

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062419\  
 Data File : VL033961.D  
 Acq On : 25 Jun 2019 7:12  
 Operator : SY/AP  
 Sample : K3474-01DL 40X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 INFLUENTDL

Quant Time: Jun 25 09:10:19 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jun 07 08:53:27 2019  
 QLast Update : Fri Jun 07 08:53:27 2019  
 Response via : Initial Calibration

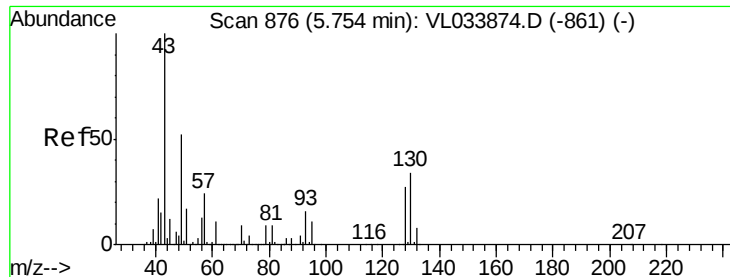
| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.74  | 49   | 780488   | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.26  | 114  | 1835861  | 10.00 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 12.21 | 117  | 1912315  | 10.00 | ppbv  | -0.02    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.54  | 95    | 1534146  | 9.77     | ppbv | -0.02  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.70% |

| Target Compounds             | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|------------------------------|-------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane   | 3.07  | 85   | 4297     | 0.034 | ppbv   | 97     |
| 3) Chlorodifluoromethane     | 3.00  | 51   | 7046     | 0.077 | ppbv # | 76     |
| 8) Dichlorotetrafluoroethane | 3.07  | 85   | 4297     | 0.032 | ppbv # | 16     |
| 9) Propene                   | 3.03  | 41   | 1482     | 0.043 | ppbv # | 1      |
| 13) Ethanol                  | 3.64  | 45   | 31835    | 2.846 | ppbv # | 54     |
| 15) Acetone                  | 3.89  | 43   | 92022    | 0.808 | ppbv   | 99     |
| 16) 1,3-Butadiene            | 3.33  | 39   | 3848     | 0.089 | ppbv # | 17     |
| 19) Isopropyl Alcohol        | 4.03  | 45   | 65948    | 1.014 | ppbv # | 95     |
| 20) Methylene Chloride       | 4.40  | 84   | 9699     | 0.218 | ppbv # | 71     |
| 24) 1,1-Dichloroethane       | 5.07  | 63   | 21661    | 0.210 | ppbv # | 94     |
| 26) Hexane                   | 5.76  | 57   | 4288     | 0.054 | ppbv # | 49     |
| 32) 1,1,1-Trichloroethane    | 6.60  | 97   | 113261   | 0.869 | ppbv   | 100    |
| 34) 2-Butanone               | 5.32  | 43   | 11369    | 0.110 | ppbv   | 96     |
| 39) 1,2-Dichloropropane      | 7.26  | 63   | 472056   | 8.722 | ppbv # | 26     |
| 65) tert-Butylbenzene        | 17.10 | 119  | 79453    | 0.315 | ppbv # | 23     |
| 67) sec-Butylbenzene         | 17.09 | 105  | 21049    | 0.059 | ppbv   | 99     |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.74 min Scan# 871

Delta R.T. -0.02 min

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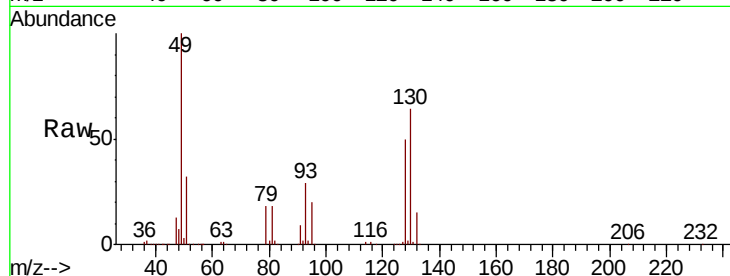
Tot Ion: 49 Resp: 780488

Ion Ratio Lower Upper

49 100

128 51.7 25.5 76.5

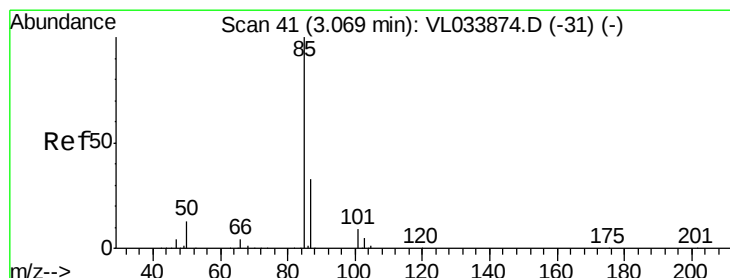
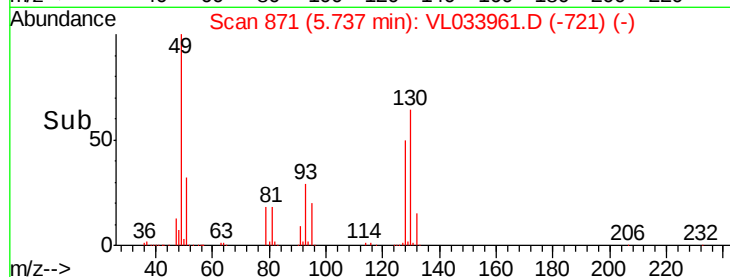
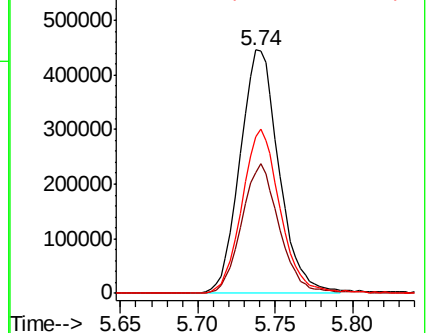
130 66.4 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.034 ppbv

RT: 3.07 min Scan# 41

Delta R.T. -0.00 min

Lab File: VL033961.D

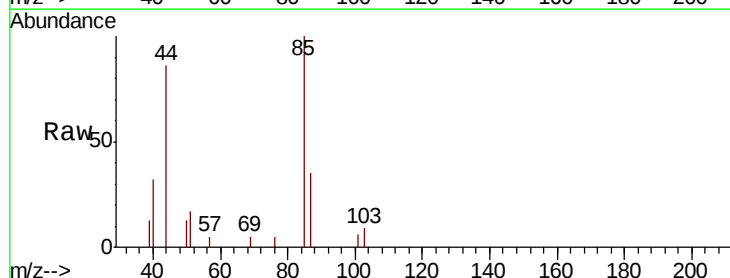
Acq: 25 Jun 2019 7:12

Tgt Ion: 85 Resp: 4297

Ion Ratio Lower Upper

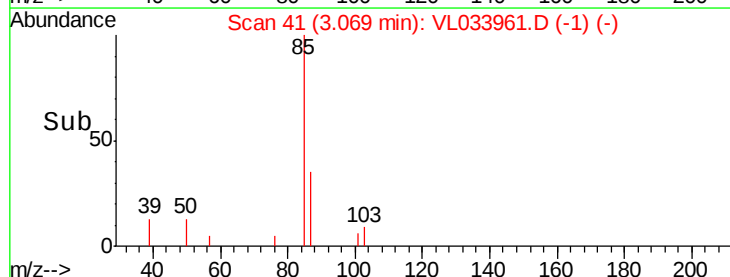
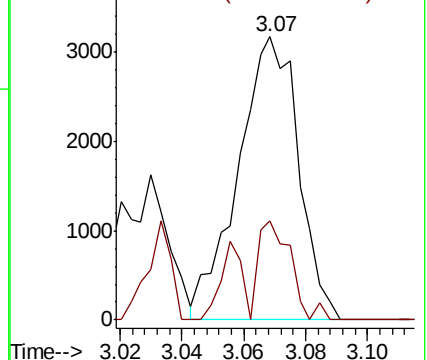
85 100

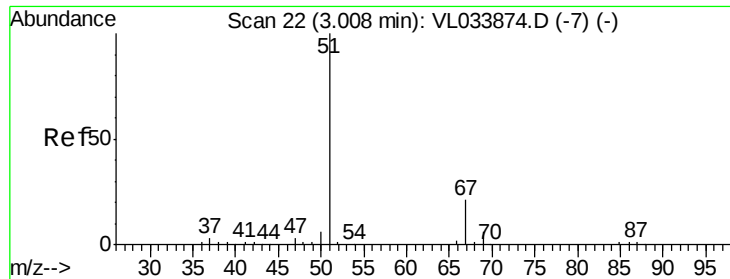
87 35.1 26.6 40.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

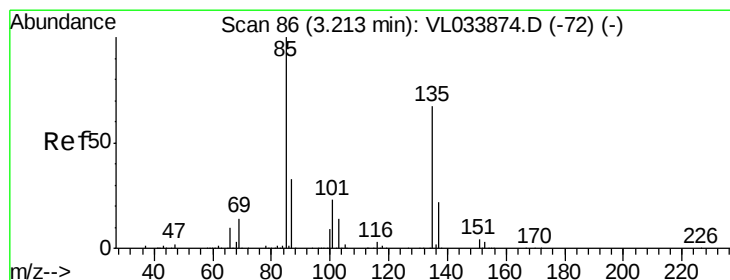
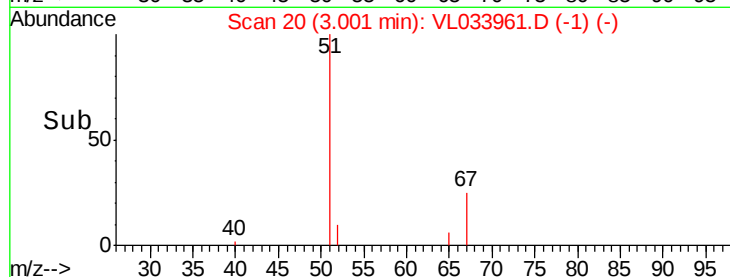
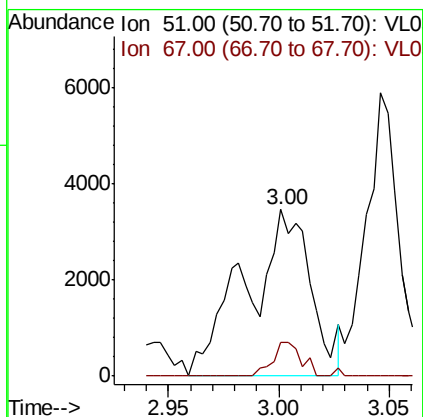
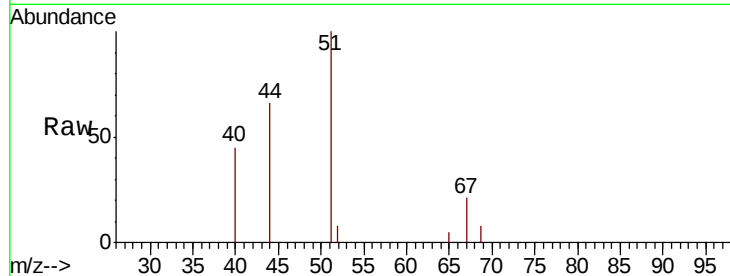




#3  
 Chlorodifluoromethane  
 Concen: 0.077 ppbv  
 RT: 3.00 min Scan# 20  
 Delta R.T. -0.01 min  
 Lab File: VL033961.D  
 Acq: 25 Jun 2019 7:12

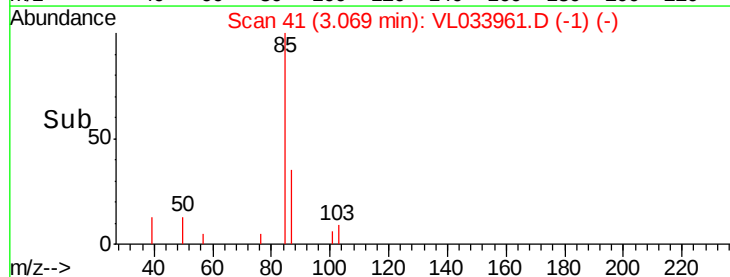
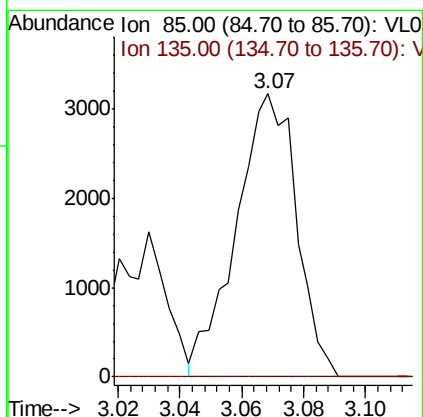
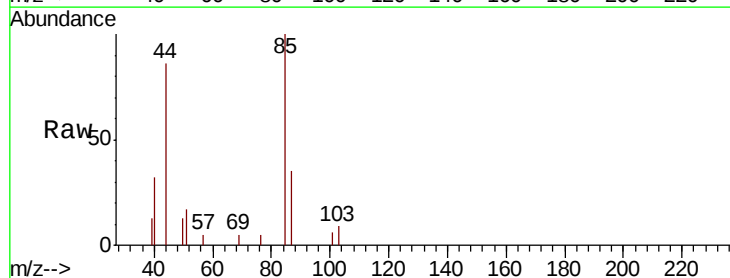
Instrument :  
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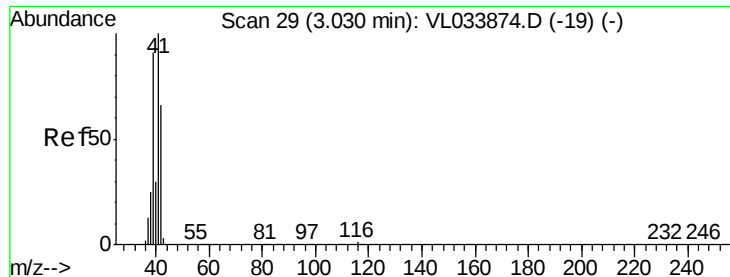
Tot Ion: 51 Resp: 7046  
 Ion Ratio Lower Upper  
 51 100  
 67 9.2 16.4 24.6#



#8  
 Dichlorotetrafluoroethane  
 Concen: 0.032 ppbv  
 RT: 3.07 min Scan# 41  
 Delta R.T. -0.14 min  
 Lab File: VL033961.D  
 Acq: 25 Jun 2019 7:12

Tgt Ion: 85 Resp: 4297  
 Ion Ratio Lower Upper  
 85 100  
 135 0.0 53.7 80.5#





#9

Propene

Concen: 0.043 ppbv

RT: 3.03 min Scan# 28

Delta R.T. -0.00 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

Instrument :

MSVOA\_L

ClientSampleId :

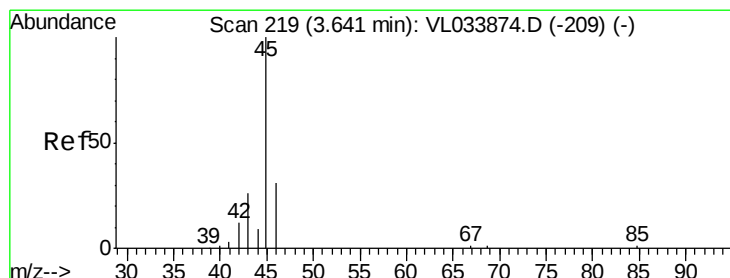
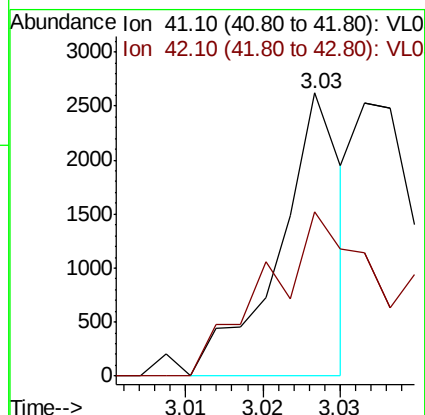
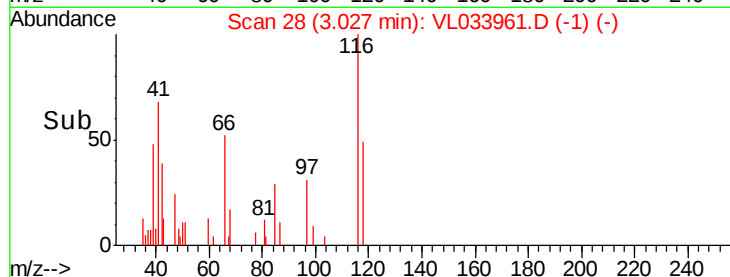
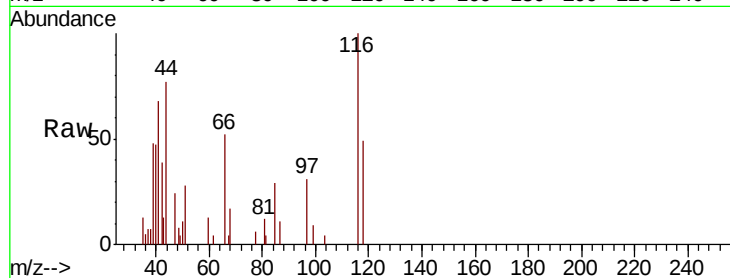
INFLUENTDL

Tot Ion: 41 Resp: 1482

Ion Ratio Lower Upper

41 100

42 157.4 56.3 84.5#



#13

Ethanol

Concen: 2.846 ppbv

RT: 3.64 min Scan# 220

Delta R.T. 0.00 min

Lab File: VL033961.D

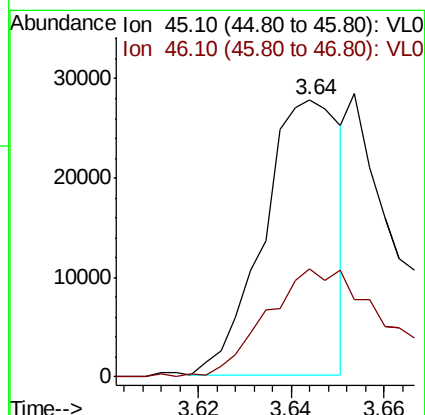
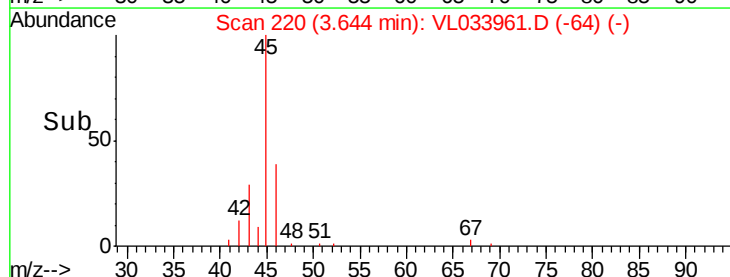
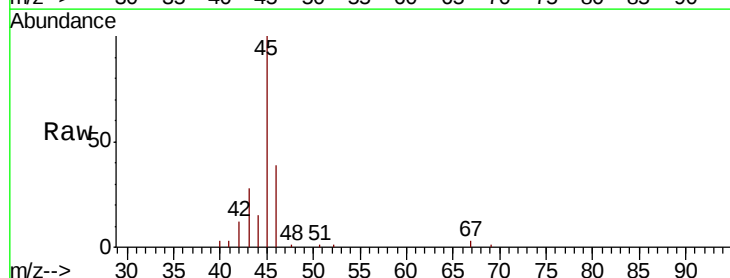
Acq: 25 Jun 2019 7:12

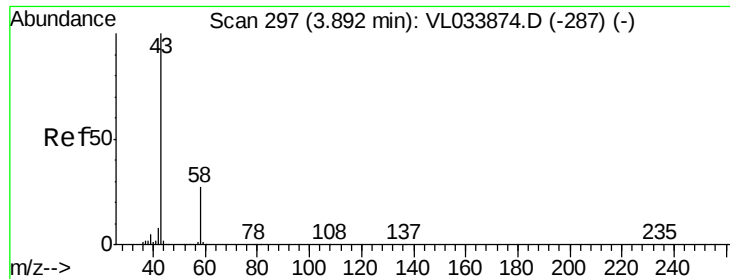
Tgt Ion: 45 Resp: 31835

Ion Ratio Lower Upper

45 100

46 66.2 15.3 61.1#





#15

Acetone

Concen: 0.808 ppbv

RT: 3.89 min Scan# 298

Delta R.T. 0.00 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

Instrument :

MSVOA\_L

ClientSampleId :

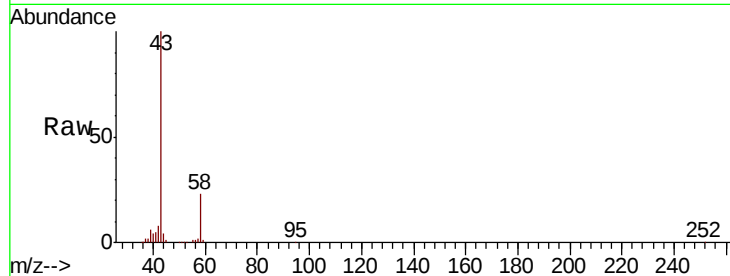
INFLUENTDL

Tot Ion: 43 Resp: 92022

Ion Ratio Lower Upper

43 100

58 26.9 21.3 31.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.89

60000

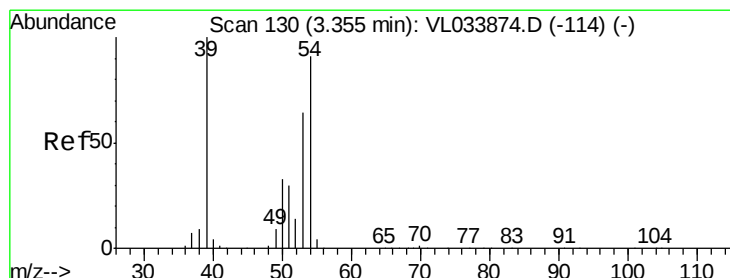
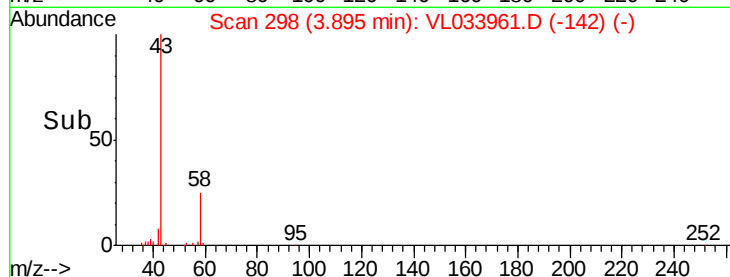
40000

20000

0

Time-->

3.85 3.90 3.95



#16

1,3-Butadiene

Concen: 0.089 ppbv

RT: 3.33 min Scan# 121

Delta R.T. -0.03 min

Lab File: VL033961.D

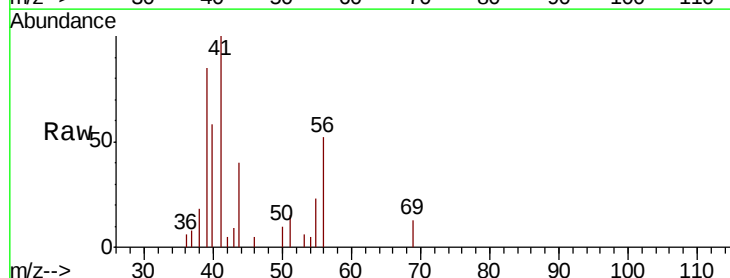
Acq: 25 Jun 2019 7:12

Tgt Ion: 39 Resp: 3848

Ion Ratio Lower Upper

39 100

54 9.6 68.6 103.0#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.33

5000

4000

3000

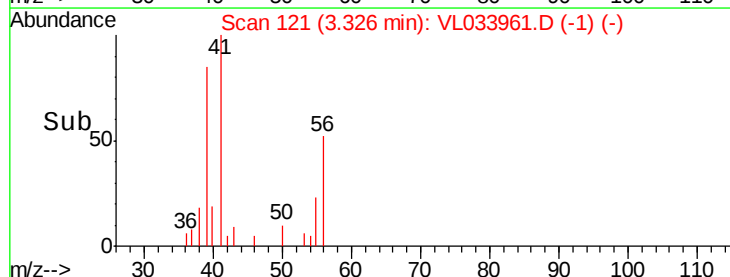
2000

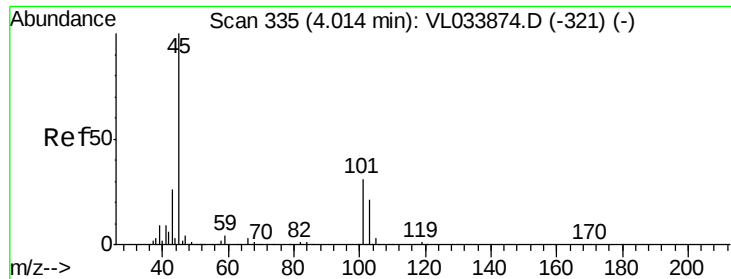
1000

0

Time-->

3.30 3.32 3.34 3.36

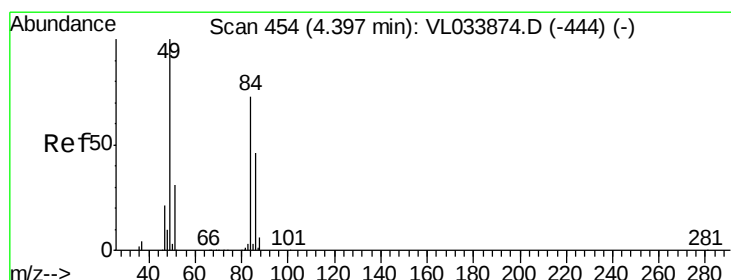
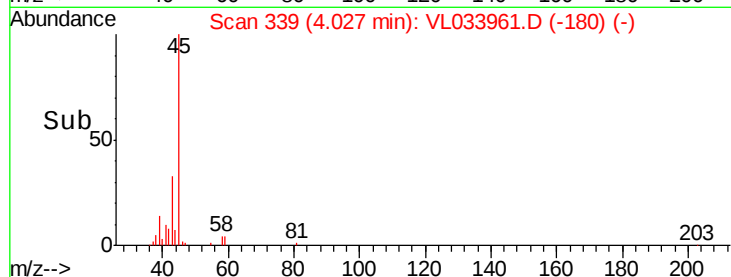
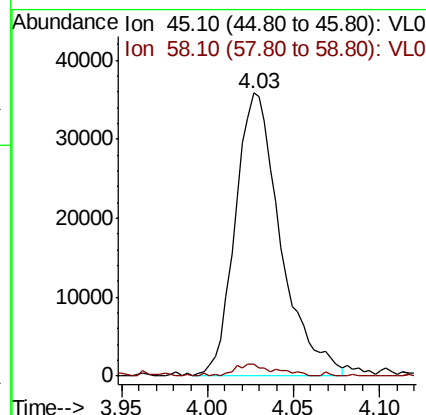
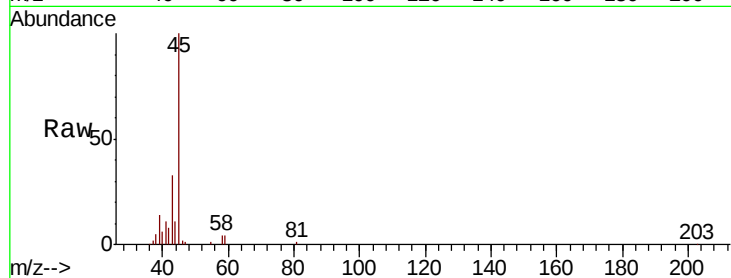




#19  
Isopropyl Alcohol  
Concen: 1.014 ppbv  
RT: 4.03 min Scan# 339  
Delta R.T. 0.01 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

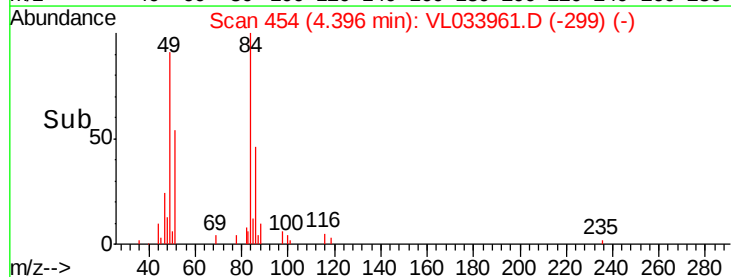
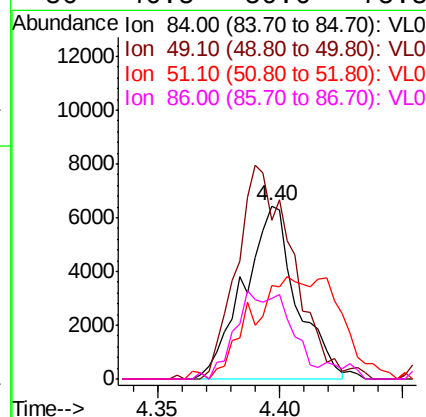
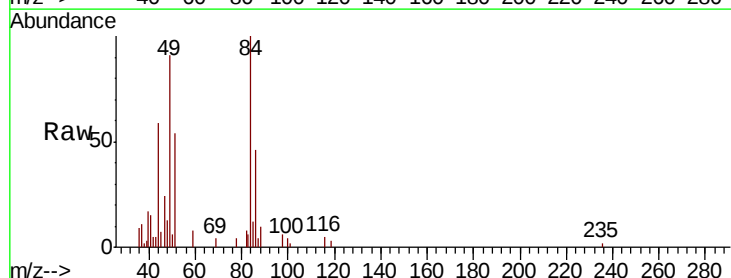
Instrument :  
MSVOA\_L  
ClientSampleId :  
INFLUENTDL

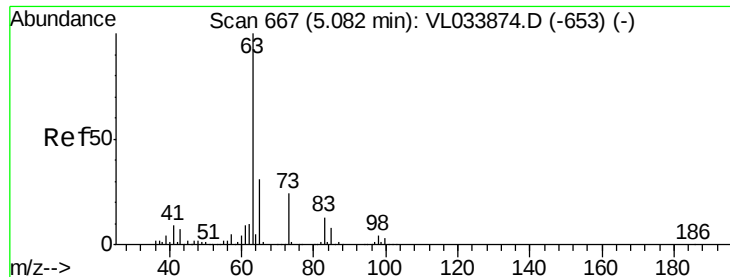
Tot Ion: 45 Resp: 65948  
Ion Ratio Lower Upper  
45 100  
58 4.1 1.8 2.6#



#20  
Methylene Chloride  
Concen: 0.218 ppbv  
RT: 4.40 min Scan# 454  
Delta R.T. -0.00 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

Tgt Ion: 84 Resp: 9699  
Ion Ratio Lower Upper  
84 100  
49 91.5 110.0 165.0#  
51 49.4 34.6 51.8  
86 46.5 50.6 75.8#





#24

1,1-Dichloroethane

Concen: 0.210 ppbv

RT: 5.07 min Scan# 663

Delta R.T. -0.01 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

Instrument :

MSVOA\_L

ClientSampleId :

INFLUENTDL

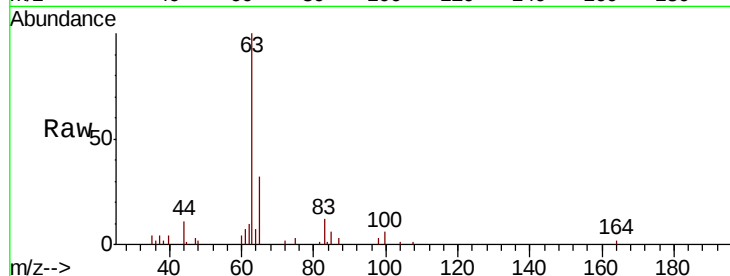
Tot Ion: 63 Resp: 21661

Ion Ratio Lower Upper

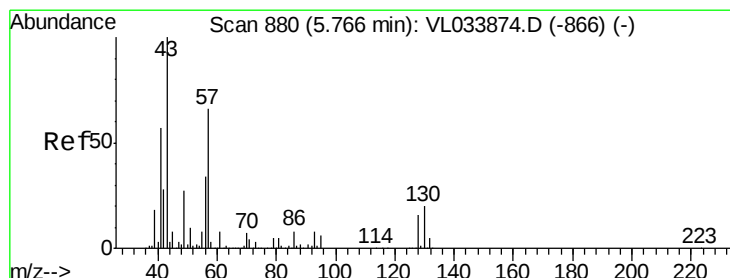
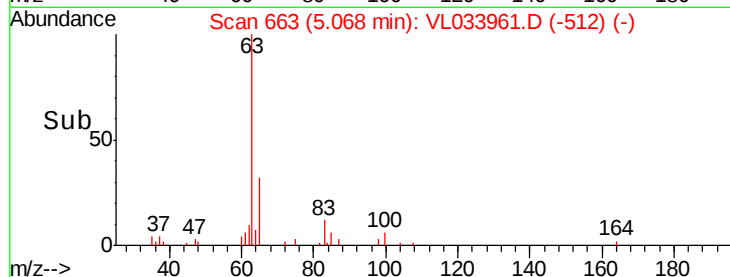
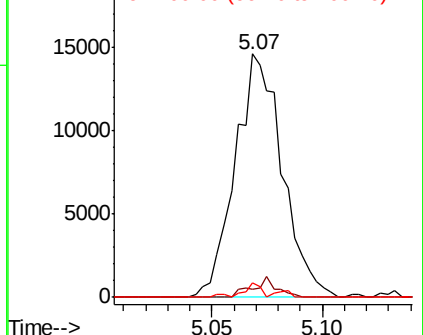
63 100

98 3.1 2.2 6.6

100 5.8 1.3 3.8#



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0



#26

Hexane

Concen: 0.054 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.01 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

Tgt Ion: 57 Resp: 4288

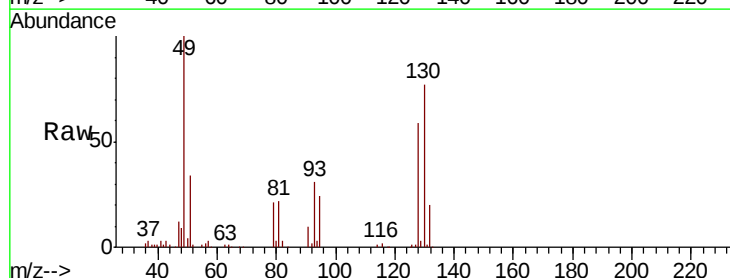
Ion Ratio Lower Upper

57 100

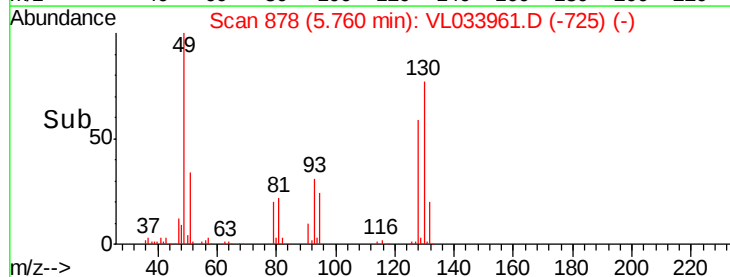
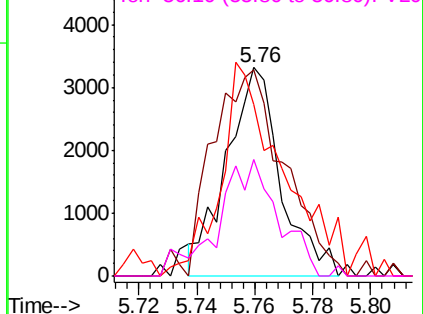
41 134.0 71.4 107.2#

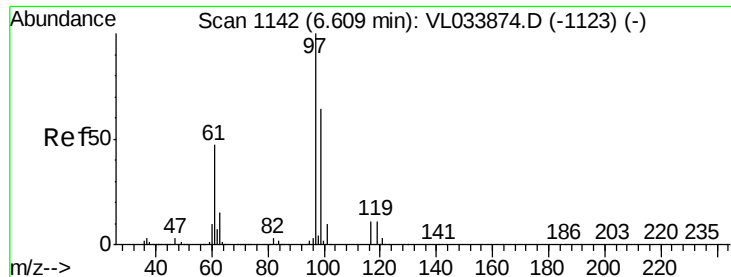
43 129.2 183.7 275.5#

56 62.7 42.7 64.1



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

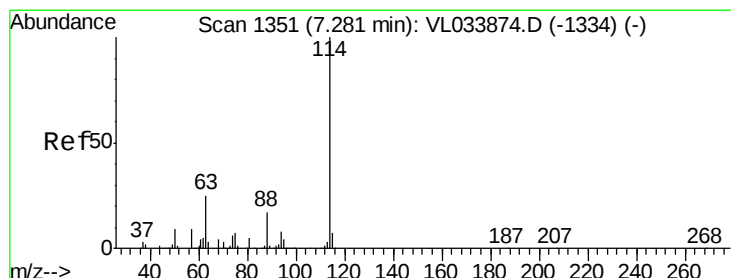
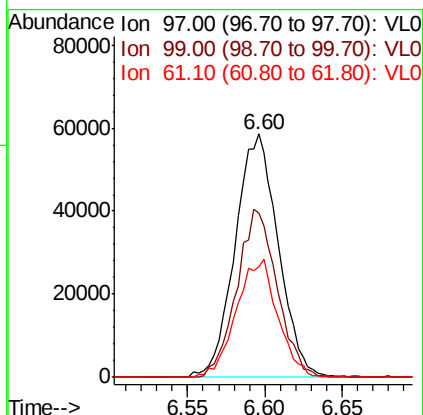
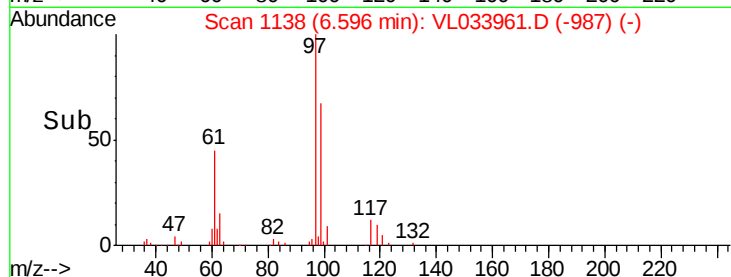
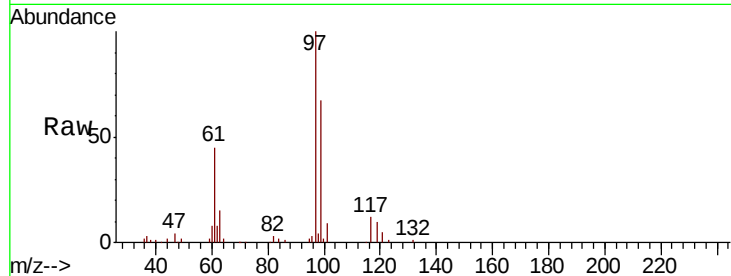




#32  
 1,1,1-Trichloroethane  
 Concen: 0.869 ppbv  
 RT: 6.60 min Scan# 1138  
 Delta R.T. -0.01 min  
 Lab File: VL033961.D  
 Acq: 25 Jun 2019 7:12

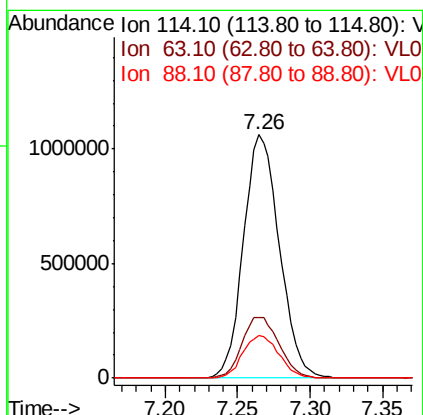
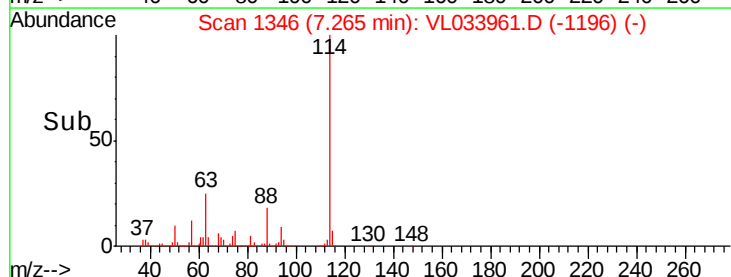
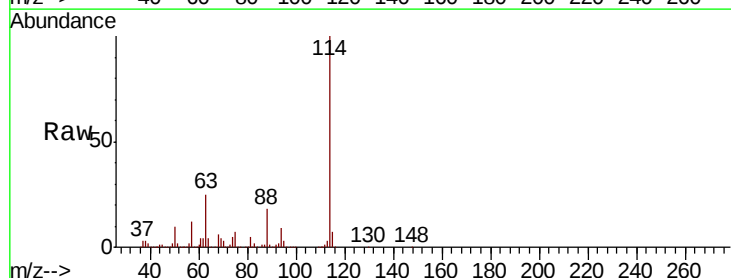
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 INFLUENTDL

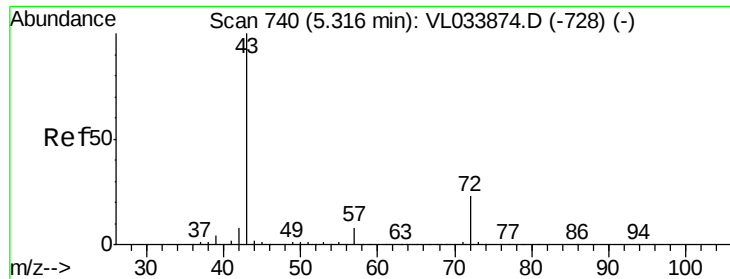
Tot Ion: 97 Resp: 113261  
 Ion Ratio Lower Upper  
 97 100  
 99 64.6 51.7 77.5  
 61 47.2 37.7 56.5



#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.26 min Scan# 1346  
 Delta R.T. -0.02 min  
 Lab File: VL033961.D  
 Acq: 25 Jun 2019 7:12

Tgt Ion: 114 Resp: 1835861  
 Ion Ratio Lower Upper  
 114 100  
 63 25.8 21.1 31.7  
 88 17.9 14.2 21.4

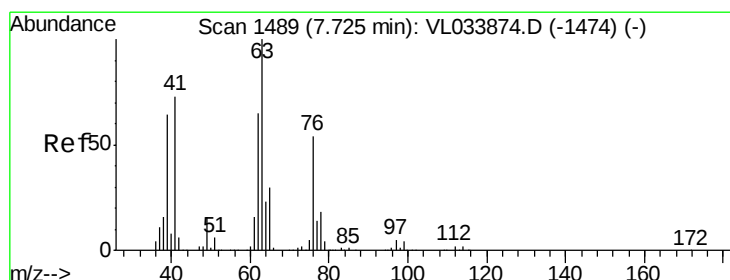
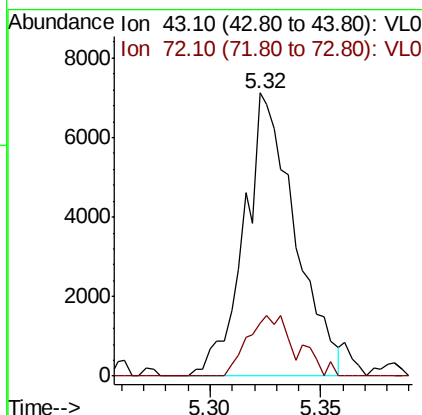
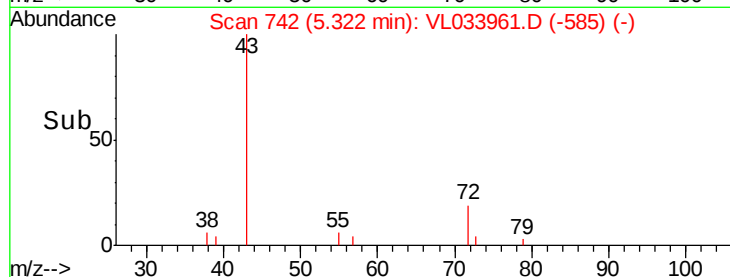
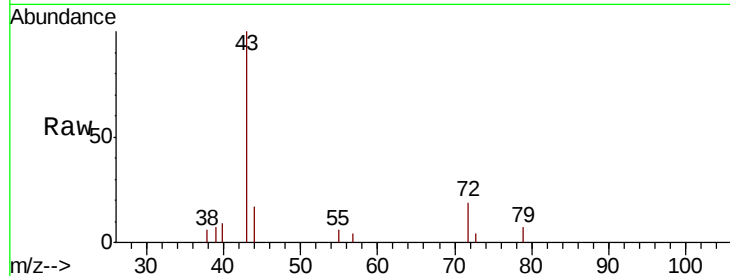




#34  
2-Butanone  
Concen: 0.110 ppbv  
RT: 5.32 min Scan# 742  
Delta R.T. 0.01 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

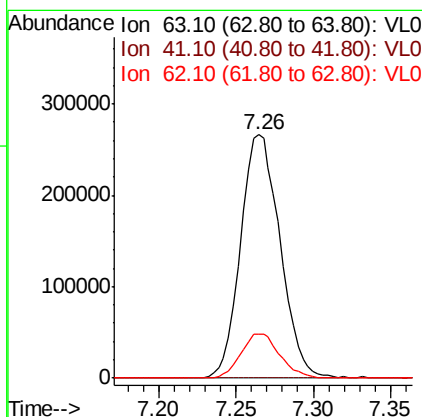
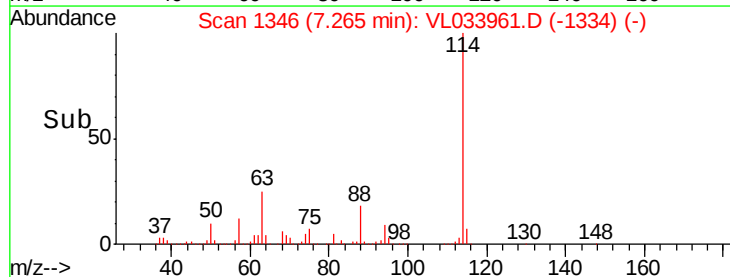
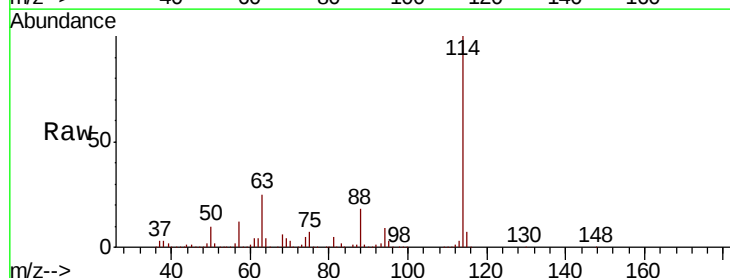
Instrument :  
MSVOA\_L  
ClientSampleId :  
INFLUENTDL

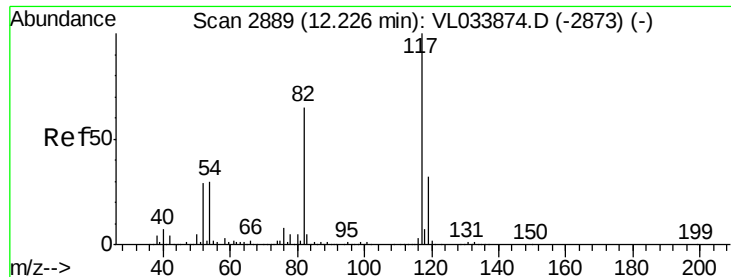
Tot Ion: 43 Resp: 11369  
Ion Ratio Lower Upper  
43 100  
72 20.6 17.9 26.9



#39  
1,2-Dichloropropane  
Concen: 8.722 ppbv  
RT: 7.26 min Scan# 1346  
Delta R.T. -0.46 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

Tgt Ion: 63 Resp: 472056  
Ion Ratio Lower Upper  
63 100  
41 0.1 58.7 88.1#  
62 17.8 51.9 77.9#

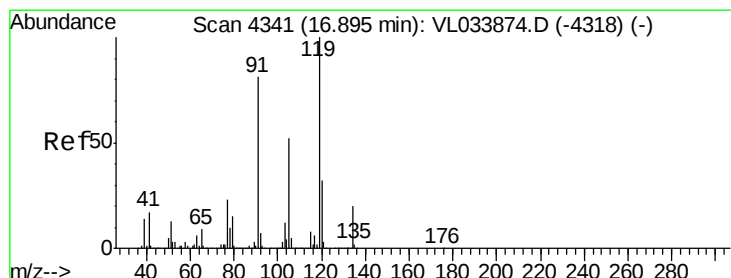
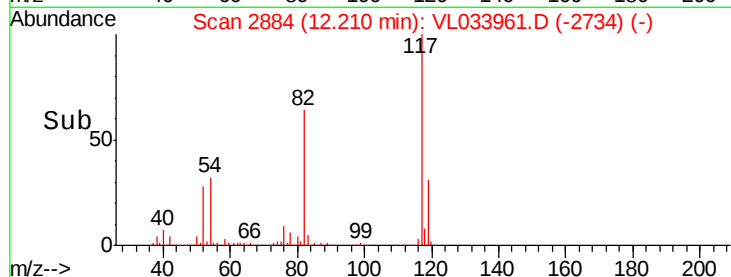
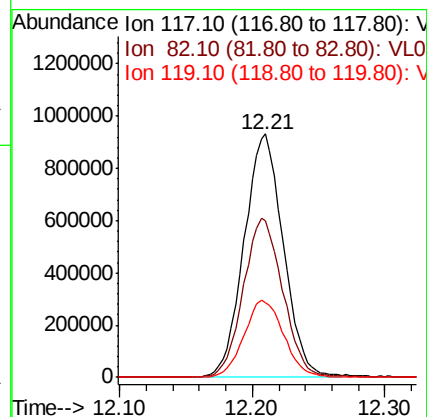
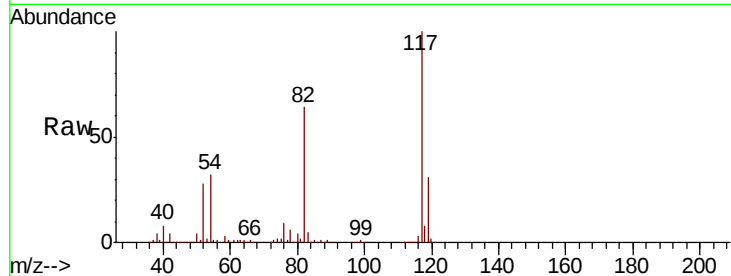




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.21 min Scan# 2884  
Delta R.T. -0.02 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

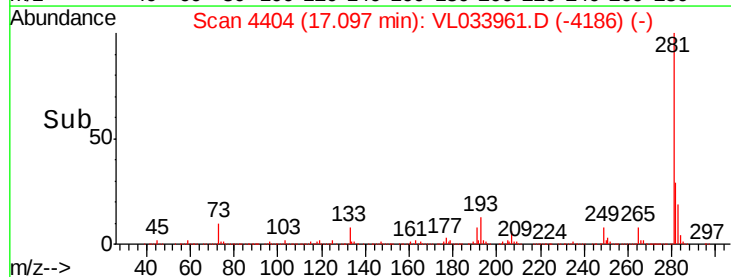
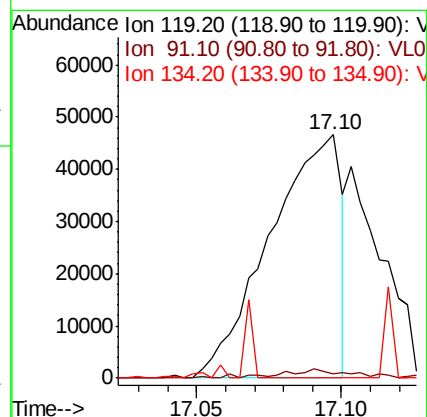
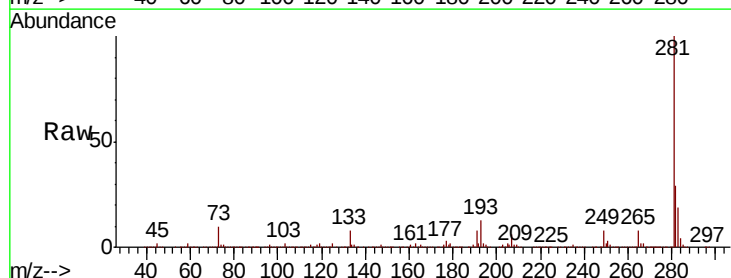
Instrument :  
MSVOA\_L  
ClientSampleId :  
INFLUENTDL

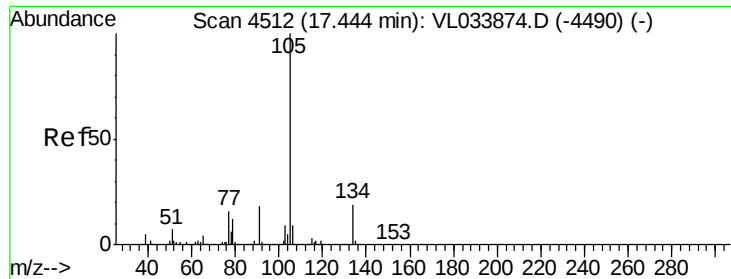
Tot Ion:117 Resp: 1912315  
Ion Ratio Lower Upper  
117 100  
82 66.6 50.2 75.2  
119 32.3 24.8 37.2



#65  
tert-Butylbenzene  
Concen: 0.315 ppbv  
RT: 17.10 min Scan# 4404  
Delta R.T. 0.20 min  
Lab File: VL033961.D  
Acq: 25 Jun 2019 7:12

Tgt Ion:119 Resp: 79453  
Ion Ratio Lower Upper  
119 100  
91 4.2 66.6 100.0#  
134 4.9 15.5 23.3#





#67

sec-Butylbenzene

Concen: 0.059 ppbv

RT: 17.09 min Scan# 4402

Delta R.T. -0.35 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

Instrument :

MSVOA\_L

ClientSampleID :

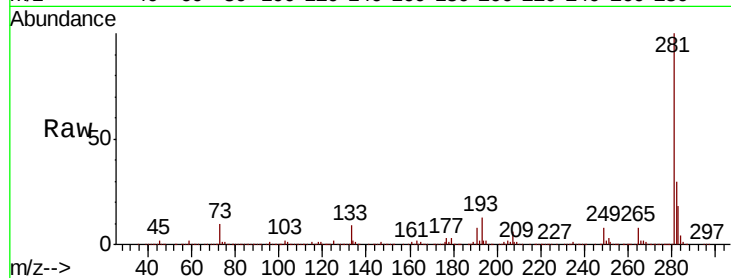
INFLUENTDL

Tot Ion:105 Resp: 21049

Ion Ratio Lower Upper

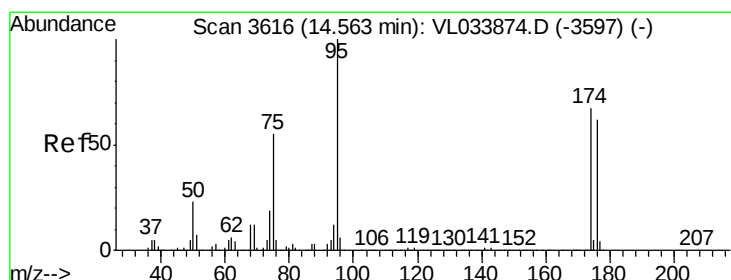
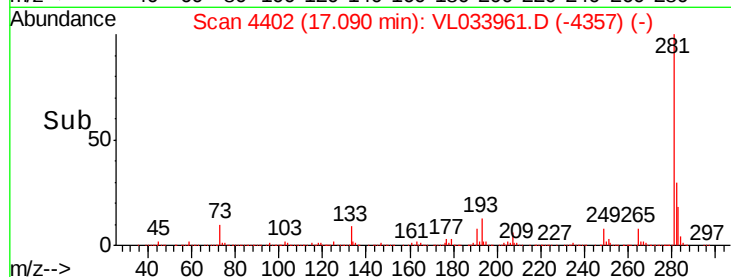
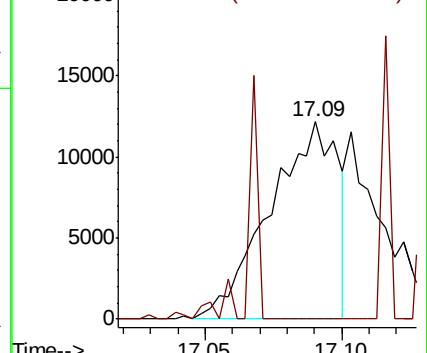
105 100

134 18.6 14.6 22.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.767 ppbv

RT: 14.54 min Scan# 3610

Delta R.T. -0.02 min

Lab File: VL033961.D

Acq: 25 Jun 2019 7:12

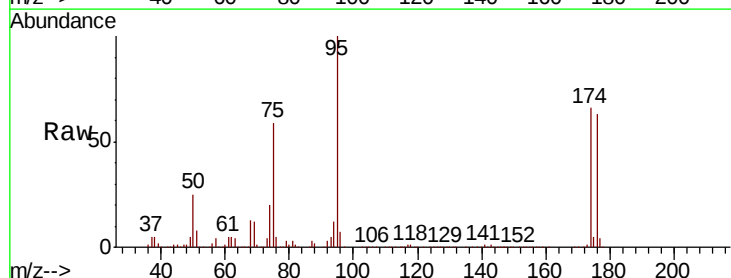
Tgt Ion: 95 Resp: 1534146

Ion Ratio Lower Upper

95 100

174 67.4 54.0 81.0

175 4.9 3.8 5.8



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

