

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091420\  
 Data File : VL035613.D  
 Acq On : 15 Sep 2020 00:10  
 Operator : SY/AP  
 Sample : L3983-01DL 40X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV-8DL

Manual Integrations  
 APPROVED

MMDadoda  
 9/17/2020 5:40:50 PM

Quant Time: Sep 17 16:46:10 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Sep 14 2020  
 QLast Update : Mon Sep 14 15:19:50 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1031976  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 4526217  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 4314469  | 10.00 | ppbv  | 0.02     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.44  | 95    | 3220010  | 10.51    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 105.10% |

| Target Compounds             | R.T.  | QIon | Response  | Conc    | Units  | Ovalue |
|------------------------------|-------|------|-----------|---------|--------|--------|
| 5) Vinyl Chloride            | 3.24  | 62   | 82183     | 1.090   | ppbv   | 99     |
| 9) Propene                   | 3.00  | 41   | 81314     | 1.848   | ppbv   | 90     |
| 13) Ethanol                  | 3.60  | 45   | 29167     | 2.674   | ppbv   | 98     |
| 15) Acetone                  | 3.84  | 43   | 2575484   | 22.628  | ppbv   | 94     |
| 18) 1,1-Dichloroethene       | 4.28  | 96   | 254432    | 2.935   | ppbv   | 98     |
| 22) trans-1,2-Dichloroethene | 4.87  | 96   | 422886    | 4.583   | ppbv   | 92     |
| 29) Chloroform               | 5.74  | 83   | 55195     | 0.238   | ppbv   | 98     |
| 31) cis-1,2-Dichloroethene   | 5.54  | 61   | 8412649   | 71.974  | ppbv # | 93     |
| 34) 2-Butanone               | 5.26  | 43   | 226715    | 1.688   | ppbv   | 99     |
| 36) Benzene                  | 6.89  | 78   | 81053     | 0.277   | ppbv   | 97     |
| 38) Trichloroethene          | 7.83  | 130  | 13491698m | 79.275  | ppbv   |        |
| 50) 4-Methyl-2-Pentanone     | 8.75  | 43   | 290000    | 1.491   | ppbv   | 98     |
| 52) Tetrachloroethene        | 11.22 | 164  | 21185357m | 123.773 | ppbv   |        |
| 53) Toluene                  | 9.81  | 91   | 264725    | 0.718   | ppbv   | 97     |
| 58) Ethyl Benzene            | 12.74 | 91   | 65988m    | 0.148   | ppbv   |        |
| 59) m/p-Xylene               | 13.00 | 91   | 187822    | 0.505   | ppbv   | 97     |
| 60) o-Xylene                 | 13.71 | 91   | 66982     | 0.179   | ppbv   | 99     |
| 74) 1,2,4-Trimethylbenzene   | 16.77 | 105  | 72552     | 0.150   | ppbv # | 70     |

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

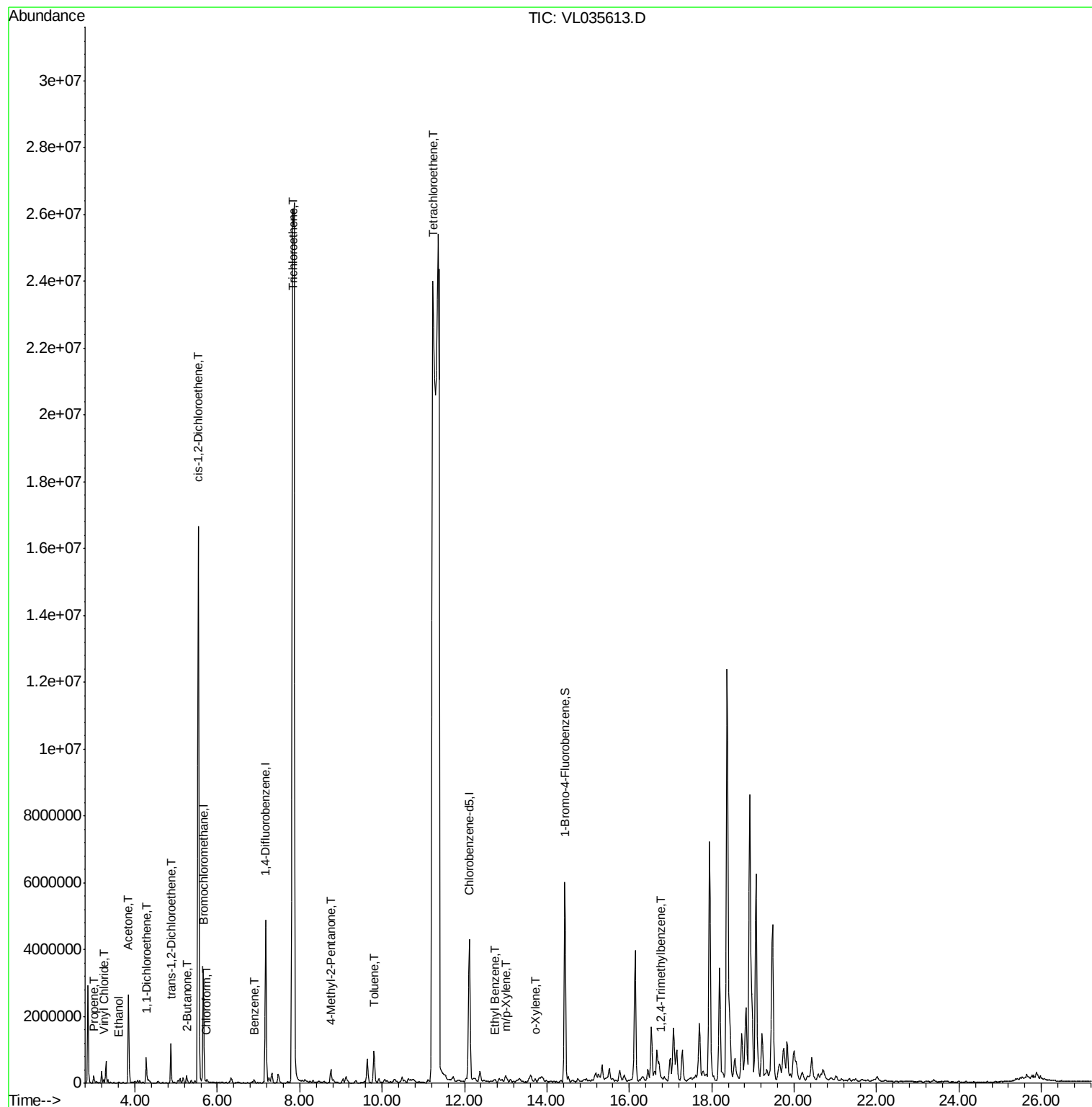
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL091420\  
Data File : VL035613.D  
Acq On : 15 Sep 2020 00:10  
Operator : SY/AP  
Sample : L3983-01DL 40X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

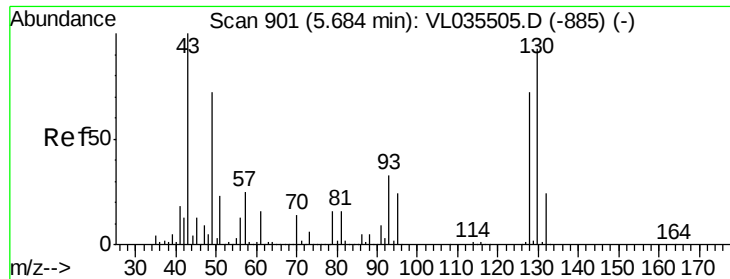
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV-8DL

Manual Integrations  
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9/17/2020 5:40:50 PM

Quant Time: Sep 17 16:46:10 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Sep  
QLast Update : Mon Sep 14 15:19:50 2020  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampleId :

SV-8DL

Tot Ion: 49 Resp: 1031976

Ion Ratio Lower Upper

49 100

128 95.0 50.0 150.1

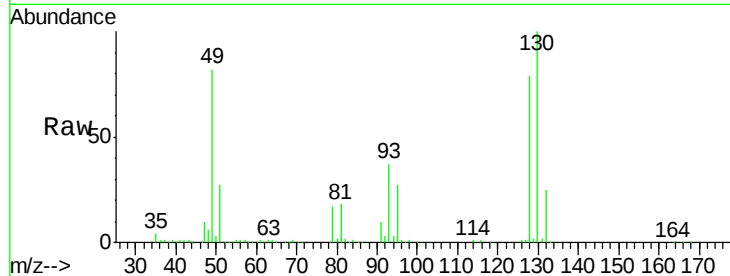
130 122.8 64.4 193.2

Manual Integrations

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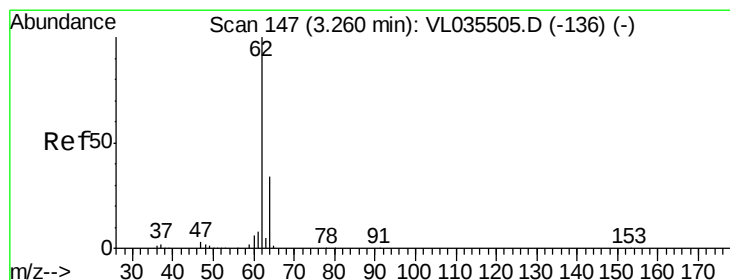
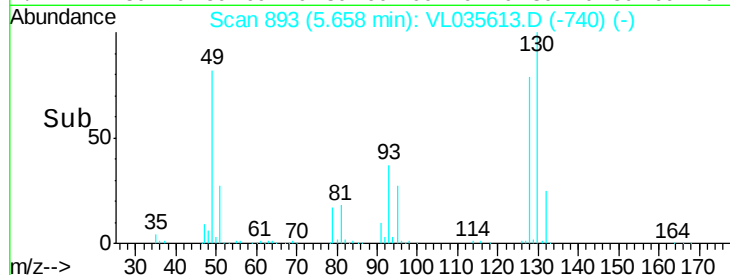
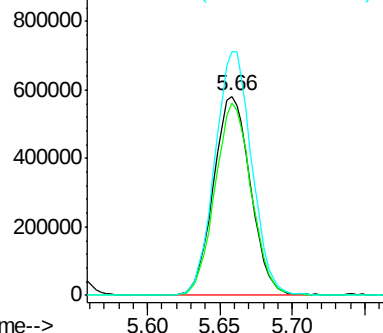
9/17/2020 5:40:50 PM



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



#5

Vinyl Chloride

Concen: 1.090 ppbv

RT: 3.24 min Scan# 142

Delta R.T. -0.00 min

Lab File: VL035613.D

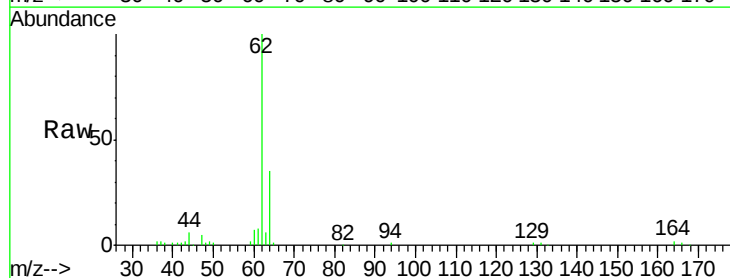
Acq: 15 Sep 2020 00:10

Tgt Ion: 62 Resp: 82183

Ion Ratio Lower Upper

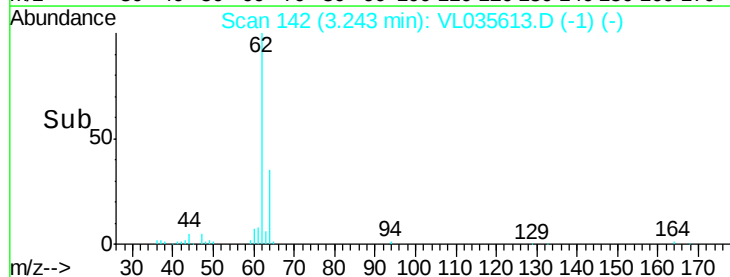
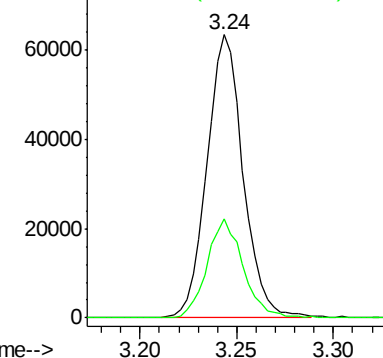
62 100

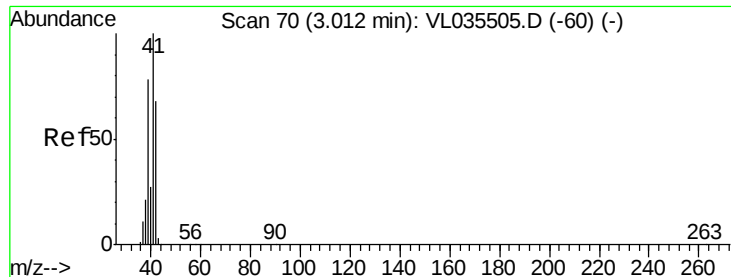
64 35.0 27.4 41.2



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0





#9

Propene

Concen: 1.848 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.00 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampleId :

SV-8DL

Tot Ion: 41 Resp: 81314

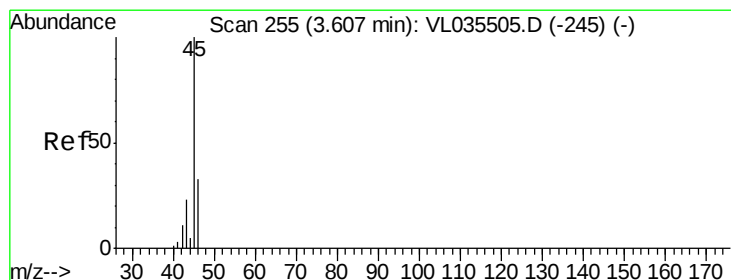
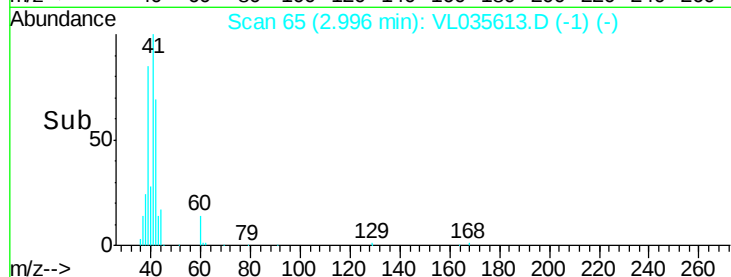
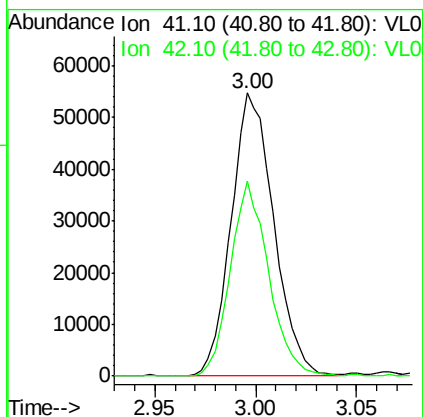
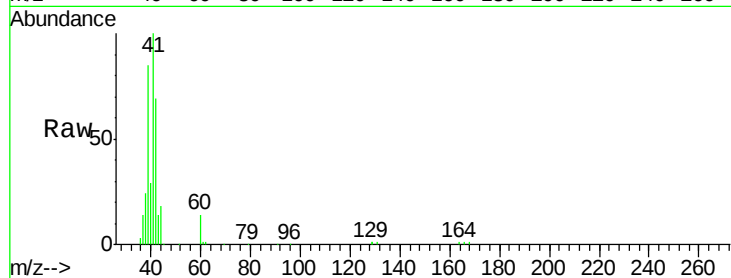
Ion Ratio Lower Upper

41 100

42 62.0 56.3 84.5

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#13

Ethanol

Concen: 2.674 ppbv

RT: 3.60 min Scan# 254

Delta R.T. 0.01 min

Lab File: VL035613.D

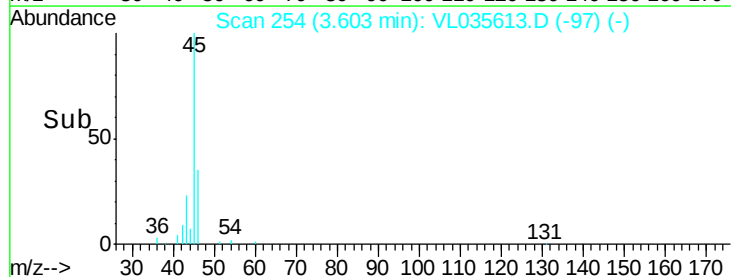
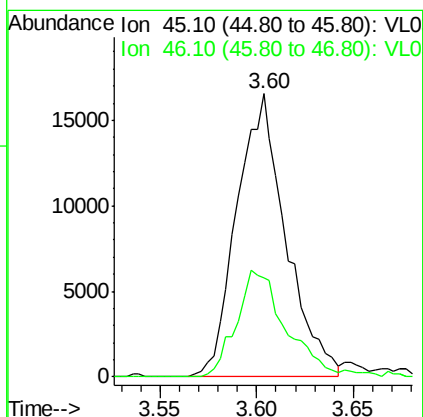
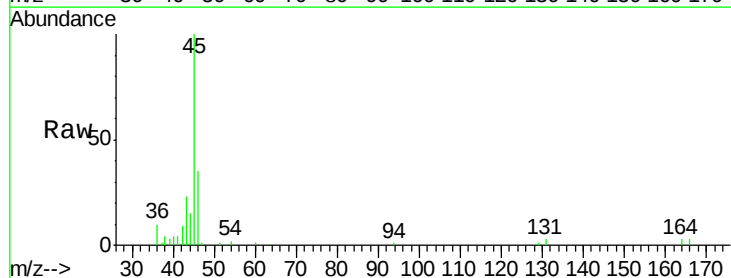
Acq: 15 Sep 2020 00:10

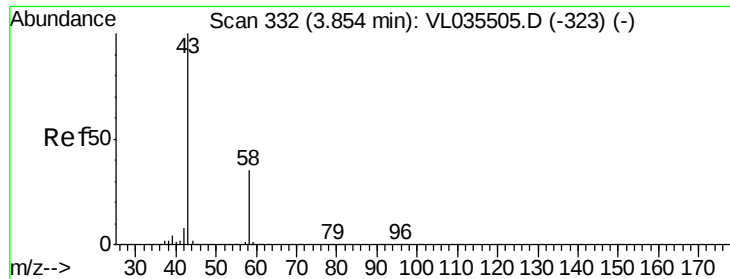
Tgt Ion: 45 Resp: 29167

Ion Ratio Lower Upper

45 100

46 39.2 15.2 60.6





#15

Acetone

Concen: 22.628 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampleId :

SV-8DL

Tot Ion: 43 Resp: 2575484

Ion Ratio Lower Upper

43 100

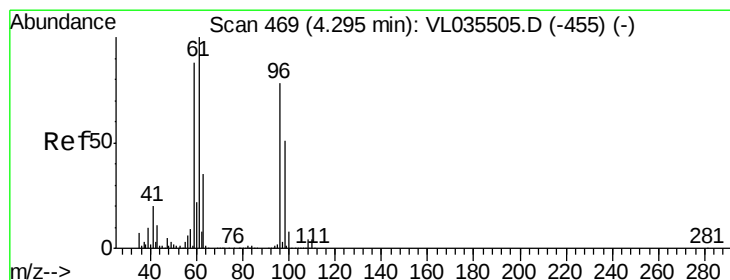
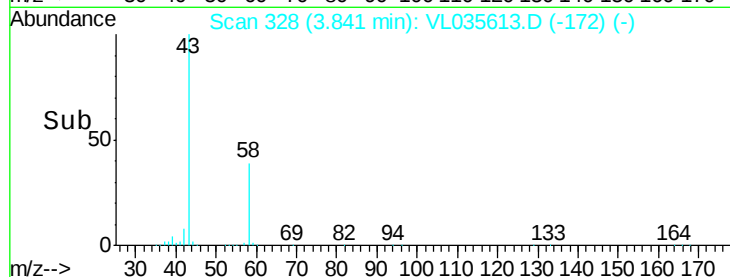
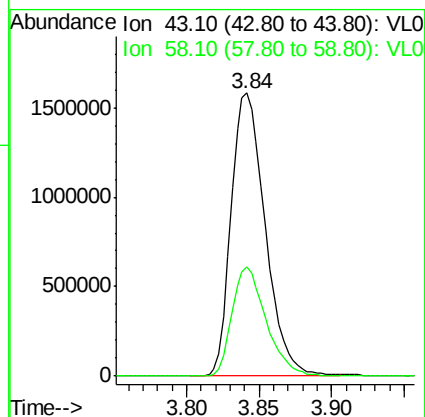
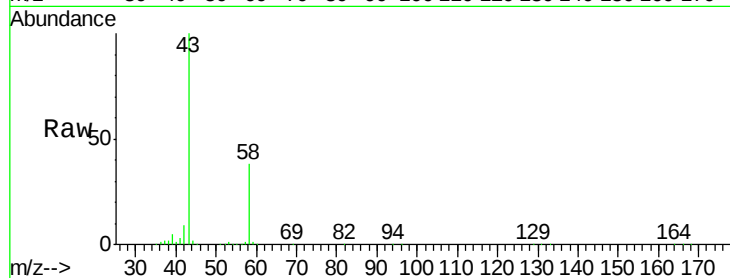
58 38.9 28.4 42.6

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#18

1,1-Dichloroethene

Concen: 2.935 ppbv

RT: 4.28 min Scan# 463

Delta R.T. -0.00 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

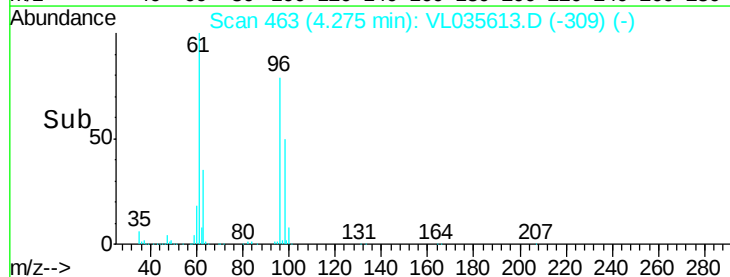
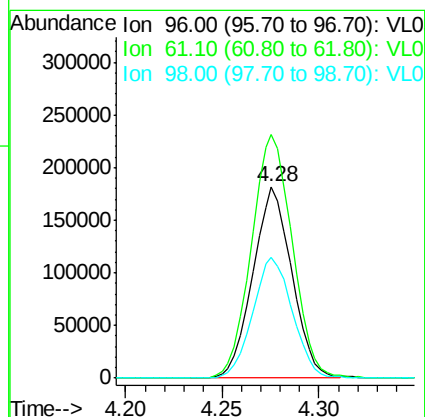
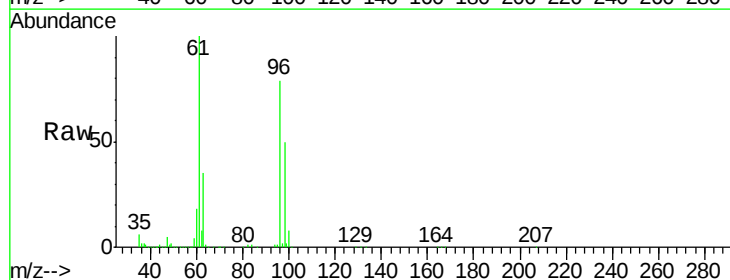
Tgt Ion: 96 Resp: 254432

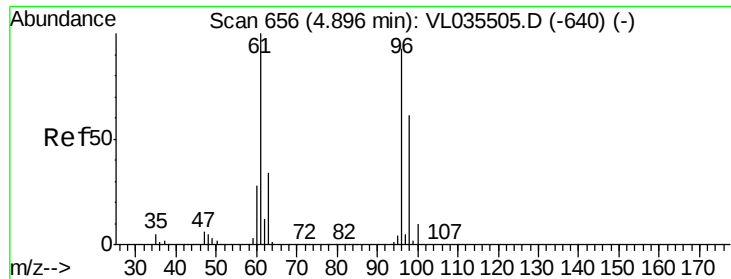
Ion Ratio Lower Upper

96 100

61 127.2 103.0 154.6

98 63.0 52.8 79.2





#22

trans-1,2-Dichloroethene

Concen: 4.583 ppbv

RT: 4.87 min Scan# 648

Delta R.T. -0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

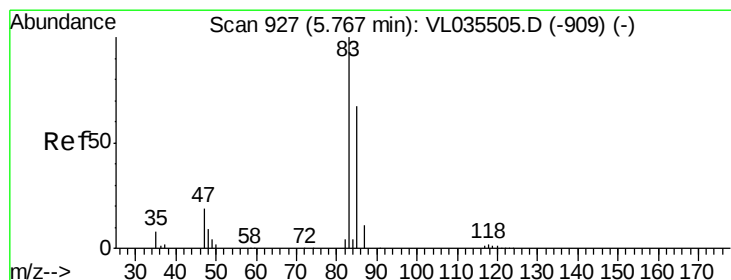
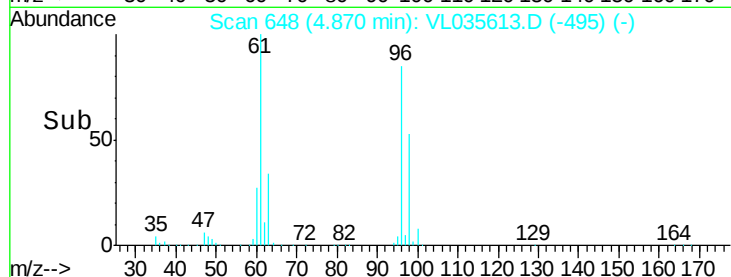
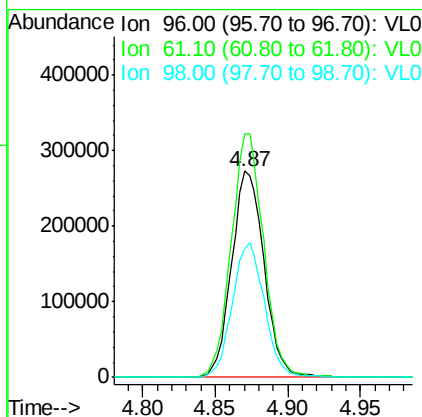
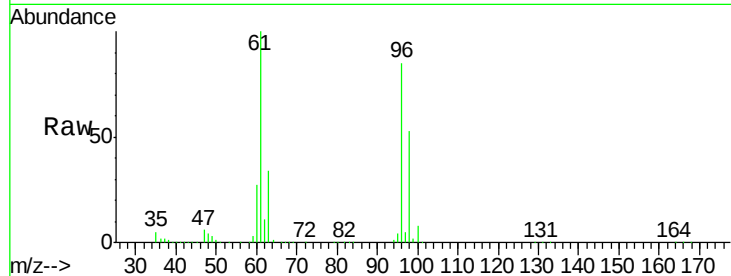
ClientSampleId :

SV-8DL

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 96    | Resp: | 422886 |
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 117.9 | 86.0  | 129.0  |
| 98       | 62.6  | 52.3  | 78.5   |

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#29

Chloroform

Concen: 0.238 ppbv

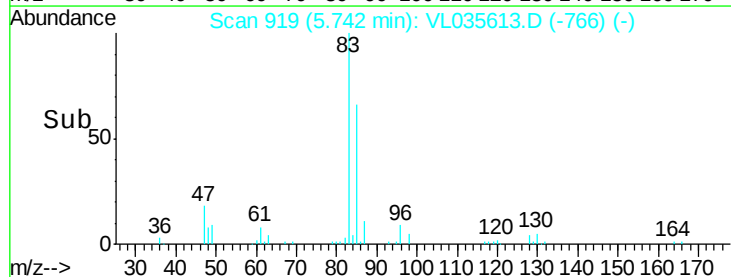
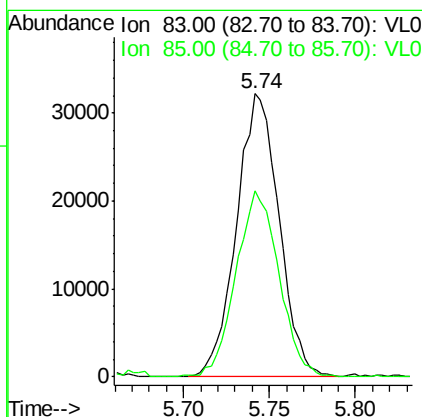
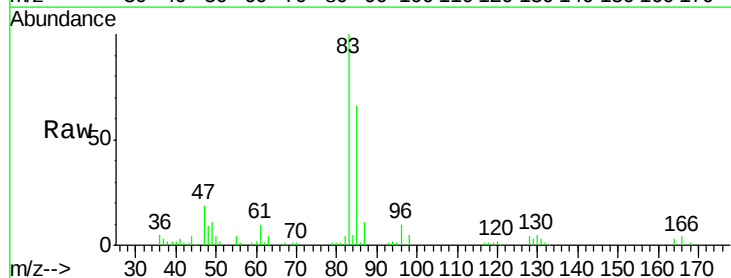
RT: 5.74 min Scan# 919

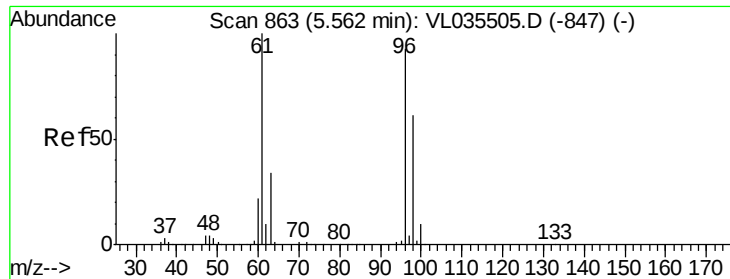
Delta R.T. -0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 55195 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 65.6  | 53.9  | 80.9  |





#31

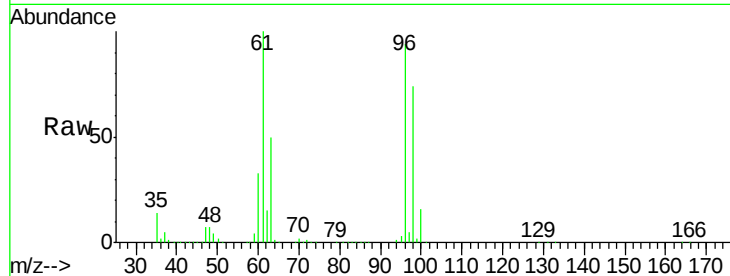
cis-1,2-Dichloroethene  
Concen: 71.974 ppbv  
RT: 5.54 min Scan# 856  
Delta R.T. -0.01 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Instrument :  
MSVOA\_L  
ClientSampleId :  
SV-8DL

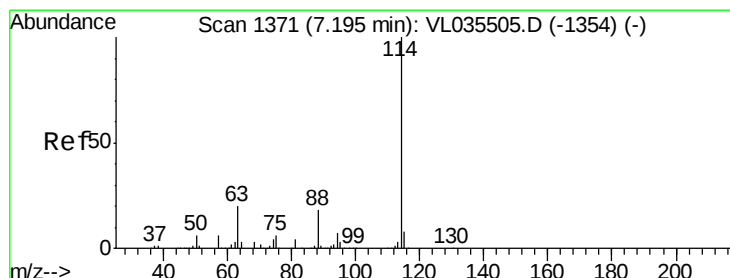
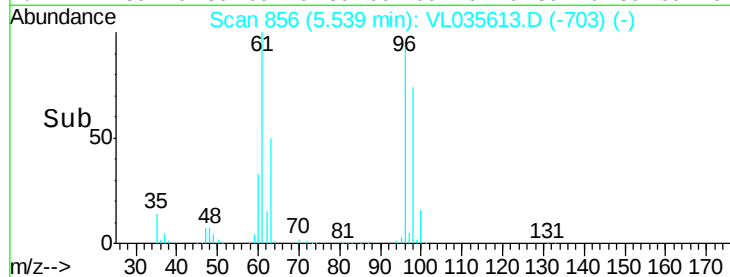
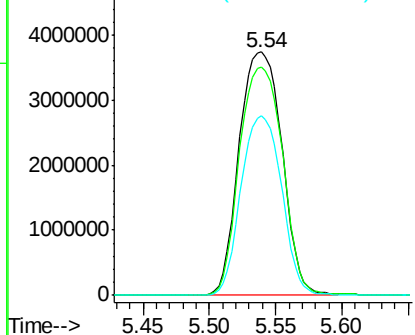
Tot Ion: 61 Resp: 8412649  
Ion Ratio Lower Upper  
61 100  
96 93.7 74.4 111.6  
98 73.8 49.2 73.8#

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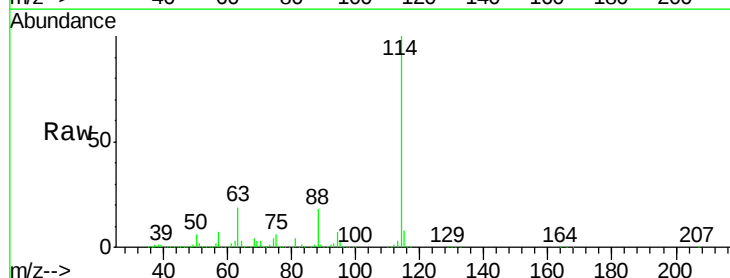
Abundance Ion 61.10 (60.80 to 61.80): VL0  
Ion 96.00 (95.70 to 96.70): VL0  
Ion 98.00 (97.70 to 98.70): VL0



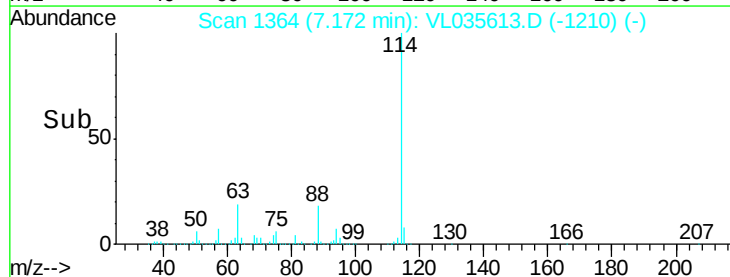
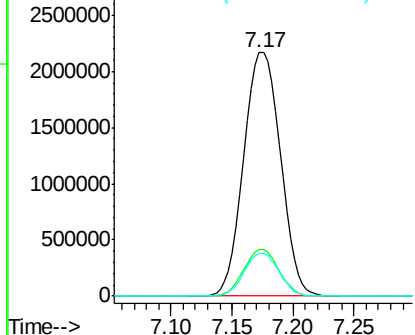
#33

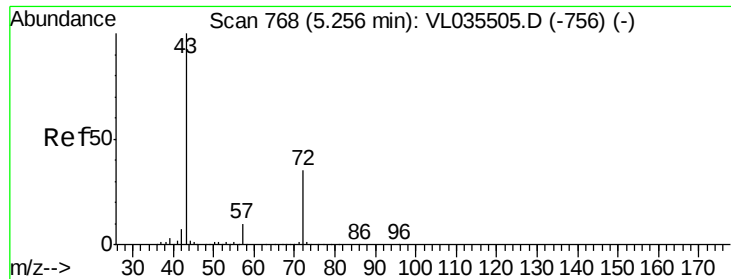
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.17 min Scan# 1364  
Delta R.T. -0.00 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Tgt Ion: 114 Resp: 4526217  
Ion Ratio Lower Upper  
114 100  
63 18.1 14.7 22.1  
88 16.7 13.4 20.2



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: 1.688 ppbv

RT: 5.26 min Scan# 768

Delta R.T. 0.02 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampled :

SV-8DL

Tot Ion: 43 Resp: 226715

Ion Ratio Lower Upper

43 100

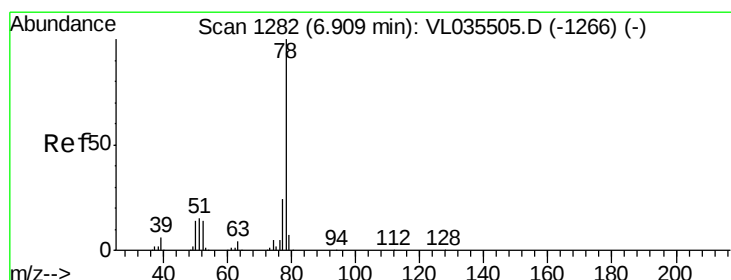
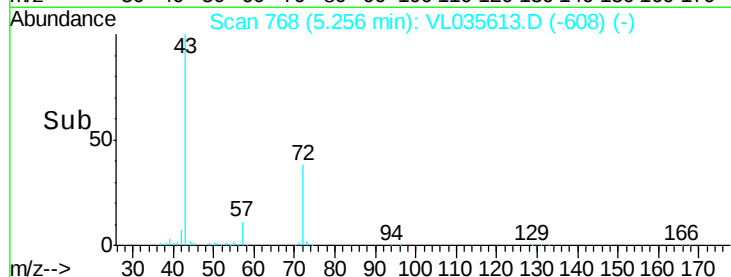
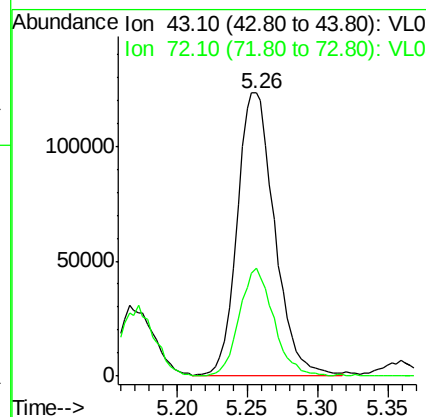
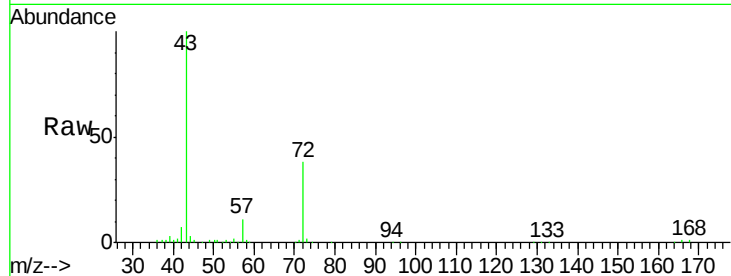
72 35.4 27.7 41.5

Manual Integrations

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#36

Benzene

Concen: 0.277 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.00 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

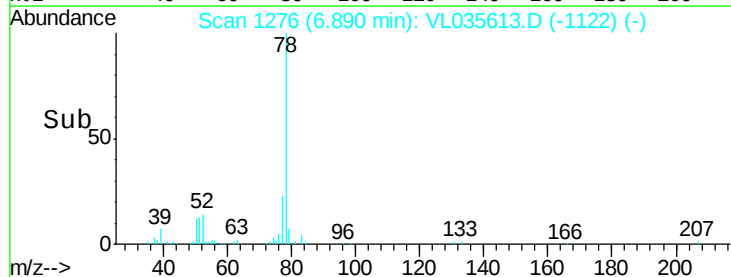
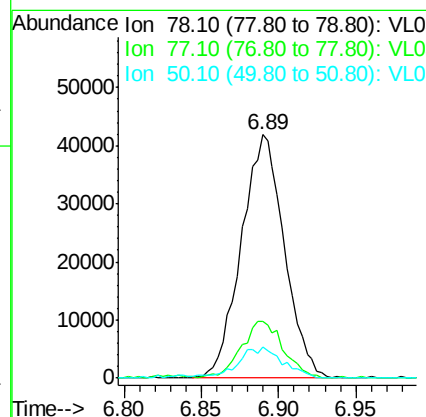
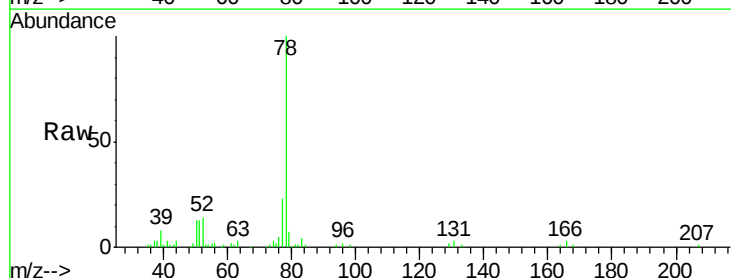
Tgt Ion: 78 Resp: 81053

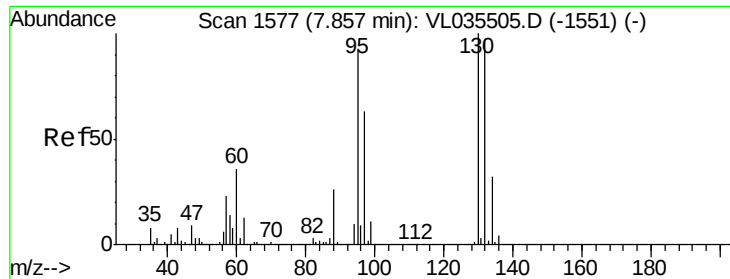
Ion Ratio Lower Upper

78 100

77 22.8 19.3 28.9

50 12.8 11.0 16.6





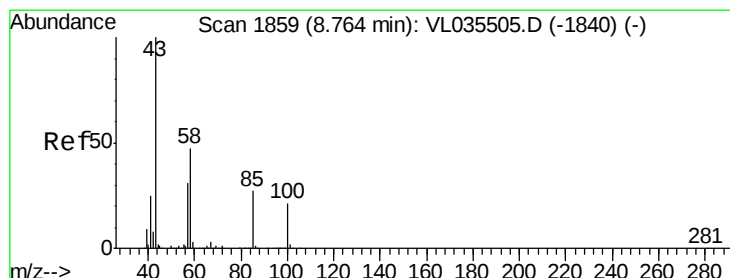
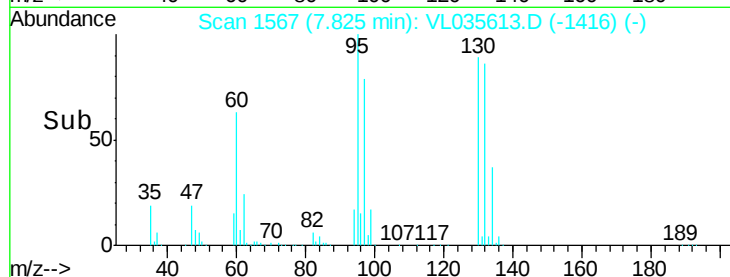
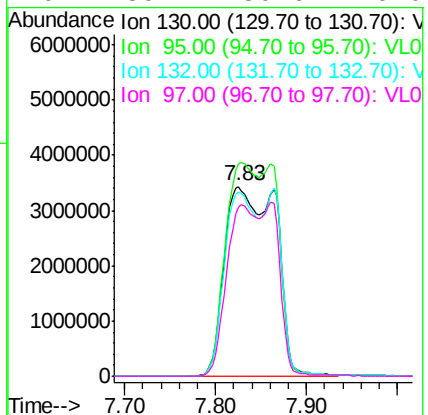
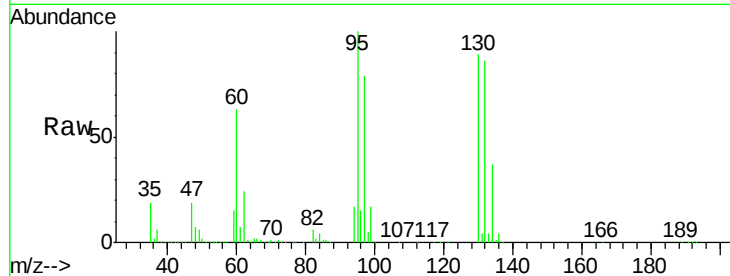
#38  
 Trichloroethene  
 Concen: 79.275 ppbv m  
 RT: 7.83 min Scan# 1567  
 Delta R.T. -0.01 min  
 Lab File: VL035613.D  
 Acq: 15 Sep 2020 00:10

Instrument :  
 MSVOA\_L  
 ClientSampled :  
 SV-8DL

Tot Ion:130 Resp:13491698  
 Ion Ratio Lower Upper  
 130 100  
 95 112.3 74.6 112.0#  
 132 96.9 77.6 116.4  
 97 89.1 50.6 76.0#

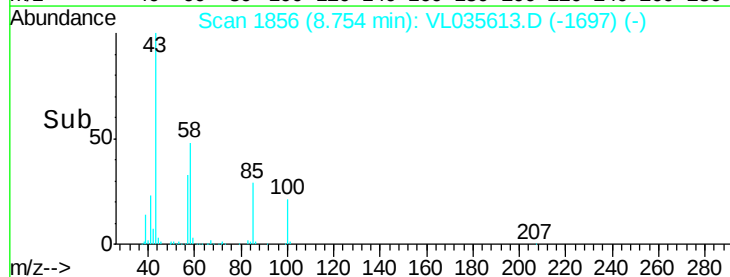
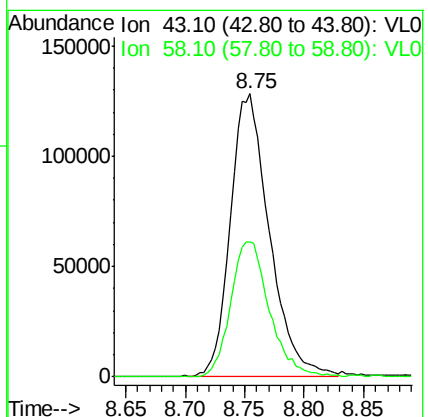
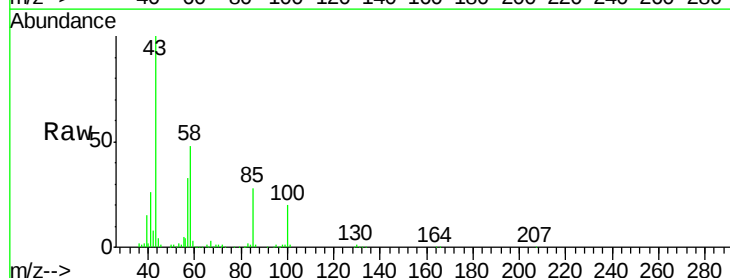
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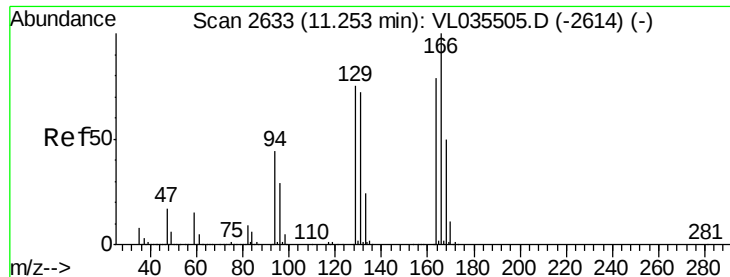
MMDadoda  
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#50  
 4-Methyl-2-Pentanone  
 Concen: 1.491 ppbv  
 RT: 8.75 min Scan# 1856  
 Delta R.T. 0.01 min  
 Lab File: VL035613.D  
 Acq: 15 Sep 2020 00:10

Tgt Ion: 43 Resp: 290000  
 Ion Ratio Lower Upper  
 43 100  
 58 48.1 37.4 56.0





#52

Tetrachloroethene

Concen: 123.773 ppbv m

RT: 11.22 min Scan# 2624

Delta R.T. -0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampled :

SV-8DL

Tot Ion:164 Resp:21185357

Ion Ratio Lower Upper

164 100

166 113.5 100.9 151.3

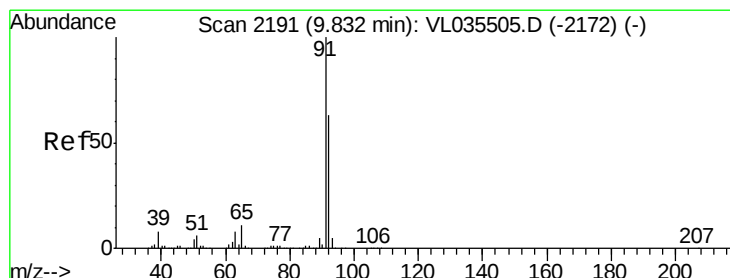
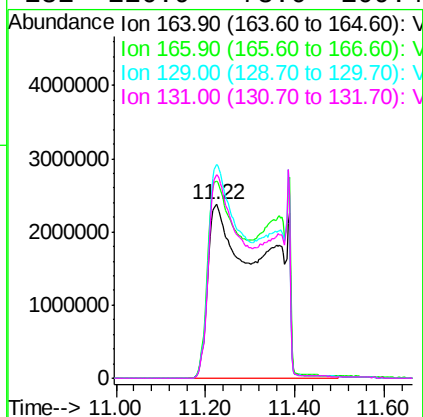
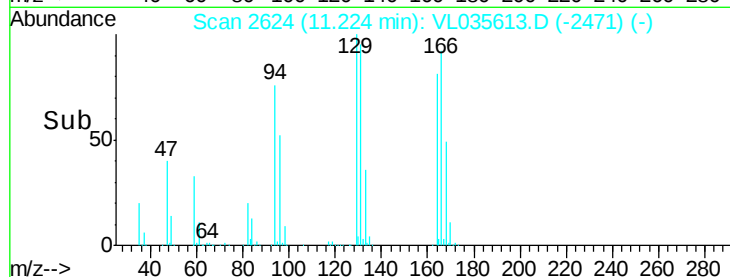
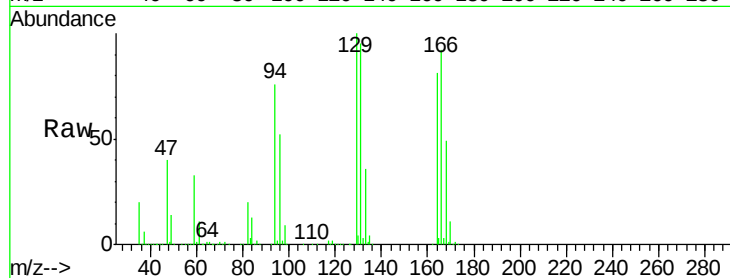
129 122.8 75.3 112.9#

131 116.9 73.0 109.4#

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#53

Toluene

Concen: 0.718 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL035613.D

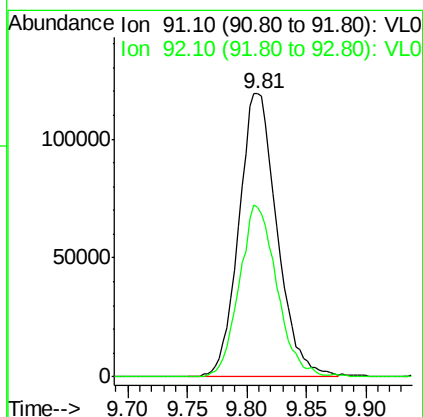
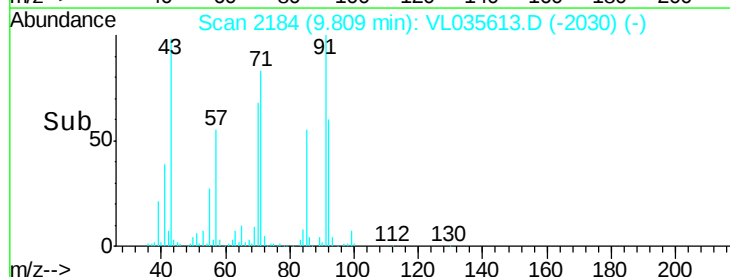
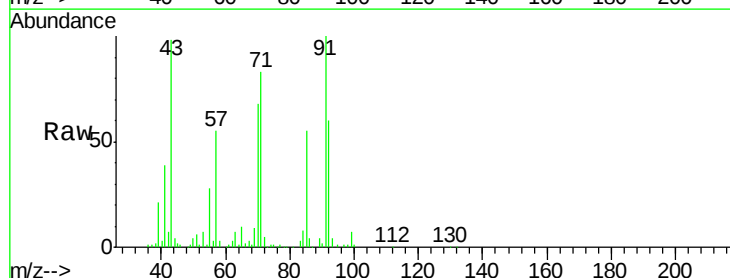
Acq: 15 Sep 2020 00:10

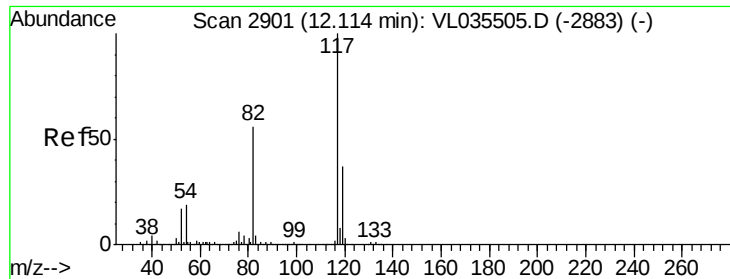
Tgt Ion: 91 Resp: 264725

Ion Ratio Lower Upper

91 100

92 59.9 49.8 74.8





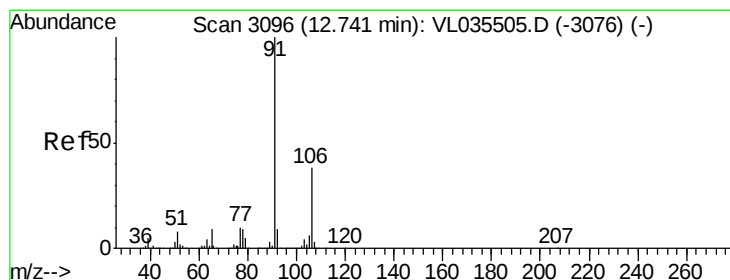
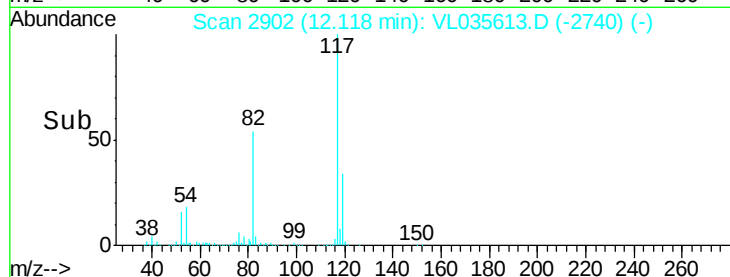
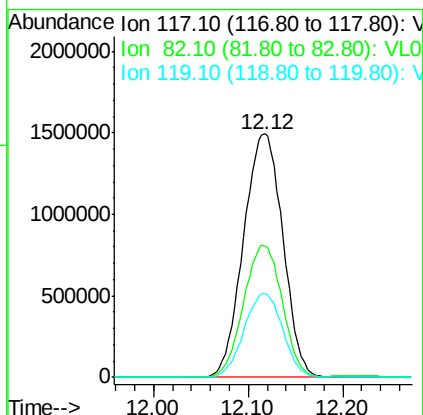
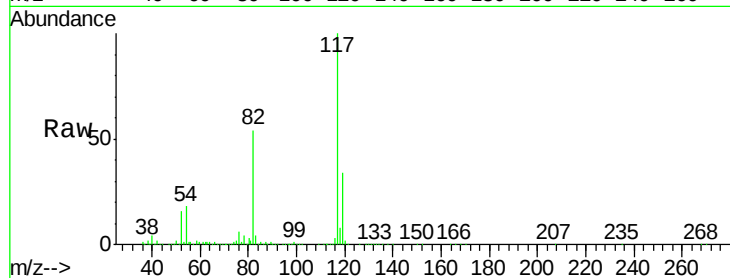
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.12 min Scan# 2902  
Delta R.T. 0.02 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Instrument :  
MSVOA\_L  
ClientSampled :  
SV-8DL

Tot Ion:117 Resp: 4314469  
Ion Ratio Lower Upper  
117 100  
82 53.3 41.6 62.4  
119 33.9 29.3 43.9

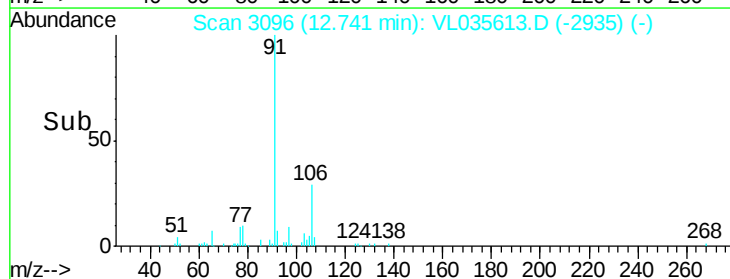
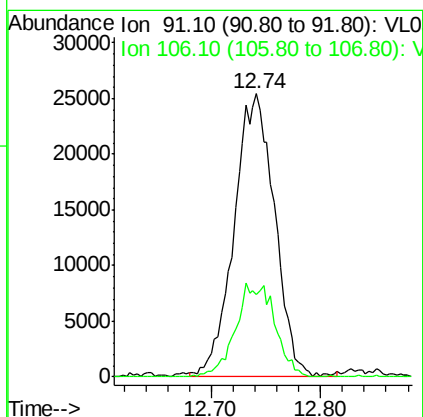
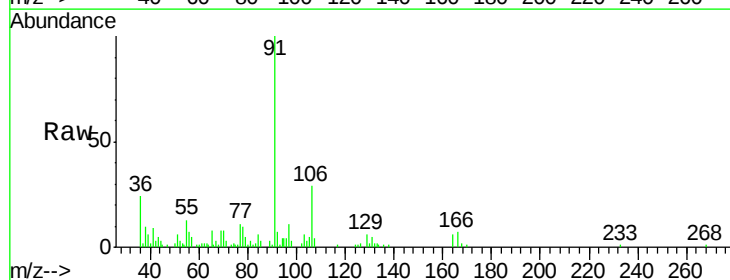
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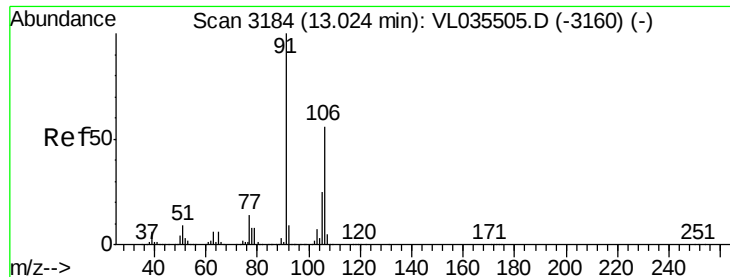
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#58  
Ethyl Benzene  
Concen: 0.148 ppbv m  
RT: 12.74 min Scan# 3096  
Delta R.T. 0.02 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Tgt Ion: 91 Resp: 65988  
Ion Ratio Lower Upper  
91 100  
106 29.0 30.3 45.5#





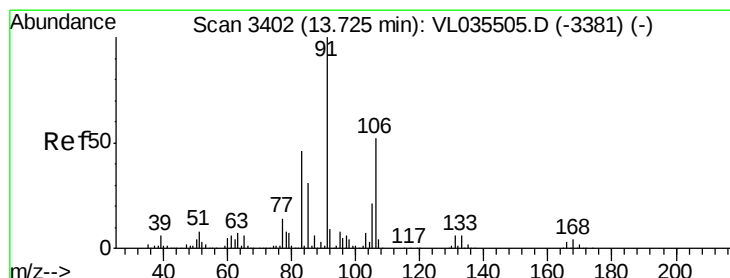
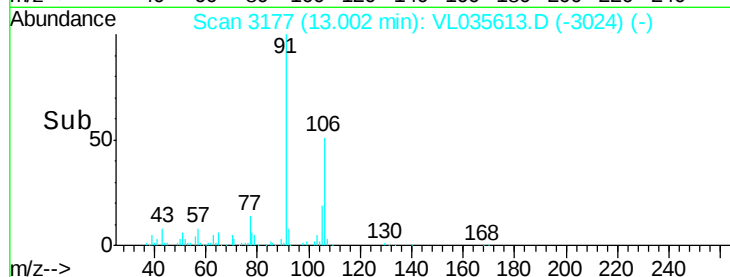
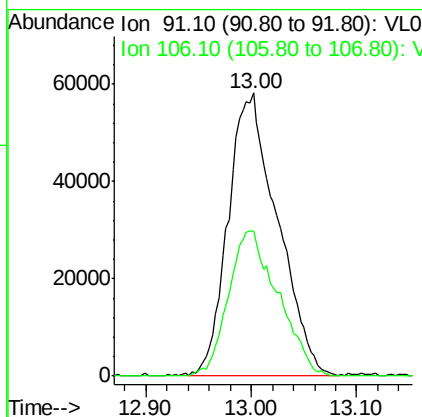
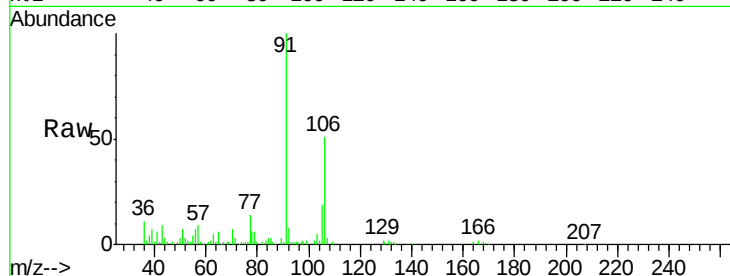
#59  
m/p-Xylene  
Concen: 0.505 ppbv  
RT: 13.00 min Scan# 3177  
Delta R.T. -0.01 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Instrument :  
MSVOA\_L  
ClientSampled :  
SV-8DL

Tot Ion: 91 Resp: 187822  
Ion Ratio Lower Upper  
91 100  
106 52.0 43.4 65.2

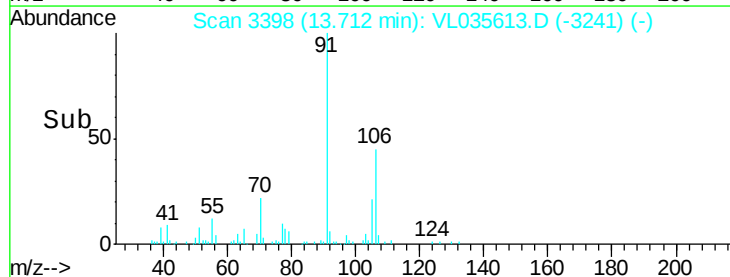
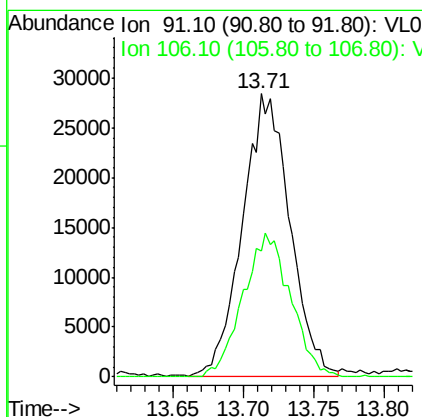
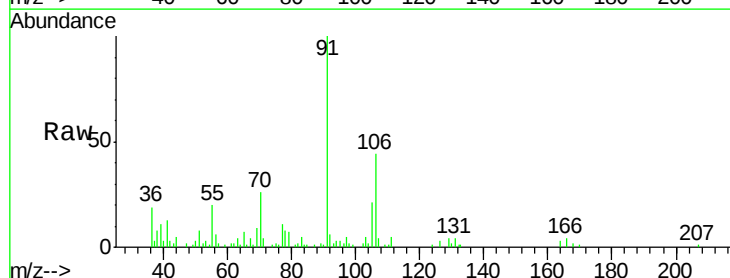
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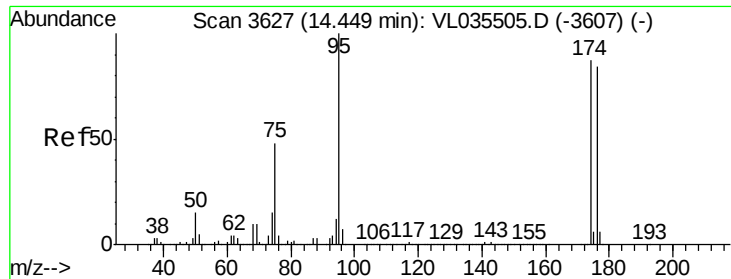
MMDadoda  
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#60  
o-Xylene  
Concen: 0.179 ppbv  
RT: 13.71 min Scan# 3398  
Delta R.T. 0.01 min  
Lab File: VL035613.D  
Acq: 15 Sep 2020 00:10

Tgt Ion: 91 Resp: 66982  
Ion Ratio Lower Upper  
91 100  
106 50.6 25.8 77.4





#68

1-Bromo-4-Fluorobenzene

Concen: 10.509 ppbv

RT: 14.44 min Scan# 3623

Delta R.T. 0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Instrument :

MSVOA\_L

ClientSampleId :

SV-8DL

Tot Ion: 95 Resp: 3220010

Ion Ratio Lower Upper

95 100

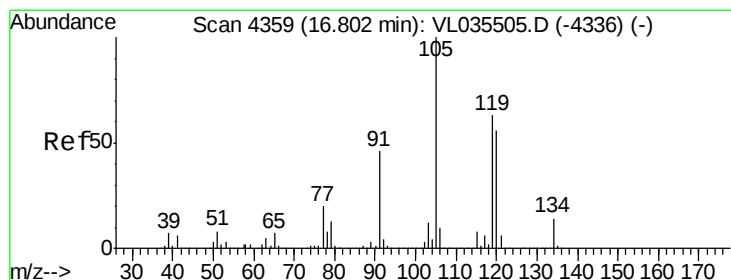
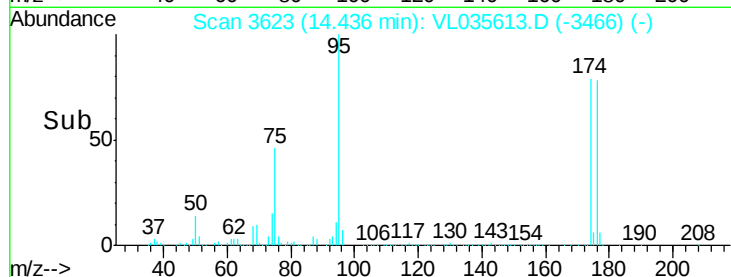
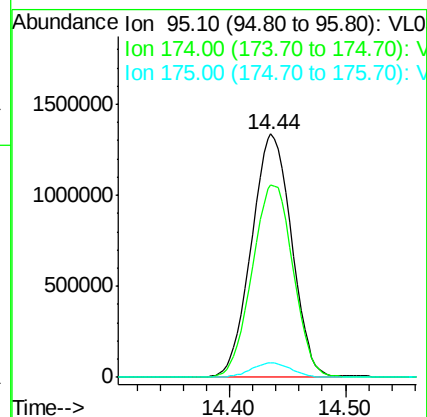
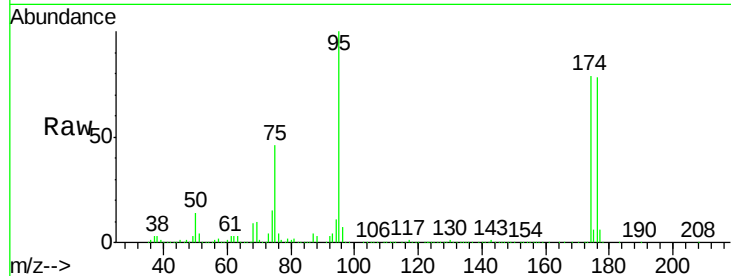
174 81.3 69.6 104.4

175 5.8 5.1 7.7

Manual Integrations  
APPROVED

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#74

1,2,4-Trimethylbenzene

Concen: 0.150 ppbv

RT: 16.77 min Scan# 4350

Delta R.T. -0.01 min

Lab File: VL035613.D

Acq: 15 Sep 2020 00:10

Tgt Ion:105 Resp: 72552

Ion Ratio Lower Upper

105 100

120 46.3 44.4 66.6

91 9.4 37.1 55.7#

77 12.0 16.0 24.0#

