

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
 Data File : VY004906.D  
 Acq On : 27 May 2021 17:34  
 Operator : SY/MD  
 Sample : M2535-04  
 Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 GHOST-4D

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\_Y\methods\82Y051021S.M  
 Title : SW846 8260

Signal : TIC: VY004906.D\data.ms

| 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         | 2.077       | 37            | 42          | 55           | rVB      | 249697         | 388378        | 6.35%           | 0.886%        |
| 2         | 2.912       | 169           | 179         | 200          | rBV      | 2761492        | 6112204       | 100.00%         | 13.950%       |
| 3         | 3.948       | 336           | 349         | 372          | rBV      | 747393         | 2462573       | 40.29%          | 5.620%        |
| 4         | 4.710       | 456           | 474         | 509          | rVB      | 1351192        | 5017670       | 82.09%          | 11.452%       |
| 5         | 5.247       | 547           | 562         | 582          | rBV      | 145466         | 523665        | 8.57%           | 1.195%        |
| 6         | 6.533       | 760           | 773         | 787          | rBV2     | 116611         | 392227        | 6.42%           | 0.895%        |
| 7         | 6.698       | 787           | 800         | 812          | rVV      | 641145         | 2049913       | 33.54%          | 4.679%        |
| 8         | 6.795       | 812           | 816         | 826          | rVB2     | 28192          | 77681         | 1.27%           | 0.177%        |
| 9         | 6.990       | 837           | 848         | 867          | rVB2     | 61407          | 214534        | 3.51%           | 0.490%        |
| 10        | 7.533       | 921           | 937         | 950          | rBV      | 134503         | 394369        | 6.45%           | 0.900%        |
| 11        | 7.728       | 956           | 969         | 974          | rBV      | 181491         | 440981        | 7.21%           | 1.006%        |
| 12        | 7.795       | 974           | 980         | 986          | rVV      | 361002         | 831799        | 13.61%          | 1.898%        |
| 13        | 7.880       | 986           | 994         | 1008         | rVB      | 1014546        | 2553171       | 41.77%          | 5.827%        |
| 14        | 8.063       | 1017          | 1024        | 1031         | rVB      | 70765          | 164408        | 2.69%           | 0.375%        |
| 15        | 8.149       | 1031          | 1038        | 1048         | rVB      | 203639         | 451396        | 7.39%           | 1.030%        |
| 16        | 8.277       | 1048          | 1059        | 1061         | rBV2     | 173169         | 380230        | 6.22%           | 0.868%        |
| 17        | 8.332       | 1061          | 1068        | 1080         | rVB      | 1015879        | 2633451       | 43.09%          | 6.010%        |
| 18        | 8.697       | 1119          | 1128        | 1139         | rBV      | 532202         | 1046082       | 17.11%          | 2.387%        |
| 19        | 9.155       | 1194          | 1203        | 1206         | rBV      | 70974          | 155266        | 2.54%           | 0.354%        |
| 20        | 9.191       | 1206          | 1209        | 1214         | rVV3     | 82843          | 154212        | 2.52%           | 0.352%        |
| 21        | 9.246       | 1214          | 1218        | 1225         | rVB2     | 87356          | 166200        | 2.72%           | 0.379%        |
| 22        | 9.325       | 1225          | 1231        | 1237         | rBV      | 46019          | 86655         | 1.42%           | 0.198%        |
| 23        | 9.465       | 1245          | 1254        | 1261         | rVB      | 62436          | 133347        | 2.18%           | 0.304%        |
| 24        | 9.618       | 1271          | 1279        | 1288         | rVB      | 341204         | 669487        | 10.95%          | 1.528%        |
| 25        | 9.752       | 1288          | 1301        | 1308         | rBV      | 434537         | 963597        | 15.77%          | 2.199%        |
| 26        | 9.941       | 1325          | 1332        | 1338         | rBV4     | 42579          | 106268        | 1.74%           | 0.243%        |
| 27        | 10.112      | 1348          | 1360        | 1365         | rBV3     | 51121          | 118951        | 1.95%           | 0.271%        |
| 28        | 10.185      | 1365          | 1372        | 1386         | rVB      | 868299         | 1572685       | 25.73%          | 3.589%        |
| 29        | 10.374      | 1400          | 1403        | 1410         | rVB4     | 33646          | 65062         | 1.06%           | 0.148%        |
| 30        | 10.605      | 1433          | 1441        | 1451         | rVV4     | 90261          | 212987        | 3.48%           | 0.486%        |
| 31        | 11.282      | 1544          | 1552        | 1559         | rBV3     | 33991          | 77026         | 1.26%           | 0.176%        |
| 32        | 11.489      | 1579          | 1586        | 1593         | rBV      | 745080         | 1244713       | 20.36%          | 2.841%        |
| 33        | 11.593      | 1596          | 1603        | 1612         | rVB2     | 54236          | 113684        | 1.86%           | 0.259%        |
| 34        | 11.703      | 1612          | 1621        | 1631         | rBV      | 186922         | 391840        | 6.41%           | 0.894%        |
| 35        | 12.331      | 1719          | 1724        | 1729         | rBV      | 60247          | 98100         | 1.60%           | 0.224%        |
| 36        | 12.489      | 1740          | 1750        | 1760         | rVB3     | 1224970        | 2293131       | 37.52%          | 5.234%        |

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 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 GHOST-4D

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\_Y\methods\82Y051021S.M  
 Title : SW846 8260

|    |        |      |      |      |      |        |         |        |        |
|----|--------|------|------|------|------|--------|---------|--------|--------|
| 37 | 12.672 | 1768 | 1780 | 1785 | rBV  | 149884 | 261377  | 4.28%  | 0.597% |
| 38 | 12.739 | 1785 | 1791 | 1794 | rBV  | 240714 | 397804  | 6.51%  | 0.908% |
| 39 | 12.770 | 1794 | 1796 | 1799 | rVV  | 107915 | 135169  | 2.21%  | 0.308% |
| 40 | 12.812 | 1799 | 1803 | 1809 | rVB2 | 201585 | 324348  | 5.31%  | 0.740% |
| 41 | 12.971 | 1822 | 1829 | 1837 | rBV  | 68208  | 150981  | 2.47%  | 0.345% |
| 42 | 13.123 | 1848 | 1854 | 1859 | rVB  | 708027 | 1027800 | 16.82% | 2.346% |
| 43 | 13.288 | 1868 | 1881 | 1884 | rBV3 | 76252  | 182099  | 2.98%  | 0.416% |
| 44 | 13.428 | 1896 | 1904 | 1908 | rBV  | 654903 | 1110252 | 18.16% | 2.534% |
| 45 | 13.593 | 1926 | 1931 | 1933 | rBV  | 66592  | 97750   | 1.60%  | 0.223% |
| 46 | 13.629 | 1933 | 1937 | 1940 | rVV  | 276683 | 467067  | 7.64%  | 1.066% |
| 47 | 13.666 | 1940 | 1943 | 1953 | rVV3 | 193146 | 398705  | 6.52%  | 0.910% |
| 48 | 13.757 | 1953 | 1958 | 1962 | rVV3 | 65558  | 100685  | 1.65%  | 0.230% |
| 49 | 13.824 | 1965 | 1969 | 1974 | rVB  | 63555  | 99534   | 1.63%  | 0.227% |
| 50 | 13.885 | 1974 | 1979 | 1982 | rBV  | 104115 | 177882  | 2.91%  | 0.406% |
| 51 | 13.916 | 1982 | 1984 | 1988 | rVV  | 113295 | 145730  | 2.38%  | 0.333% |
| 52 | 13.971 | 1988 | 1993 | 1999 | rVV2 | 250780 | 385684  | 6.31%  | 0.880% |
| 53 | 14.080 | 2007 | 2011 | 2016 | rVB  | 124429 | 186391  | 3.05%  | 0.425% |
| 54 | 14.160 | 2016 | 2024 | 2028 | rBV6 | 30440  | 69415   | 1.14%  | 0.158% |
| 55 | 14.215 | 2028 | 2033 | 2037 | rBV  | 49968  | 88332   | 1.45%  | 0.202% |
| 56 | 14.300 | 2042 | 2047 | 2050 | rBV  | 120823 | 197524  | 3.23%  | 0.451% |
| 57 | 14.337 | 2050 | 2053 | 2057 | rVB  | 170916 | 232897  | 3.81%  | 0.532% |
| 58 | 14.385 | 2057 | 2061 | 2065 | rBV3 | 92047  | 140652  | 2.30%  | 0.321% |
| 59 | 14.526 | 2079 | 2084 | 2087 | rBV  | 55165  | 75049   | 1.23%  | 0.171% |
| 60 | 14.568 | 2087 | 2091 | 2096 | rVV2 | 150163 | 268706  | 4.40%  | 0.613% |
| 61 | 14.611 | 2096 | 2098 | 2103 | rVB  | 80892  | 103231  | 1.69%  | 0.236% |
| 62 | 14.684 | 2103 | 2110 | 2116 | rBV3 | 228685 | 487988  | 7.98%  | 1.114% |
| 63 | 14.739 | 2116 | 2119 | 2124 | rVB  | 54640  | 85339   | 1.40%  | 0.195% |
| 64 | 14.946 | 2148 | 2153 | 2157 | rBV3 | 77858  | 133628  | 2.19%  | 0.305% |
| 65 | 15.056 | 2165 | 2171 | 2181 | rVB3 | 82011  | 180870  | 2.96%  | 0.413% |
| 66 | 15.239 | 2192 | 2201 | 2207 | rVB  | 180706 | 363725  | 5.95%  | 0.830% |
| 67 | 15.349 | 2214 | 2219 | 2223 | rBV3 | 52057  | 92852   | 1.52%  | 0.212% |
| 68 | 15.397 | 2223 | 2227 | 2230 | rVV2 | 36864  | 64808   | 1.06%  | 0.148% |
| 69 | 15.434 | 2230 | 2233 | 2242 | rVB5 | 41255  | 79904   | 1.31%  | 0.182% |
| 70 | 15.525 | 2242 | 2248 | 2256 | rBV2 | 59211  | 137984  | 2.26%  | 0.315% |
| 71 | 15.690 | 2269 | 2275 | 2286 | rVB6 | 33666  | 121749  | 1.99%  | 0.278% |
| 72 | 15.897 | 2301 | 2309 | 2314 | rBV3 | 54639  | 120871  | 1.98%  | 0.276% |
| 73 | 16.293 | 2368 | 2374 | 2384 | rVB  | 116396 | 226028  | 3.70%  | 0.516% |
| 74 | 16.489 | 2400 | 2406 | 2419 | rVB  | 57689  | 136630  | 2.24%  | 0.312% |

Sum of corrected areas: 43815383

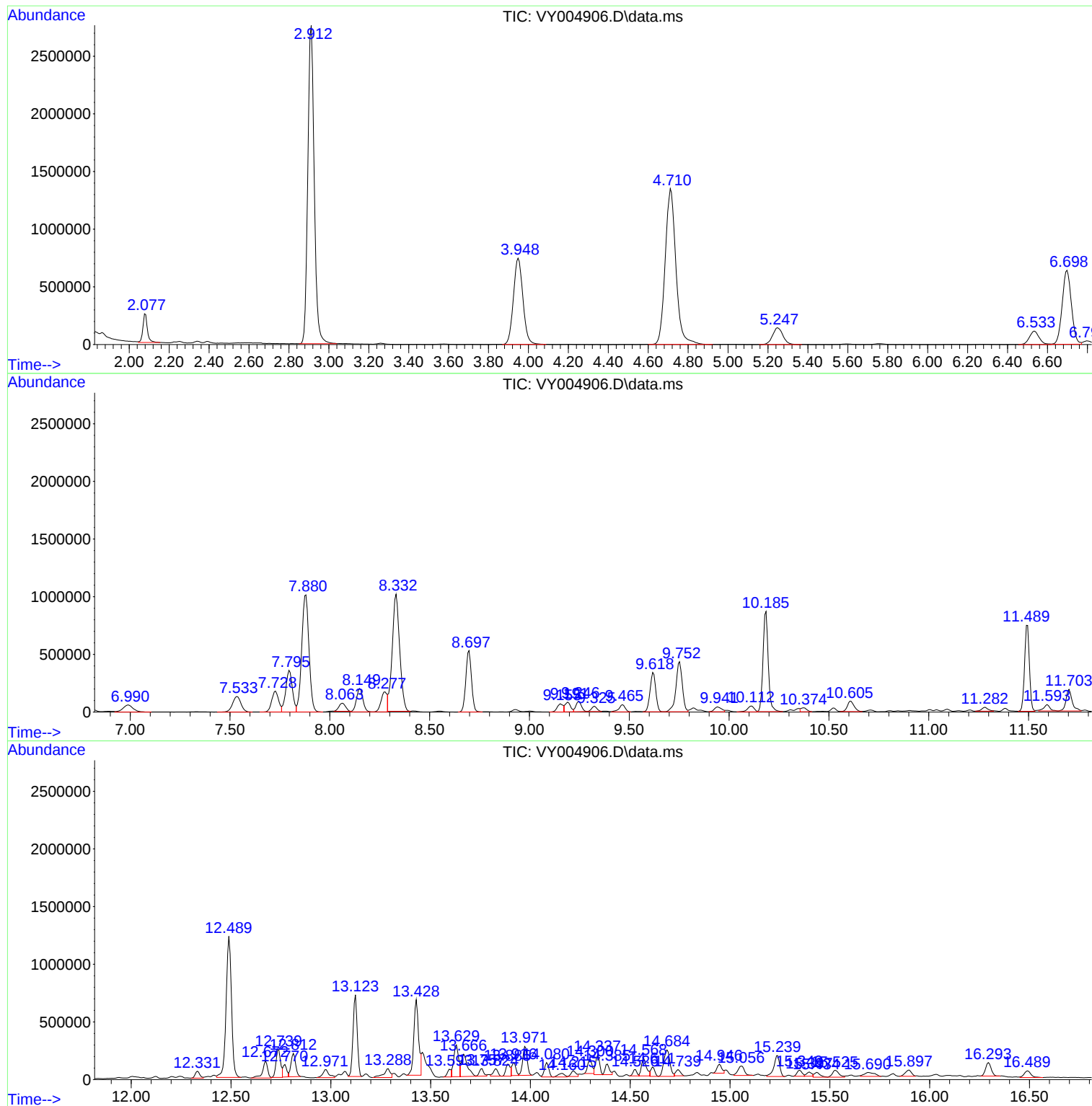
**Instrument :**  
MSVOA\_Y  
**ClientSampleId :**  
GHOST-4D

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Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
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Quant Title : SW846 8260

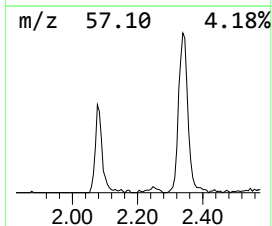
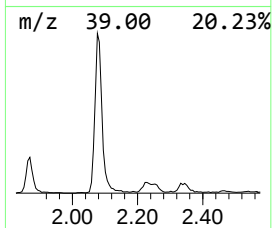
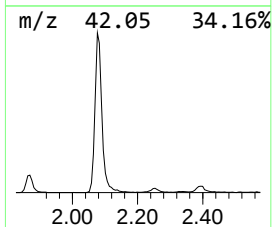
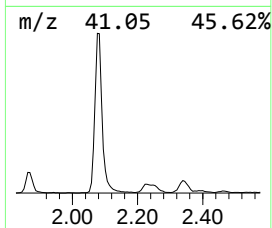
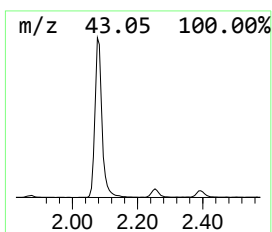
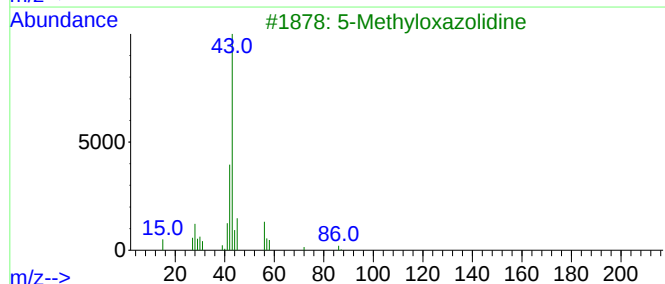
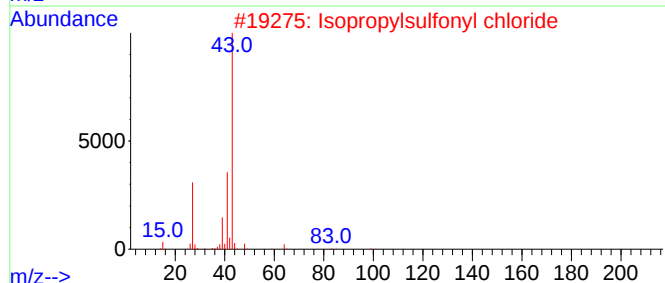
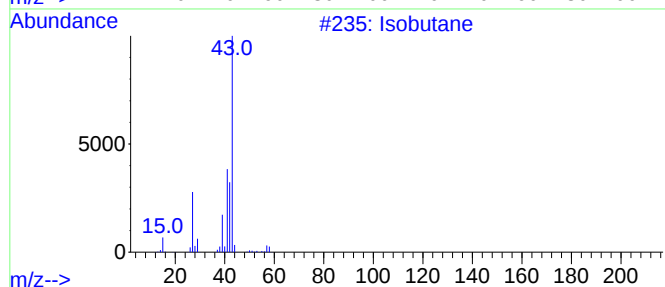
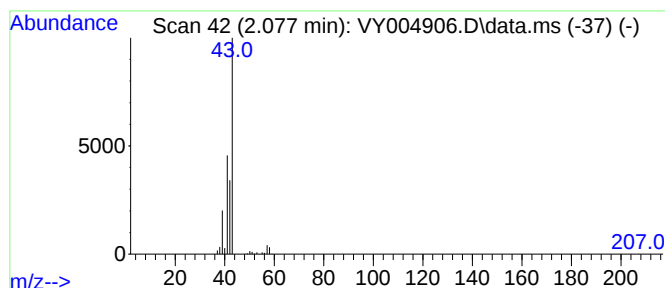
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 1 Isobutane Concentration Rank 11

| R.T.  | EstConc    | Area   | Relative to ISTD   | R.T.  |
|-------|------------|--------|--------------------|-------|
| 2.077 | 23.35 ug/l | 388378 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID                | MW  | MolForm   | CAS#        | Qual |
|------|----|---|-----------------------------|-----|-----------|-------------|------|
| 1    |    |   | Isobutane                   | 58  | C4H10     | 000075-28-5 | 80   |
| 2    |    |   | Isopropylsulfonyl chloride  | 142 | C3H7ClO2S | 010147-37-2 | 4    |
| 3    |    |   | 5-Methyloxazolidine         | 87  | C4H9NO    | 058328-22-6 | 4    |
| 4    |    |   | Cyclobutylamine             | 71  | C4H9N     | 002516-34-9 | 4    |
| 5    |    |   | Propane, 1-chloro-2-methyl- | 92  | C4H9Cl    | 000513-36-0 | 4    |



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ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

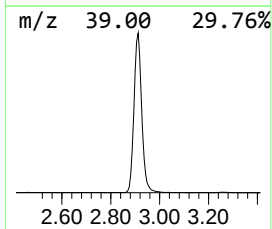
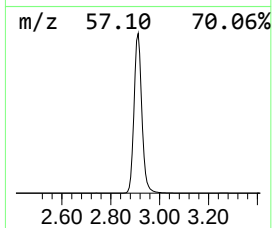
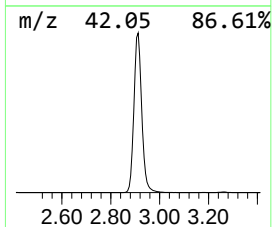
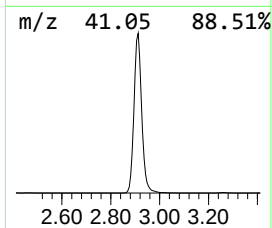
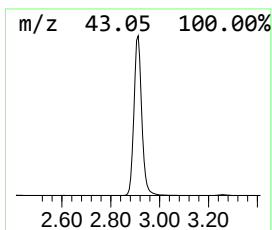
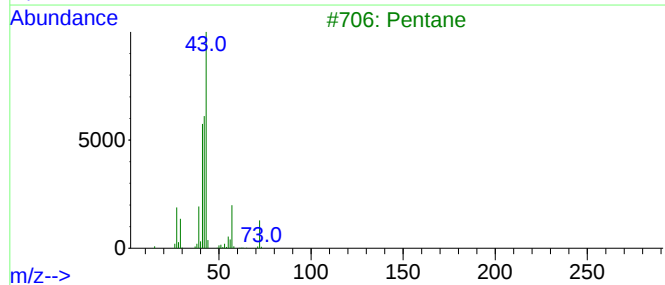
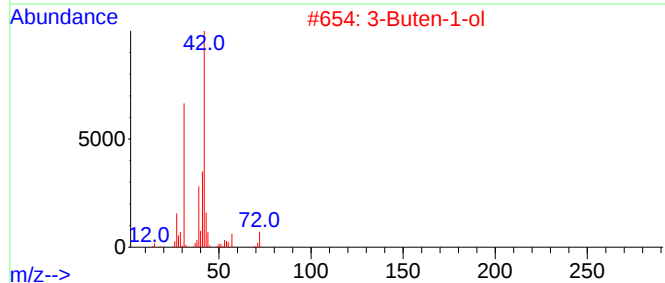
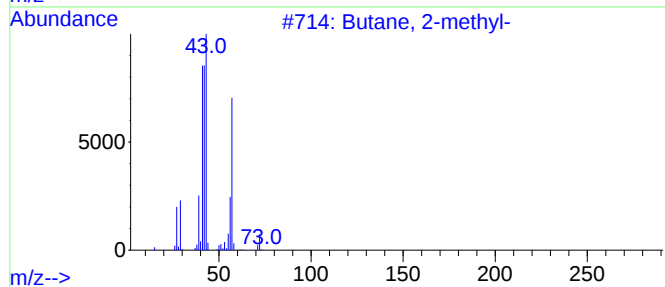
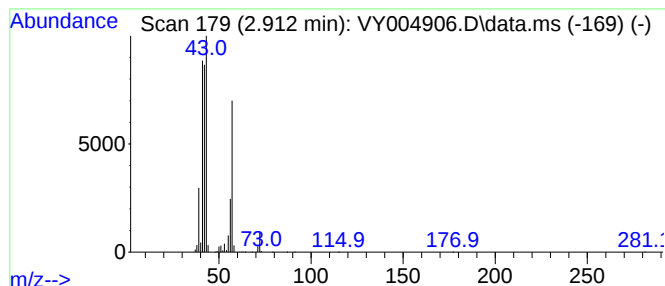
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

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Peak Number 2 Butane, 2-methyl- Concentration Rank 1

| R.T.  | EstConc     | Area    | Relative to ISTD   | R.T.  |
|-------|-------------|---------|--------------------|-------|
| 2.912 | 367.41 ug/l | 6112200 | Pentafluorobenzene | 7.795 |

| Hit# | of                   | 5 | Tentative ID | MW | MolForm | CAS#        | Qual |
|------|----------------------|---|--------------|----|---------|-------------|------|
| 1    | Butane, 2-methyl-    |   |              | 72 | C5H12   | 000078-78-4 | 94   |
| 2    | 3-Buten-1-ol         |   |              | 72 | C4H8O   | 000627-27-0 | 47   |
| 3    | Pentane              |   |              | 72 | C5H12   | 000109-66-0 | 37   |
| 4    | 1-Butene             |   |              | 56 | C4H8    | 000106-98-9 | 10   |
| 5    | Methane, isocyanato- |   |              | 57 | C2H3NO  | 000624-83-9 | 9    |



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Instrument :  
MSVOA\_Y  
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GHOST-4D

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

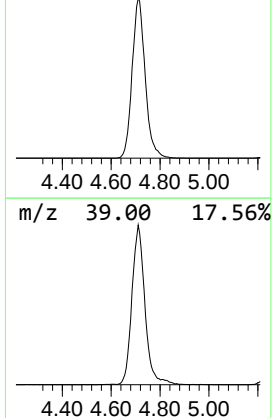
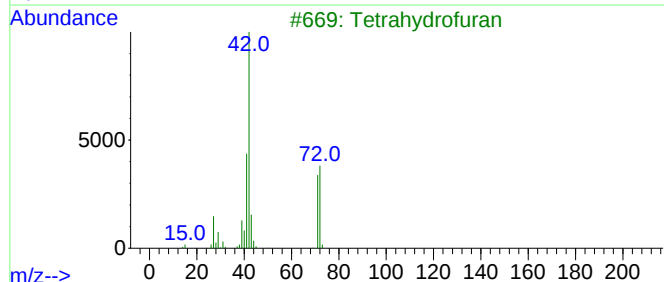
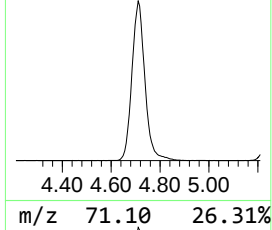
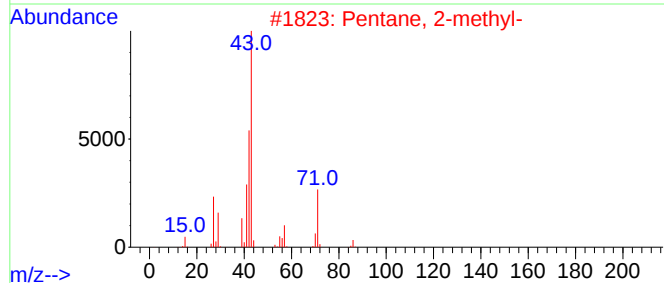
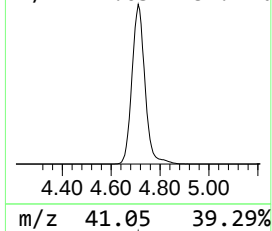
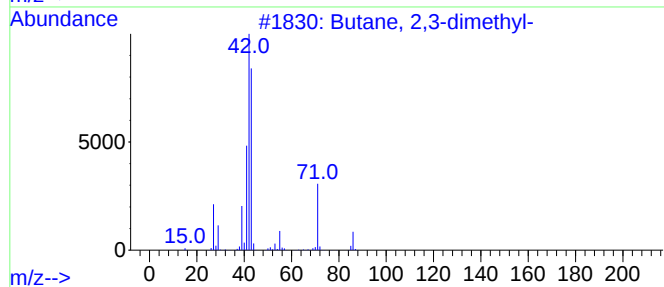
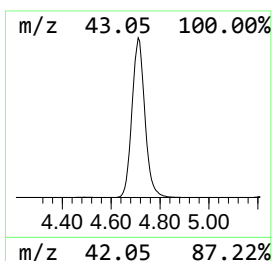
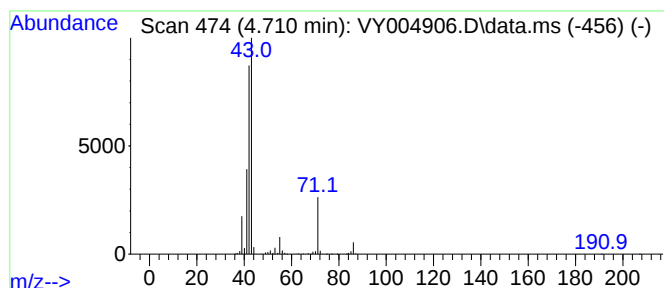
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Peak Number 3 Butane, 2,3-dimethyl- Concentration Rank 2

| R.T.  | EstConc     | Area    | Relative to ISTD   | R.T.  |
|-------|-------------|---------|--------------------|-------|
| 4.710 | 301.62 ug/l | 5017670 | Pentafluorobenzene | 7.795 |

| Hit# | of 5 | Tentative ID          | MW | MolForm | CAS#        | Qual |
|------|------|-----------------------|----|---------|-------------|------|
| 1    |      | Butane, 2,3-dimethyl- | 86 | C6H14   | 000079-29-8 | 90   |
| 2    |      | Pentane, 2-methyl-    | 86 | C6H14   | 000107-83-5 | 50   |
| 3    |      | Tetrahydrofuran       | 72 | C4H8O   | 000109-99-9 | 38   |
| 4    |      | Butane, 2-methyl-     | 72 | C5H12   | 000078-78-4 | 36   |
| 5    |      | Pentane               | 72 | C5H12   | 000109-66-0 | 23   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

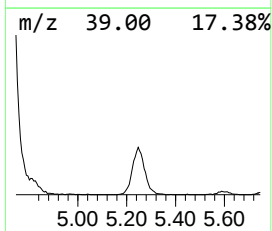
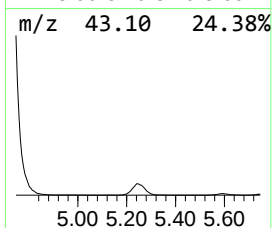
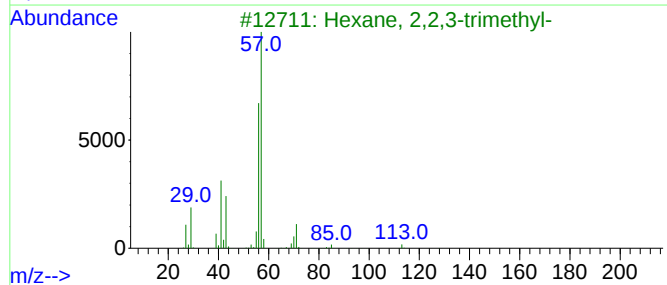
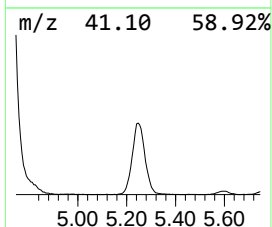
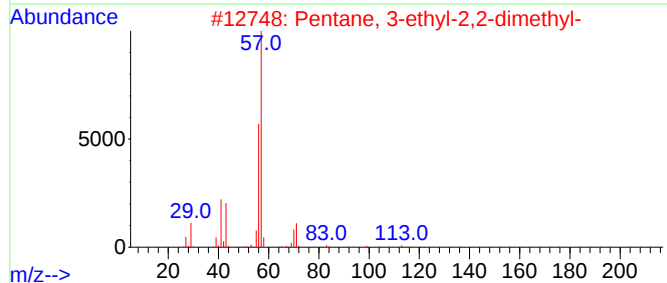
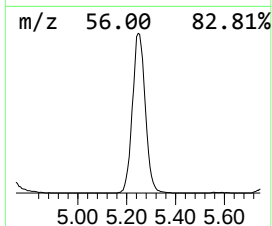
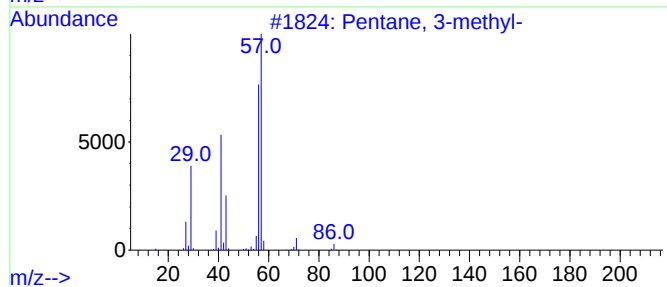
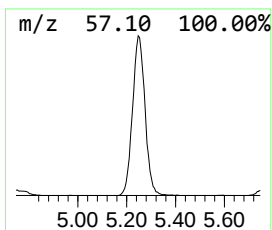
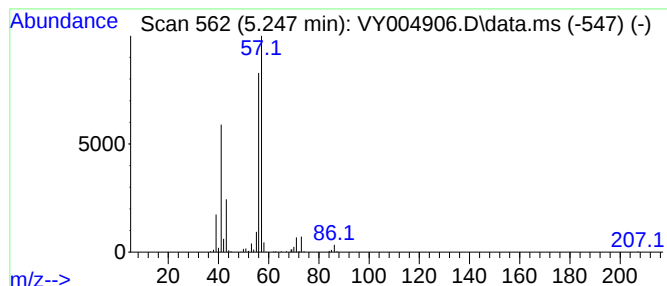
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 4 Pentane, 3-methyl- Concentration Rank 8

| R.T.  | EstConc    | Area   | Relative to ISTD   | R.T.  |
|-------|------------|--------|--------------------|-------|
| 5.247 | 31.48 ug/l | 523665 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID                   | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 3-methyl-             | 86  | C6H14   | 000096-14-0 | 91   |
| 2    |    |   | Pentane, 3-ethyl-2,2-dimethyl- | 128 | C9H20   | 016747-32-3 | 78   |
| 3    |    |   | Hexane, 2,2,3-trimethyl-       | 128 | C9H20   | 016747-25-4 | 78   |
| 4    |    |   | Butane, 2,2,3-trimethyl-       | 100 | C7H16   | 000464-06-2 | 64   |
| 5    |    |   | Pentane, 2,2,3-trimethyl-      | 114 | C8H18   | 000564-02-3 | 56   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

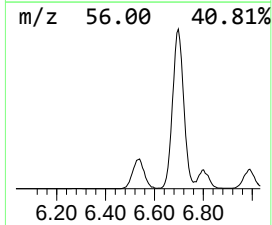
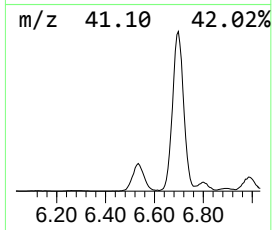
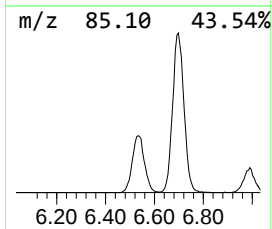
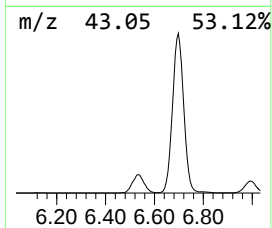
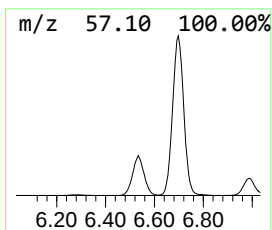
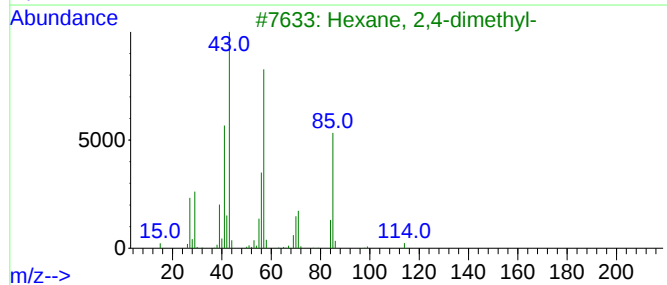
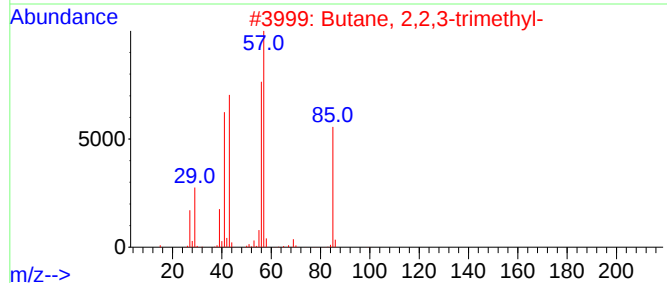
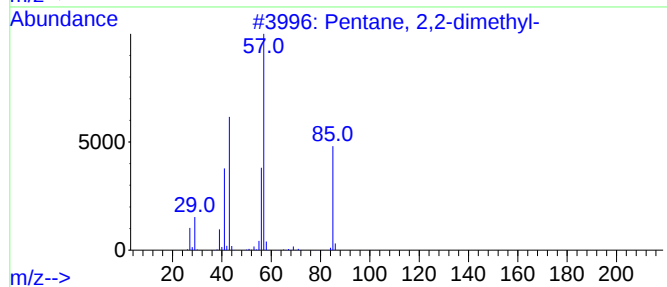
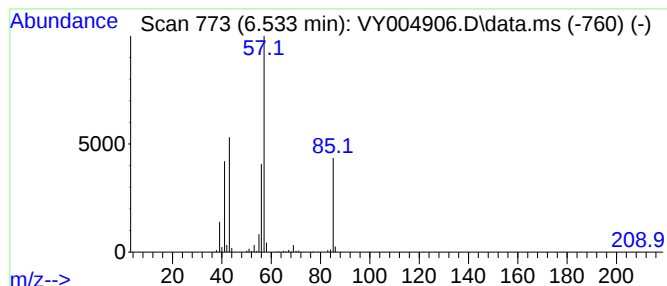
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 5 Pentane, 2,2-dimethyl- Concentration Rank 10

| R.T.  | EstConc    | Area   | Relative to ISTD   | R.T.  |
|-------|------------|--------|--------------------|-------|
| 6.533 | 23.58 ug/l | 392227 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 2,2-dimethyl-        | 100 | C7H16   | 000590-35-2 | 83   |
| 2    |    |   | Butane, 2,2,3-trimethyl-      | 100 | C7H16   | 000464-06-2 | 78   |
| 3    |    |   | Hexane, 2,4-dimethyl-         | 114 | C8H18   | 000589-43-5 | 72   |
| 4    |    |   | Pentane, 2,4-dimethyl-        | 100 | C7H16   | 000108-08-7 | 64   |
| 5    |    |   | Pentane, 2,2,3,4-tetramethyl- | 128 | C9H20   | 001186-53-4 | 64   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

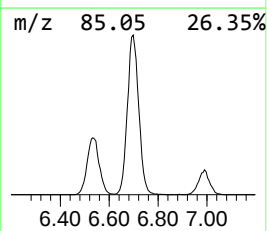
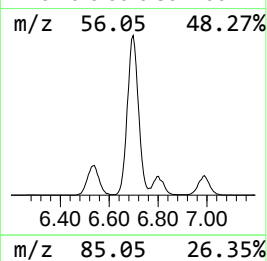
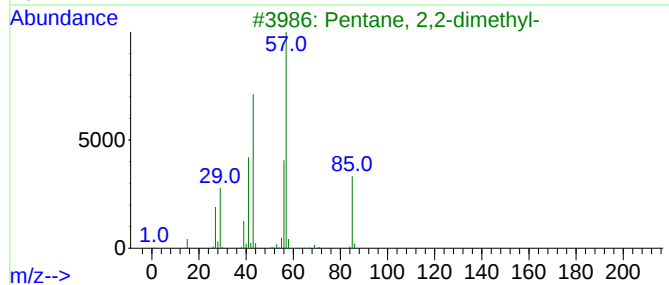
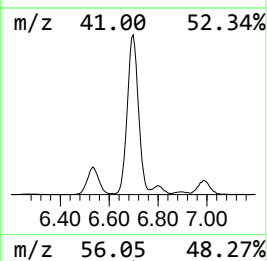
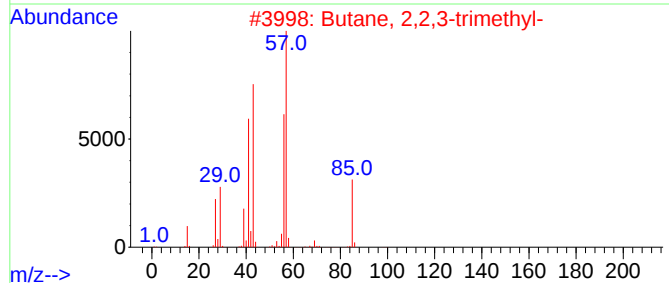
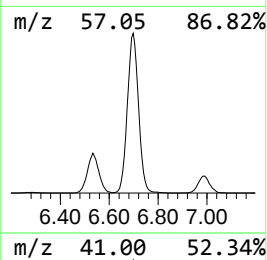
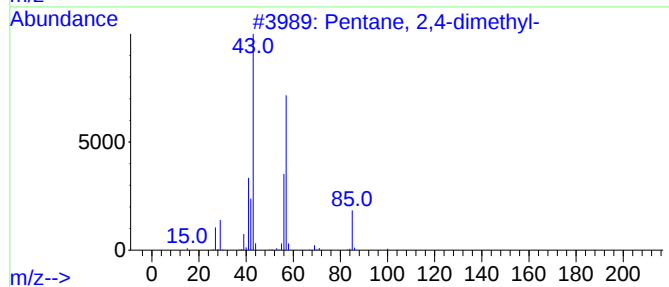
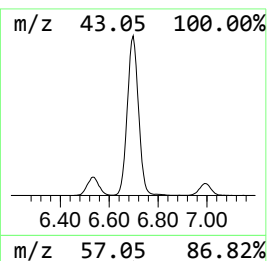
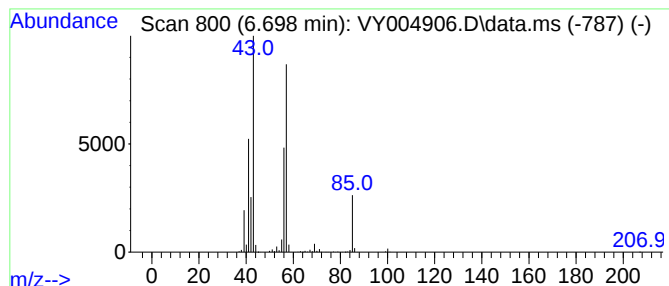
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 6 Pentane, 2,4-dimethyl- Concentration Rank 5

| R.T.  | EstConc     | Area    | Relative to ISTD   | R.T.  |
|-------|-------------|---------|--------------------|-------|
| 6.698 | 123.22 ug/l | 2049910 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID                      | MW  | MolForm  | CAS#         | Qual |
|------|----|---|-----------------------------------|-----|----------|--------------|------|
| 1    |    |   | Pentane, 2,4-dimethyl-            | 100 | C7H16    | 000108-08-7  | 91   |
| 2    |    |   | Butane, 2,2,3-trimethyl-          | 100 | C7H16    | 000464-06-2  | 64   |
| 3    |    |   | Pentane, 2,2-dimethyl-            | 100 | C7H16    | 000590-35-2  | 59   |
| 4    |    |   | Oxalic acid, butyl isohexyl ester | 230 | C12H22O4 | 1000309-32-7 | 59   |
| 5    |    |   | n-Hexane                          | 86  | C6H14    | 000110-54-3  | 53   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

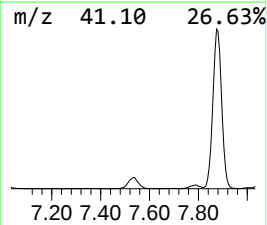
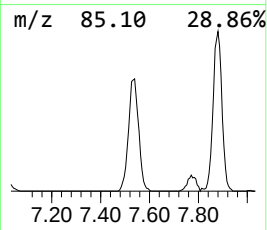
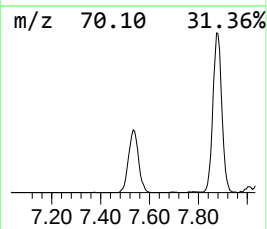
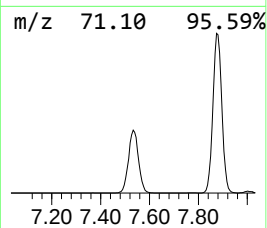
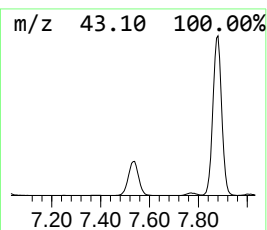
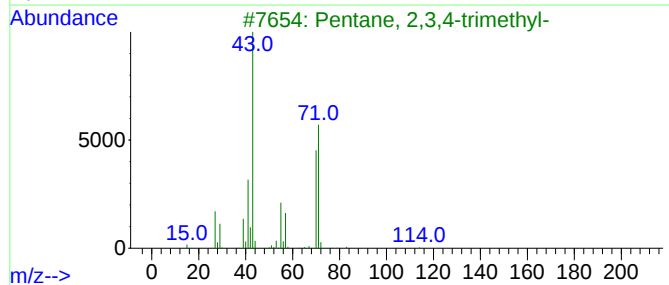
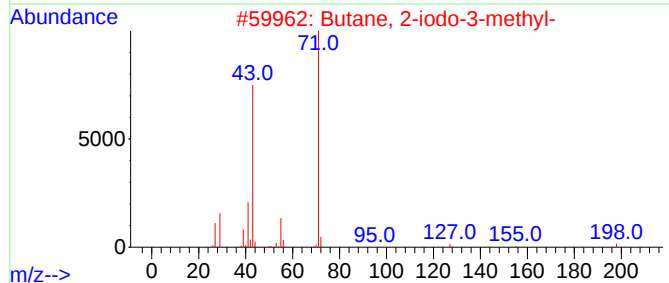
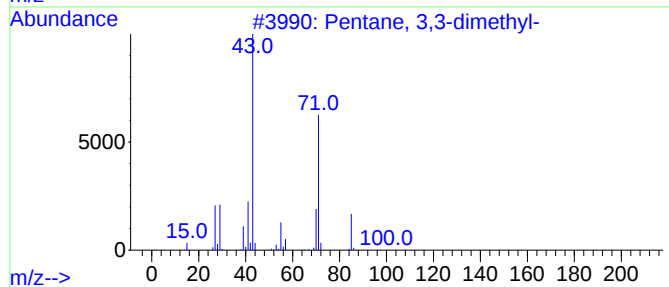
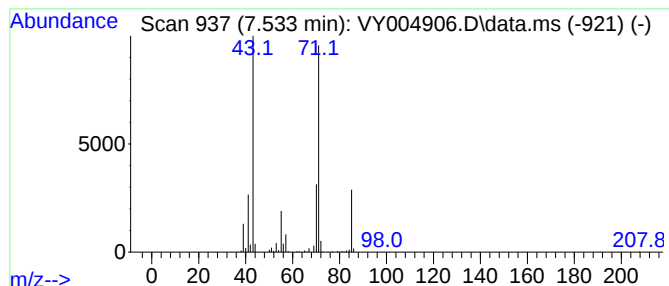
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 7 Pentane, 3,3-dimethyl- Concentration Rank 9

| R.T.  | EstConc    | Area   | Relative to ISTD   | R.T.  |
|-------|------------|--------|--------------------|-------|
| 7.533 | 23.71 ug/l | 394369 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 3,3-dimethyl-    | 100 | C7H16   | 000562-49-2 | 83   |
| 2    |    |   | Butane, 2-iodo-3-methyl-  | 198 | C5H11I  | 018295-27-7 | 53   |
| 3    |    |   | Pentane, 2,3,4-trimethyl- | 114 | C8H18   | 000565-75-3 | 50   |
| 4    |    |   | Oxirane, butyl-           | 100 | C6H12O  | 001436-34-6 | 50   |
| 5    |    |   | 2,2'-Bifuran, octahydro-  | 142 | C8H14O2 | 001592-33-2 | 50   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

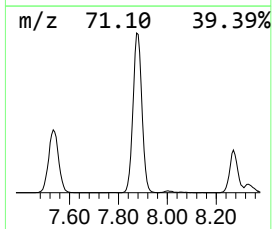
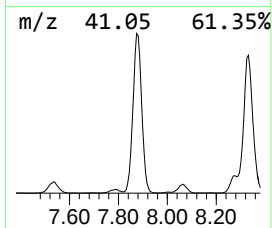
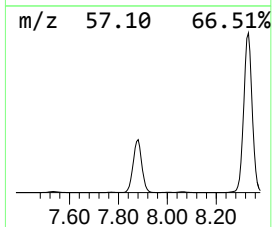
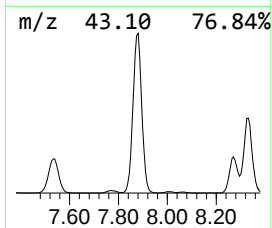
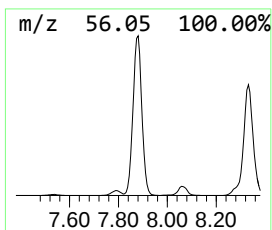
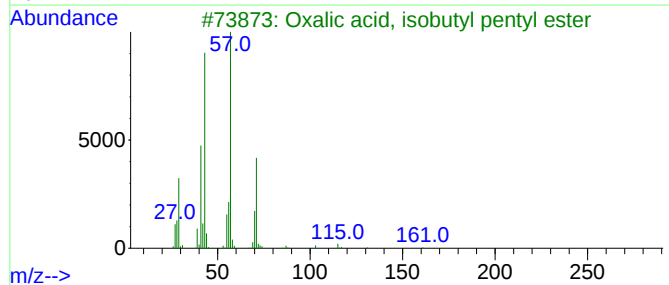
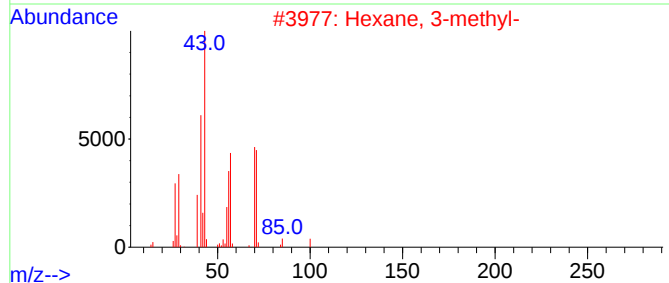
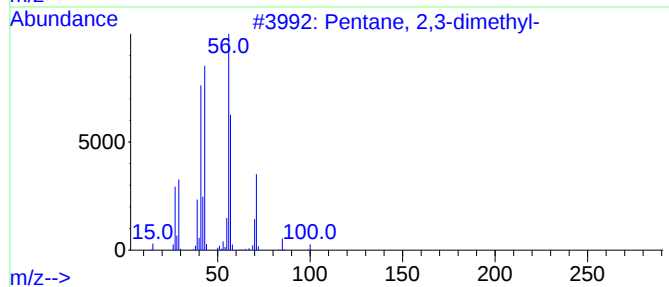
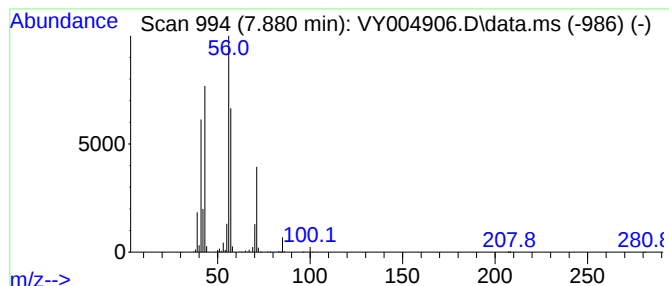
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 8 Pentane, 2,3-dimethyl- Concentration Rank 3

| R.T.  | EstConc     | Area    | Relative to ISTD   | R.T.  |
|-------|-------------|---------|--------------------|-------|
| 7.880 | 153.47 ug/l | 2553170 | Pentafluorobenzene | 7.795 |

| Hit# | of | 5 | Tentative ID                       | MW  | MolForm  | CAS#         | Qual |
|------|----|---|------------------------------------|-----|----------|--------------|------|
| 1    |    |   | Pentane, 2,3-dimethyl-             | 100 | C7H16    | 000565-59-3  | 95   |
| 2    |    |   | Hexane, 3-methyl-                  | 100 | C7H16    | 000589-34-4  | 43   |
| 3    |    |   | Oxalic acid, isobutyl pentyl ester | 216 | C11H20O4 | 1000309-37-0 | 38   |
| 4    |    |   | Hexane, 2,2,4-trimethyl-           | 128 | C9H20    | 016747-26-5  | 38   |
| 5    |    |   | Oxirane, (1-methylethyl)-          | 86  | C5H10O   | 001438-14-8  | 38   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

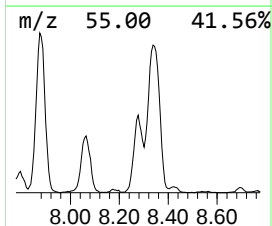
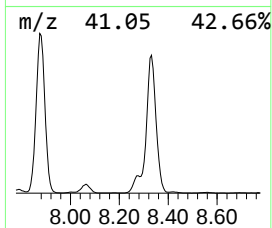
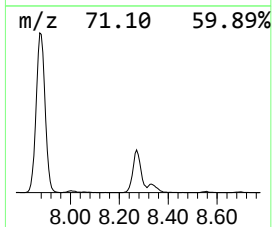
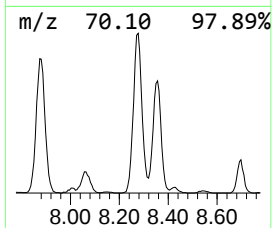
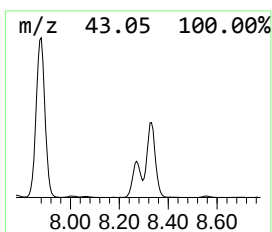
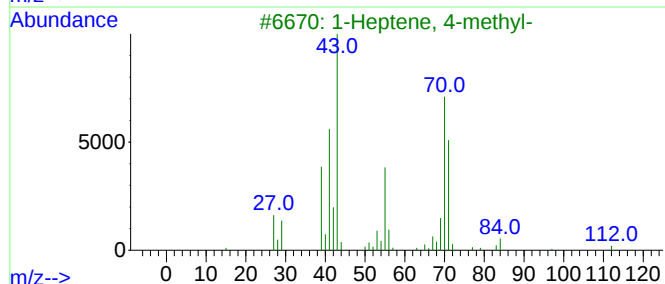
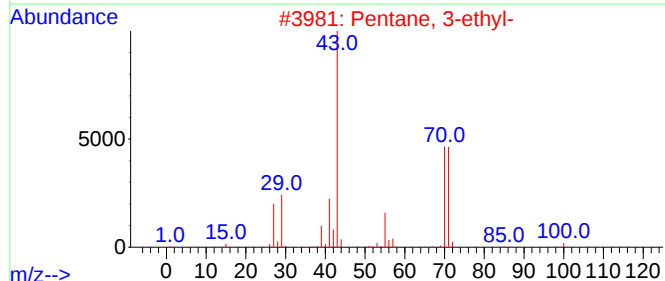
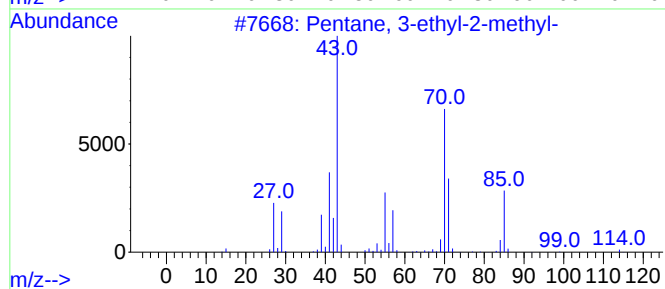
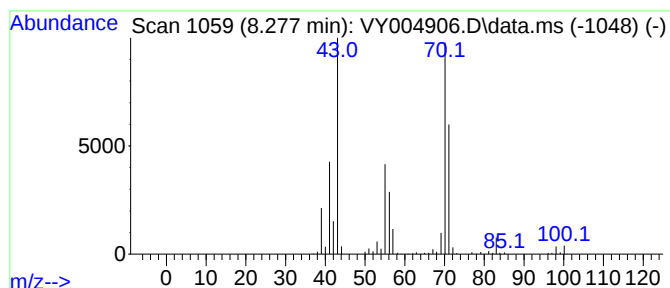
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 9 Pentane, 3-ethyl-2-methyl- Concentration Rank 14

| R.T.  | EstConc    | Area   | Relative to ISTD    | R.T.  |
|-------|------------|--------|---------------------|-------|
| 8.277 | 18.17 ug/l | 380230 | 1,4-Difluorobenzene | 8.697 |

| Hit# | of | 5 | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|---|----------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 3-ethyl-2-methyl- | 114 | C8H18   | 000609-26-7 | 64   |
| 2    |    |   | Pentane, 3-ethyl-          | 100 | C7H16   | 000617-78-7 | 47   |
| 3    |    |   | 1-Heptene, 4-methyl-       | 112 | C8H16   | 013151-05-8 | 45   |
| 4    |    |   | Hexane, 3-methyl-          | 100 | C7H16   | 000589-34-4 | 43   |
| 5    |    |   | Heptane                    | 100 | C7H16   | 000142-82-5 | 43   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

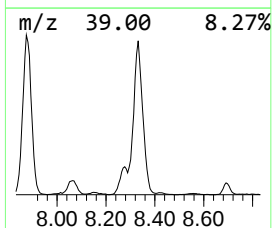
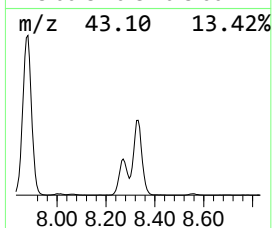
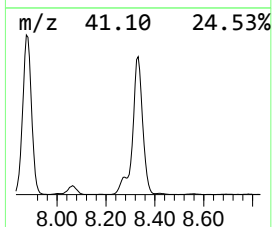
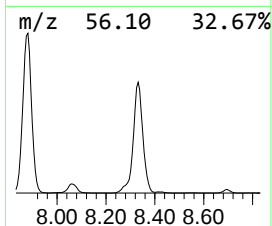
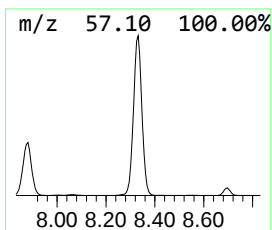
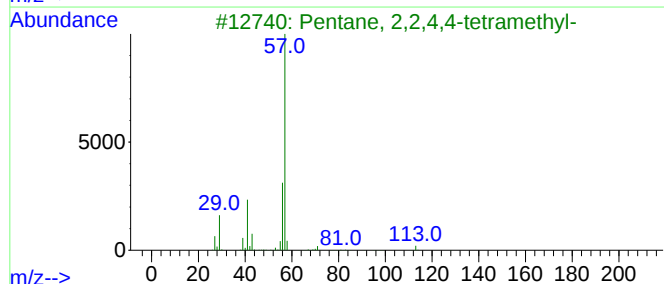
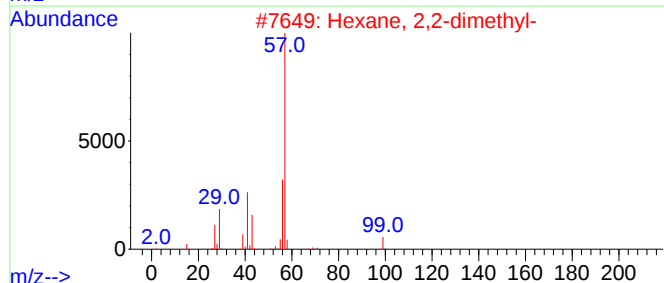
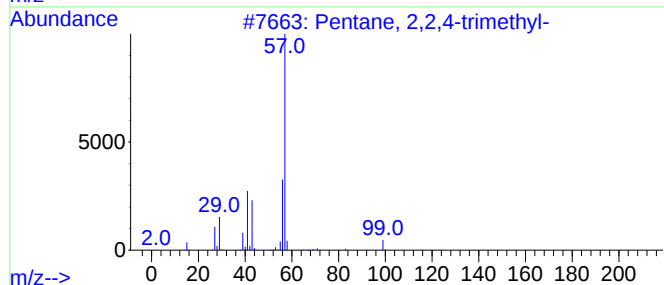
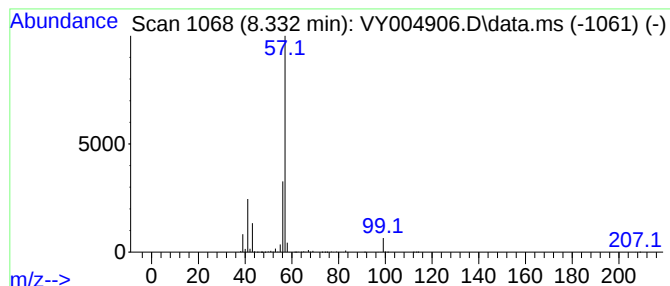
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Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 10 Pentane, 2,2,4-trimethyl- Concentration Rank 4

| R.T.  | EstConc     | Area    | Relative to ISTD    | R.T.  |
|-------|-------------|---------|---------------------|-------|
| 8.332 | 125.87 ug/l | 2633450 | 1,4-Difluorobenzene | 8.697 |

| Hit# | of | 5 | Tentative ID                  | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 2,2,4-trimethyl-     | 114 | C8H18   | 000540-84-1 | 83   |
| 2    |    |   | Hexane, 2,2-dimethyl-         | 114 | C8H18   | 000590-73-8 | 78   |
| 3    |    |   | Pentane, 2,2,4,4-tetramethyl- | 128 | C9H20   | 001070-87-7 | 78   |
| 4    |    |   | Butane, 2,2,3,3-tetramethyl-  | 114 | C8H18   | 000594-82-1 | 74   |
| 5    |    |   | Hexane, 2,2,4-trimethyl-      | 128 | C9H20   | 016747-26-5 | 64   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

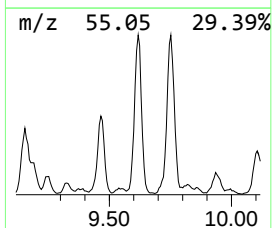
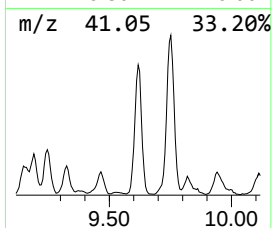
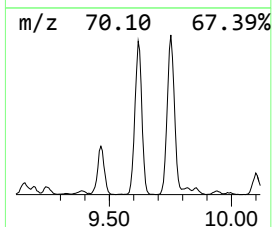
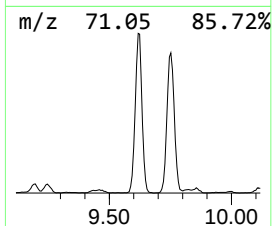
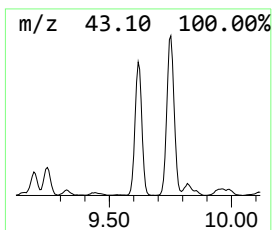
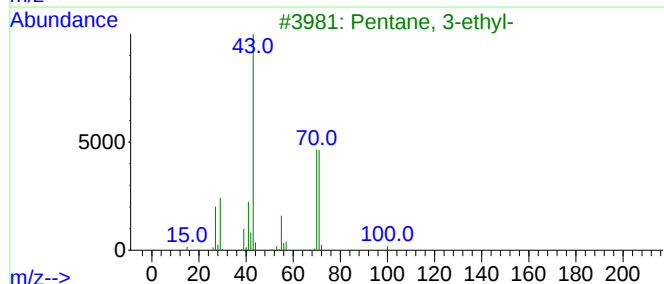
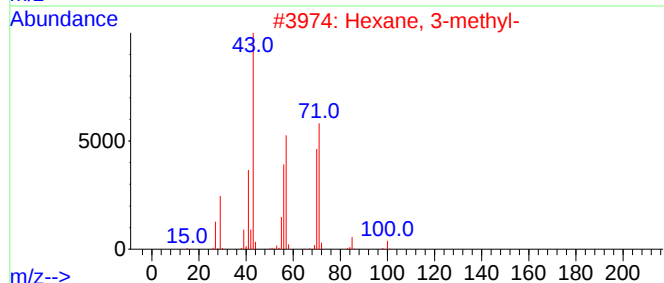
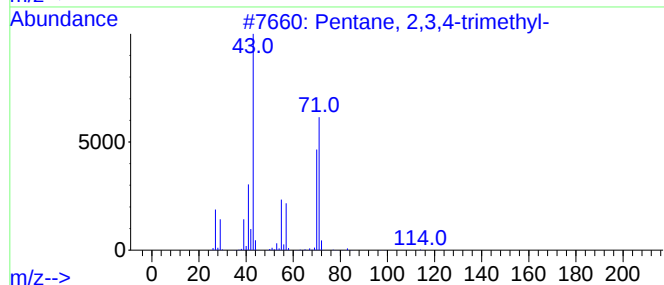
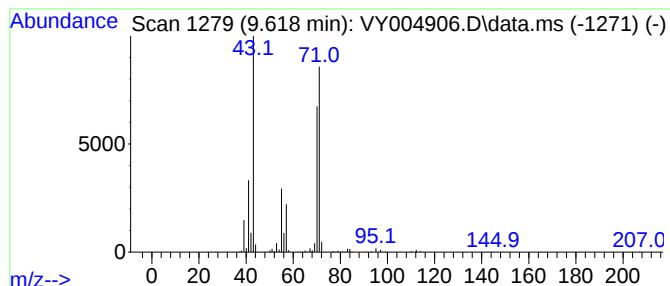
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 11 Pentane, 2,3,4-trimethyl- Concentration Rank 7

| R.T.  | EstConc    | Area   | Relative to ISTD    | R.T.  |
|-------|------------|--------|---------------------|-------|
| 9.618 | 32.00 ug/l | 669487 | 1,4-Difluorobenzene | 8.697 |

| Hit# | of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 2,3,4-trimethyl- | 114 | C8H18   | 000565-75-3 | 87   |
| 2    |    |   | Hexane, 3-methyl-         | 100 | C7H16   | 000589-34-4 | 78   |
| 3    |    |   | Pentane, 3-ethyl-         | 100 | C7H16   | 000617-78-7 | 78   |
| 4    |    |   | Decane, 3,3,4-trimethyl-  | 184 | C13H28  | 049622-18-6 | 78   |
| 5    |    |   | 2,4,4-Trimethyl-1-hexene  | 126 | C9H18   | 051174-12-0 | 78   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

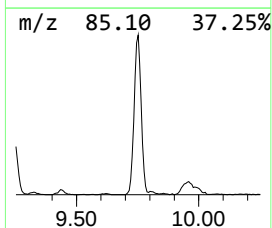
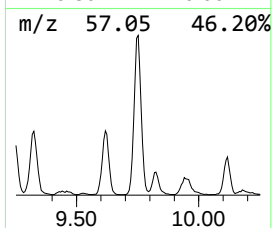
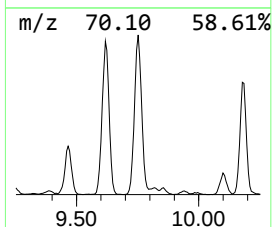
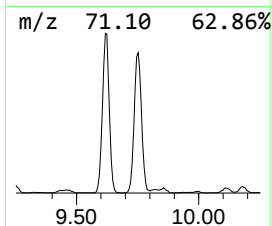
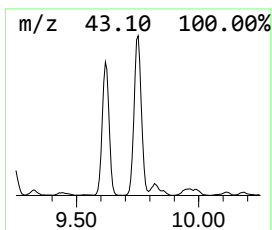
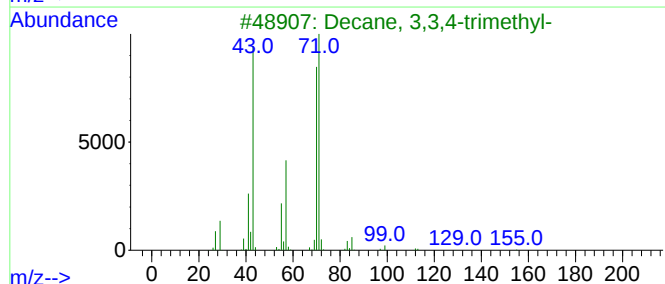
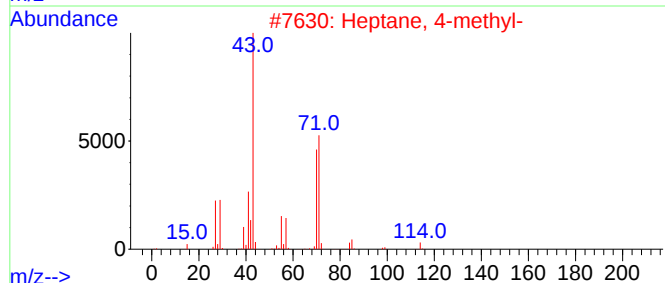
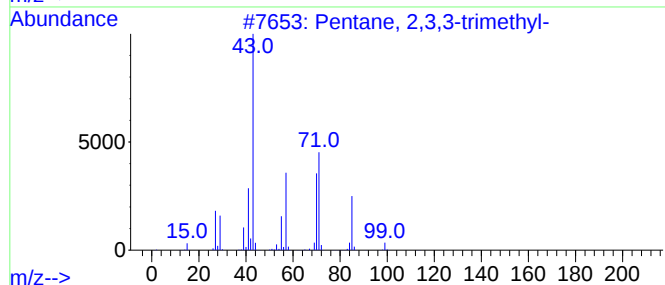
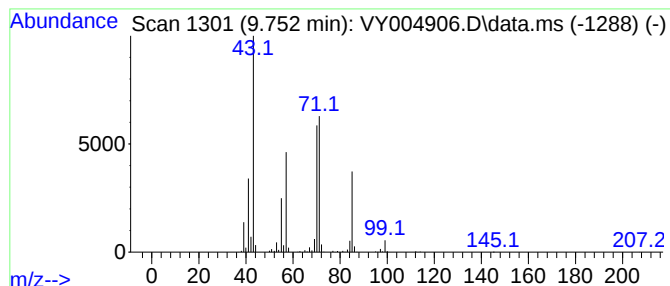
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 12 Pentane, 2,3,3-trimethyl- Concentration Rank 6

| R.T.  | EstConc    | Area   | Relative to ISTD    | R.T.  |
|-------|------------|--------|---------------------|-------|
| 9.752 | 46.06 ug/l | 963597 | 1,4-Difluorobenzene | 8.697 |

| Hit# | of | 5 | Tentative ID              | MW  | MolForm | CAS#        | Qual |
|------|----|---|---------------------------|-----|---------|-------------|------|
| 1    |    |   | Pentane, 2,3,3-trimethyl- | 114 | C8H18   | 000560-21-4 | 90   |
| 2    |    |   | Heptane, 4-methyl-        | 114 | C8H18   | 000589-53-7 | 64   |
| 3    |    |   | Decane, 3,3,4-trimethyl-  | 184 | C13H28  | 049622-18-6 | 59   |
| 4    |    |   | Hexane, 3,3-dimethyl-     | 114 | C8H18   | 000563-16-6 | 59   |
| 5    |    |   | Pentane, 2,3,4-trimethyl- | 114 | C8H18   | 000565-75-3 | 59   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

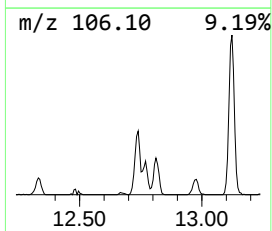
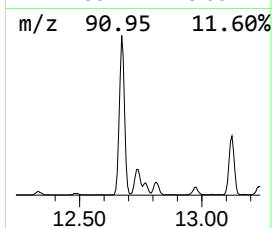
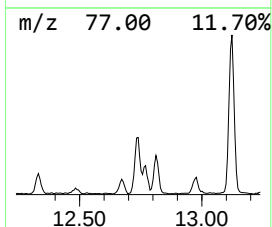
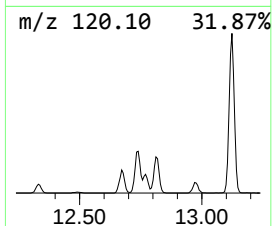
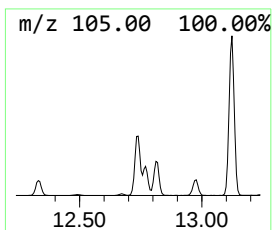
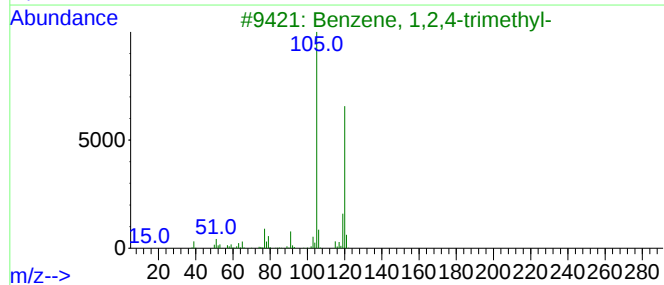
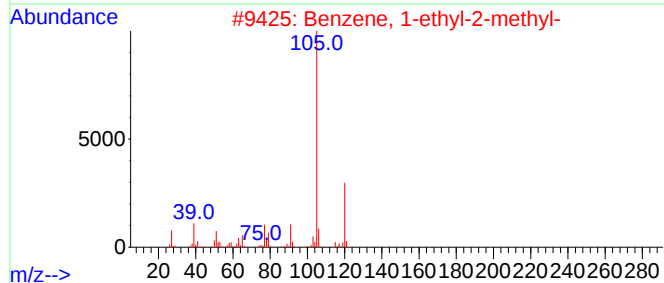
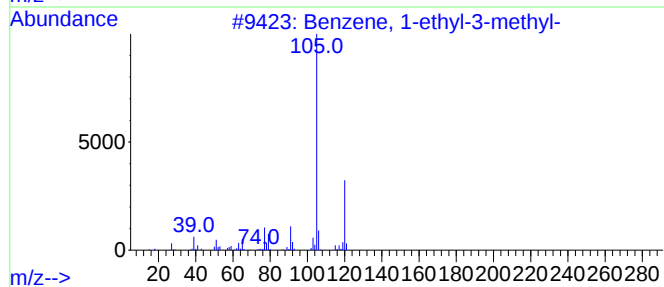
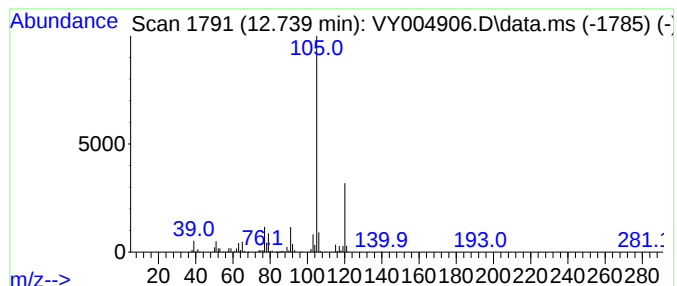
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 13 Benzene, 1-ethyl-3-methyl- Concentration Rank 15

| R.T.   | EstConc    | Area   | Relative to ISTD       | R.T.   |
|--------|------------|--------|------------------------|--------|
| 12.739 | 17.91 ug/l | 397804 | 1,4-Dichlorobenzene-d4 | 13.428 |

| Hit# | of | 5 | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|---|----------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzene, 1-ethyl-3-methyl- | 120 | C9H12   | 000620-14-4 | 95   |
| 2    |    |   | Benzene, 1-ethyl-2-methyl- | 120 | C9H12   | 000611-14-3 | 95   |
| 3    |    |   | Benzene, 1,2,4-trimethyl-  | 120 | C9H12   | 000095-63-6 | 91   |
| 4    |    |   | Benzene, 1-ethyl-4-methyl- | 120 | C9H12   | 000622-96-8 | 91   |
| 5    |    |   | Mesitylene                 | 120 | C9H12   | 000108-67-8 | 91   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

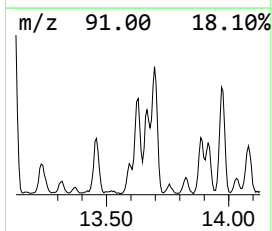
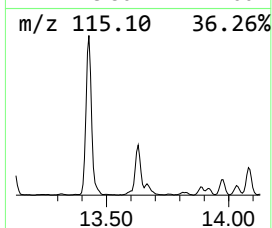
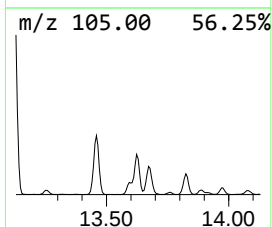
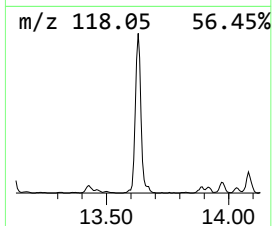
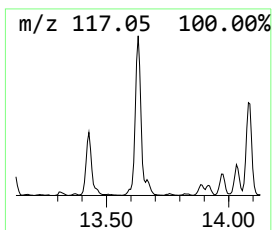
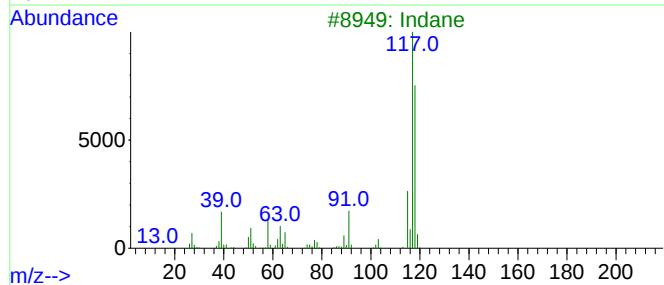
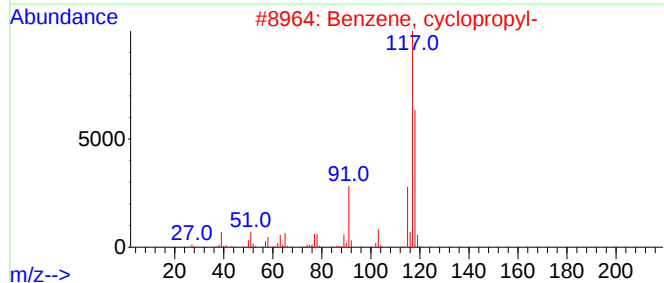
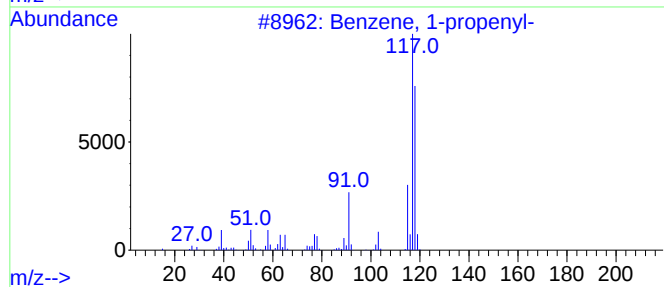
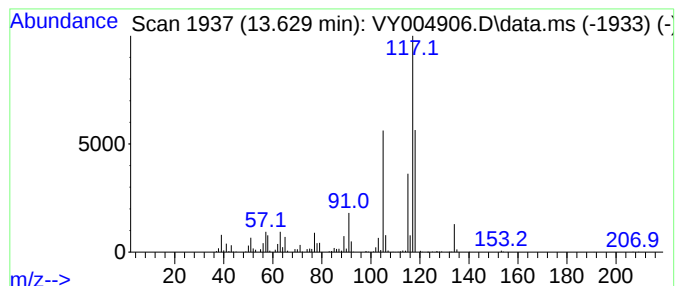
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

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

\*\*\*\*\*  
Peak Number 14 Benzene, 1-propenyl- Concentration Rank 13

| R.T.   | EstConc    | Area   | Relative to ISTD       | R.T.   |
|--------|------------|--------|------------------------|--------|
| 13.629 | 21.03 ug/l | 467067 | 1,4-Dichlorobenzene-d4 | 13.428 |

| Hit# | of | 5 | Tentative ID          | MW  | MolForm | CAS#        | Qual |
|------|----|---|-----------------------|-----|---------|-------------|------|
| 1    |    |   | Benzene, 1-propenyl-  | 118 | C9H10   | 000637-50-3 | 76   |
| 2    |    |   | Benzene, cyclopropyl- | 118 | C9H10   | 000873-49-4 | 76   |
| 3    |    |   | Indane                | 118 | C9H10   | 000496-11-7 | 76   |
| 4    |    |   | Benzene, 2-propenyl-  | 118 | C9H10   | 000300-57-2 | 68   |
| 5    |    |   | Deltacyclene          | 118 | C9H10   | 007785-10-6 | 64   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.M  
Quant Title : SW846 8260

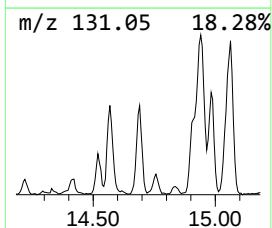
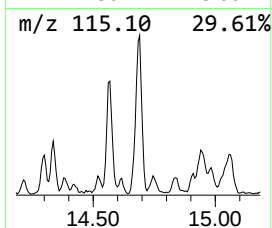
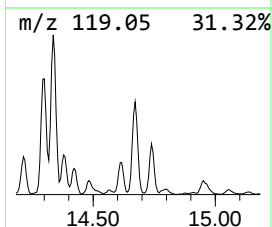
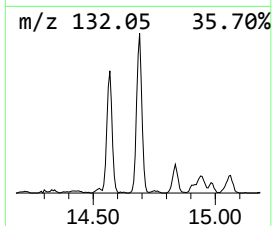
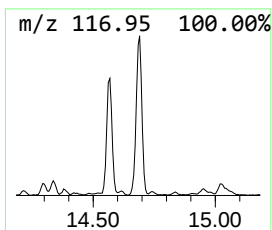
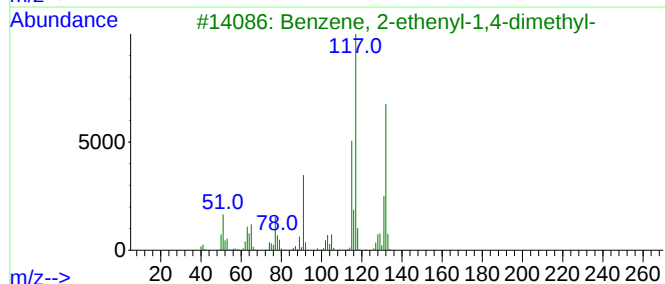
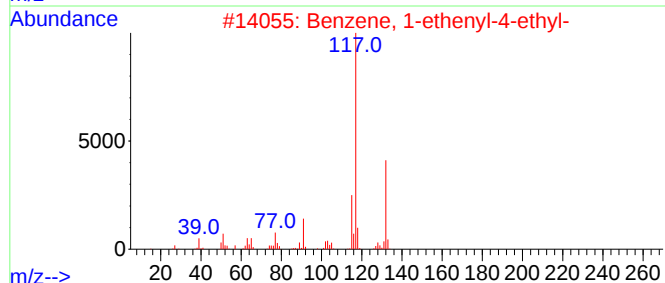
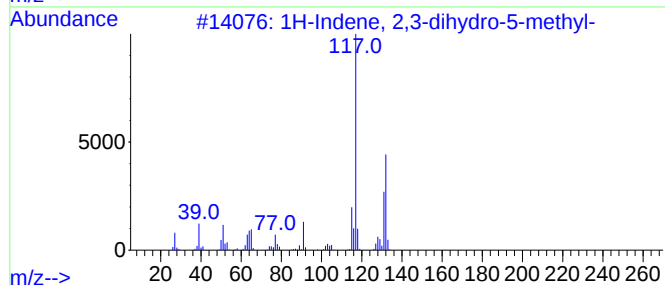
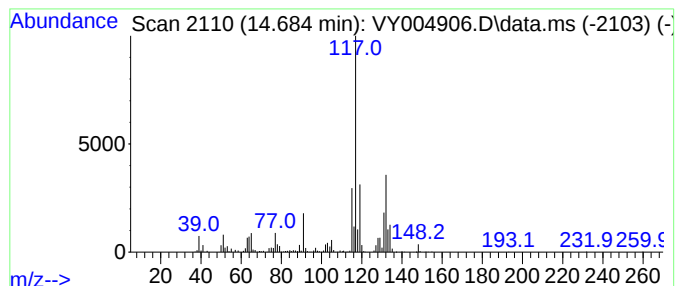
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 15 1H-Indene, 2,3-dihydro-5-me... Concentration Rank 12

| R.T.   | EstConc    | Area   | Relative to ISTD       | R.T.   |
|--------|------------|--------|------------------------|--------|
| 14.684 | 21.98 ug/l | 487988 | 1,4-Dichlorobenzene-d4 | 13.428 |

| Hit# | of 5 | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|------|----------------------------------|-----|---------|-------------|------|
| 1    |      | 1H-Indene, 2,3-dihydro-5-methyl- | 132 | C10H12  | 000874-35-1 | 93   |
| 2    |      | Benzene, 1-ethenyl-4-ethyl-      | 132 | C10H12  | 003454-07-7 | 93   |
| 3    |      | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12  | 002039-89-6 | 91   |
| 4    |      | 2,4-Dimethylstyrene              | 132 | C10H12  | 002234-20-0 | 87   |
| 5    |      | Benzene, 2-butenyl-              | 132 | C10H12  | 001560-06-1 | 81   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_Y\Data\VY052721\  
Data File : VY004906.D  
Acq On : 27 May 2021 17:34  
Operator : SY/MD  
Sample : M2535-04  
Misc : 6.27G/5ML/MSVOA\_Y/SOIL  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
GHOST-4D

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_Y\methods\82Y051021S.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 |
| Isobutane          | 2.077  | 23.4    | ug/l  | 388378   | 1                     | 7.795  | 831799  | 50.0 |
| Butane, 2-methyl-  | 2.912  | 367.4   | ug/l  | 6112200  | 1                     | 7.795  | 831799  | 50.0 |
| Butane, 2,3-dim... | 4.710  | 301.6   | ug/l  | 5017670  | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 3-methyl- | 5.247  | 31.5    | ug/l  | 523665   | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 2,2-di... | 6.533  | 23.6    | ug/l  | 392227   | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 2,4-di... | 6.698  | 123.2   | ug/l  | 2049910  | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 3,3-di... | 7.533  | 23.7    | ug/l  | 394369   | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 2,3-di... | 7.880  | 153.5   | ug/l  | 2553170  | 1                     | 7.795  | 831799  | 50.0 |
| Pentane, 3-ethy... | 8.277  | 18.2    | ug/l  | 380230   | 2                     | 8.697  | 1046080 | 50.0 |
| Pentane, 2,2,4-... | 8.332  | 125.9   | ug/l  | 2633450  | 2                     | 8.697  | 1046080 | 50.0 |
| Pentane, 2,3,4-... | 9.618  | 32.0    | ug/l  | 669487   | 2                     | 8.697  | 1046080 | 50.0 |
| Pentane, 2,3,3-... | 9.752  | 46.1    | ug/l  | 963597   | 2                     | 8.697  | 1046080 | 50.0 |
| Benzene, 1-ethy... | 12.739 | 17.9    | ug/l  | 397804   | 4                     | 13.428 | 1110250 | 50.0 |
| Benzene, 1-prop... | 13.629 | 21.0    | ug/l  | 467067   | 4                     | 13.428 | 1110250 | 50.0 |
| 1H-Indene, 2,3-... | 14.684 | 22.0    | ug/l  | 487988   | 4                     | 13.428 | 1110250 | 50.0 |