

Data File : VL034538.D  
Acq On : 31 Dec 2019 8:22  
Operator : SY/AP  
Sample : K6470-05DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
44-1DL

Quant Time: Dec 31 11:16:45 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL123019AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Dec 30 14:58:50 2019  
QLast Update : Mon Dec 30 14:58:50 2019  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 1037051  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 2090057  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.13 | 117  | 2010173  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds  
68) 1-Bromo-4-Fluorobenzene 14.47 95 1691682 10.09 ppbv 0.00  
Spiked Amount 10.000 Range 65 - 135 Recovery = 100.90%

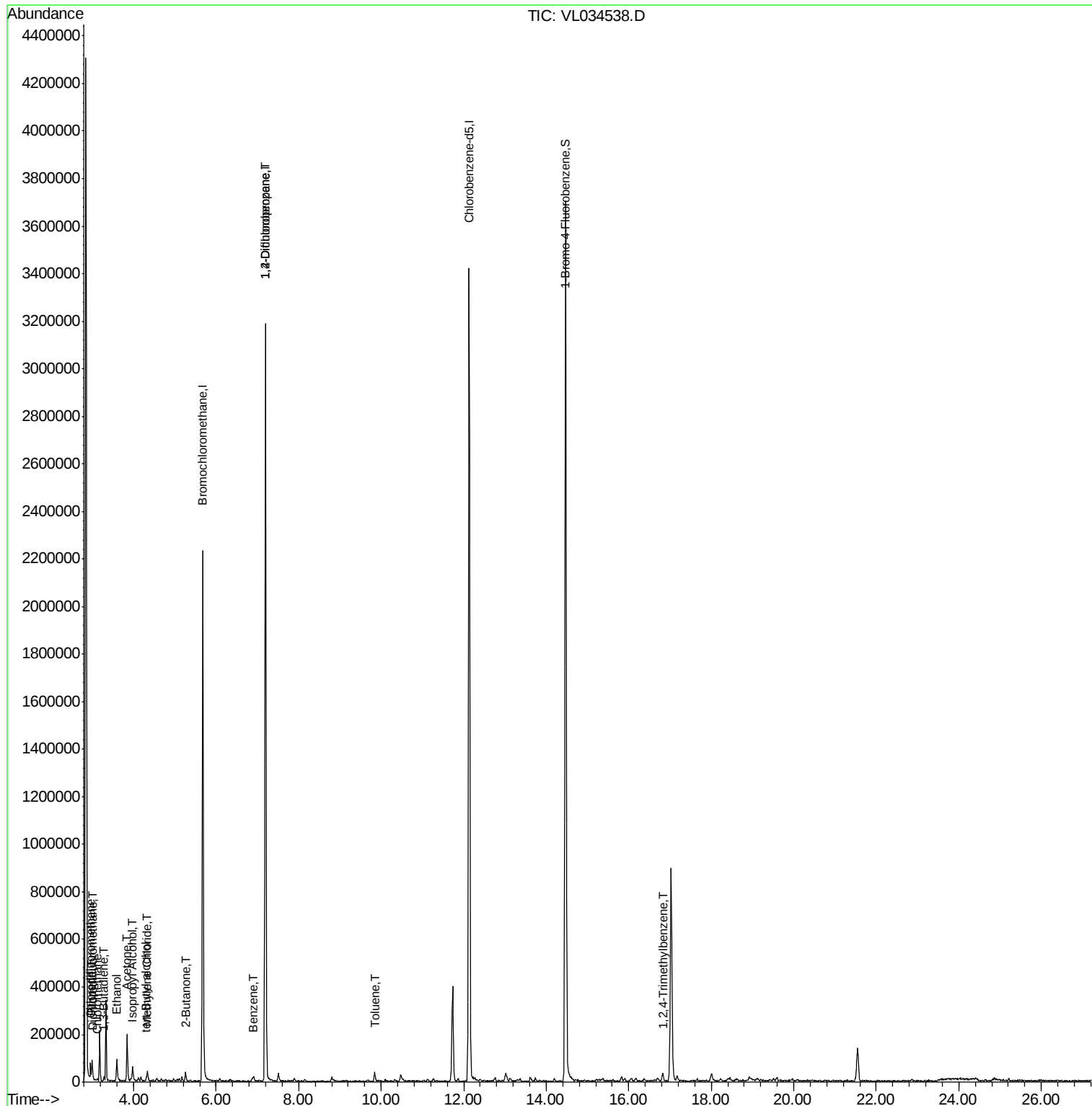
| Target Compounds           | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|----------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane | 3.02  | 85   | 10925    | 0.067 | ppbv   | 91     |
| 3) Chlorodifluoromethane   | 2.96  | 51   | 51928    | 0.420 | ppbv   | 96     |
| 4) Chloromethane           | 3.11  | 50   | 2693     | 0.037 | ppbv # | 81     |
| 9) Propene                 | 2.99  | 41   | 14333    | 0.301 | ppbv   | 84     |
| 13) Ethanol                | 3.59  | 45   | 94879    | 7.178 | ppbv   | 96     |
| 15) Acetone                | 3.84  | 43   | 188513   | 1.246 | ppbv   | 96     |
| 16) 1,3-Butadiene          | 3.29  | 39   | 3641     | 0.063 | ppbv # | 31     |
| 17) tert-Butyl alcohol     | 4.30  | 59   | 4223     | 0.035 | ppbv # | 72     |
| 19) Isopropyl Alcohol      | 3.97  | 45   | 62476    | 0.638 | ppbv # | 95     |
| 20) Methylene Chloride     | 4.33  | 84   | 8420     | 0.141 | ppbv # | 87     |
| 34) 2-Butanone             | 5.26  | 43   | 38873    | 0.260 | ppbv   | 93     |
| 36) Benzene                | 6.91  | 78   | 6734     | 0.037 | ppbv # | 88     |
| 39) 1,2-Dichloropropane    | 7.19  | 63   | 604753   | 8.072 | ppbv # | 21     |
| 53) Toluene                | 9.84  | 91   | 22860    | 0.114 | ppbv   | 99     |
| 74) 1,2,4-Trimethylbenzene | 16.82 | 105  | 8237     | 0.029 | ppbv # | 58     |

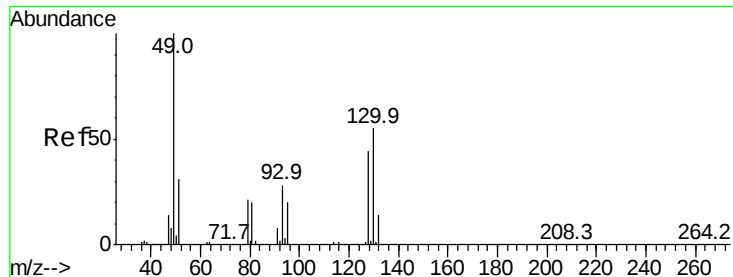
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.00 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :  
MSVOA\_L  
ClientSampled :  
44-1DL

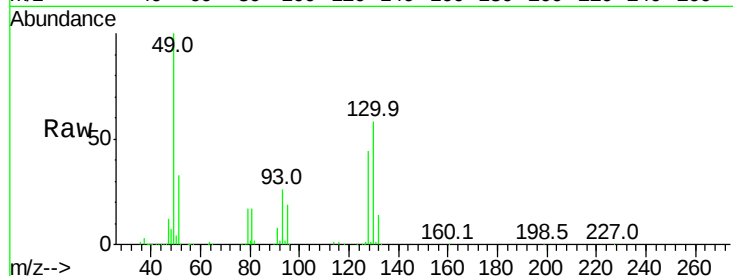
Tgt Ion: 49 Resp: 1037051

Ion Ratio Lower Upper

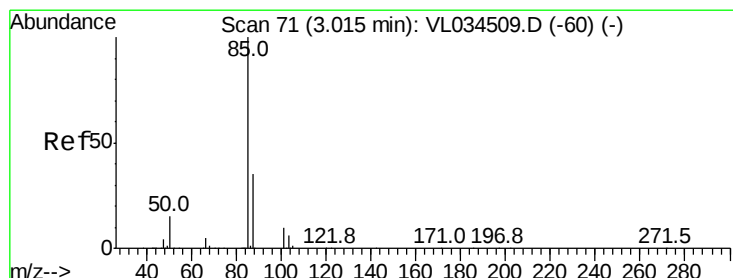
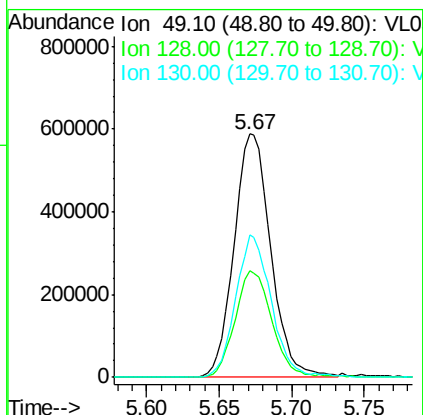
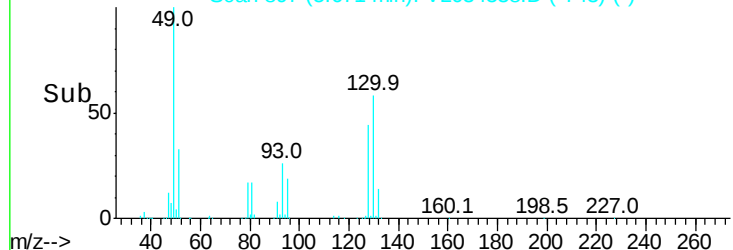
49 100

128 44.3 22.4 67.2

130 57.3 28.3 85.0



Scan 897 (5.671 min): VL034538.D (-743) (-)



#2

Dichlorodifluoromethane

Concen: 0.067 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL034538.D

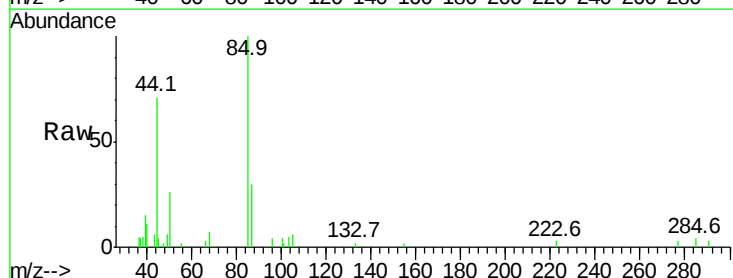
Acq: 31 Dec 2019 8:22

Tgt Ion: 85 Resp: 10925

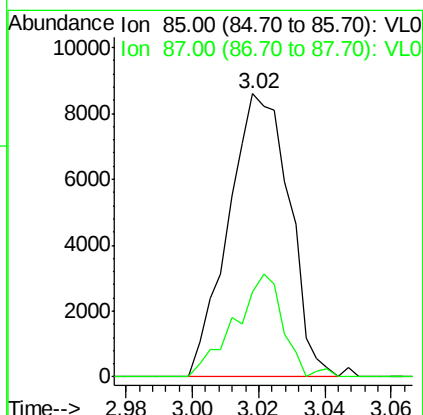
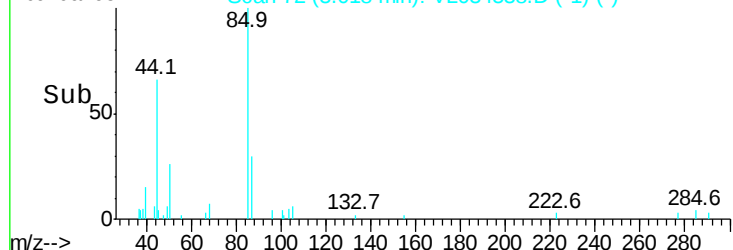
Ion Ratio Lower Upper

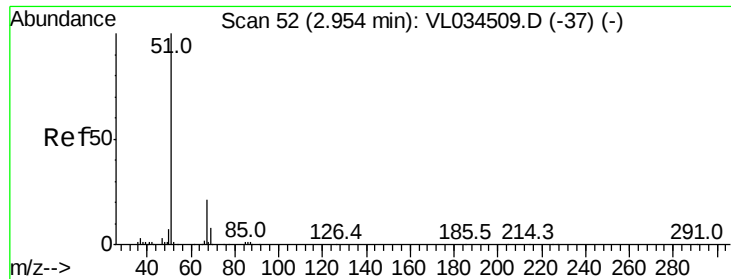
85 100

87 29.9 27.9 41.9



Scan 72 (3.018 min): VL034538.D (-1) (-)





#3

Chlorodifluoromethane

Concen: 0.420 ppbv

RT: 2.96 min Scan# 53

Delta R.T. 0.00 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :

MSVOA\_L

ClientSampleId :

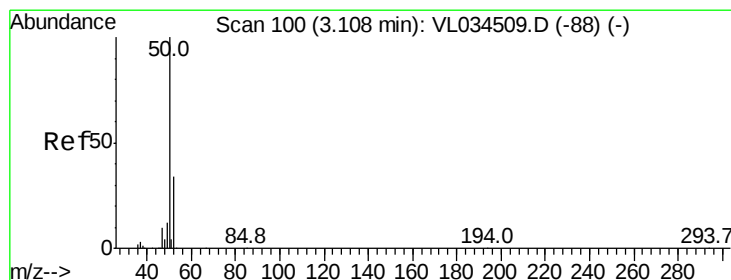
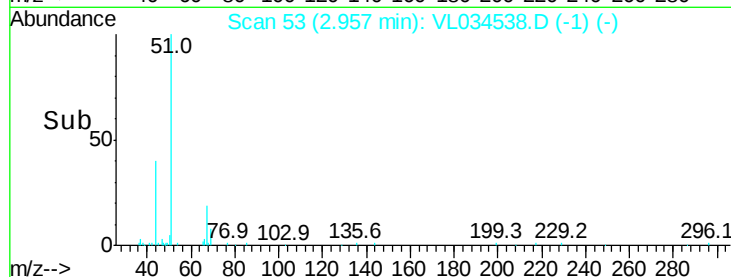
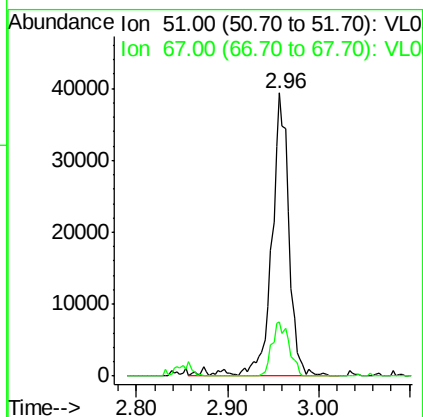
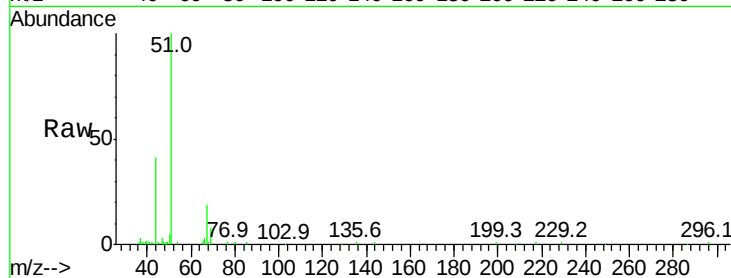
44-1DL

Tgt Ion: 51 Resp: 51928

Ion Ratio Lower Upper

51 100

67 19.0 16.8 25.2



#4

Chloromethane

Concen: 0.037 ppbv

RT: 3.11 min Scan# 100

Delta R.T. -0.00 min

Lab File: VL034538.D

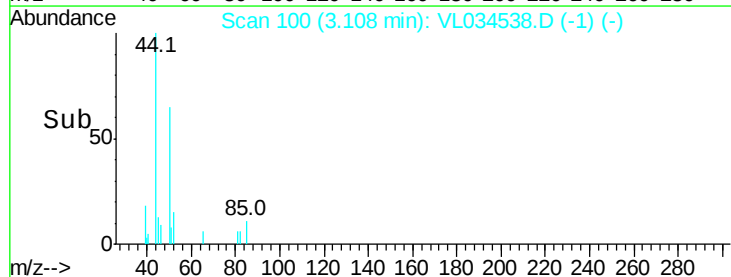
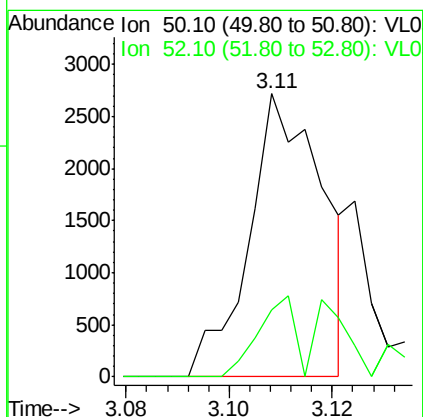
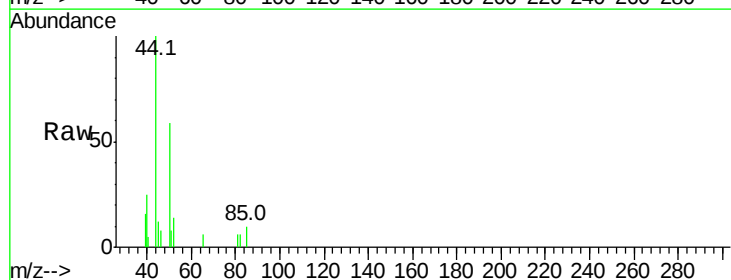
Acq: 31 Dec 2019 8:22

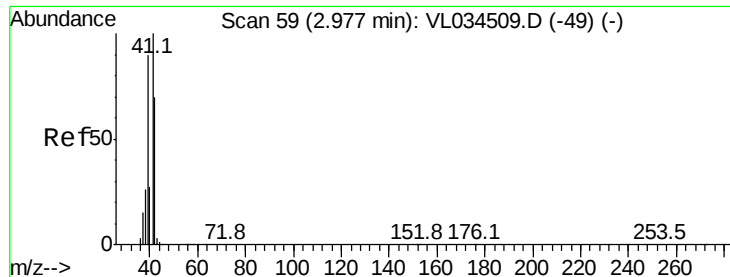
Tgt Ion: 50 Resp: 2693

Ion Ratio Lower Upper

50 100

52 23.6 27.6 41.4#





#9

Propene

Concen: 0.301 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.02 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :

MSVOA\_L

ClientSampleId :

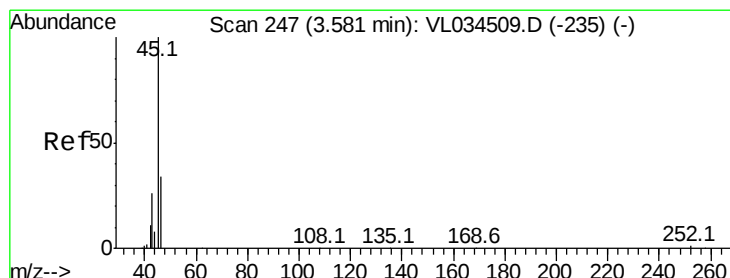
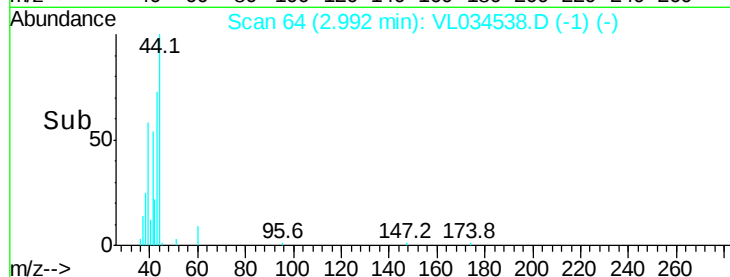
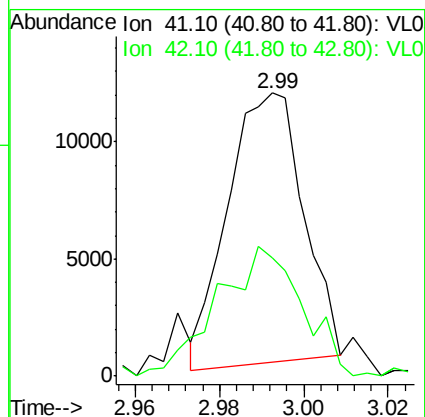
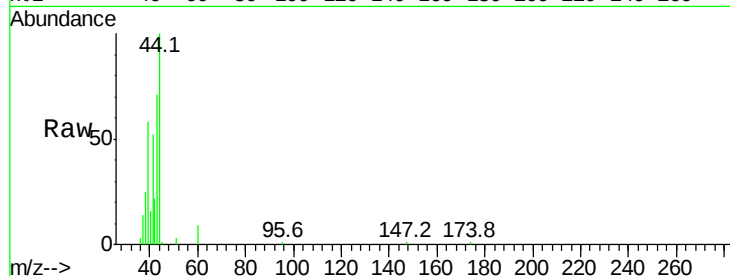
44-1DL

Tgt Ion: 41 Resp: 14333

Ion Ratio Lower Upper

41 100

42 56.4 55.8 83.6



#13

Ethanol

Concen: 7.178 ppbv

RT: 3.59 min Scan# 250

Delta R.T. 0.01 min

Lab File: VL034538.D

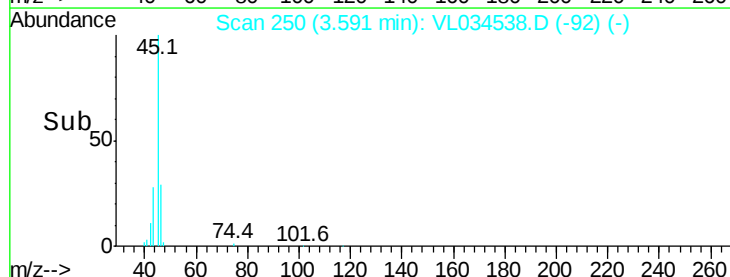
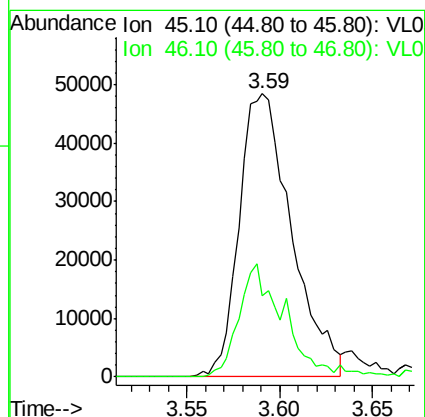
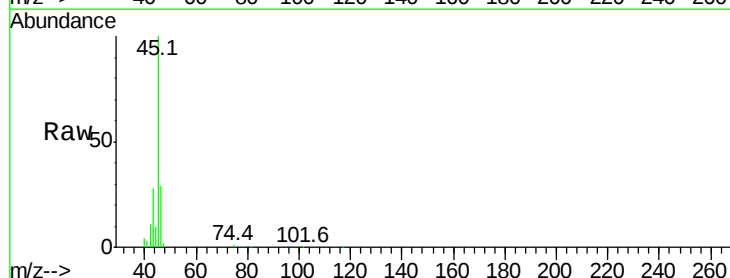
Acq: 31 Dec 2019 8:22

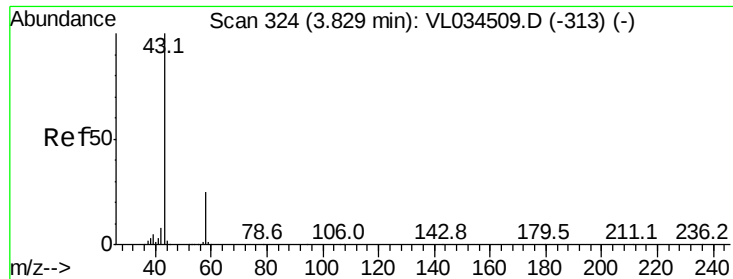
Tgt Ion: 45 Resp: 94879

Ion Ratio Lower Upper

45 100

46 35.0 14.9 59.7





#15

Acetone

Concen: 1.246 ppbv

RT: 3.84 min Scan# 327

Delta R.T. 0.01 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :

MSVOA\_L

ClientSampleId :

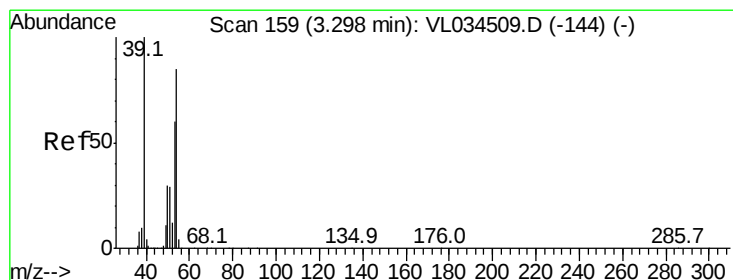
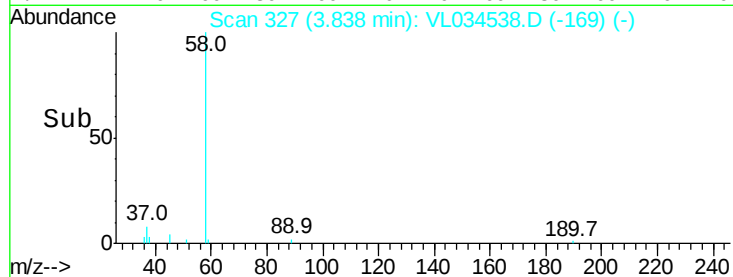
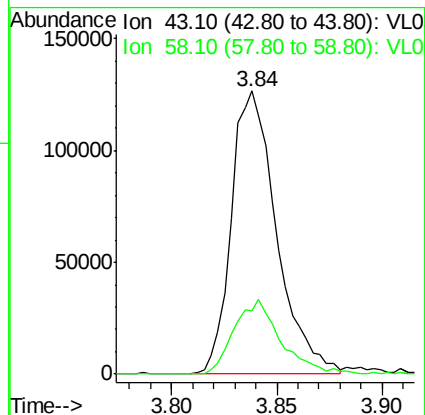
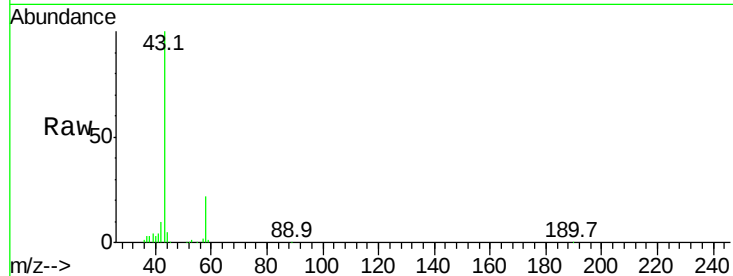
44-1DL

Tgt Ion: 43 Resp: 188513

Ion Ratio Lower Upper

43 100

58 27.6 20.4 30.6



#16

1,3-Butadiene

Concen: 0.063 ppbv

RT: 3.29 min Scan# 155

Delta R.T. -0.01 min

Lab File: VL034538.D

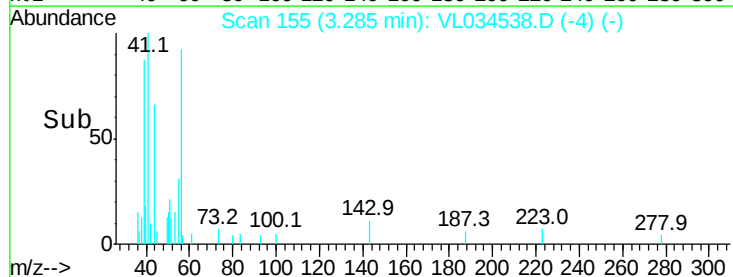
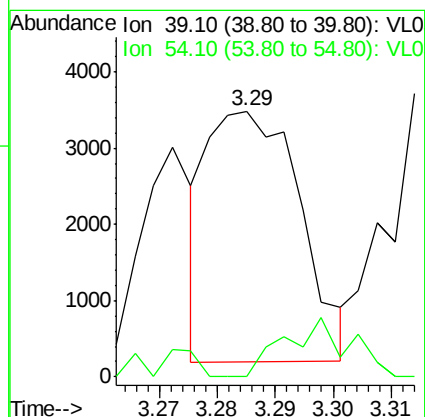
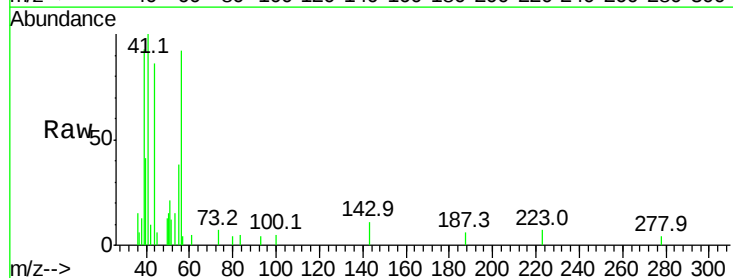
Acq: 31 Dec 2019 8:22

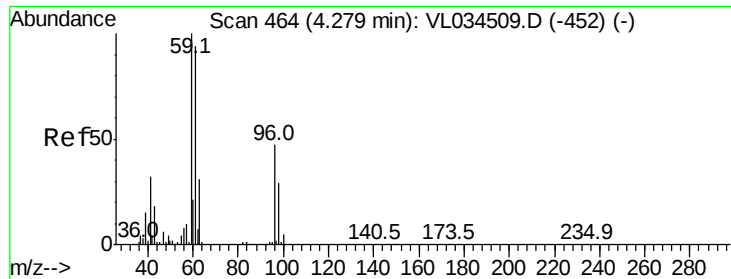
Tgt Ion: 39 Resp: 3641

Ion Ratio Lower Upper

39 100

54 20.3 66.2 99.2#

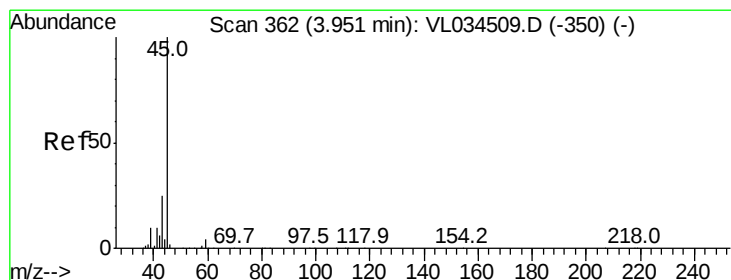
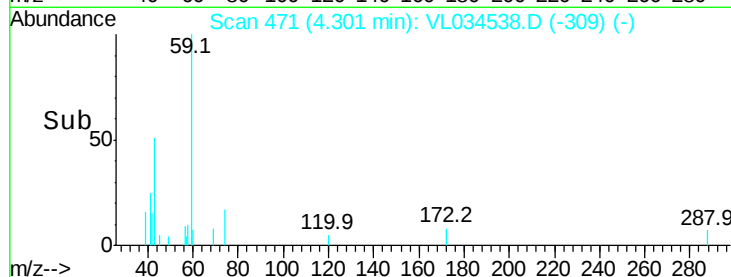
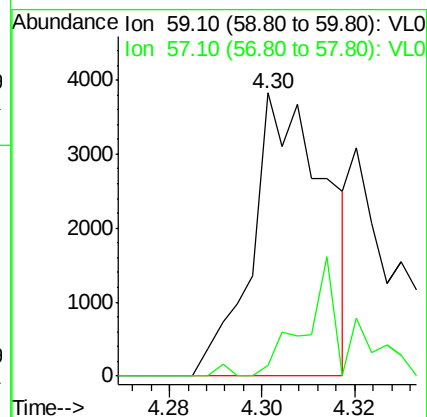
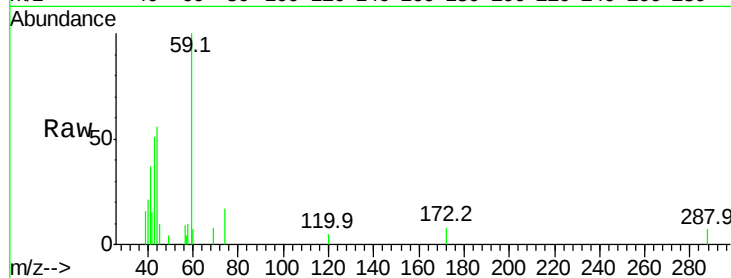




#17  
 tert-Butyl alcohol  
 Concen: 0.035 ppbv  
 RT: 4.30 min Scan# 471  
 Delta R.T. 0.02 min  
 Lab File: VL034538.D  
 Acq: 31 Dec 2019 8:22

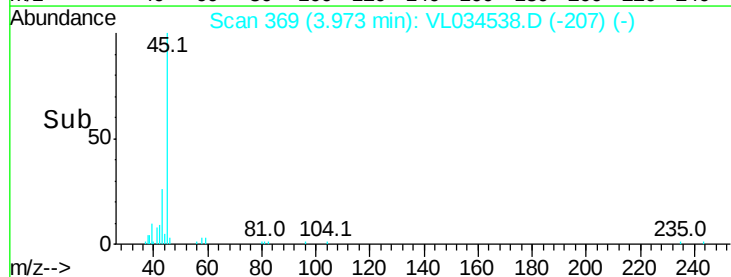
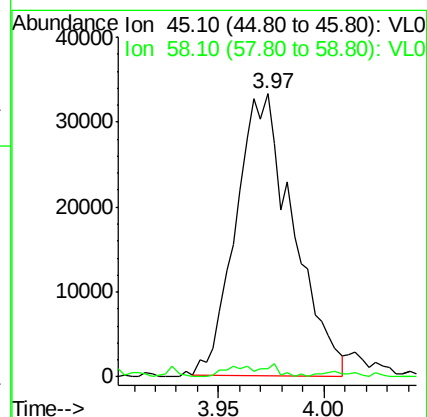
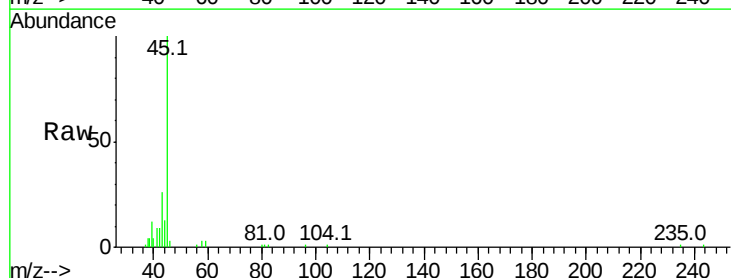
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 44-1DL

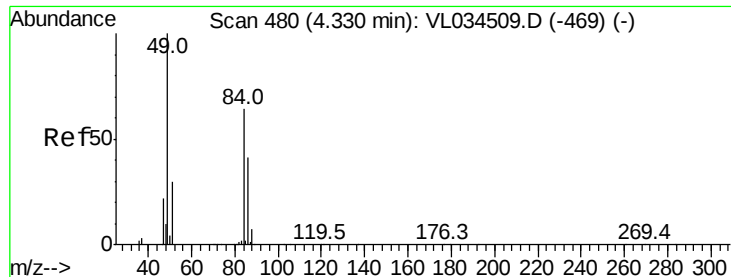
Tgt Ion: 59 Resp: 4223  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.6 12.8#



#19  
 Isopropyl Alcohol  
 Concen: 0.638 ppbv  
 RT: 3.97 min Scan# 369  
 Delta R.T. 0.02 min  
 Lab File: VL034538.D  
 Acq: 31 Dec 2019 8:22

Tgt Ion: 45 Resp: 62476  
 Ion Ratio Lower Upper  
 45 100  
 58 3.4 1.4 2.0#

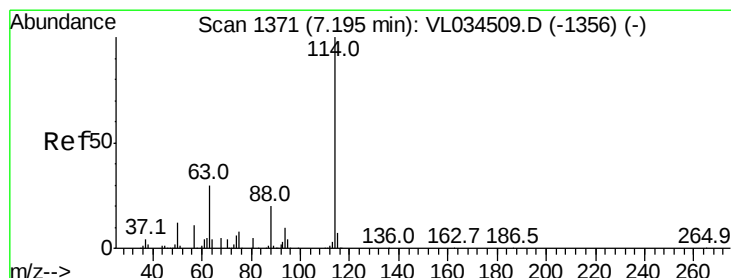
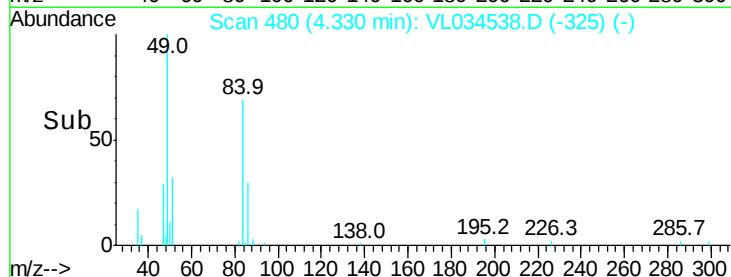
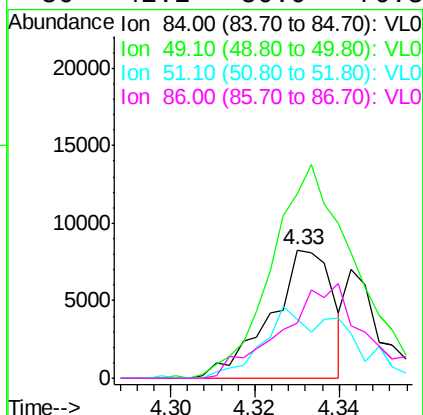
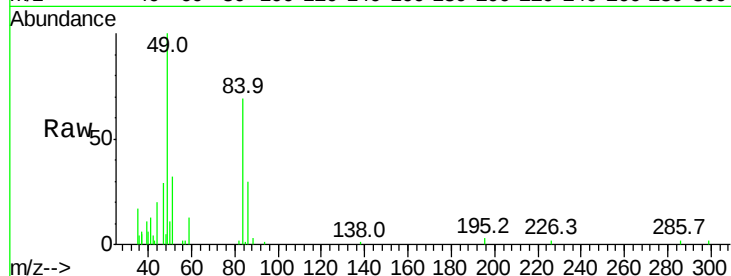




#20  
Methylene Chloride  
Concen: 0.141 ppbv  
RT: 4.33 min Scan# 480  
Delta R.T. -0.00 min  
Lab File: VL034538.D  
Acq: 31 Dec 2019 8:22

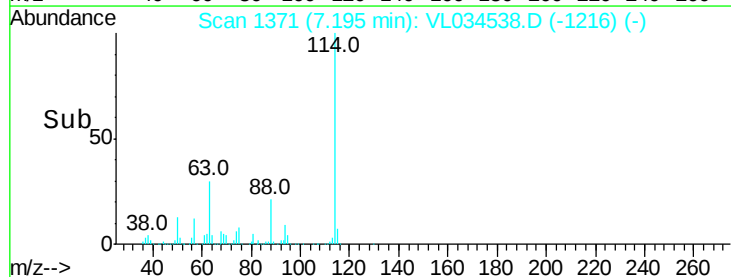
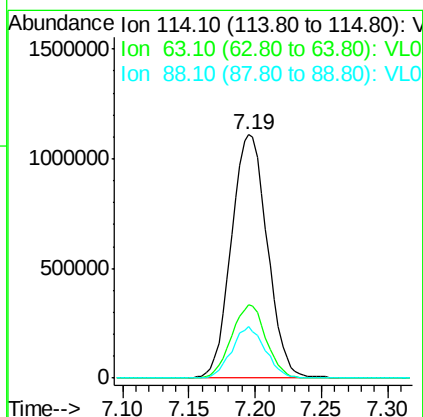
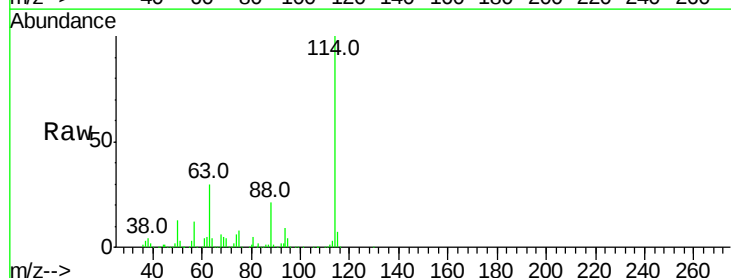
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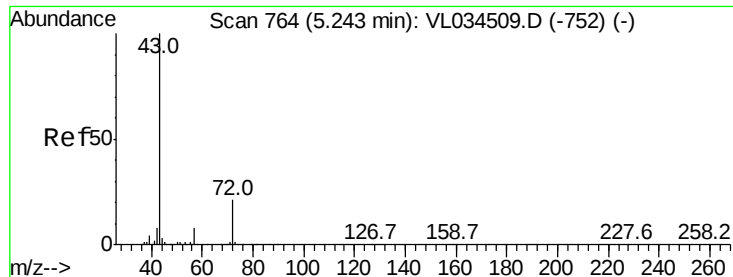
Tgt Ion: 84 Resp: 8420  
Ion Ratio Lower Upper  
84 100  
49 141.3 124.4 186.6  
51 45.1 37.0 55.6  
86 42.2 50.9 76.3#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.19 min Scan# 1371  
Delta R.T. -0.00 min  
Lab File: VL034538.D  
Acq: 31 Dec 2019 8:22

Tgt Ion: 114 Resp: 2090057  
Ion Ratio Lower Upper  
114 100  
63 29.1 24.1 36.1  
88 19.8 15.7 23.5

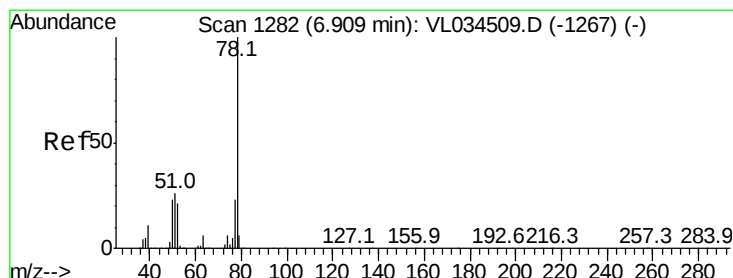
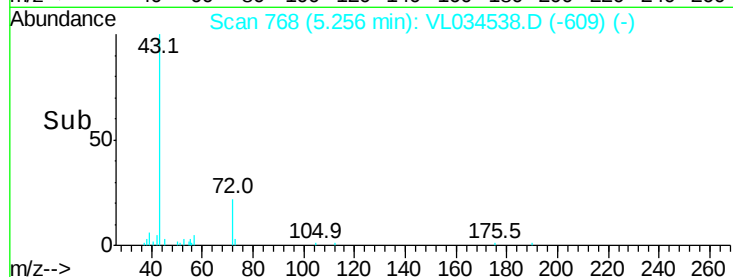
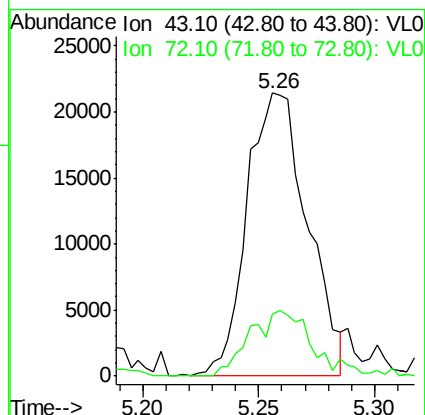
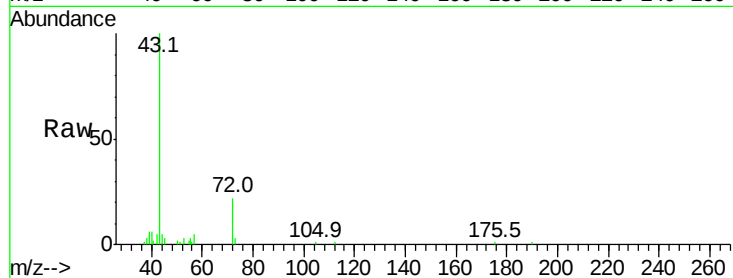




#34  
2-Butanone  
Concen: 0.260 ppbv  
RT: 5.26 min Scan# 768  
Delta R.T. 0.01 min  
Lab File: VL034538.D  
Acq: 31 Dec 2019 8:22

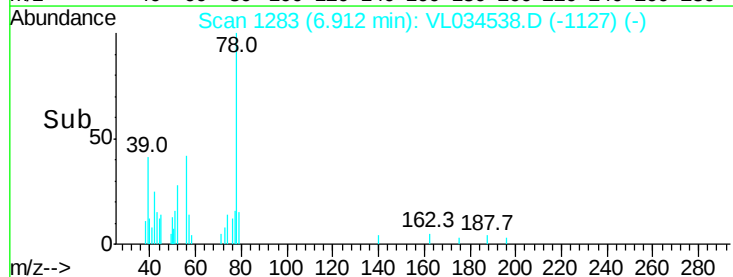
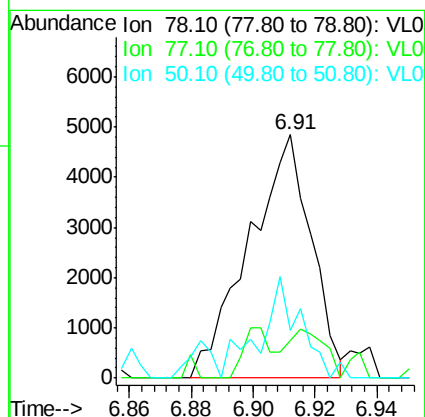
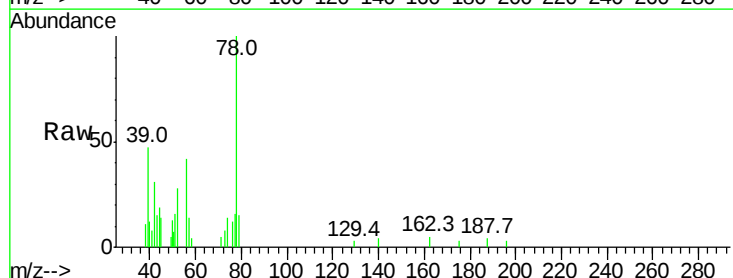
Instrument :  
MSVOA\_L  
ClientSampleId :  
44-1DL

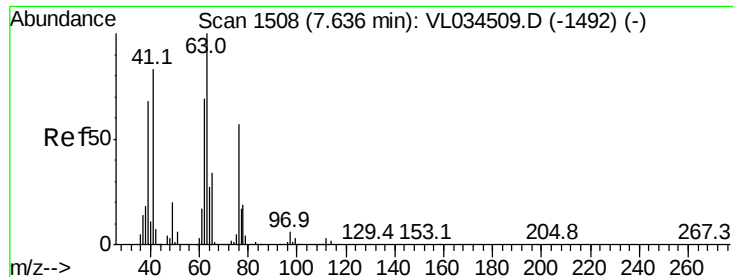
Tgt Ion: 43 Resp: 38873  
Ion Ratio Lower Upper  
43 100  
72 24.5 17.0 25.4



#36  
Benzene  
Concen: 0.037 ppbv  
RT: 6.91 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VL034538.D  
Acq: 31 Dec 2019 8:22

Tgt Ion: 78 Resp: 6734  
Ion Ratio Lower Upper  
78 100  
77 13.6 18.6 28.0#  
50 25.3 18.8 28.2





#39

1,2-Dichloropropane

Concen: 8.072 ppbv

RT: 7.19 min Scan# 1371

Delta R.T. -0.44 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :

MSVOA\_L

ClientSampleId :

44-1DL

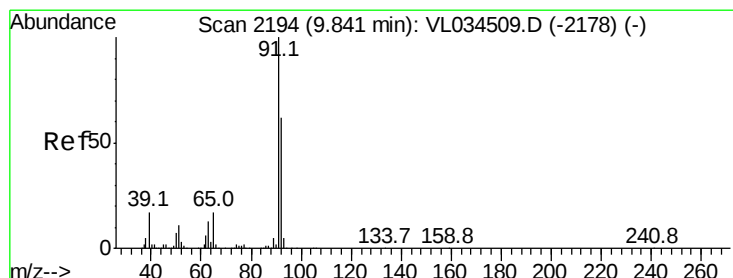
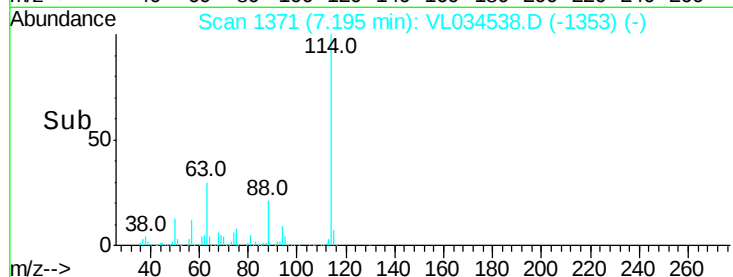
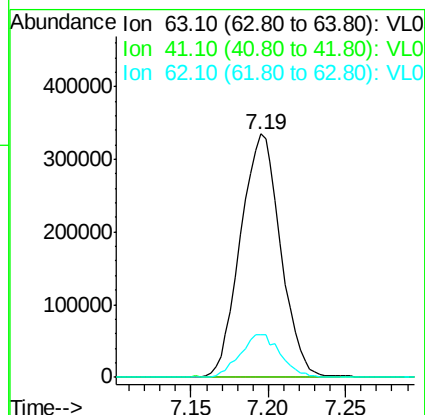
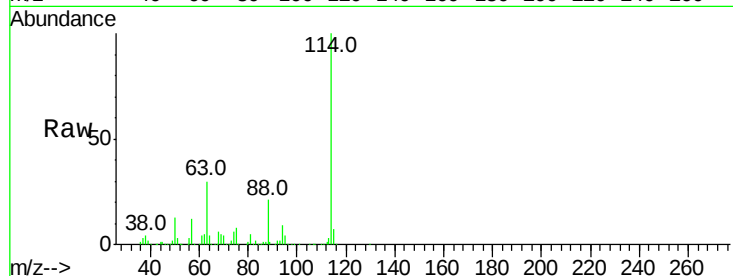
Tgt Ion: 63 Resp: 604753

Ion Ratio Lower Upper

63 100

41 0.0 66.1 99.1#

62 17.4 54.9 82.3#



#53

Toluene

Concen: 0.114 ppbv

RT: 9.84 min Scan# 2195

Delta R.T. 0.00 min

Lab File: VL034538.D

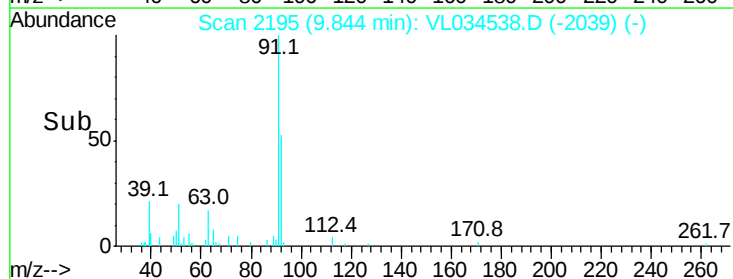
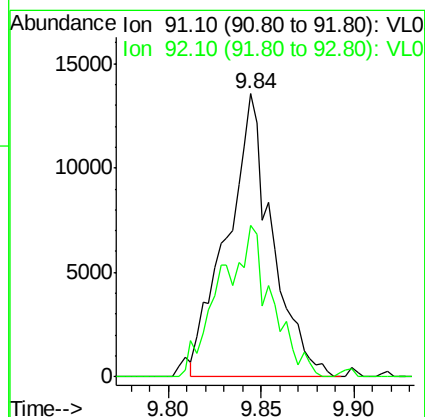
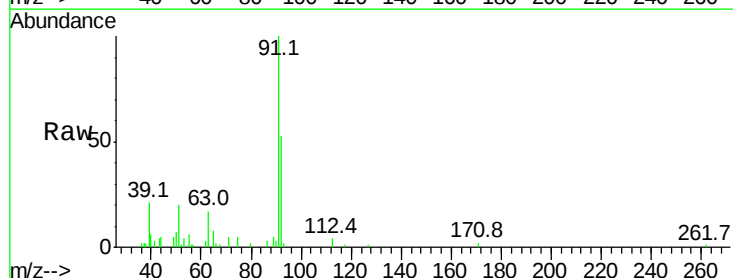
Acq: 31 Dec 2019 8:22

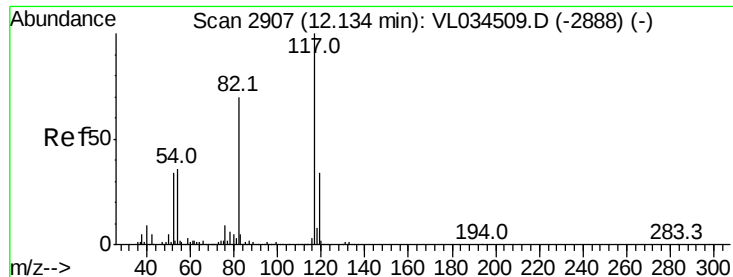
Tgt Ion: 91 Resp: 22860

Ion Ratio Lower Upper

91 100

92 61.1 48.4 72.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.13 min Scan# 2906

Delta R.T. -0.00 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

Instrument :

MSVOA\_L

ClientSampleId :

44-1DL

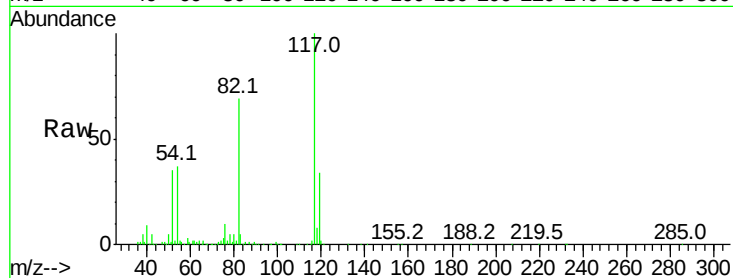
Tgt Ion:117 Resp: 2010173

Ion Ratio Lower Upper

117 100

82 70.5 56.2 84.4

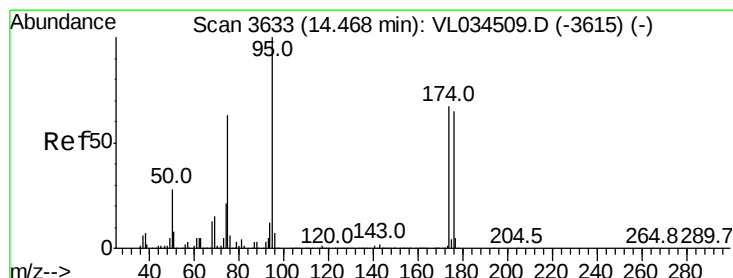
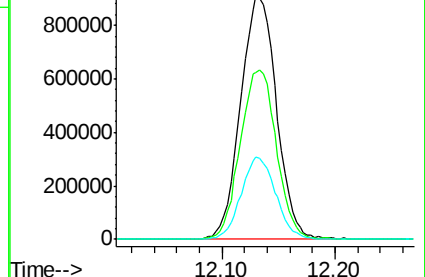
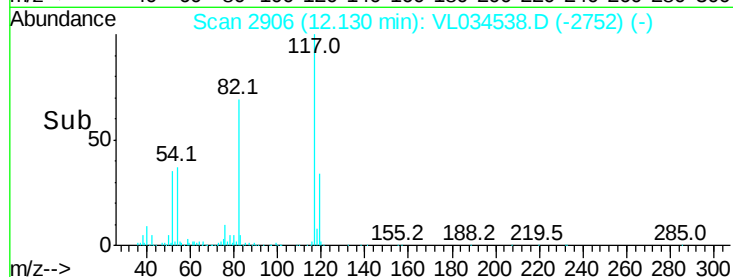
119 32.8 27.1 40.7



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.085 ppbv

RT: 14.47 min Scan# 3635

Delta R.T. 0.01 min

Lab File: VL034538.D

Acq: 31 Dec 2019 8:22

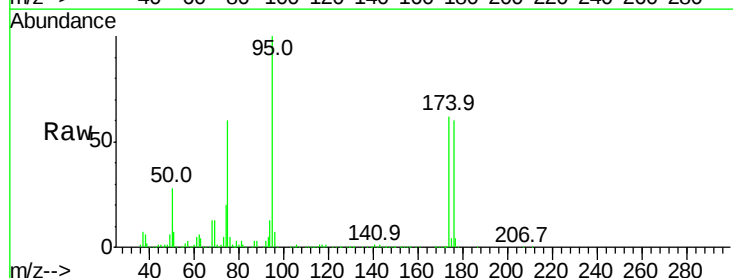
Tgt Ion: 95 Resp: 1691682

Ion Ratio Lower Upper

95 100

174 64.1 52.4 78.6

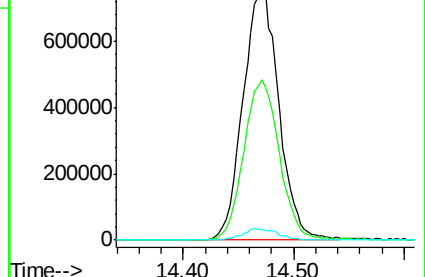
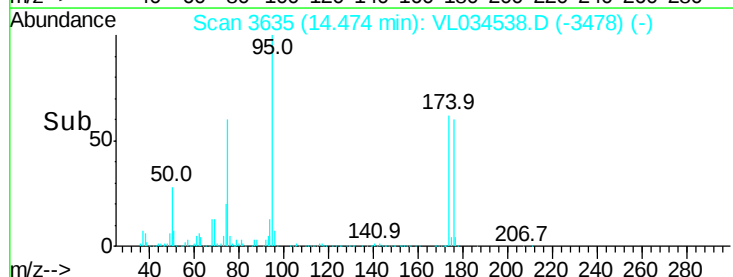
175 4.7 3.9 5.9

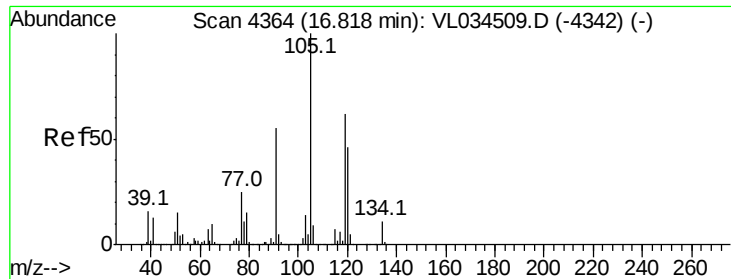


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.029 ppbv  
 RT: 16.82 min Scan# 4363  
 Delta R.T. -0.00 min  
 Lab File: VL034538.D  
 Acq: 31 Dec 2019 8:22

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 44-1DL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 12.9  | 36.7  | 55.1# |
| 91      | 26.4  | 44.0  | 66.0# |
| 77      | 9.5   | 19.9  | 29.9# |

