanone                 | 5.34 | 43   | 13194    | 0.104 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.13 | 117  | 14458    | 0.077 | ppbv   | 89     |
| 36) Benzene                    | 7.01 | 78   | 9501     | 0.053 | ppbv   | 97     |
| 39) 1,2-Dichloropropane        | 7.29 | 63   | 551443   | 8.181 | ppbv # | 22     |
| 53) Toluene                    | 9.96 | 91   | 278032   | 1.446 | ppbv   | 99     |

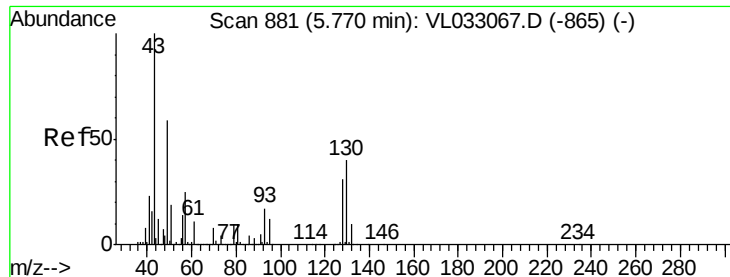
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL010419AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jan 04 16:09:05 2019  
QLast Update : Fri Jan 04 16:09:05 2019  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.00 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

SVI-IA1D-2018-12-19

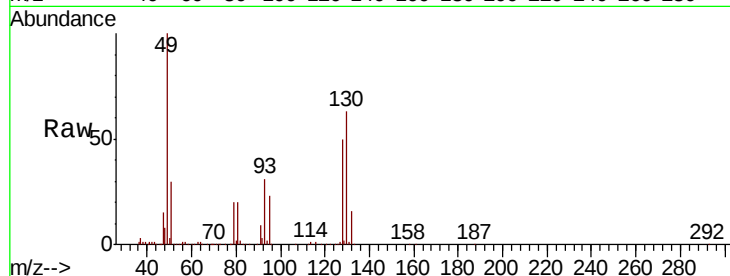
Tgt Ion: 49 Resp: 961914

Ion Ratio Lower Upper

49 100

128 52.0 26.2 78.5

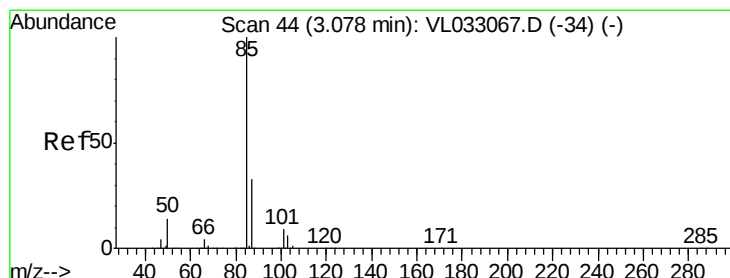
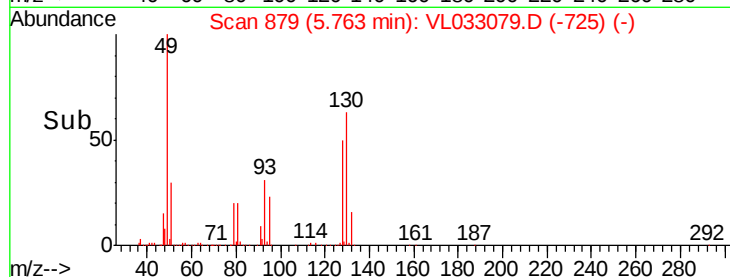
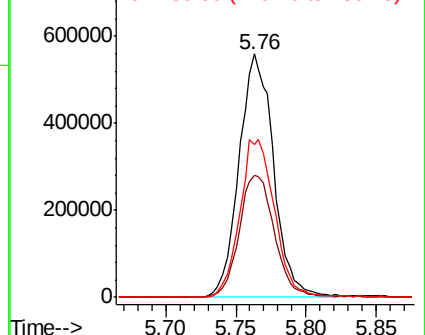
130 66.0 33.6 100.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.606 ppbv

RT: 3.08 min Scan# 45

Delta R.T. 0.00 min

Lab File: VL033079.D

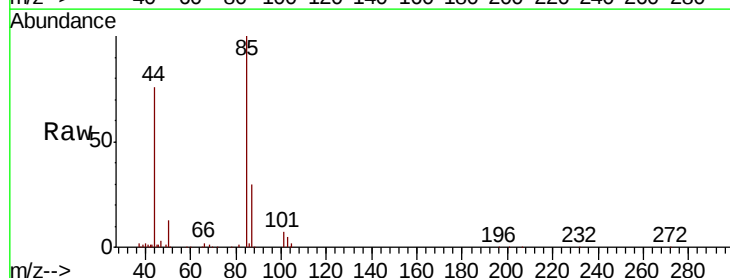
Acq: 4 Jan 2019 22:22

Tgt Ion: 85 Resp: 108419

Ion Ratio Lower Upper

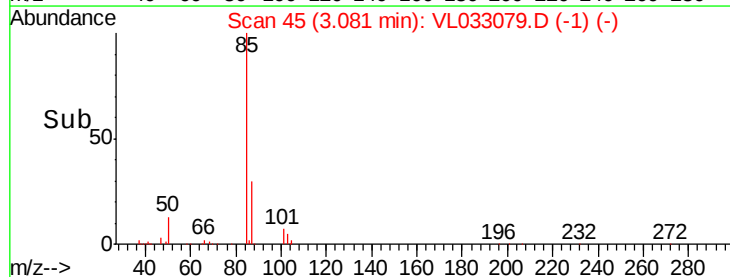
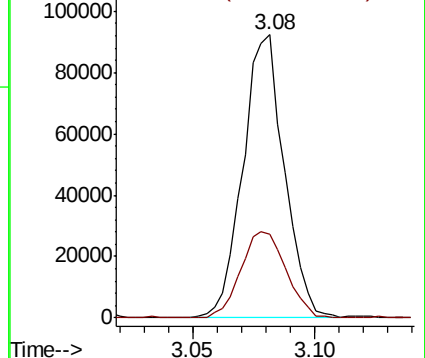
85 100

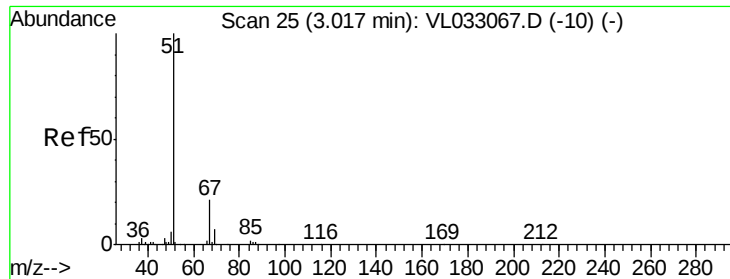
87 29.8 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

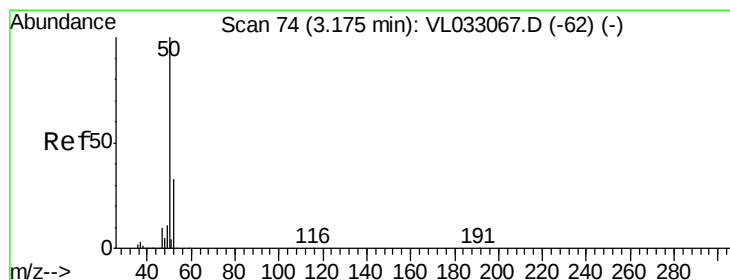
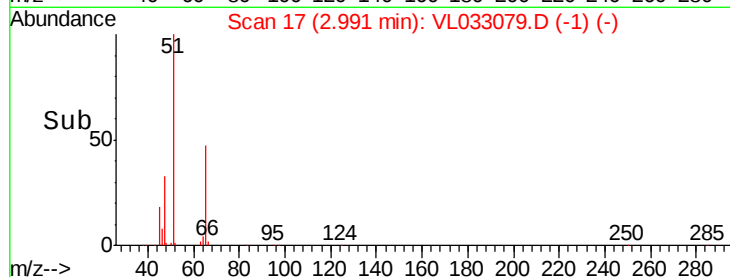
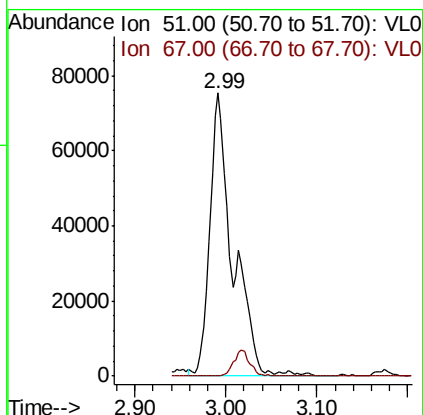
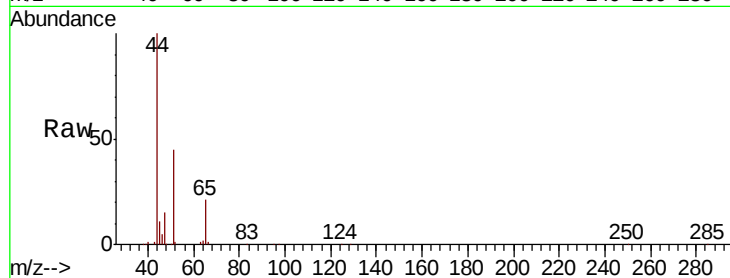




#3  
 Chlorodifluoromethane  
 Concen: 1.218 ppbv  
 RT: 2.99 min Scan# 17  
 Delta R.T. -0.02 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

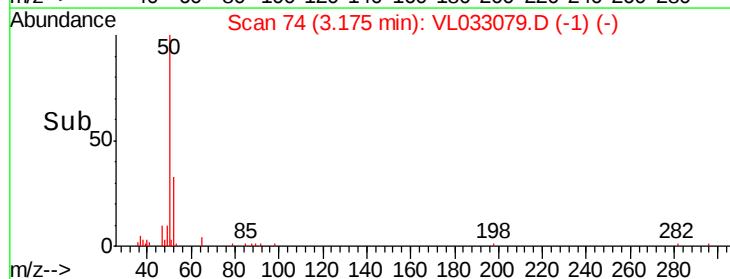
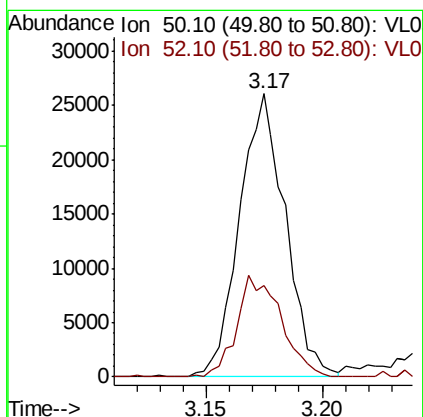
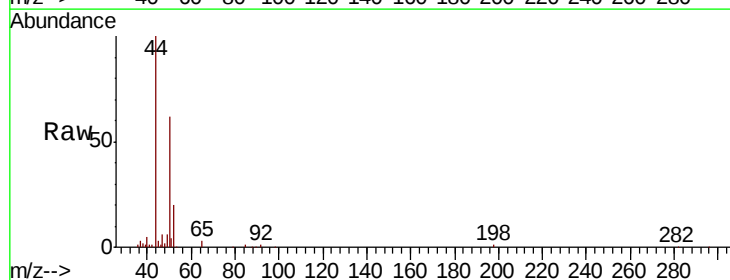
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SVI-IA1D-2018-12-19

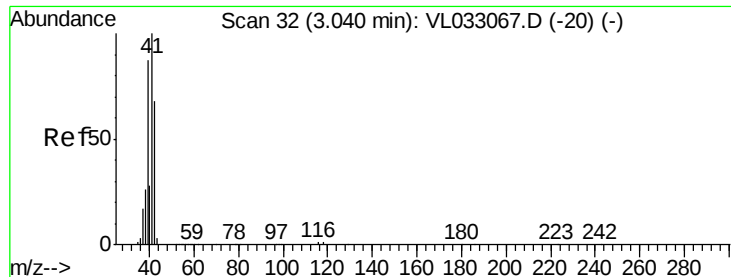
Tgt Ion: 51 Resp: 132572  
 Ion Ratio Lower Upper  
 51 100  
 67 6.4 16.3 24.5#



#4  
 Chloromethane  
 Concen: 0.573 ppbv  
 RT: 3.17 min Scan# 74  
 Delta R.T. 0.00 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

Tgt Ion: 50 Resp: 35756  
 Ion Ratio Lower Upper  
 50 100  
 52 32.5 26.9 40.3





#9

Propene

Concen: 0.996 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.20 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

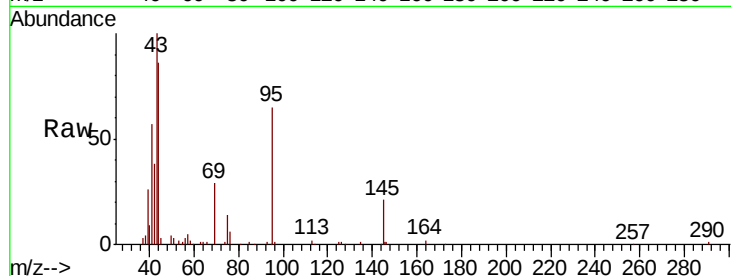
SVI-IA1D-2018-12-19

Tgt Ion: 41 Resp: 40506

Ion Ratio Lower Upper

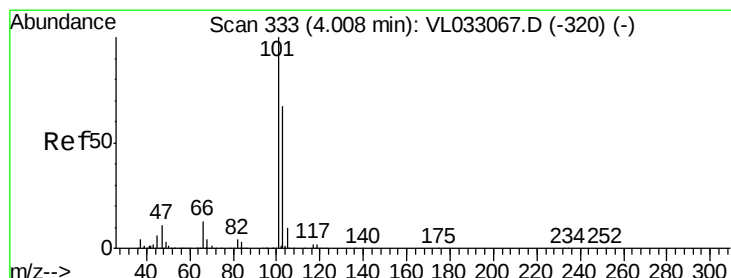
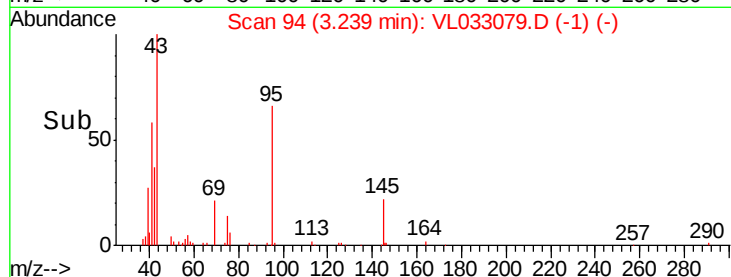
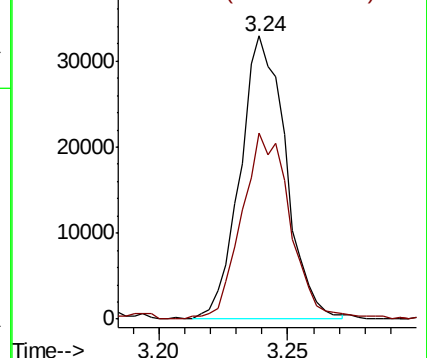
41 100

42 70.6 55.3 82.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.261 ppbv

RT: 4.01 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL033079.D

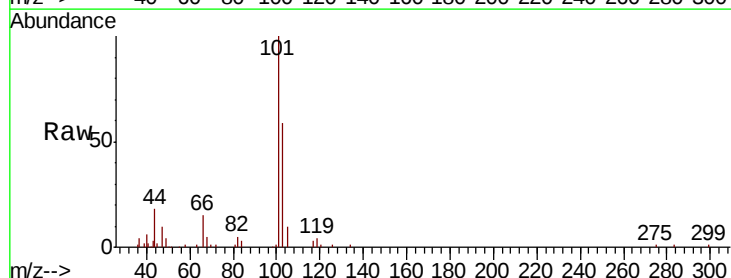
Acq: 4 Jan 2019 22:22

Tgt Ion: 101 Resp: 51718

Ion Ratio Lower Upper

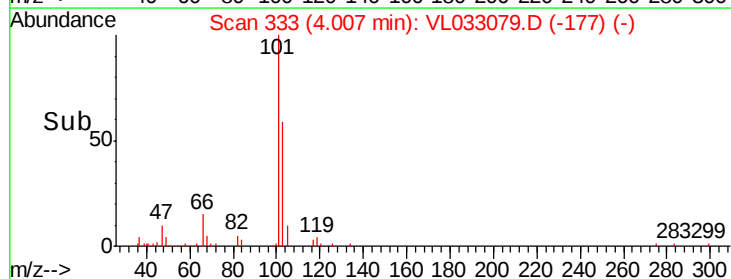
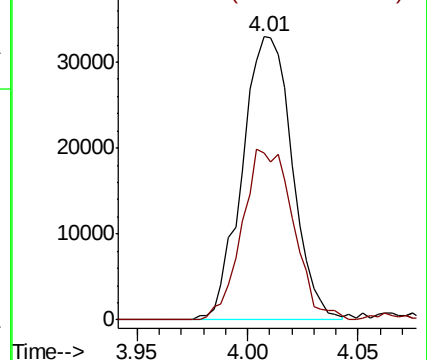
101 100

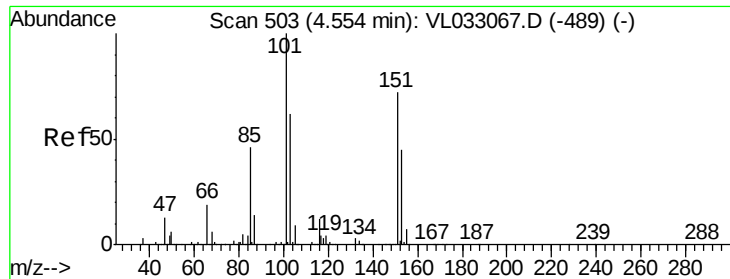
103 59.2 51.7 77.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.031 ppbv

RT: 4.55 min Scan# 501

Delta R.T. -0.01 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

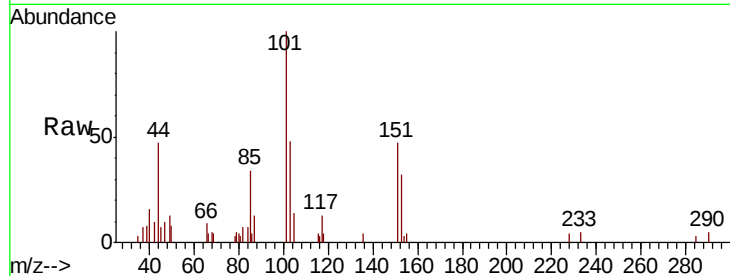
SVI-IA1D-2018-12-19

Tgt Ion:101 Resp: 3910

Ion Ratio Lower Upper

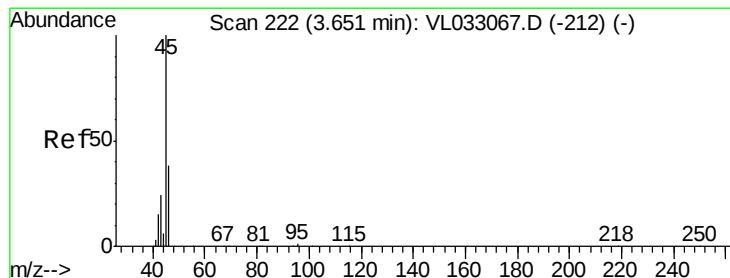
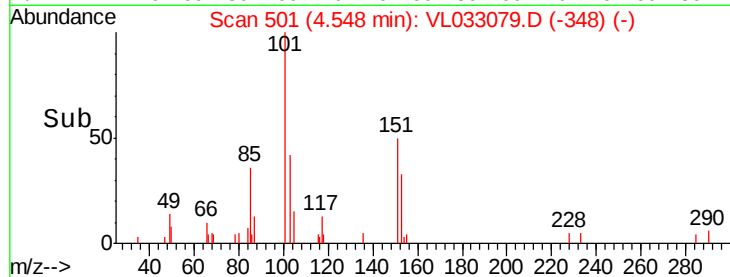
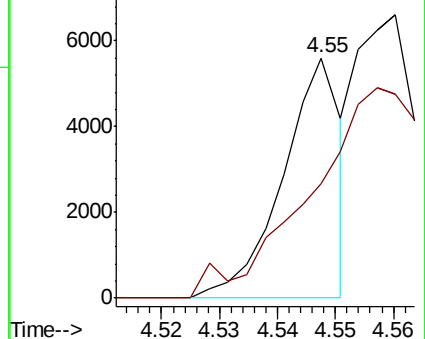
101 100

151 0.0 58.3 87.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 7.888 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.01 min

Lab File: VL033079.D

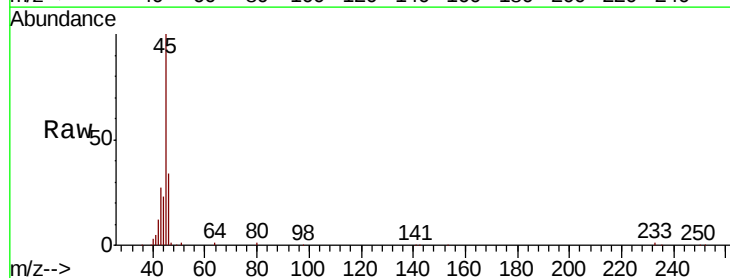
Acq: 4 Jan 2019 22:22

Tgt Ion: 45 Resp: 127951

Ion Ratio Lower Upper

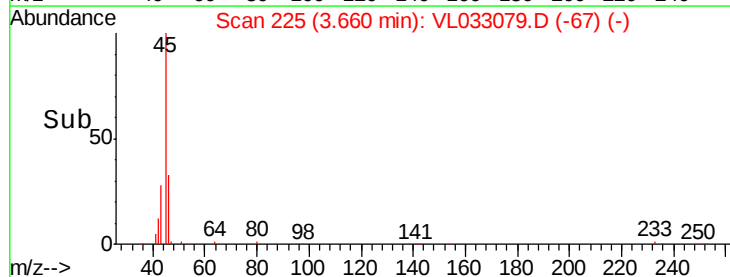
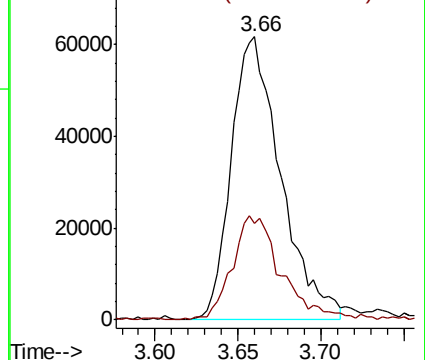
45 100

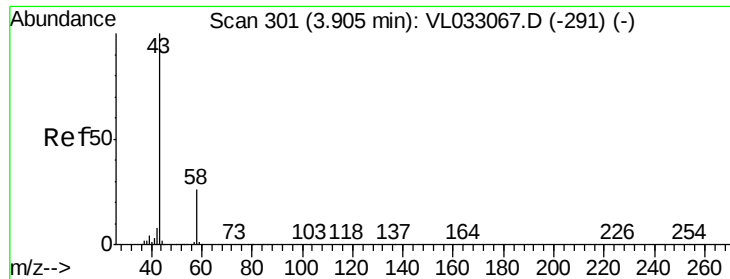
46 37.2 13.8 55.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 2.425 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.01 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

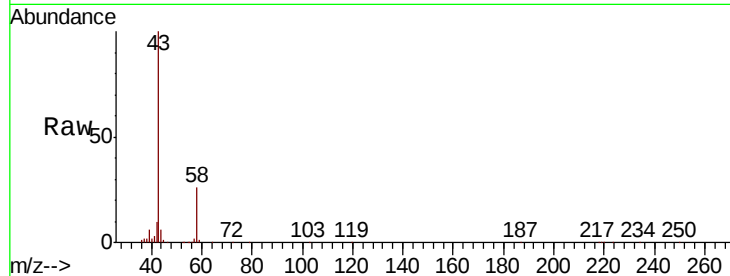
SVI-IA1D-2018-12-19

Tgt Ion: 43 Resp: 322922

Ion Ratio Lower Upper

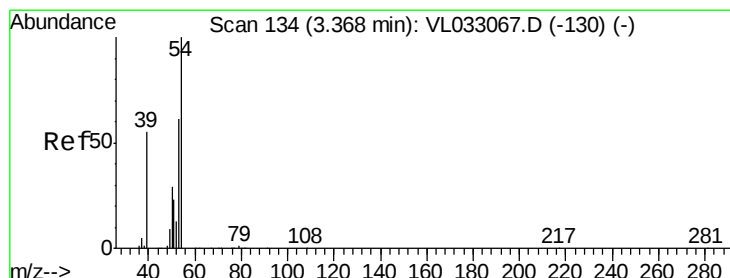
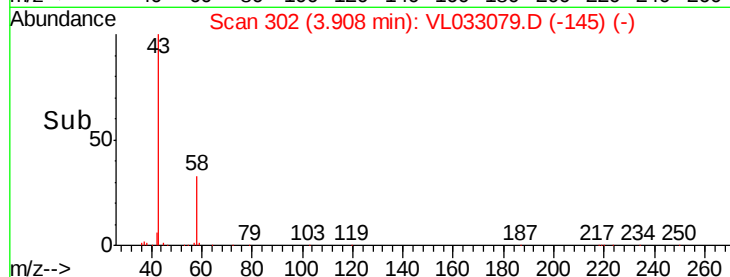
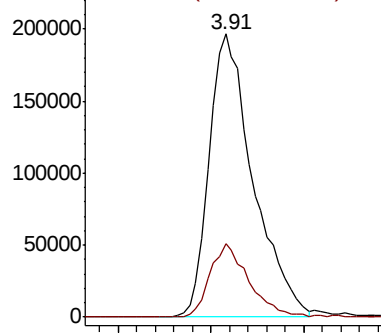
43 100

58 23.8 21.1 31.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.051 ppbv

RT: 3.35 min Scan# 128

Delta R.T. -0.02 min

Lab File: VL033079.D

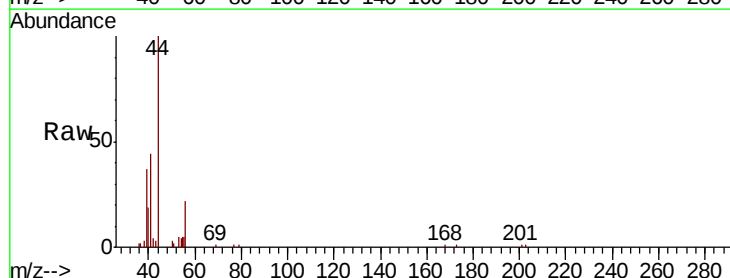
Acq: 4 Jan 2019 22:22

Tgt Ion: 39 Resp: 2568

Ion Ratio Lower Upper

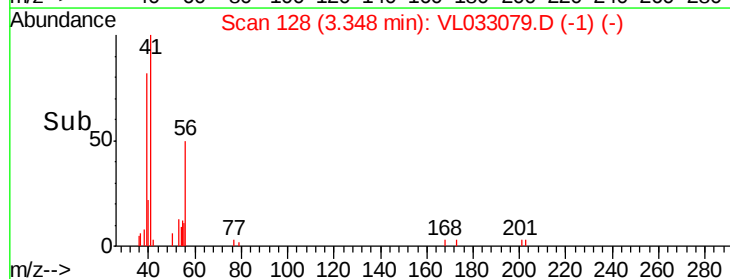
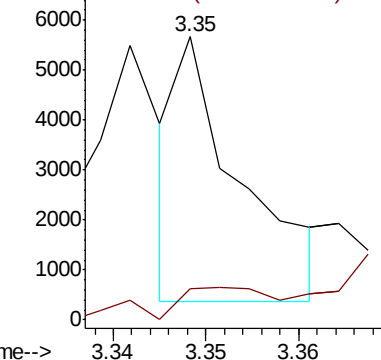
39 100

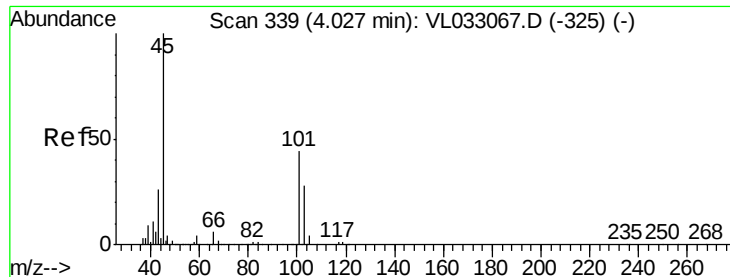
54 90.3 73.7 110.5



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 0.274 ppbv

RT: 4.05 min Scan# 347

Delta R.T. 0.03 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

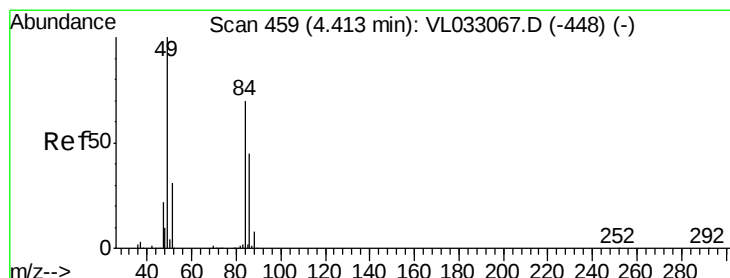
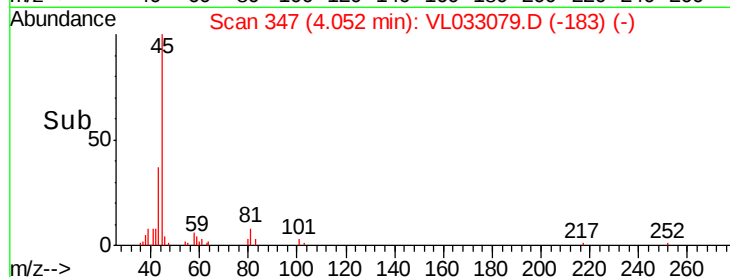
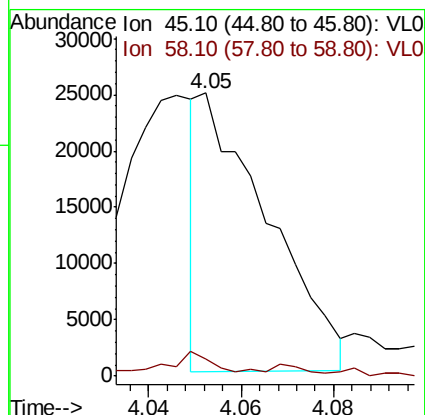
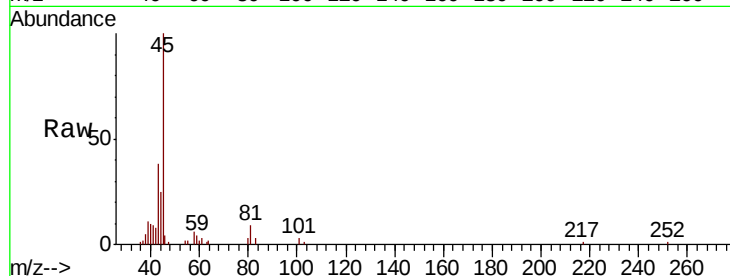
SVI-IA1D-2018-12-19

Tgt Ion: 45 Resp: 25133

Ion Ratio Lower Upper

45 100

58 12.6 1.4 2.2#



#20

Methylene Chloride

Concen: 3.626 ppbv

RT: 4.41 min Scan# 459

Delta R.T. 0.00 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Tgt Ion: 84 Resp: 201255

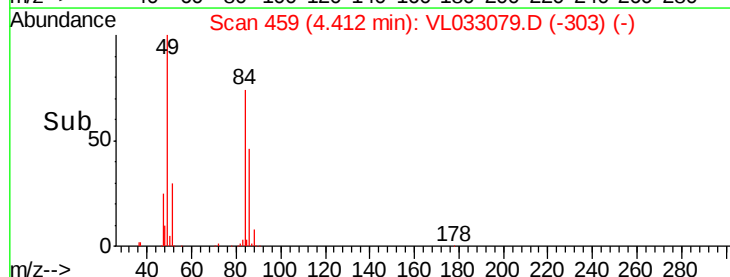
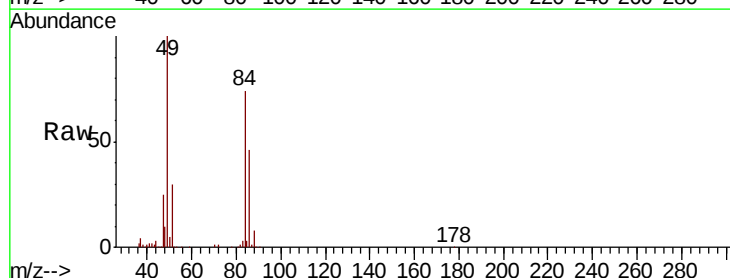
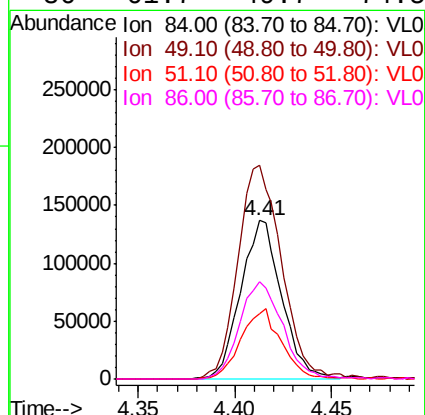
Ion Ratio Lower Upper

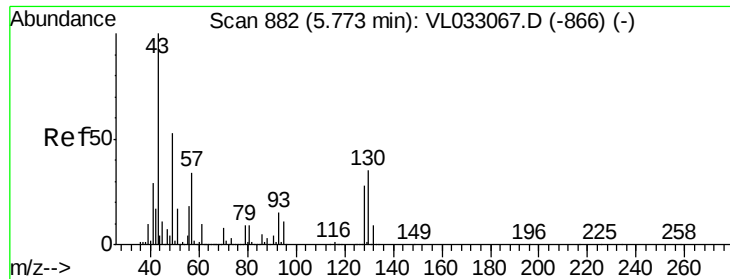
84 100

49 134.8 115.8 173.6

51 41.1 35.7 53.5

86 61.7 49.7 74.5





#25

Ethyl Acetate

Concen: 0.240 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

SVI-IA1D-2018-12-19

Tgt Ion: 43 Resp: 53931

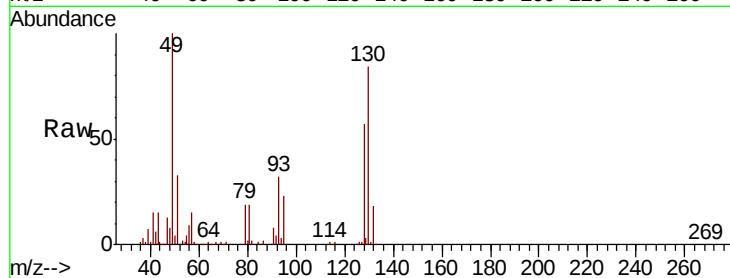
Ion Ratio Lower Upper

43 100

45 4.2 7.9 11.9#

61 2.8 7.8 11.8#

70 4.3 6.0 9.0#

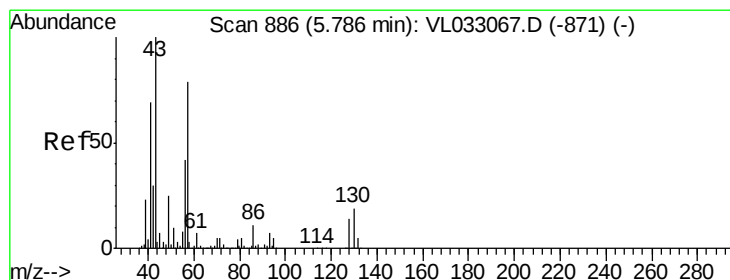
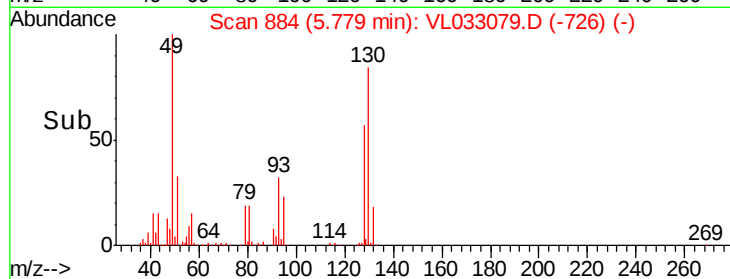
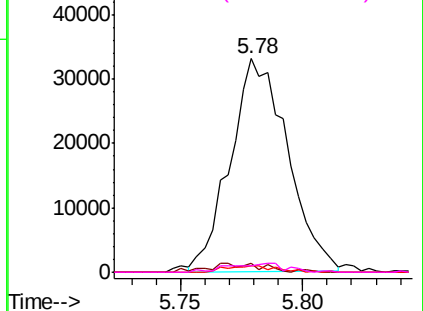


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.591 ppbv

RT: 5.79 min Scan# 886

Delta R.T. 0.00 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Tgt Ion: 57 Resp: 62591

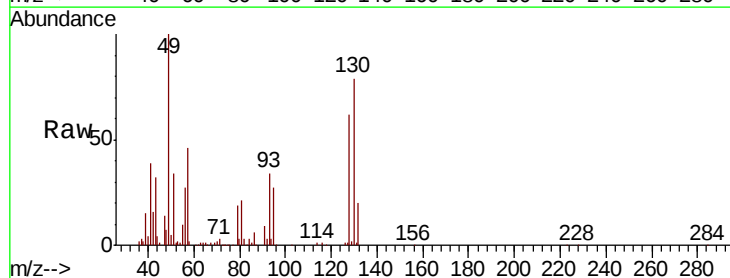
Ion Ratio Lower Upper

57 100

41 103.0 70.8 106.2

43 88.9 171.8 257.6#

56 61.8 41.9 62.9

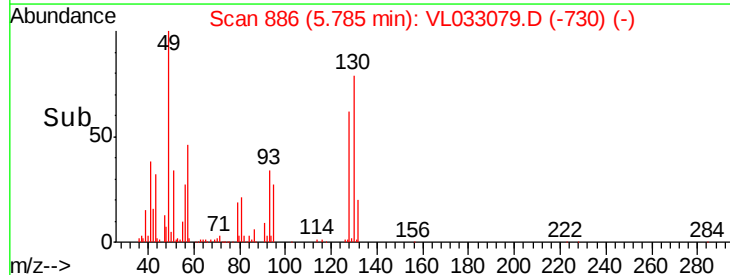
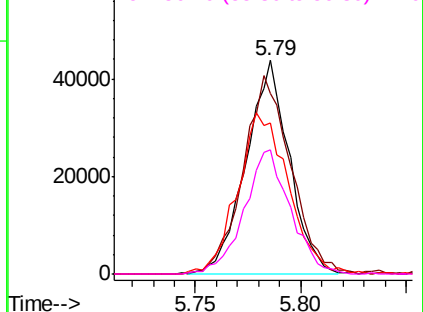


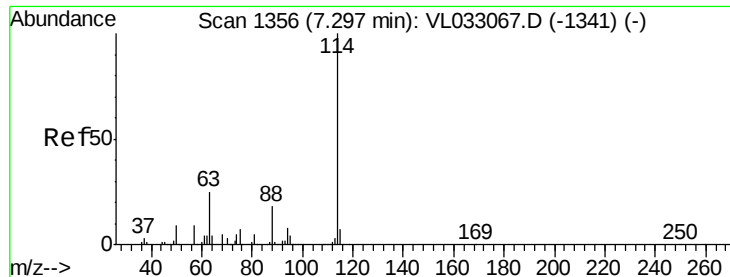
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

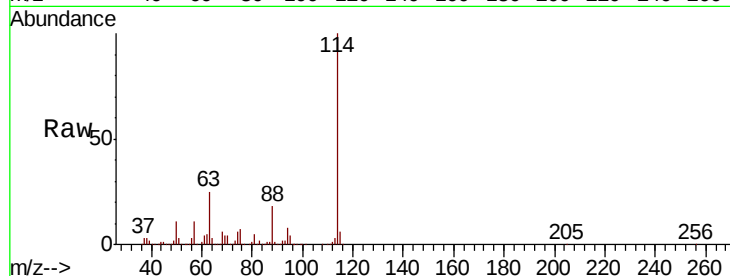




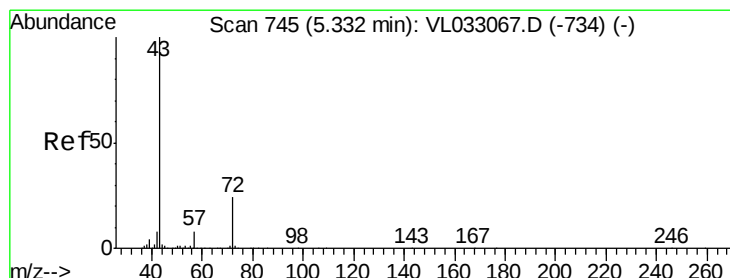
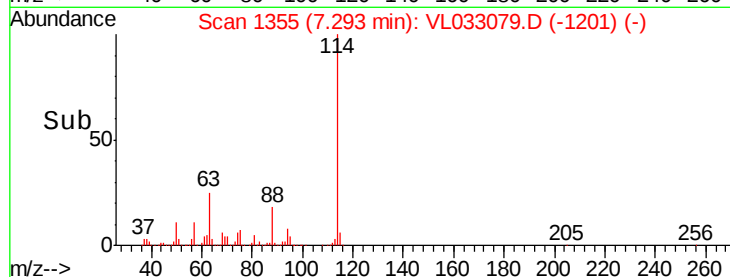
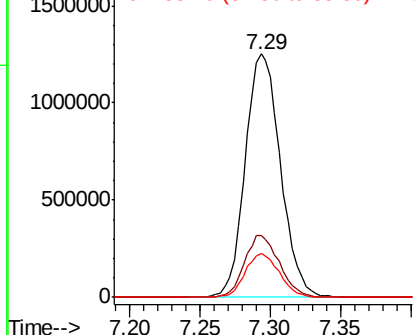
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.29 min Scan# 1355  
 Delta R.T. -0.00 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SVI-IA1D-2018-12-19

Tgt Ion:114 Resp: 2190454  
 Ion Ratio Lower Upper  
 114 100  
 63 25.3 20.1 30.1  
 88 17.7 14.0 21.0

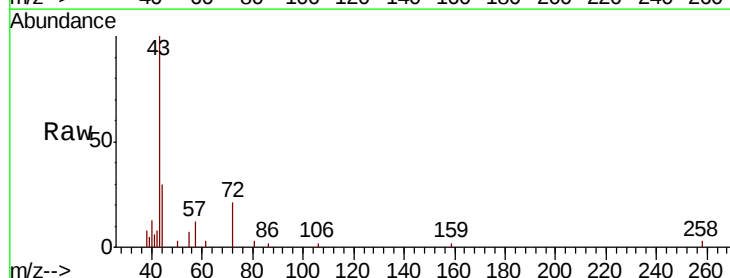


Abundance Ion 114.10 (113.80 to 114.80): V  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

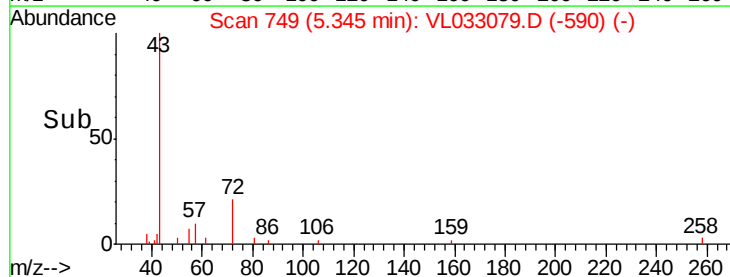
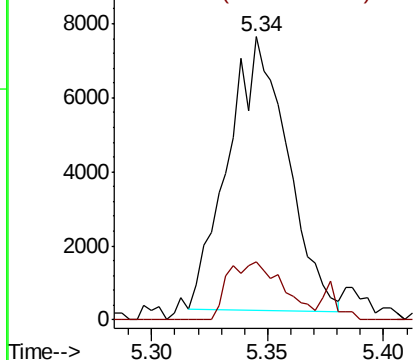


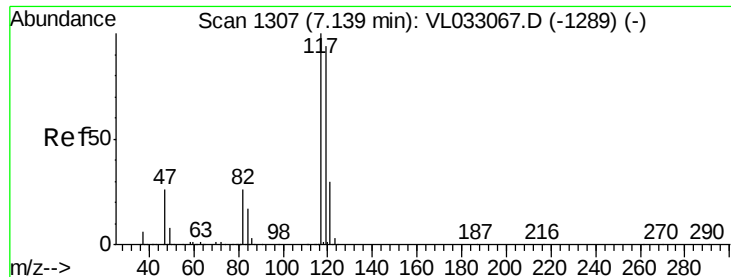
#34  
 2-Butanone  
 Concen: 0.104 ppbv  
 RT: 5.34 min Scan# 749  
 Delta R.T. 0.01 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

Tgt Ion: 43 Resp: 13194  
 Ion Ratio Lower Upper  
 43 100  
 72 23.2 18.9 28.3



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.077 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. -0.01 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

Instrument :

MSVOA\_L

ClientSampleId :

SVI-IA1D-2018-12-19

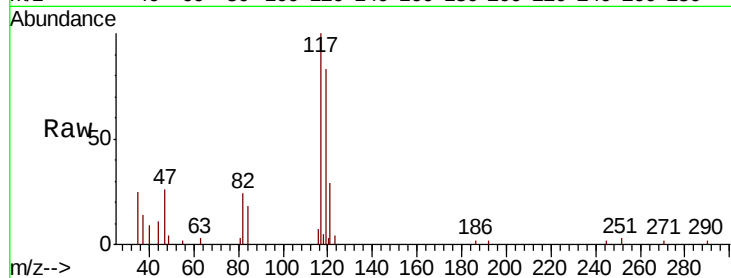
Tgt Ion:117 Resp: 14458

Ion Ratio Lower Upper

117 100

119 82.7 76.5 114.7

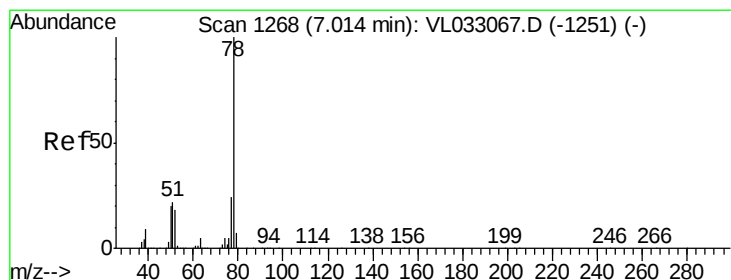
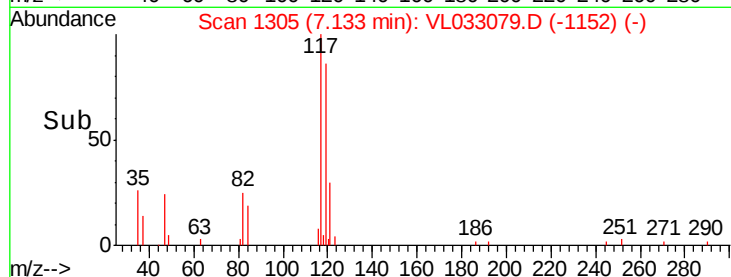
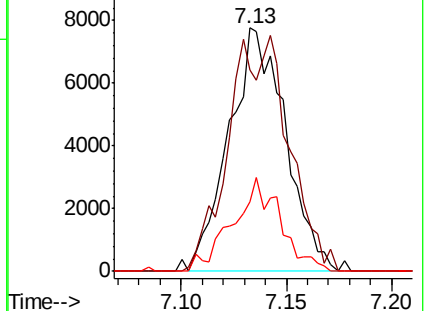
121 28.8 25.2 37.8



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.053 ppbv

RT: 7.01 min Scan# 1267

Delta R.T. -0.00 min

Lab File: VL033079.D

Acq: 4 Jan 2019 22:22

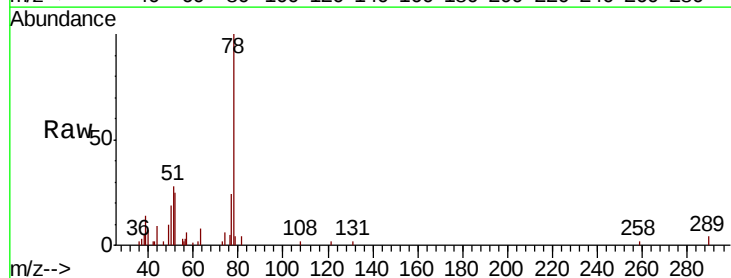
Tgt Ion: 78 Resp: 9501

Ion Ratio Lower Upper

78 100

77 25.1 18.5 27.7

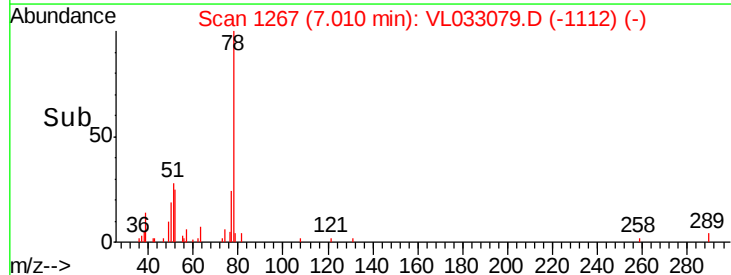
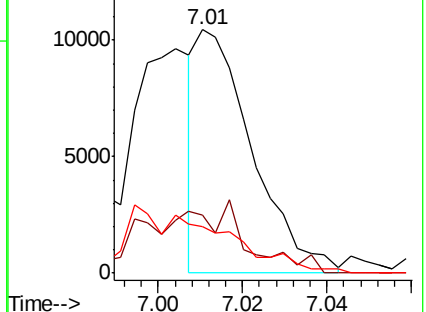
50 18.9 15.7 23.5

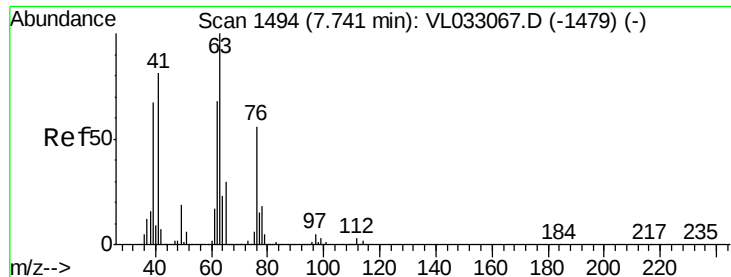


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

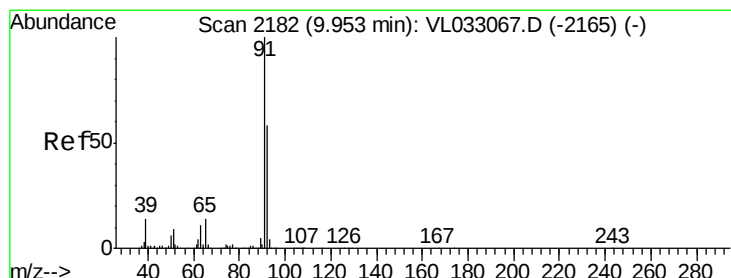
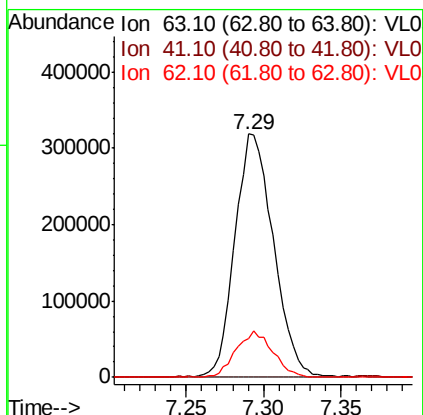
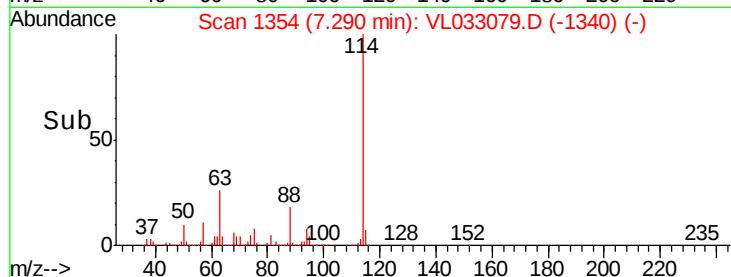
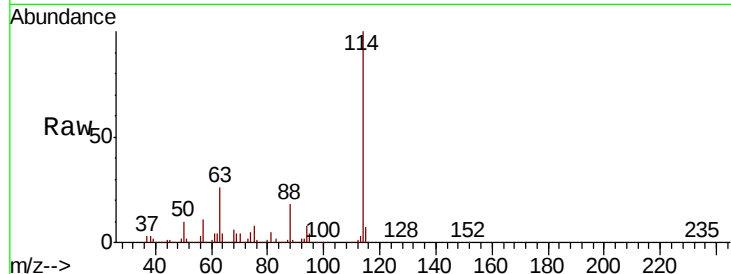




#39  
 1,2-Dichloropropane  
 Concen: 8.181 ppbv  
 RT: 7.29 min Scan# 1354  
 Delta R.T. -0.45 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

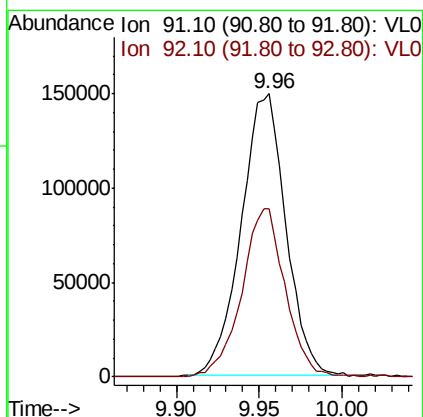
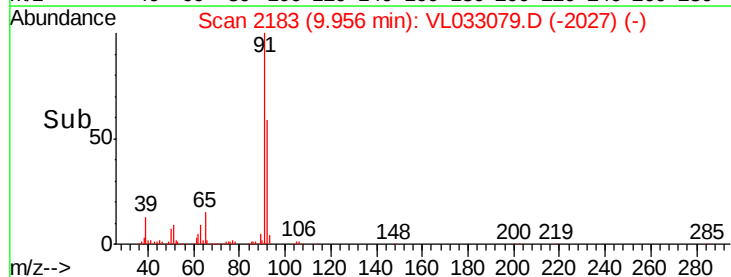
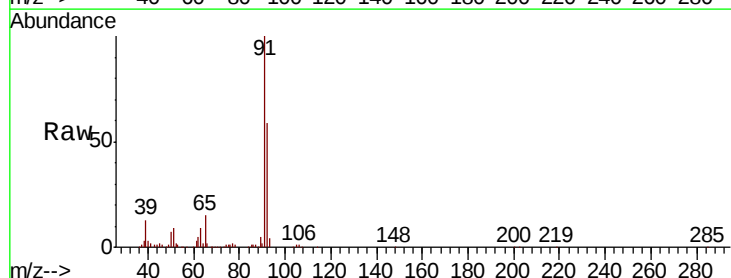
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SVI-IA1D-2018-12-19

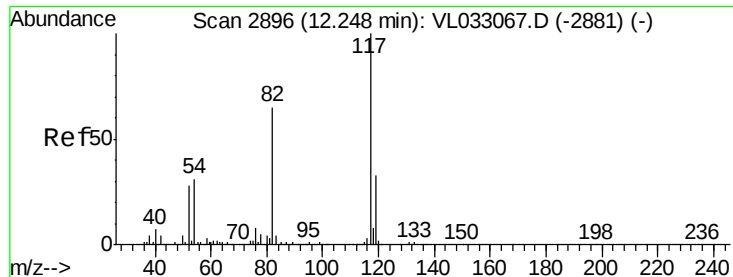
Tgt Ion: 63 Resp: 551443  
 Ion Ratio Lower Upper  
 63 100  
 41 0.0 61.9 92.9#  
 62 15.9 55.8 83.6#



#53  
 Toluene  
 Concen: 1.446 ppbv  
 RT: 9.96 min Scan# 2183  
 Delta R.T. 0.00 min  
 Lab File: VL033079.D  
 Acq: 4 Jan 2019 22:22

Tgt Ion: 91 Resp: 278032  
 Ion Ratio Lower Upper  
 91 100  
 92 58.9 47.7 71.5

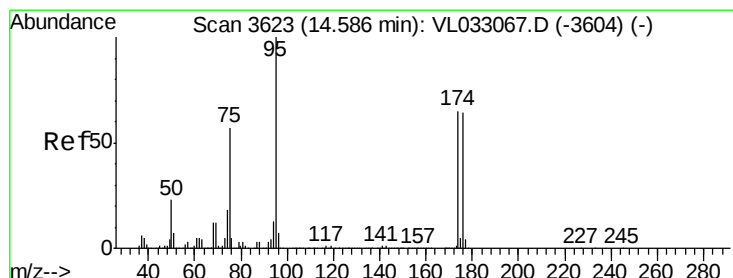
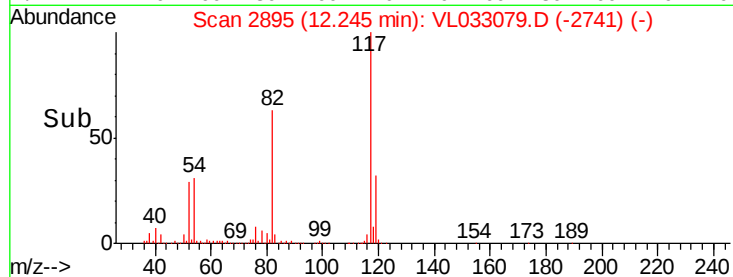
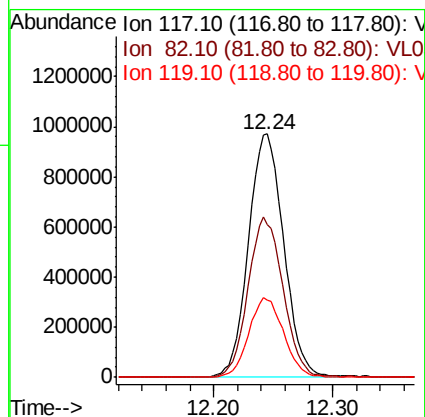
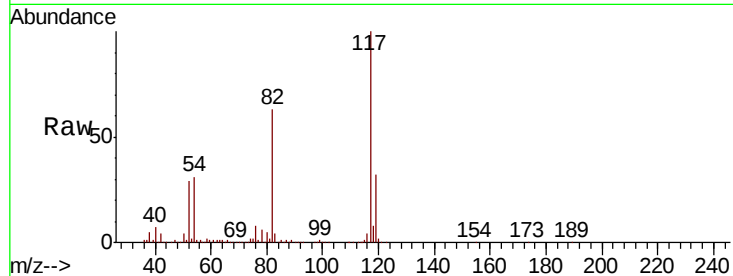




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.24 min Scan# 2895  
Delta R.T. -0.00 min  
Lab File: VL033079.D  
Acq: 4 Jan 2019 22:22

Instrument :  
MSVOA\_L  
ClientSampleId :  
SVI-IA1D-2018-12-19

Tgt Ion: 117 Resp: 1994700  
Ion Ratio Lower Upper  
117 100  
82 66.0 48.9 73.3  
119 32.6 24.6 37.0



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.923 ppbv  
RT: 14.58 min Scan# 3621  
Delta R.T. -0.01 min  
Lab File: VL033079.D  
Acq: 4 Jan 2019 22:22

Tgt Ion: 95 Resp: 1517219  
Ion Ratio Lower Upper  
95 100  
174 64.1 51.9 77.9  
175 4.7 3.9 5.9

