

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF012419\  
 Data File : VF061503.D  
 Acq On : 24 Jan 2019 16:38  
 Operator : VA/AP  
 Sample : K1223-10  
 Misc : 5.24g/5mL/MSVOA-F/SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 TS-V

## Integration Parameters: RTEINT.P

Integrator: RTE  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.2  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
 Title : SW846 8260

Signal : TIC

| peak<br># | R.T.<br>min | first<br>scan | max<br>scan | last<br>scan | PK<br>TY | peak<br>height | corr.<br>area | corr.<br>% max. | % of<br>total |
|-----------|-------------|---------------|-------------|--------------|----------|----------------|---------------|-----------------|---------------|
| 1         | 1.080       | 41            | 46          | 52           | rBV2     | 7855           | 22434         | 3.52%           | 0.612%        |
| 2         | 1.840       | 120           | 123         | 126          | rBV5     | 2722           | 6465          | 1.01%           | 0.176%        |
| 3         | 1.919       | 127           | 131         | 134          | rVV3     | 4640           | 10008         | 1.57%           | 0.273%        |
| 4         | 2.195       | 154           | 159         | 162          | rBV4     | 11394          | 28821         | 4.52%           | 0.786%        |
| 5         | 2.264       | 162           | 166         | 173          | rVV      | 30315          | 97201         | 15.26%          | 2.652%        |
| 6         | 2.362       | 173           | 176         | 185          | rVB3     | 9796           | 34177         | 5.36%           | 0.932%        |
| 7         | 4.059       | 342           | 348         | 350          | rBV3     | 4177           | 10863         | 1.71%           | 0.296%        |
| 8         | 4.148       | 351           | 357         | 367          | rVV      | 104605         | 330514        | 51.88%          | 9.017%        |
| 9         | 4.375       | 370           | 380         | 390          | rVV      | 52453          | 181608        | 28.50%          | 4.955%        |
| 10        | 4.898       | 424           | 433         | 444          | rBV2     | 177264         | 637119        | 100.00%         | 17.382%       |
| 11        | 5.637       | 501           | 508         | 517          | rBV      | 170026         | 479048        | 75.19%          | 13.070%       |
| 12        | 6.121       | 555           | 557         | 560          | rBV2     | 6808           | 15521         | 2.44%           | 0.423%        |
| 13        | 6.308       | 570           | 576         | 579          | rBV5     | 4756           | 15319         | 2.40%           | 0.418%        |
| 14        | 6.466       | 588           | 592         | 593          | rBV2     | 7297           | 13333         | 2.09%           | 0.364%        |
| 15        | 6.930       | 636           | 639         | 644          | rBV      | 6925           | 15011         | 2.36%           | 0.410%        |
| 16        | 7.176       | 659           | 664         | 669          | rBV4     | 5059           | 15341         | 2.41%           | 0.419%        |
| 17        | 7.591       | 700           | 706         | 719          | rBV      | 207478         | 482109        | 75.67%          | 13.153%       |
| 18        | 8.192       | 763           | 767         | 772          | rBV4     | 2898           | 9210          | 1.45%           | 0.251%        |
| 19        | 9.534       | 899           | 903         | 907          | rVB5     | 2703           | 6807          | 1.07%           | 0.186%        |
| 20        | 9.810       | 925           | 931         | 938          | rBV      | 144207         | 328377        | 51.54%          | 8.959%        |
| 21        | 10.875      | 1035          | 1039        | 1045         | rVB2     | 19601          | 40459         | 6.35%           | 1.104%        |
| 22        | 11.240      | 1073          | 1076        | 1079         | rVV3     | 4772           | 7890          | 1.24%           | 0.215%        |
| 23        | 11.438      | 1092          | 1096        | 1100         | rBV      | 123155         | 209010        | 32.81%          | 5.702%        |
| 24        | 11.605      | 1107          | 1113        | 1117         | rVB2     | 40719          | 72355         | 11.36%          | 1.974%        |
| 25        | 11.684      | 1117          | 1121        | 1125         | rVV4     | 6028           | 13226         | 2.08%           | 0.361%        |
| 26        | 12.029      | 1152          | 1156        | 1159         | rBV5     | 4547           | 9558          | 1.50%           | 0.261%        |
| 27        | 12.227      | 1172          | 1176        | 1179         | rVB3     | 5918           | 9448          | 1.48%           | 0.258%        |
| 28        | 12.306      | 1181          | 1184        | 1187         | rBV2     | 16177          | 26396         | 4.14%           | 0.720%        |
| 29        | 12.483      | 1199          | 1202        | 1206         | rVB      | 19717          | 30449         | 4.78%           | 0.831%        |
| 30        | 12.572      | 1208          | 1211        | 1221         | rVB      | 113230         | 199115        | 31.25%          | 5.432%        |
| 31        | 13.115      | 1261          | 1266        | 1269         | rBV3     | 3848           | 8202          | 1.29%           | 0.224%        |
| 32        | 13.312      | 1281          | 1286        | 1289         | rVB3     | 3638           | 9129          | 1.43%           | 0.249%        |
| 33        | 13.805      | 1332          | 1336        | 1340         | rBV      | 70516          | 111083        | 17.44%          | 3.031%        |
| 34        | 14.101      | 1362          | 1366        | 1369         | rVV5     | 3862           | 8143          | 1.28%           | 0.222%        |

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MSVOA\_F  
ClientSampleId :  
TS-V

## Integration Parameters: RTEINT.P

Integrator: RTE  
Smoothing : ON Filtering: 5  
Sampling : 1 Min Area: 3 % of largest Peak  
Start Thrs: 0.2 Max Peaks: 100  
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Title : SW846 8260

|    |        |      |      |      |      |       |        |        |        |
|----|--------|------|------|------|------|-------|--------|--------|--------|
| 35 | 14.456 | 1397 | 1402 | 1409 | rBV3 | 49407 | 123298 | 19.35% | 3.364% |
| 36 | 14.614 | 1417 | 1418 | 1424 | rVB5 | 2772  | 6417   | 1.01%  | 0.175% |
| 37 | 14.762 | 1430 | 1433 | 1436 | rBV4 | 4339  | 6489   | 1.02%  | 0.177% |
| 38 | 15.768 | 1531 | 1535 | 1540 | rVV3 | 12535 | 22809  | 3.58%  | 0.622% |
| 39 | 15.916 | 1544 | 1550 | 1555 | rVV7 | 3811  | 12606  | 1.98%  | 0.344% |

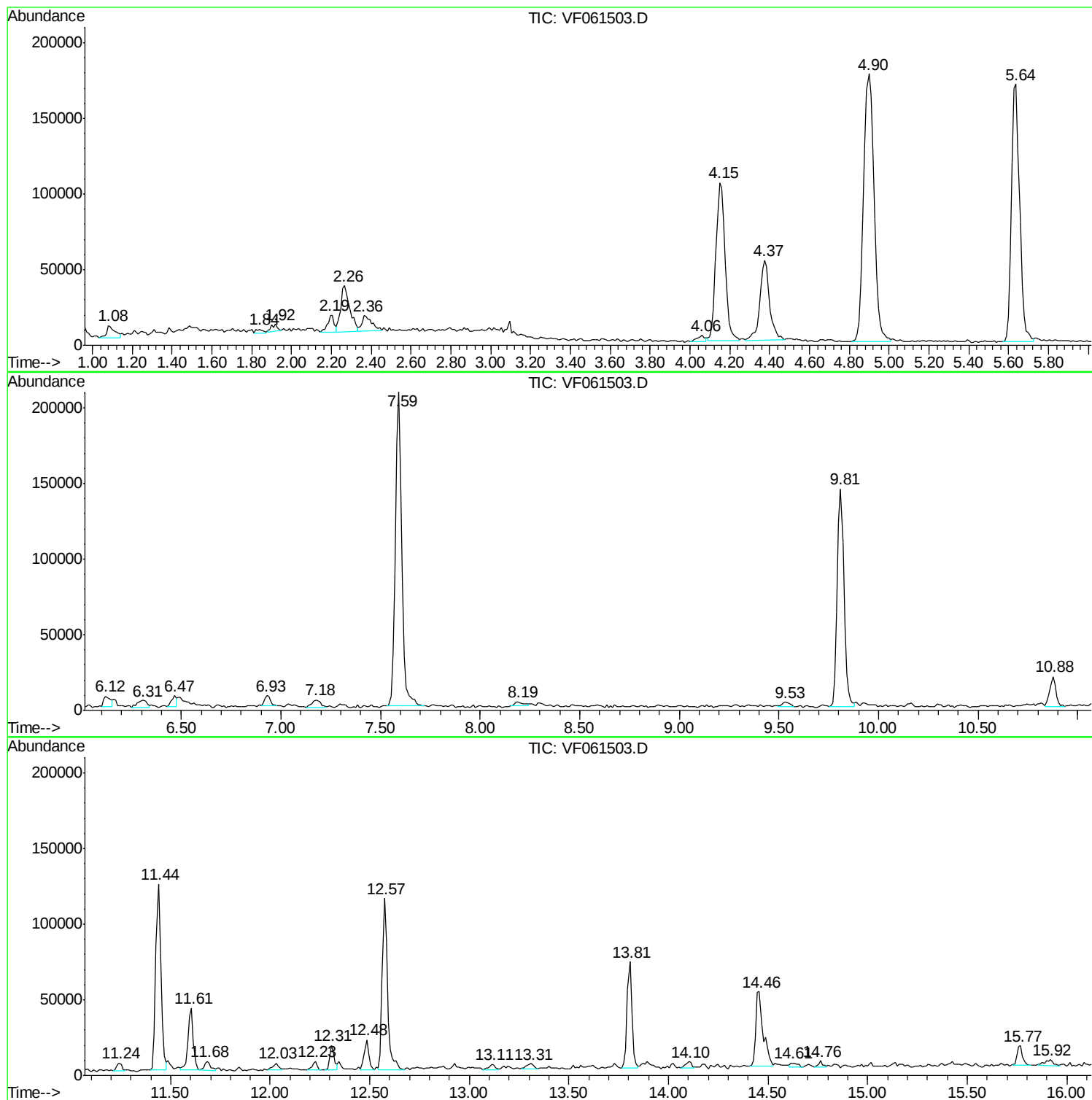
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MSVOA\_F  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P



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Instrument :  
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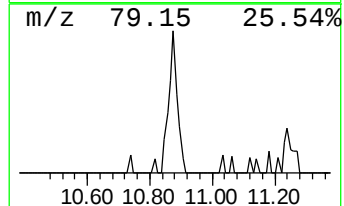
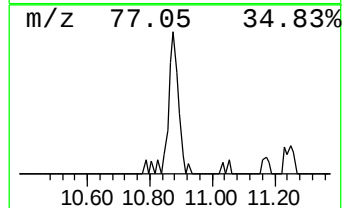
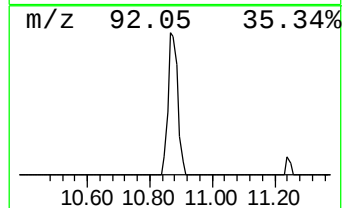
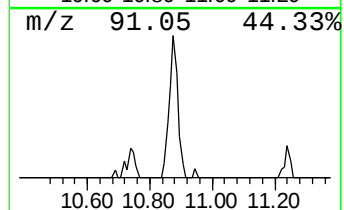
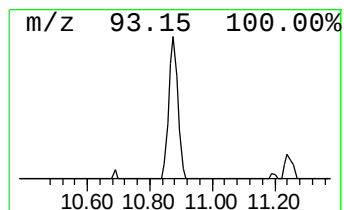
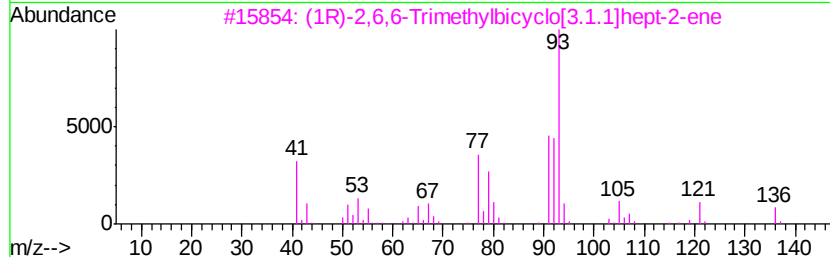
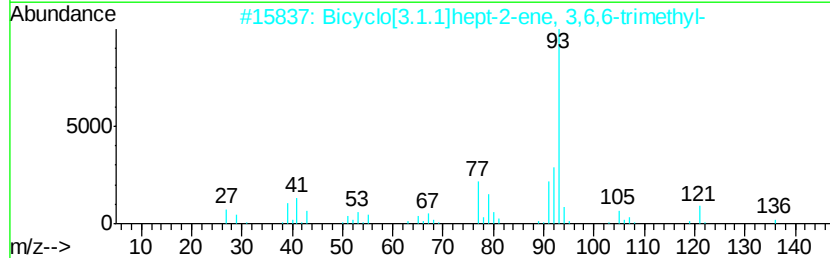
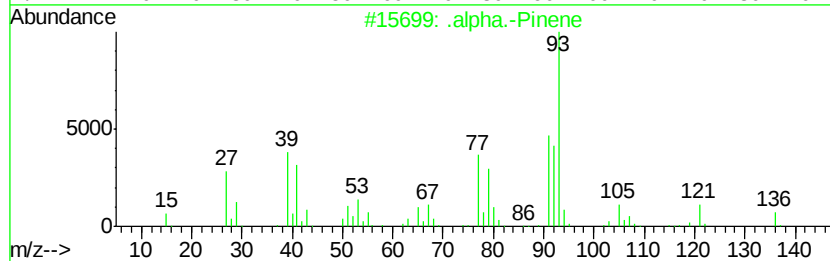
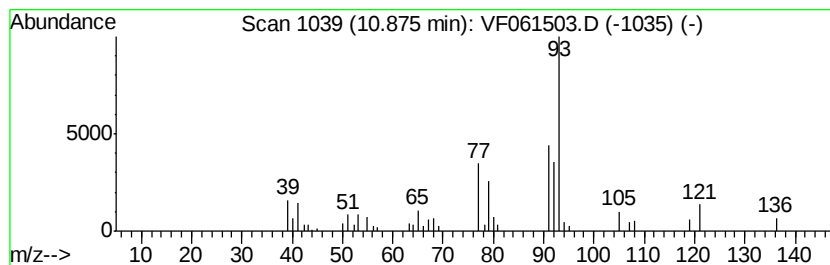
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 .alpha.-Pinene Concentration Rank 4

| R.T.  | EstConc   | Area  | Relative to ISTD | R.T. |
|-------|-----------|-------|------------------|------|
| 10.88 | 6.16 ug/l | 40459 | Chlorobenzene-d5 | 9.81 |

| Hit# | of | Tentative ID                                      | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------------------------------|-----|---------|-------------|------|
| 1    | 5  | .alpha.-Pinene                                    | 136 | C10H16  | 000080-56-8 | 94   |
| 2    |    | Bicyclo[3.1.1]hept-2-ene, 3,6,6-...               | 136 | C10H16  | 004889-83-2 | 91   |
| 3    |    | (1R)-2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene      | 136 | C10H16  | 007785-70-8 | 91   |
| 4    |    | .gamma.-Terpinene                                 | 136 | C10H16  | 000099-85-4 | 72   |
| 5    |    | Cyclohexene, 4-methylene-1-(1-methyl-2-propenyl)- | 136 | C10H16  | 000099-84-3 | 72   |



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ClientSampleId :  
TS-V

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

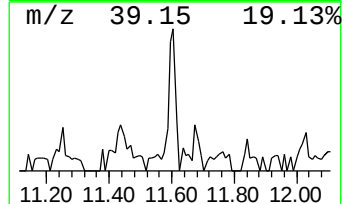
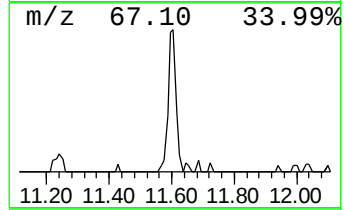
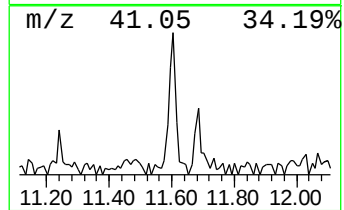
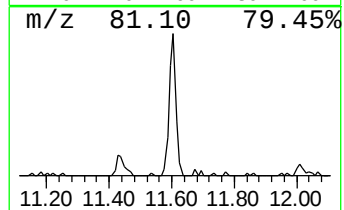
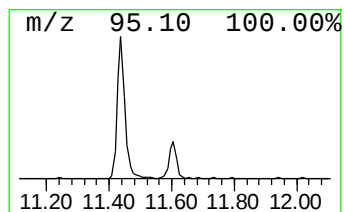
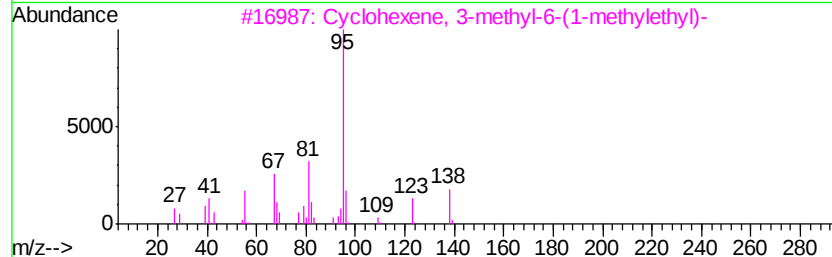
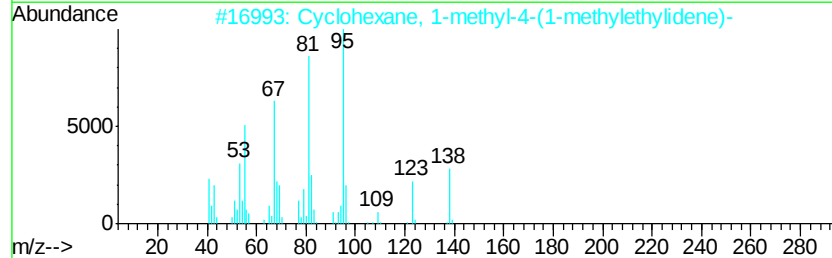
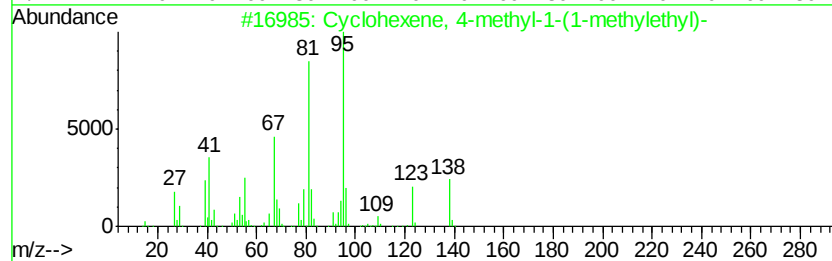
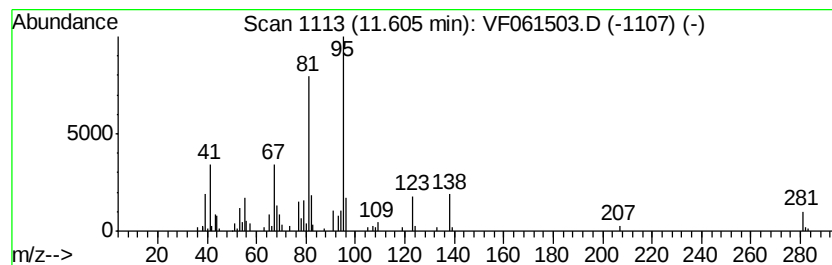
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 2 Cyclohexene, 4-methyl-1-(1-... Concentration Rank 2

| R.T.  | EstConc    | Area  | Relative to ISTD       | R.T.  |
|-------|------------|-------|------------------------|-------|
| 11.61 | 18.17 ug/l | 72355 | 1,4-Dichlorobenzene-d4 | 12.57 |

| Hit# | of | Tentative ID                          | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Cyclohexene, 4-methyl-1-(1-methyl-... | 138 | C10H18  | 000500-00-5 | 98   |
| 2    |    | Cyclohexane, 1-methyl-4-(1-methyl-... | 138 | C10H18  | 001124-27-2 | 97   |
| 3    |    | Cyclohexene, 3-methyl-6-(1-methyl-... | 138 | C10H18  | 005256-65-5 | 90   |
| 4    |    | Bicyclo[4.1.0]heptane, 3,7,7-tri...   | 138 | C10H18  | 000554-59-6 | 80   |
| 5    |    | Bicyclo[4.1.0]heptane, 3,7,7-tri...   | 138 | C10H18  | 018968-23-5 | 80   |



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ALS Vial : 13 Sample Multiplier: 1

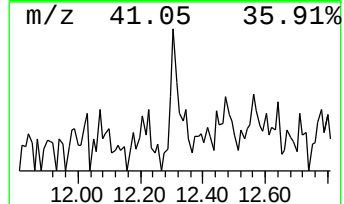
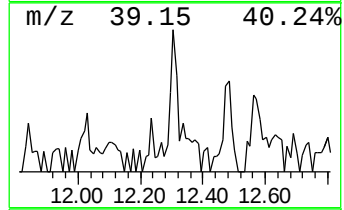
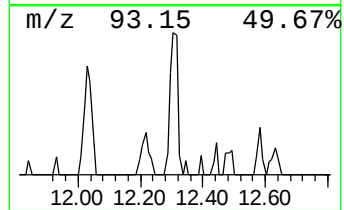
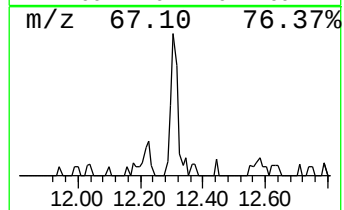
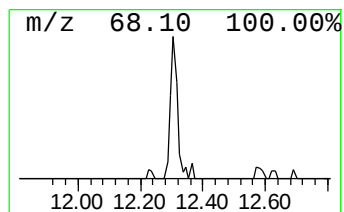
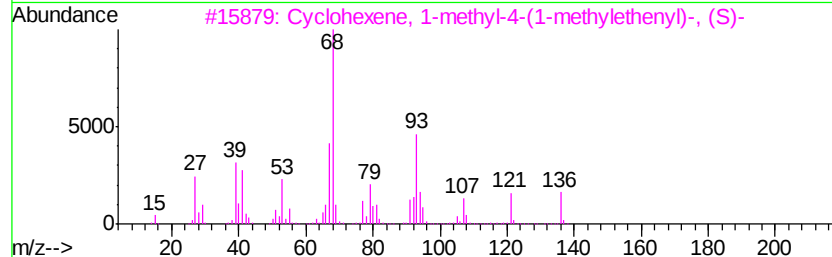
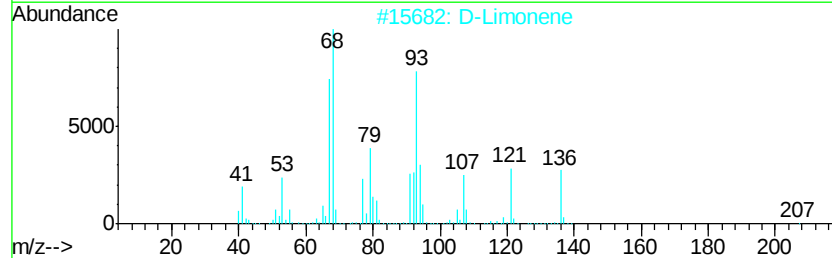
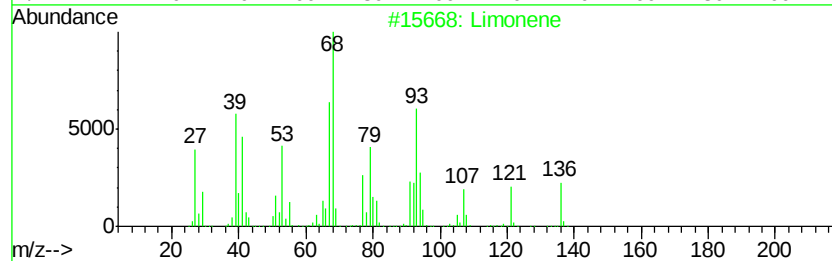
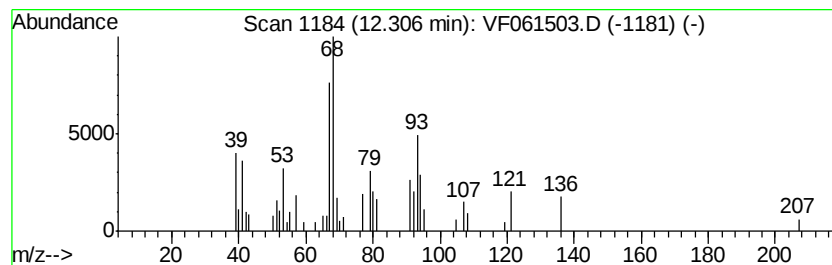
Instrument :  
MSVOA\_F  
ClientSampleId :  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 3 Limonene Concentration Rank 3

| R.T.    | EstConc                               | Area         | Relative to ISTD       | R.T.      |
|---------|---------------------------------------|--------------|------------------------|-----------|
| 12.31   | 6.63 ug/l                             | 26396        | 1,4-Dichlorobenzene-d4 | 12.57     |
| Hit# of | 5                                     | Tentative ID | MW MolForm             | CAS# Qual |
| 1       | Limonene                              | 136 C10H16   | 000138-86-3            | 96        |
| 2       | D-Limonene                            | 136 C10H16   | 005989-27-5            | 93        |
| 3       | Cyclohexene, 1-methyl-4-(1-methyl...  | 136 C10H16   | 005989-54-8            | 81        |
| 4       | 1,5-Cyclooctadiene, 1,5-dimethyl-     | 136 C10H16   | 003760-14-3            | 58        |
| 5       | Cyclohexanol, 1-methyl-4-(1-methyl... | 196 C12H20O2 | 010198-23-9            | 50        |



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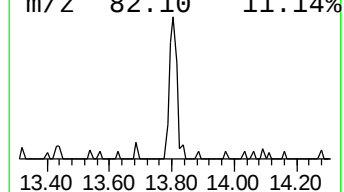
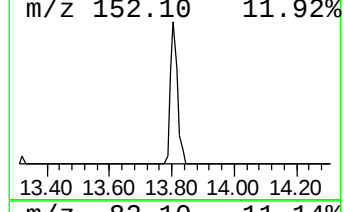
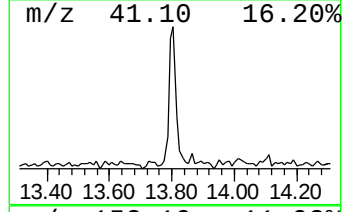
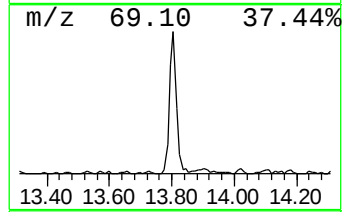
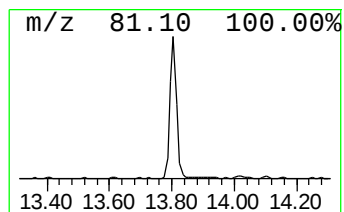
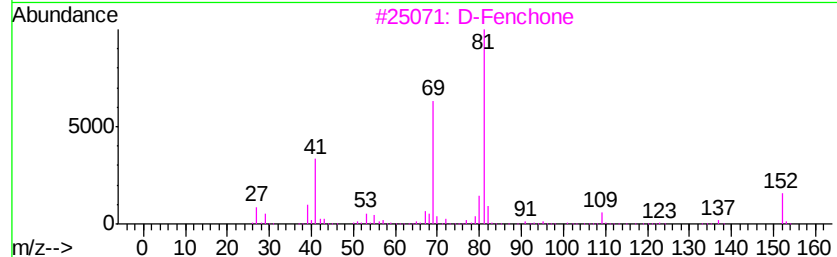
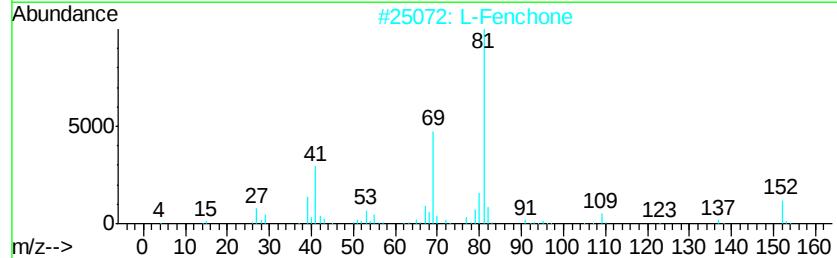
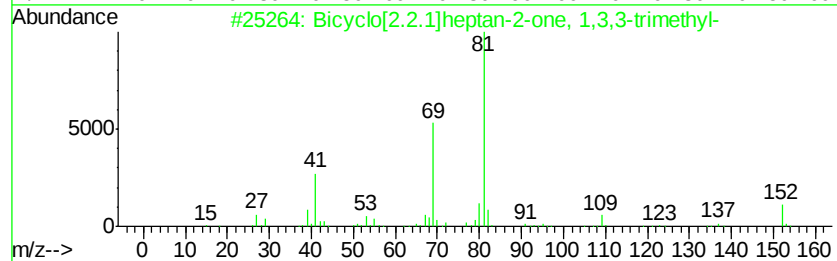
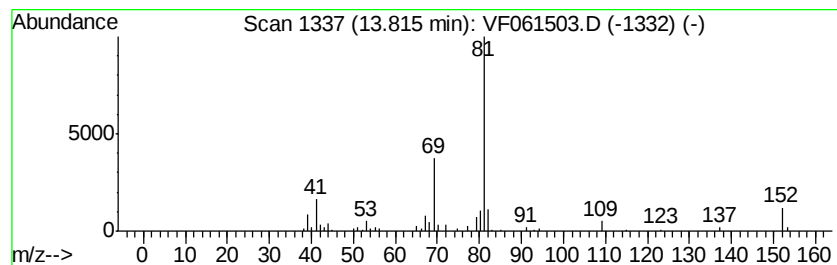
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 4 Bicyclo[2.2.1]heptan-2-one,... Concentration Rank 1

| R.T.  | EstConc    | Area   | Relative to ISTD       | R.T.  |
|-------|------------|--------|------------------------|-------|
| 13.81 | 27.89 ug/l | 111083 | 1,4-Dichlorobenzene-d4 | 12.57 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Bicyclo[2.2.1]heptan-2-one, 1,3,... | 152 | C10H16O | 001195-79-5 | 95   |
| 2    |    | L-Fenchone                          | 152 | C10H16O | 007787-20-4 | 46   |
| 3    |    | D-Fenchone                          | 152 | C10H16O | 004695-62-9 | 46   |
| 4    |    | Cyclohexanone, 5-methyl-2-(1-met... | 152 | C10H16O | 015932-80-6 | 45   |
| 5    |    | 2,4-Decadienal, (E,E)-              | 152 | C10H16O | 025152-84-5 | 45   |



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Data File : VF061503.D  
Acq On : 24 Jan 2019 16:38  
Operator : VA/AP  
Sample : K1223-10  
Misc : 5.24g/5mL/MSVOA-F/SOIL  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
TS-V

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

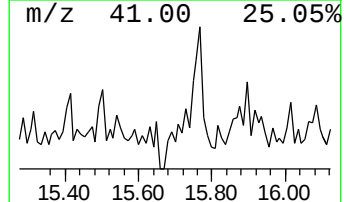
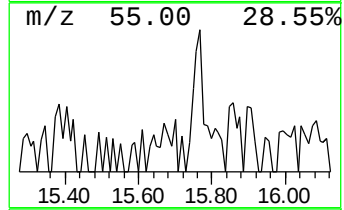
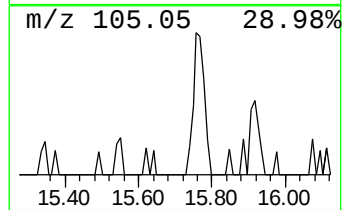
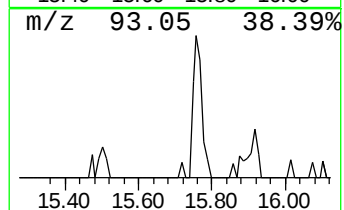
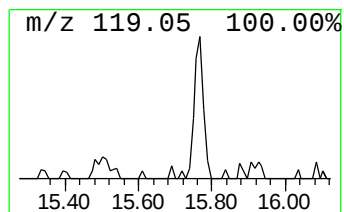
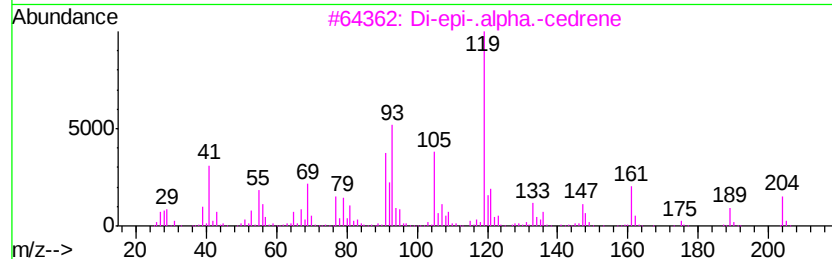
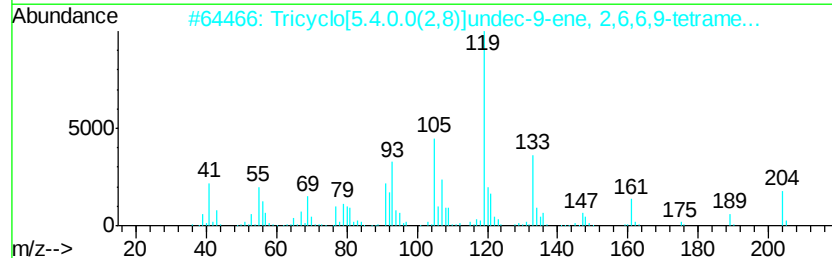
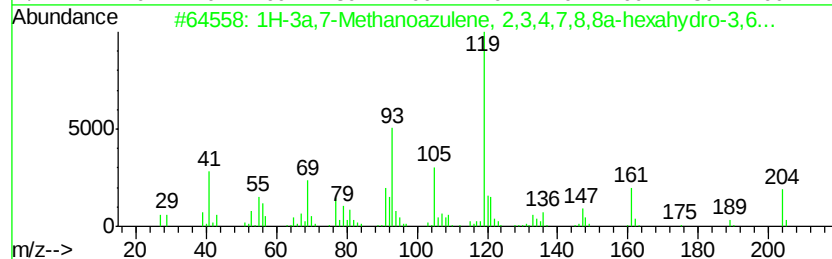
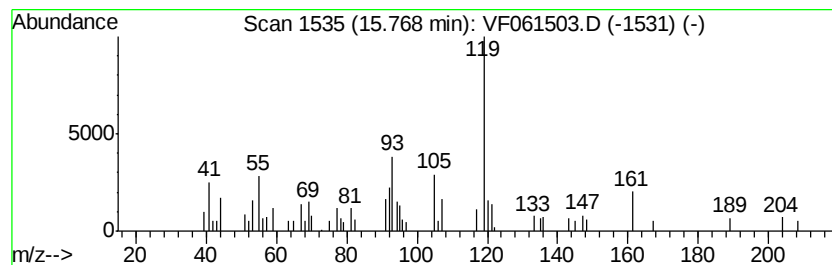
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 5 1H-3a,7-Methanoazulene, 2,3... Concentration Rank 5

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 15.77 | 5.73 ug/l | 22809 | 1,4-Dichlorobenzene-d4 | 12.57 |

| Hit# of | 5 | Tentative ID                        | MW  | MolForm  | CAS#         | Qual |
|---------|---|-------------------------------------|-----|----------|--------------|------|
| 1       |   | 1H-3a,7-Methanoazulene, 2,3,4,7,... | 204 | C15H24   | 000469-61-4  | 87   |
| 2       |   | Tricyclo[5.4.0.0(2,8)]undec-9-en... | 204 | C15H24   | 005989-08-2  | 49   |
| 3       |   | Di-epi-.alpha.-cedrene              | 204 | C15H24   | 050894-66-1  | 43   |
| 4       |   | Bicyclo[3.1.1]heptane, 6-methyl-... | 204 | C15H24   | 055123-21-2  | 42   |
| 5       |   | Bicyclo[3.1.1]hept-2-en-4-ol, 2,... | 194 | C12H18O2 | 1000195-66-0 | 42   |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF012419\  
Data File : VF061503.D  
Acq On : 24 Jan 2019 16:38  
Operator : VA/AP  
Sample : K1223-10  
Misc : 5.24g/5mL/MSVOA-F/SOIL  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
TS-V

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |        |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|--------|------|
|                      |       |         |       |          | #                     | RT    | Resp   | Conc |
| .alpha.-Pinene       | 10.88 | 6.2     | ug/l  | 40459    | 3                     | 9.81  | 328377 | 50.0 |
| Cyclohexene, 4-me... | 11.61 | 18.2    | ug/l  | 72355    | 4                     | 12.57 | 199115 | 50.0 |
| Limonene             | 12.31 | 6.6     | ug/l  | 26396    | 4                     | 12.57 | 199115 | 50.0 |
| Bicyclo[2.2.1]hep... | 13.81 | 27.9    | ug/l  | 111083   | 4                     | 12.57 | 199115 | 50.0 |
| 1H-3a,7-Methanoaz... | 15.77 | 5.7     | ug/l  | 22809    | 4                     | 12.57 | 199115 | 50.0 |