

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
 Data File : VU034814.D  
 Acq On : 25 Sep 2019 19:57  
 Operator : JC/SP  
 Sample : K4983-03  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFDF4

## Integration Parameters: LSCINT.P

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

Filtering: 5  
 Min Area: 0 % 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\_U\METHOD\SOMULM091919WMA.M  
 Title : VOC Analysis

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         | 1.177       | 22            | 27          | 32           | rBV2     | 9373           | 9099          | 0.33%           | 0.023%        |
| 2         | 1.392       | 86            | 94          | 108          | rBV      | 314836         | 340958        | 12.36%          | 0.854%        |
| 3         | 1.466       | 110           | 117         | 126          | rBV      | 43281          | 49837         | 1.81%           | 0.125%        |
| 4         | 1.543       | 133           | 141         | 150          | rVB2     | 32969          | 44629         | 1.62%           | 0.112%        |
| 5         | 1.672       | 172           | 181         | 196          | rBV      | 259934         | 338836        | 12.28%          | 0.849%        |
| 6         | 2.257       | 352           | 363         | 373          | rBV      | 460549         | 707440        | 25.65%          | 1.773%        |
| 7         | 2.305       | 373           | 378         | 392          | rVB      | 72236          | 114296        | 4.14%           | 0.286%        |
| 8         | 2.685       | 483           | 496         | 515          | rVV      | 292079         | 525765        | 19.06%          | 1.318%        |
| 9         | 2.775       | 515           | 524         | 533          | rBV6     | 8683           | 16516         | 0.60%           | 0.041%        |
| 10        | 3.630       | 780           | 790         | 796          | rBV6     | 4500           | 8353          | 0.30%           | 0.021%        |
| 11        | 3.968       | 888           | 895         | 912          | rVB4     | 9181           | 21979         | 0.80%           | 0.055%        |
| 12        | 4.071       | 912           | 927         | 939          | rVB7     | 9232           | 23422         | 0.85%           | 0.059%        |
| 13        | 4.151       | 939           | 952         | 981          | rBV      | 226238         | 633949        | 22.98%          | 1.589%        |
| 14        | 4.624       | 1078          | 1099        | 1124         | rBV2     | 345287         | 845586        | 30.65%          | 2.119%        |
| 15        | 4.762       | 1131          | 1142        | 1154         | rVB7     | 9441           | 21981         | 0.80%           | 0.055%        |
| 16        | 4.971       | 1196          | 1207        | 1218         | rVB7     | 13003          | 30495         | 1.11%           | 0.076%        |
| 17        | 5.315       | 1289          | 1314        | 1326         | rBV2     | 753878         | 2214007       | 80.26%          | 5.548%        |
| 18        | 5.527       | 1366          | 1380        | 1398         | rVV2     | 73661          | 166484        | 6.04%           | 0.417%        |
| 19        | 5.768       | 1444          | 1455        | 1469         | rVB8     | 5649           | 14116         | 0.51%           | 0.035%        |
| 20        | 5.865       | 1469          | 1485        | 1501         | rBV      | 523472         | 1050440       | 38.08%          | 2.632%        |
| 21        | 6.157       | 1565          | 1576        | 1600         | rVB      | 36008          | 99776         | 3.62%           | 0.250%        |
| 22        | 6.309       | 1608          | 1623        | 1640         | rBV      | 506071         | 1034118       | 37.49%          | 2.592%        |
| 23        | 6.402       | 1642          | 1652        | 1678         | rVB4     | 30117          | 77765         | 2.82%           | 0.195%        |
| 24        | 6.563       | 1695          | 1702        | 1705         | rBV      | 12635          | 15936         | 0.58%           | 0.040%        |
| 25        | 6.588       | 1707          | 1710        | 1726         | rVB3     | 19524          | 34091         | 1.24%           | 0.085%        |
| 26        | 6.685       | 1728          | 1740        | 1770         | rBV      | 1503940        | 2758396       | 100.00%         | 6.913%        |
| 27        | 7.048       | 1841          | 1853        | 1862         | rVB5     | 9854           | 17661         | 0.64%           | 0.044%        |
| 28        | 7.206       | 1889          | 1902        | 1924         | rBV2     | 292089         | 539944        | 19.57%          | 1.353%        |
| 29        | 7.315       | 1929          | 1936        | 1945         | rVB5     | 13684          | 22926         | 0.83%           | 0.057%        |
| 30        | 7.399       | 1951          | 1962        | 1970         | rBV      | 196130         | 331492        | 12.02%          | 0.831%        |
| 31        | 7.440       | 1971          | 1975        | 1990         | rVB2     | 56450          | 89237         | 3.24%           | 0.224%        |
| 32        | 7.543       | 1994          | 2007        | 2019         | rBV      | 1032926        | 1821926       | 66.05%          | 4.566%        |
| 33        | 7.614       | 2019          | 2029        | 2045         | rVB      | 619395         | 1078052       | 39.08%          | 2.702%        |
| 34        | 7.826       | 2085          | 2095        | 2111         | rBV2     | 243950         | 437230        | 15.85%          | 1.096%        |

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 Sampling : 1  
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 Stop Thrs : 0

Filtering: 5  
 Min Area: 0 % 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\_U\METHOD\SOMULM091919WMA.M  
 Title : VOC Analysis

|    |        |      |      |      |      |         |         |        |        |
|----|--------|------|------|------|------|---------|---------|--------|--------|
| 35 | 7.897  | 2111 | 2117 | 2138 | rVB4 | 26596   | 70379   | 2.55%  | 0.176% |
| 36 | 8.135  | 2178 | 2191 | 2204 | rBV  | 289478  | 486211  | 17.63% | 1.218% |
| 37 | 8.212  | 2206 | 2215 | 2219 | rBV4 | 33995   | 53036   | 1.92%  | 0.133% |
| 38 | 8.241  | 2220 | 2224 | 2229 | rVV4 | 24778   | 30276   | 1.10%  | 0.076% |
| 39 | 8.289  | 2229 | 2239 | 2262 | rVV  | 853402  | 1480874 | 53.69% | 3.711% |
| 40 | 8.395  | 2262 | 2272 | 2285 | rBV  | 475934  | 739921  | 26.82% | 1.854% |
| 41 | 8.514  | 2302 | 2309 | 2320 | rVB2 | 23761   | 41442   | 1.50%  | 0.104% |
| 42 | 8.884  | 2411 | 2424 | 2449 | rBV  | 575493  | 925757  | 33.56% | 2.320% |
| 43 | 9.067  | 2456 | 2481 | 2508 | rBV  | 800002  | 1409076 | 51.08% | 3.531% |
| 44 | 9.228  | 2518 | 2531 | 2550 | rBV  | 331960  | 549002  | 19.90% | 1.376% |
| 45 | 9.350  | 2555 | 2569 | 2585 | rBV  | 1419153 | 2355865 | 85.41% | 5.904% |
| 46 | 9.588  | 2635 | 2643 | 2654 | rVV2 | 18405   | 27487   | 1.00%  | 0.069% |
| 47 | 9.755  | 2683 | 2695 | 2720 | rVB  | 1171009 | 1937262 | 70.23% | 4.855% |
| 48 | 9.916  | 2736 | 2745 | 2758 | rVV2 | 12074   | 28280   | 1.03%  | 0.071% |
| 49 | 10.016 | 2767 | 2776 | 2785 | rVV2 | 13102   | 27899   | 1.01%  | 0.070% |
| 50 | 10.144 | 2806 | 2816 | 2827 | rBV3 | 53609   | 88706   | 3.22%  | 0.222% |
| 51 | 10.299 | 2858 | 2864 | 2872 | rBV3 | 5911    | 9457    | 0.34%  | 0.024% |
| 52 | 10.408 | 2886 | 2898 | 2914 | rVV  | 669683  | 1077735 | 39.07% | 2.701% |
| 53 | 10.466 | 2914 | 2916 | 2925 | rVB9 | 5925    | 6352    | 0.23%  | 0.016% |
| 54 | 10.566 | 2936 | 2947 | 2961 | rBV  | 103890  | 176519  | 6.40%  | 0.442% |
| 55 | 10.659 | 2964 | 2976 | 2994 | rVV  | 454896  | 1031572 | 37.40% | 2.585% |
| 56 | 10.749 | 2994 | 3004 | 3028 | rVB  | 325702  | 534954  | 19.39% | 1.341% |
| 57 | 10.897 | 3041 | 3050 | 3056 | rBV2 | 27583   | 45366   | 1.64%  | 0.114% |
| 58 | 10.948 | 3056 | 3066 | 3085 | rVB  | 351108  | 574515  | 20.83% | 1.440% |
| 59 | 11.125 | 3109 | 3121 | 3137 | rVV  | 917203  | 1419248 | 51.45% | 3.557% |
| 60 | 11.263 | 3154 | 3164 | 3169 | rBV8 | 8075    | 15449   | 0.56%  | 0.039% |
| 61 | 11.305 | 3171 | 3177 | 3183 | rVB4 | 9454    | 14073   | 0.51%  | 0.035% |
| 62 | 11.405 | 3199 | 3208 | 3214 | rBV2 | 43365   | 62251   | 2.26%  | 0.156% |
| 63 | 11.459 | 3214 | 3225 | 3241 | rVV  | 790331  | 1298317 | 47.07% | 3.254% |
| 64 | 11.546 | 3242 | 3252 | 3266 | rVB  | 590355  | 900751  | 32.65% | 2.257% |
| 65 | 11.742 | 3301 | 3313 | 3322 | rBV  | 339844  | 591402  | 21.44% | 1.482% |
| 66 | 11.836 | 3332 | 3342 | 3369 | rVB2 | 1065535 | 2072998 | 75.15% | 5.195% |
| 67 | 11.958 | 3372 | 3380 | 3395 | rBV3 | 34102   | 58095   | 2.11%  | 0.146% |
| 68 | 12.032 | 3396 | 3403 | 3415 | rVB  | 44124   | 74769   | 2.71%  | 0.187% |
| 69 | 12.125 | 3419 | 3432 | 3436 | rBV2 | 71058   | 115672  | 4.19%  | 0.290% |
| 70 | 12.154 | 3437 | 3441 | 3451 | rVB  | 65312   | 87538   | 3.17%  | 0.219% |
| 71 | 12.228 | 3455 | 3464 | 3471 | rBV2 | 134342  | 202774  | 7.35%  | 0.508% |

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Filtering: 5  
 Min Area: 0 % of largest Peak  
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 Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
 Title : VOC Analysis

|     |        |      |      |      |      |        |        |        |        |
|-----|--------|------|------|------|------|--------|--------|--------|--------|
| 72  | 12.331 | 3486 | 3496 | 3518 | rVB2 | 135108 | 262663 | 9.52%  | 0.658% |
| 73  | 12.472 | 3529 | 3540 | 3544 | rBV2 | 12020  | 21188  | 0.77%  | 0.053% |
| 74  | 12.530 | 3548 | 3558 | 3568 | rVV4 | 60006  | 106022 | 3.84%  | 0.266% |
| 75  | 12.594 | 3568 | 3578 | 3583 | rVV2 | 79190  | 134935 | 4.89%  | 0.338% |
| 76  | 12.627 | 3583 | 3588 | 3596 | rVV  | 103083 | 158550 | 5.75%  | 0.397% |
| 77  | 12.681 | 3596 | 3605 | 3619 | rVB  | 171292 | 264019 | 9.57%  | 0.662% |
| 78  | 12.768 | 3624 | 3632 | 3637 | rBV8 | 15413  | 23409  | 0.85%  | 0.059% |
| 79  | 12.942 | 3678 | 3686 | 3702 | rVB  | 115415 | 177584 | 6.44%  | 0.445% |
| 80  | 13.099 | 3717 | 3735 | 3750 | rBV2 | 315497 | 550451 | 19.96% | 1.379% |
| 81  | 13.164 | 3750 | 3755 | 3766 | rVV6 | 27434  | 45816  | 1.66%  | 0.115% |
| 82  | 13.218 | 3769 | 3772 | 3778 | rVV  | 10222  | 12469  | 0.45%  | 0.031% |
| 83  | 13.270 | 3778 | 3788 | 3802 | rVB4 | 74894  | 135721 | 4.92%  | 0.340% |
| 84  | 13.376 | 3811 | 3821 | 3831 | rBV7 | 71409  | 128662 | 4.66%  | 0.322% |
| 85  | 13.434 | 3831 | 3839 | 3848 | rVB3 | 37210  | 56717  | 2.06%  | 0.142% |
| 86  | 13.488 | 3848 | 3856 | 3862 | rBV4 | 52396  | 79843  | 2.89%  | 0.200% |
| 87  | 13.559 | 3873 | 3878 | 3881 | rBV3 | 11399  | 14740  | 0.53%  | 0.037% |
| 88  | 13.588 | 3881 | 3887 | 3909 | rVB5 | 53608  | 114866 | 4.16%  | 0.288% |
| 89  | 13.720 | 3917 | 3928 | 3951 | rBV  | 387488 | 682849 | 24.76% | 1.711% |
| 90  | 13.842 | 3956 | 3966 | 3983 | rVV3 | 27011  | 62406  | 2.26%  | 0.156% |
| 91  | 13.929 | 3983 | 3993 | 4003 | rVV6 | 20280  | 44117  | 1.60%  | 0.111% |
| 92  | 13.990 | 4007 | 4012 | 4021 | rVB4 | 18443  | 27865  | 1.01%  | 0.070% |
| 93  | 14.135 | 4047 | 4057 | 4071 | rVV4 | 34345  | 66206  | 2.40%  | 0.166% |
| 94  | 14.311 | 4103 | 4112 | 4125 | rBV7 | 33474  | 79029  | 2.87%  | 0.198% |
| 95  | 14.459 | 4150 | 4158 | 4166 | rVV7 | 13800  | 25237  | 0.91%  | 0.063% |
| 96  | 14.520 | 4170 | 4177 | 4186 | rVB6 | 20852  | 35856  | 1.30%  | 0.090% |
| 97  | 14.655 | 4213 | 4219 | 4231 | rVB6 | 11498  | 20396  | 0.74%  | 0.051% |
| 98  | 14.807 | 4258 | 4266 | 4271 | rBV3 | 11429  | 16420  | 0.60%  | 0.041% |
| 99  | 14.858 | 4272 | 4282 | 4308 | rVV  | 101563 | 199832 | 7.24%  | 0.501% |
| 100 | 15.045 | 4329 | 4340 | 4352 | rBV  | 109036 | 198080 | 7.18%  | 0.496% |

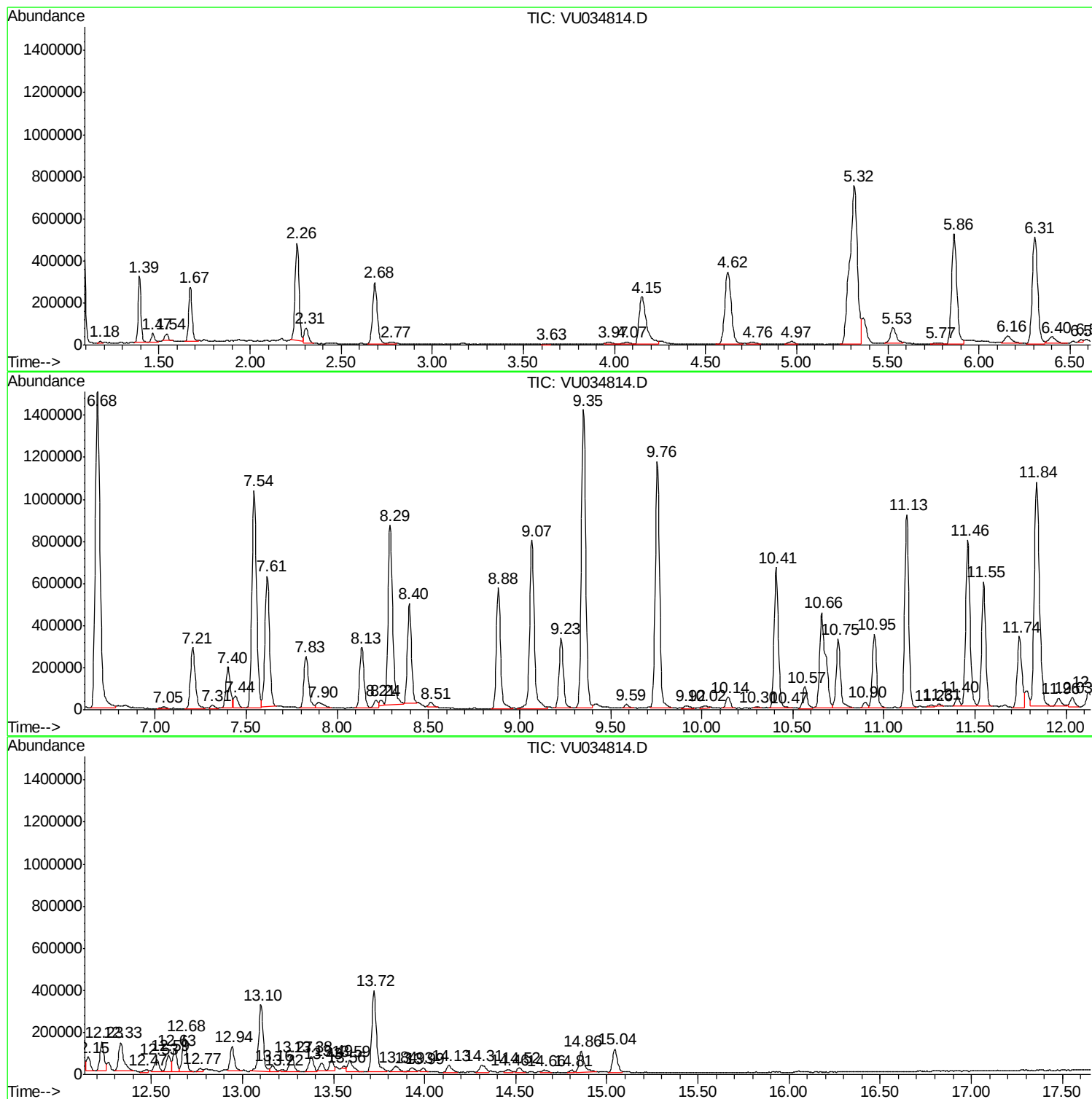
Sum of corrected areas: 39903966

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
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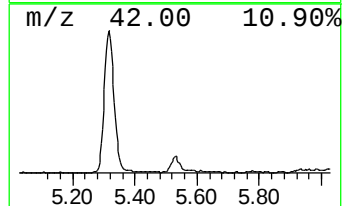
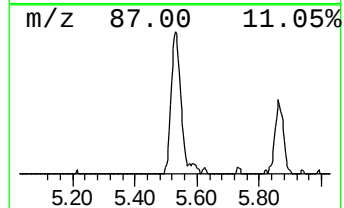
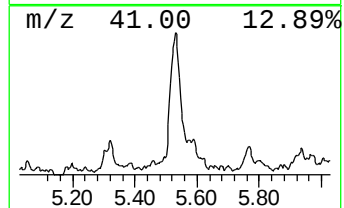
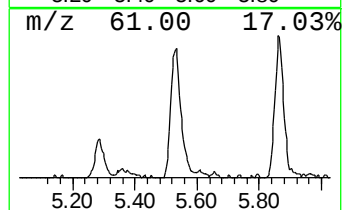
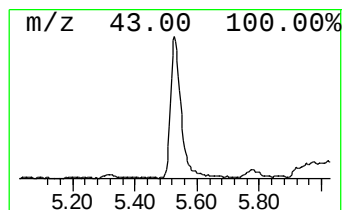
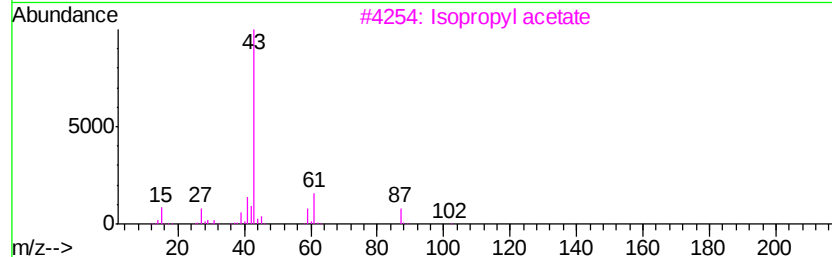
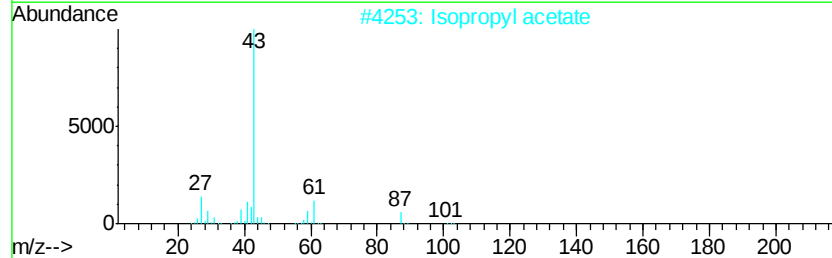
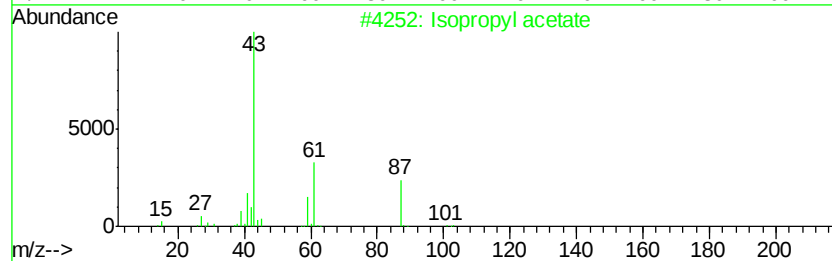
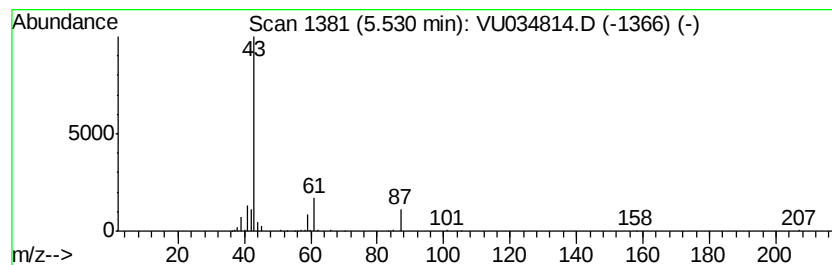
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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

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Peak Number 1 Isopropyl acetate Concentration Rank 16

| R.T. | EstConc   | Area   | Relative to ISTD    | R.T. |
|------|-----------|--------|---------------------|------|
| 5.53 | 7.92 ug/L | 166484 | 1,4-Difluorobenzene | 5.86 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#         | Qual |
|------|----|-----------------------------|-----|---------|--------------|------|
| 1    | 5  | Isopropyl acetate           | 102 | C5H10O2 | 000108-21-4  | 72   |
| 2    |    | Isopropyl acetate           | 102 | C5H10O2 | 000108-21-4  | 56   |
| 3    |    | Isopropyl acetate           | 102 | C5H10O2 | 000108-21-4  | 56   |
| 4    |    | Isopropyl acetate           | 102 | C5H10O2 | 000108-21-4  | 50   |
| 5    |    | Acetaldehyde, O-ethyloxime- | 87  | C4H9NO  | 1000288-34-6 | 9    |



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Quant Title : VOC Analysis

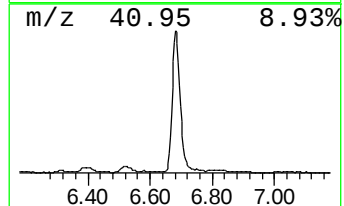
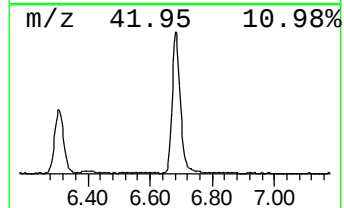
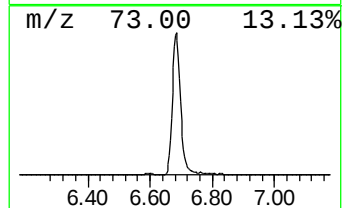
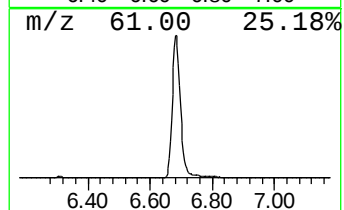
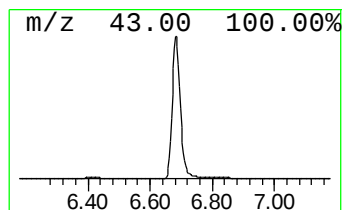
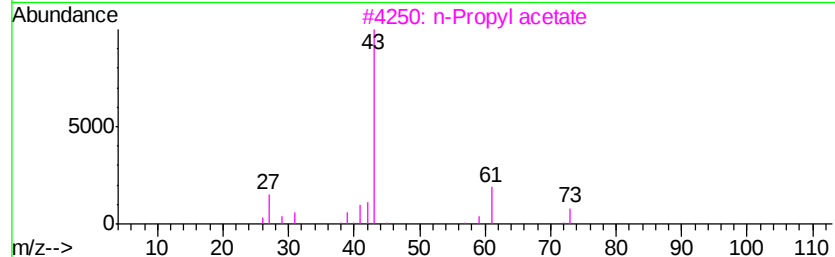
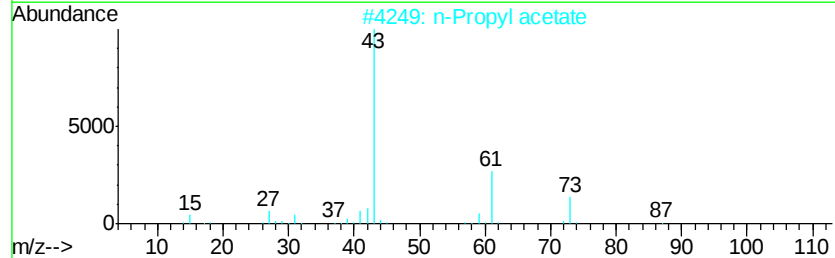
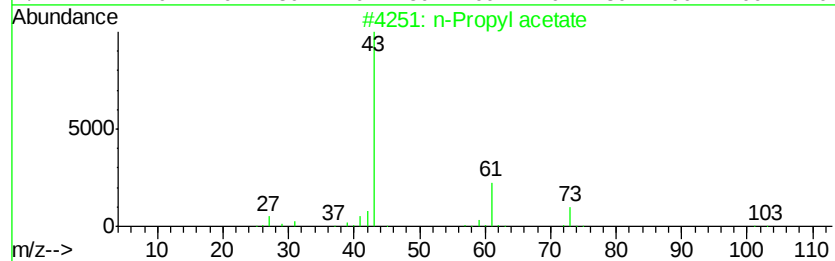
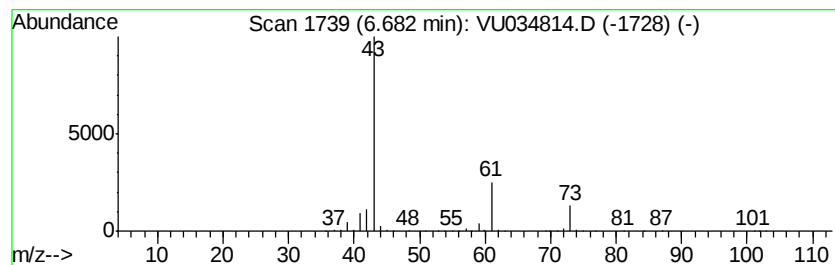
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 2 n-Propyl acetate Concentration Rank 1

| R.T. | EstConc     | Area    | Relative to ISTD    | R.T. |
|------|-------------|---------|---------------------|------|
| 6.68 | 131.30 ug/L | 2758400 | 1,4-Difluorobenzene | 5.86 |

| Hit# | of | Tentative ID      | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------|-----|---------|-------------|------|
| 1    | 5  | n-Propyl acetate  | 102 | C5H10O2 | 000109-60-4 | 83   |
| 2    |    | n-Propyl acetate  | 102 | C5H10O2 | 000109-60-4 | 78   |
| 3    |    | n-Propyl acetate  | 102 | C5H10O2 | 000109-60-4 | 78   |
| 4    |    | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 36   |
| 5    |    | Isopropyl acetate | 102 | C5H10O2 | 000108-21-4 | 9    |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

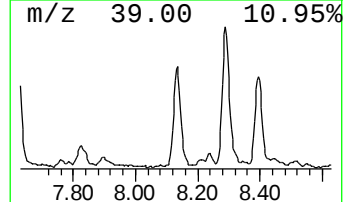
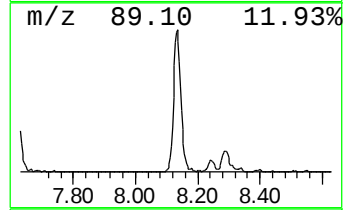
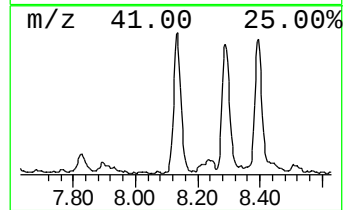
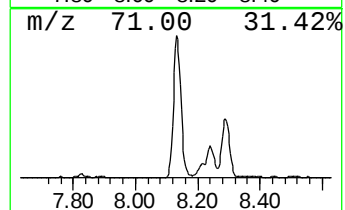
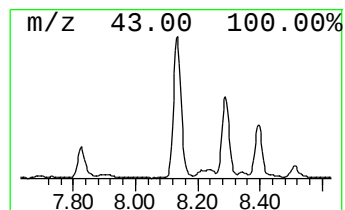
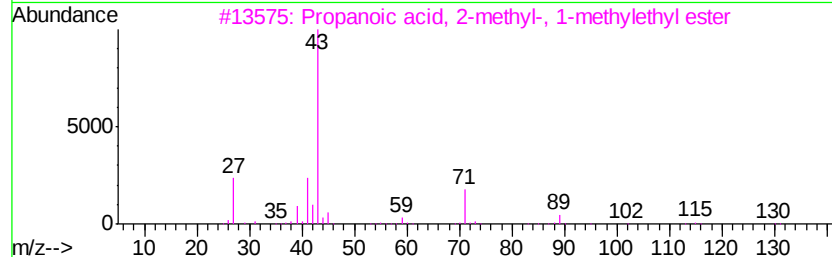
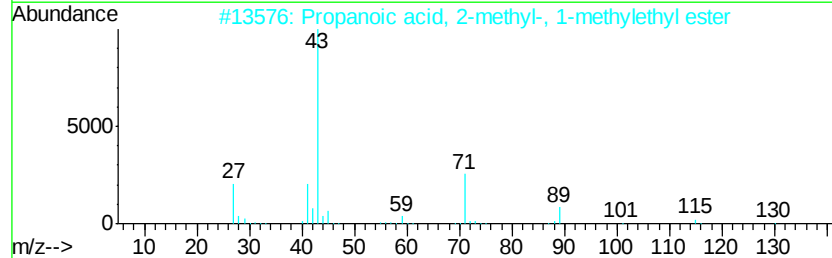
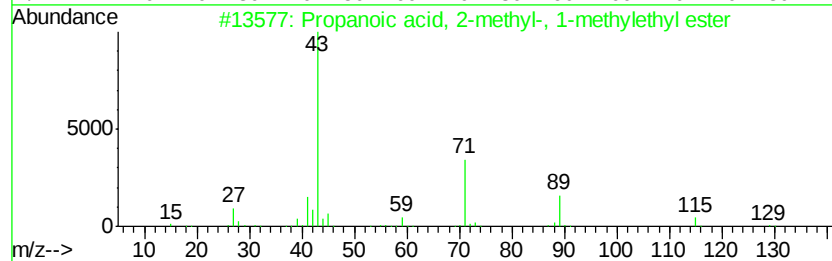
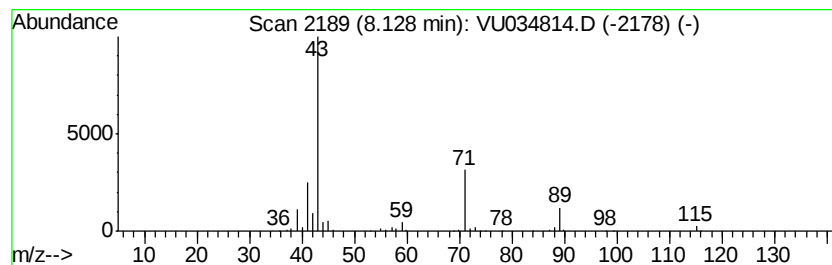
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 4 Propanoic acid, 2-methyl-, ... Concentration Rank 13

| R.T. | EstConc    | Area   | Relative to ISTD | R.T. |
|------|------------|--------|------------------|------|
| 8.13 | 17.25 ug/L | 486211 | Chlorobenzene-d5 | 9.07 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 83   |
| 2    |    | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 83   |
| 3    |    | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 64   |
| 4    |    | Propanoic acid, 2-methyl-, 1-met... | 130 | C7H14O2 | 000617-50-5 | 59   |
| 5    |    | Propanoic acid, 2-methyl-, propy... | 130 | C7H14O2 | 000644-49-5 | 45   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

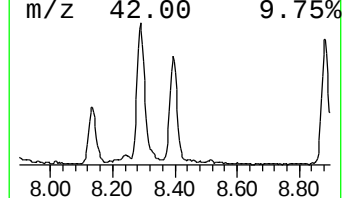
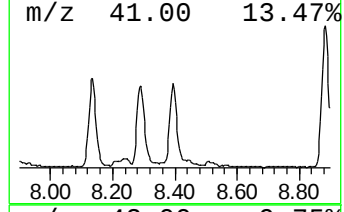
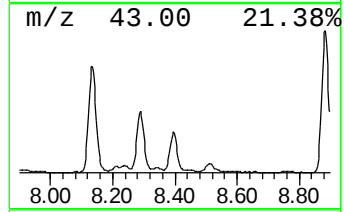
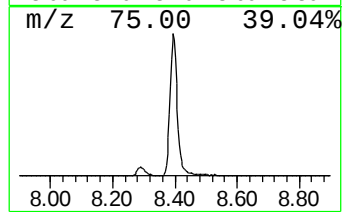
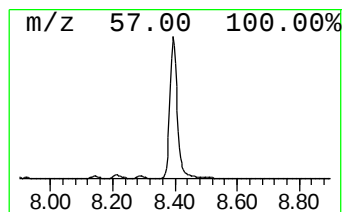
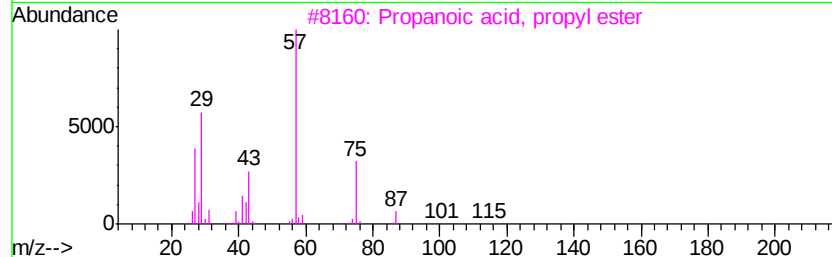
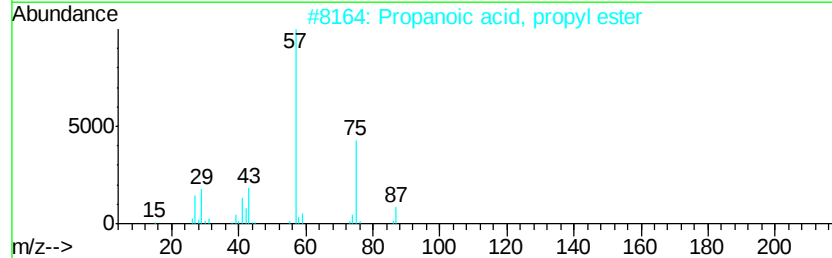
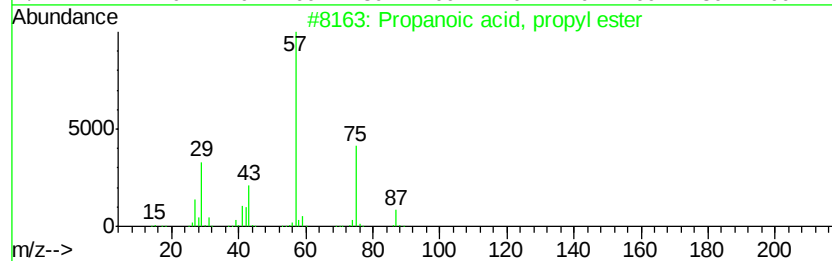
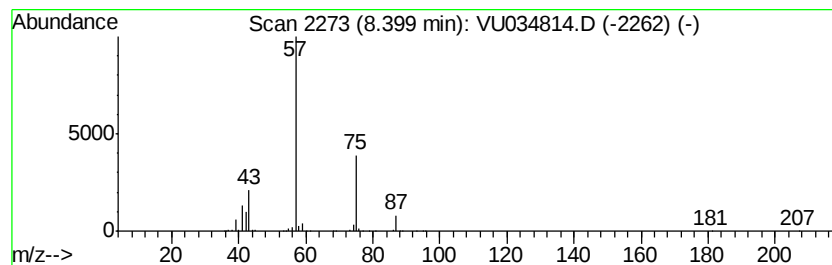
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Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 5 Propanoic acid, propyl ester Concentration Rank 7

| R.T. | EstConc    | Area   | Relative to ISTD | R.T. |
|------|------------|--------|------------------|------|
| 8.40 | 26.26 ug/L | 739921 | Chlorobenzene-d5 | 9.07 |

| Hit# | of | Tentative ID                 | MW  | MolForm | CAS#        | Qual |
|------|----|------------------------------|-----|---------|-------------|------|
| 1    | 5  | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 83   |
| 2    |    | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 83   |
| 3    |    | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 83   |
| 4    |    | Propanoic acid, propyl ester | 116 | C6H12O2 | 000106-36-5 | 74   |
| 5    |    | Propanoic acid, butyl ester  | 130 | C7H14O2 | 000590-01-2 | 38   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

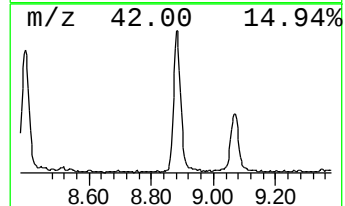
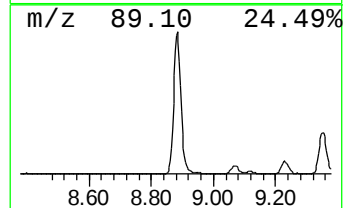
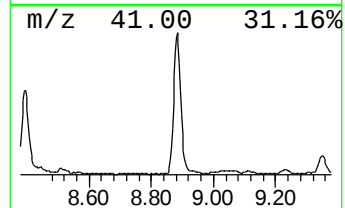
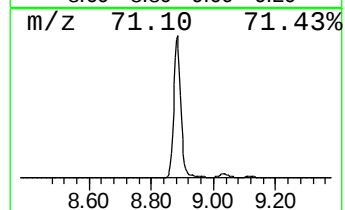
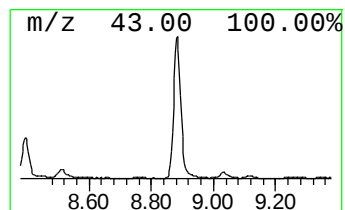
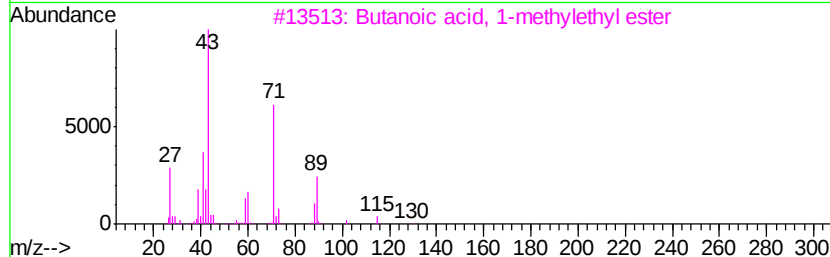
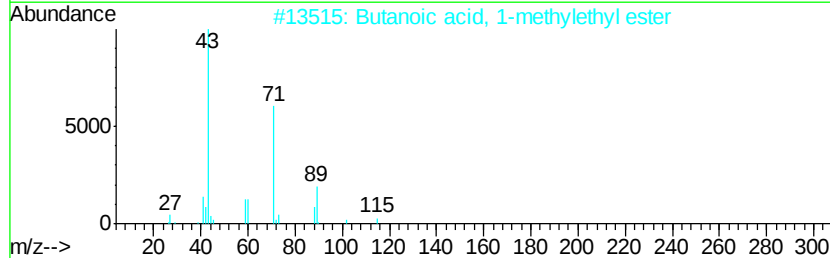
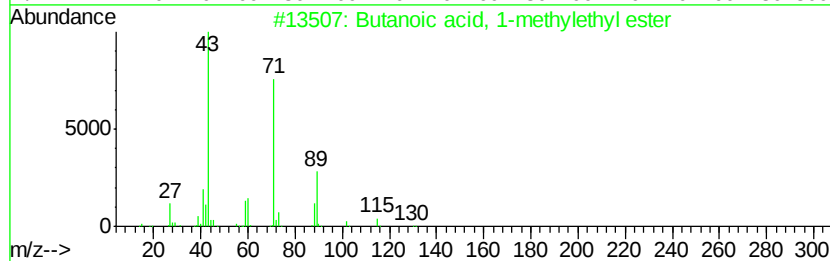
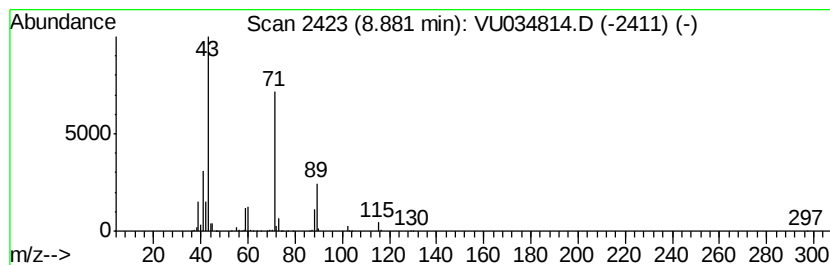
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 6 Butanoic acid, 1-methylethy... Concentration Rank 5

| R.T. | EstConc    | Area   | Relative to ISTD | R.T. |
|------|------------|--------|------------------|------|
| 8.88 | 32.85 ug/L | 925757 | Chlorobenzene-d5 | 9.07 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Butanoic acid, 1-methylethyl ester  | 130 | C7H14O2 | 000638-11-9 | 95   |
| 2    |    | Butanoic acid, 1-methylethyl ester  | 130 | C7H14O2 | 000638-11-9 | 90   |
| 3    |    | Butanoic acid, 1-methylethyl ester  | 130 | C7H14O2 | 000638-11-9 | 90   |
| 4    |    | Butanoic acid, 1-methylethyl ester  | 130 | C7H14O2 | 000638-11-9 | 86   |
| 5    |    | Propanoic acid, 2-methyl-, propy... | 130 | C7H14O2 | 000644-49-5 | 59   |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

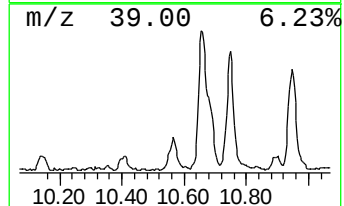
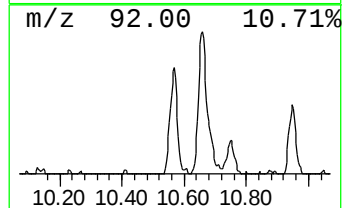
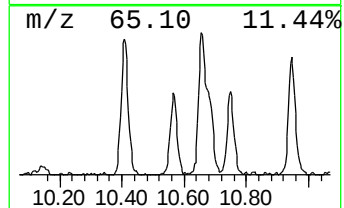
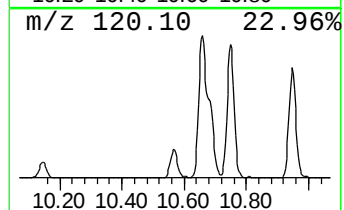
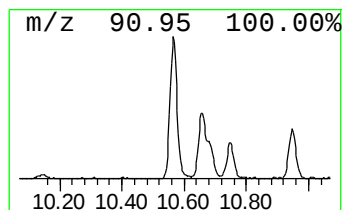
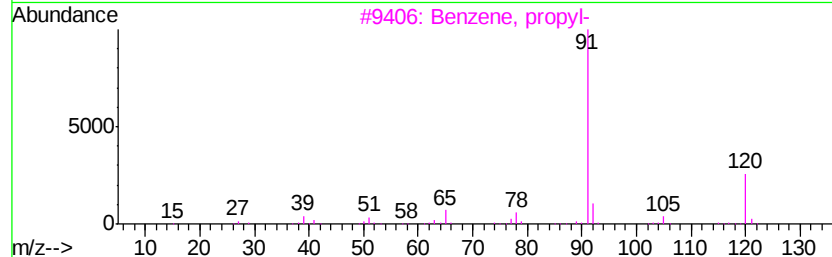
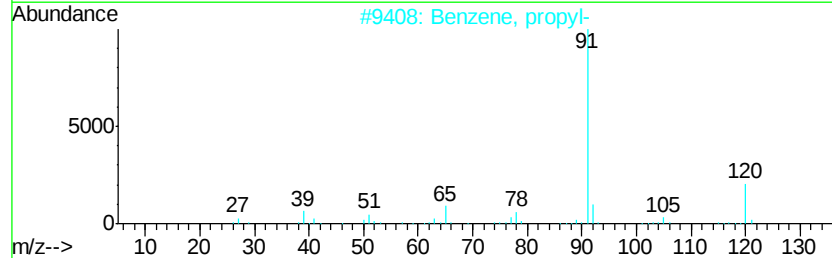
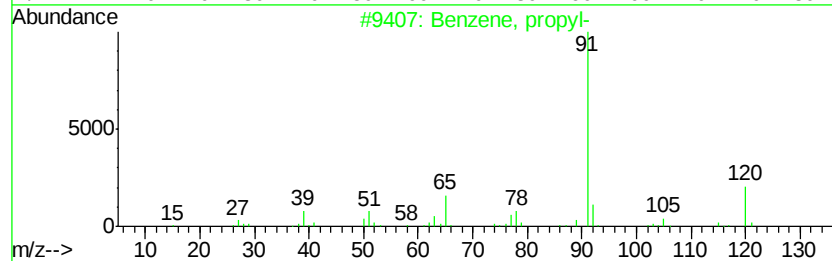
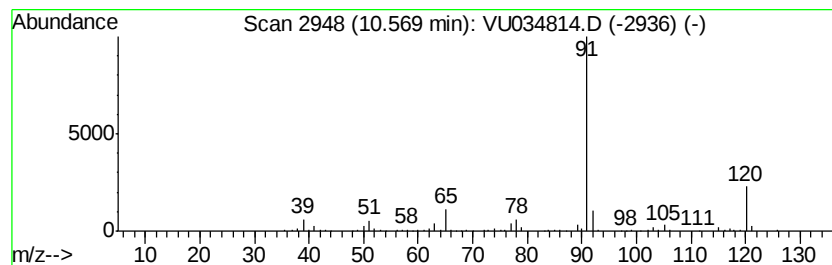
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 7 Benzene, propyl- Concentration Rank 21

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 10.57 | 6.80 ug/L | 176519 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                        | MW  | MolForm   | CAS#        | Qual |
|------|----|-------------------------------------|-----|-----------|-------------|------|
| 1    | 5  | Benzene, propyl-                    | 120 | C9H12     | 000103-65-1 | 93   |
| 2    |    | Benzene, propyl-                    | 120 | C9H12     | 000103-65-1 | 87   |
| 3    |    | Benzene, propyl-                    | 120 | C9H12     | 000103-65-1 | 80   |
| 4    |    | Phenethylamine, N-benzyl-p-chloro-  | 245 | C15H16ClN | 013622-43-0 | 78   |
| 5    |    | 1,2-Ethanediamine, N,N'-bis(phen... | 240 | C16H20N2  | 000140-28-3 | 78   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

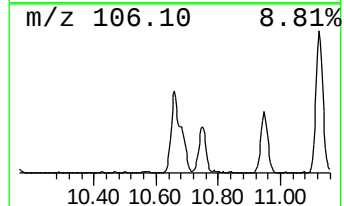
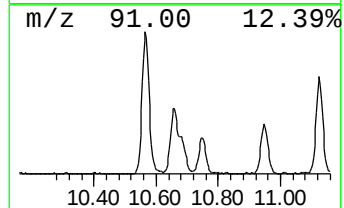
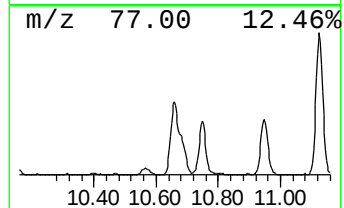
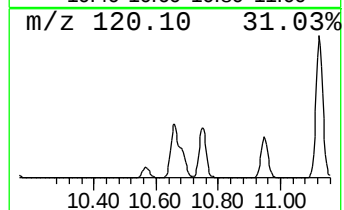
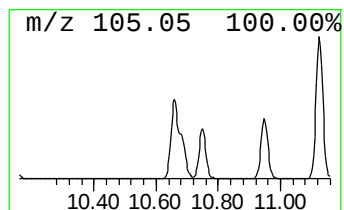
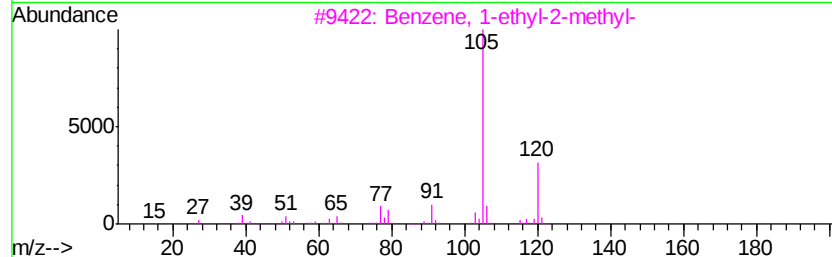
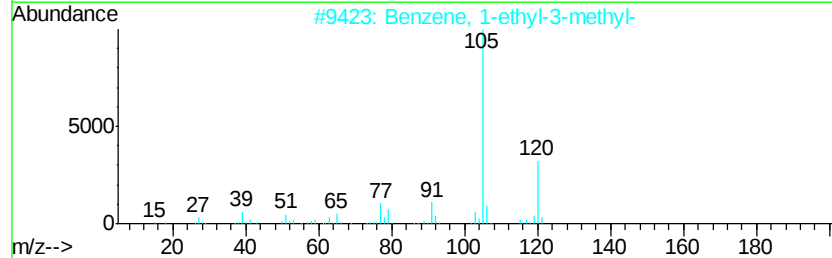
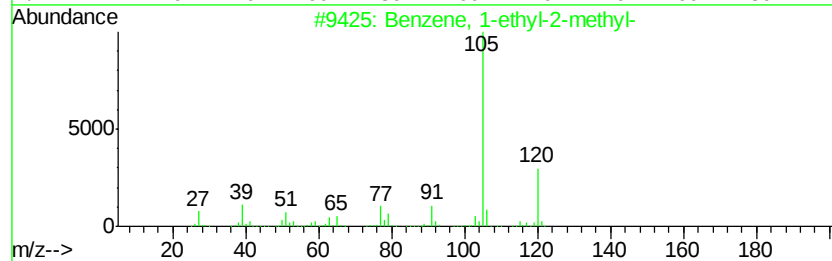
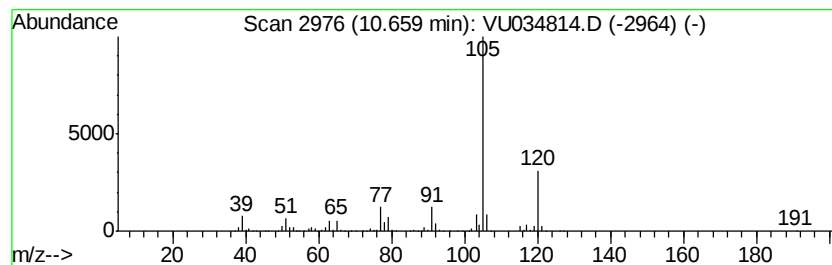
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Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 8 Benzene, 1-ethyl-2-methyl- Concentration Rank 3

| R.T.  | EstConc    | Area    | Relative to ISTD       | R.T.  |
|-------|------------|---------|------------------------|-------|
| 10.66 | 39.73 ug/L | 1031570 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, 1-ethyl-2-methyl- | 120 | C9H12   | 000611-14-3 | 95   |
| 2    |    | Benzene, 1-ethyl-3-methyl- | 120 | C9H12   | 000620-14-4 | 95   |
| 3    |    | Benzene, 1-ethyl-2-methyl- | 120 | C9H12   | 000611-14-3 | 95   |
| 4    |    | Benzene, 1-ethyl-3-methyl- | 120 | C9H12   | 000620-14-4 | 94   |
| 5    |    | Benzene, 1-ethyl-4-methyl- | 120 | C9H12   | 000622-96-8 | 91   |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

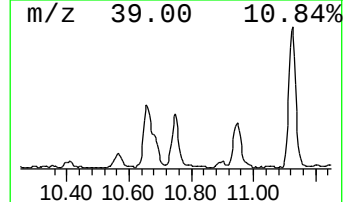
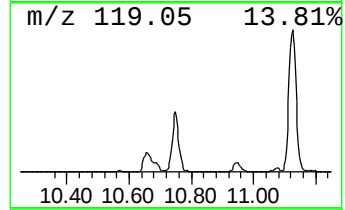
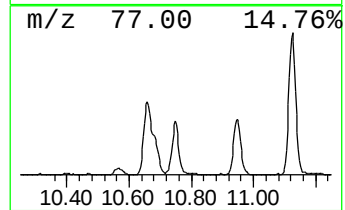
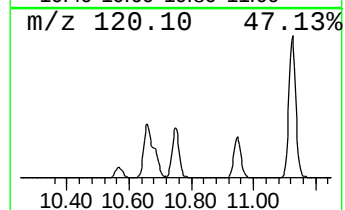
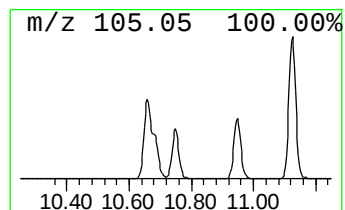
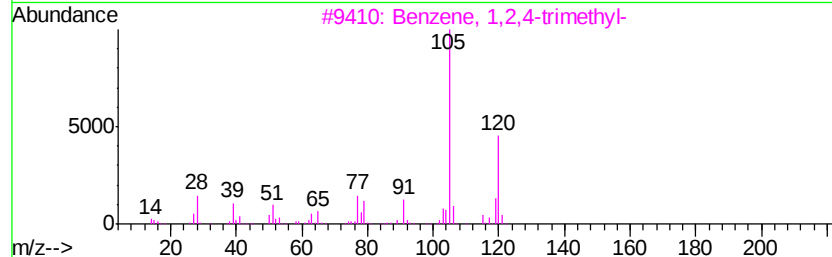
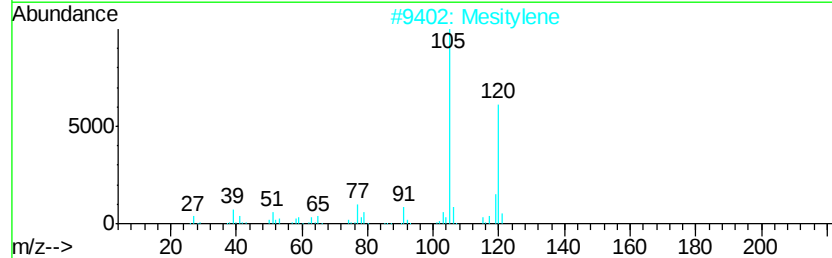
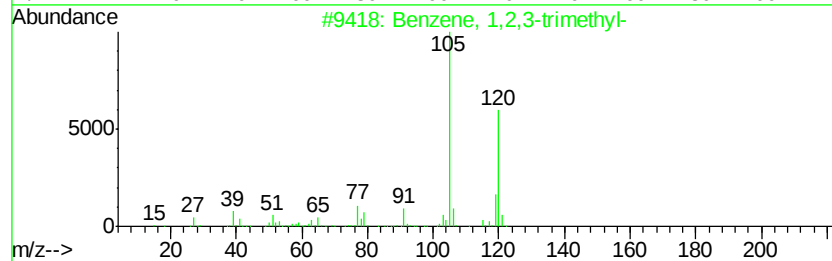
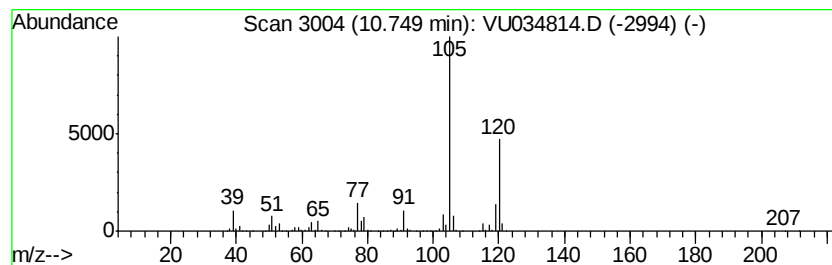
Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 9 Benzene, 1,2,3-trimethyl- Concentration Rank 12

| R.T.    | EstConc    | Area                      | Relative to ISTD       | R.T.           |
|---------|------------|---------------------------|------------------------|----------------|
| 10.75   | 20.60 ug/L | 534954                    | 1,4-Dichlorobenzene-d4 | 11.46          |
| Hit# of | 5          | Tentative ID              | MW MolForm             | CAS# Qual      |
| 1       |            | Benzene, 1,2,3-trimethyl- | 120 C9H12              | 000526-73-8 97 |
| 2       |            | Mesitylene                | 120 C9H12              | 000108-67-8 94 |
| 3       |            | Benzene, 1,2,4-trimethyl- | 120 C9H12              | 000095-63-6 94 |
| 4       |            | Mesitylene                | 120 C9H12              | 000108-67-8 91 |
| 5       |            | Mesitylene                | 120 C9H12              | 000108-67-8 91 |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

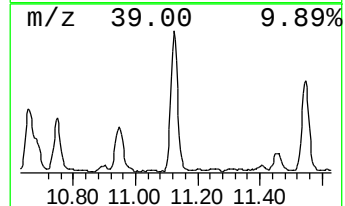
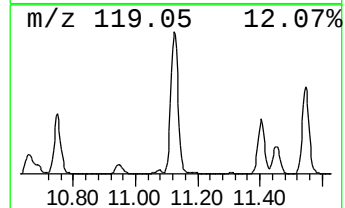
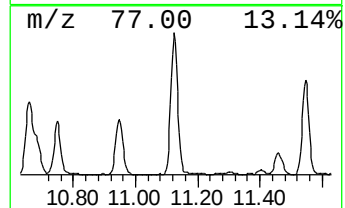
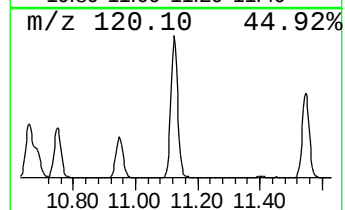
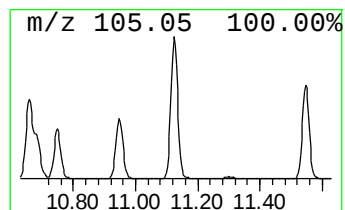
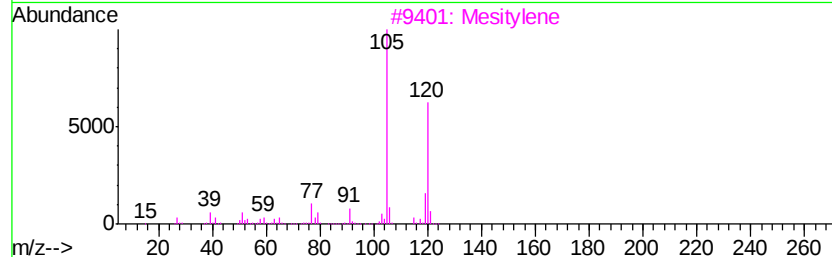
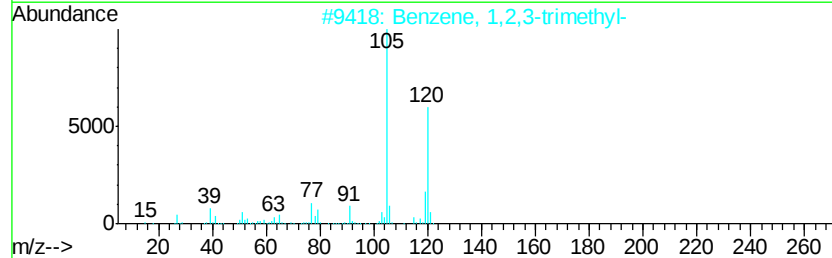
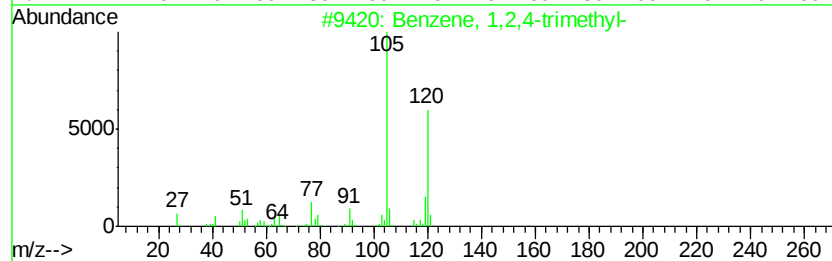
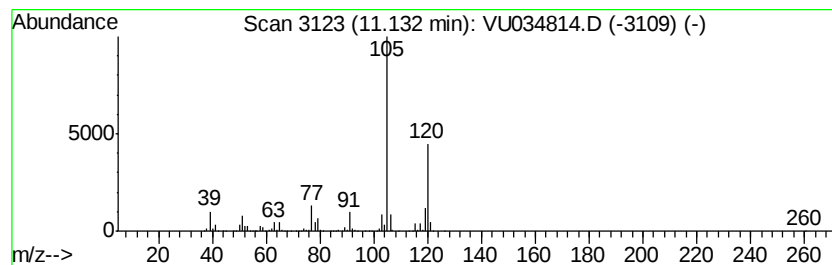
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 11 Benzene, 1,2,4-trimethyl- Concentration Rank 2

| R.T.  | EstConc    | Area    | Relative to ISTD       | R.T.  |
|-------|------------|---------|------------------------|-------|
| 11.13 | 54.66 ug/L | 1419250 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID               | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, 1,2,4-trimethyl-  | 120 | C9H12   | 000095-63-6 | 95   |
| 2    |    | Benzene, 1,2,3-trimethyl-  | 120 | C9H12   | 000526-73-8 | 95   |
| 3    |    | Mesitylene                 | 120 | C9H12   | 000108-67-8 | 94   |
| 4    |    | Benzene, 1-ethyl-3-methyl- | 120 | C9H12   | 000620-14-4 | 94   |
| 5    |    | Benzene, 1,2,3-trimethyl-  | 120 | C9H12   | 000526-73-8 | 94   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

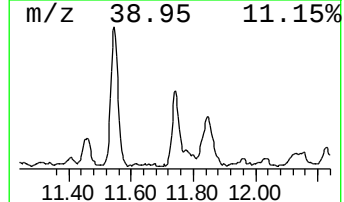
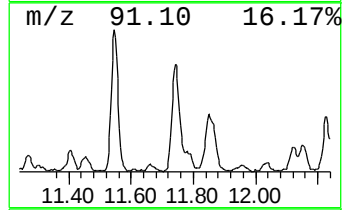
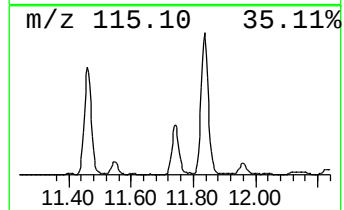
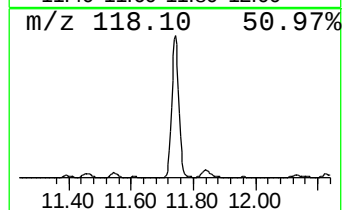
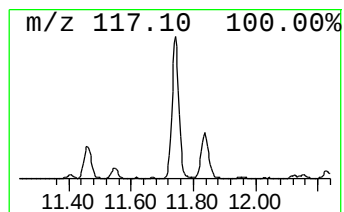
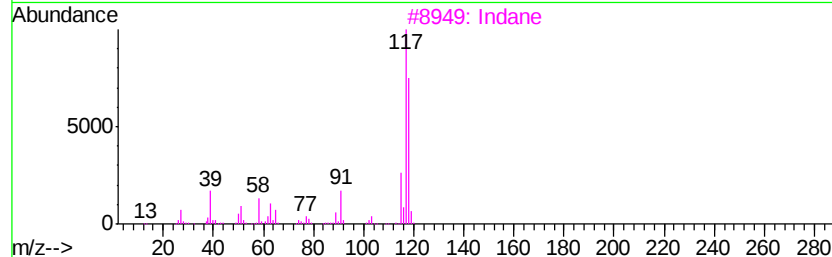
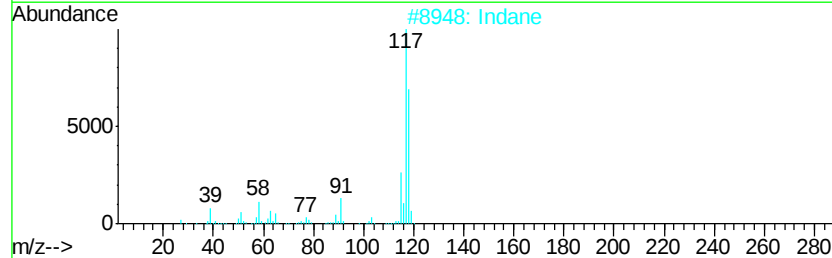
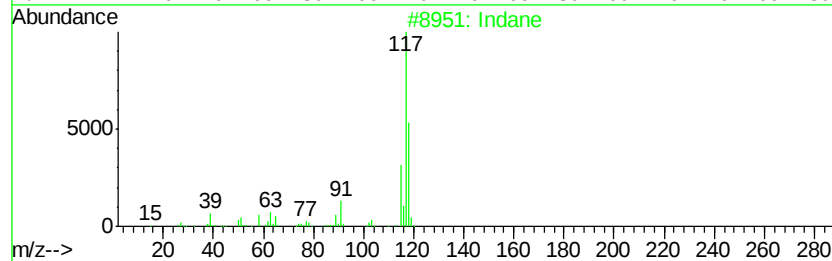
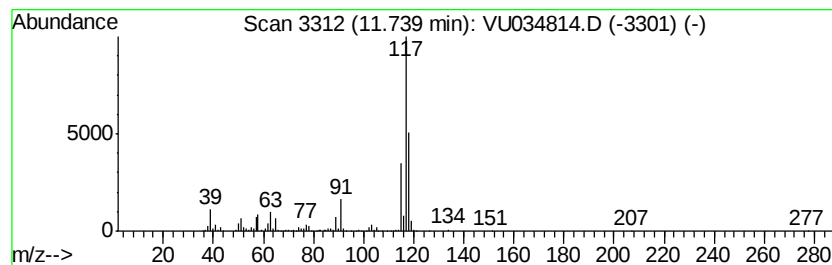
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 13 Indane Concentration Rank 9

| R.T.  | EstConc    | Area   | Relative to ISTD       | R.T.  |
|-------|------------|--------|------------------------|-------|
| 11.74 | 22.78 ug/L | 591402 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID        | MW  | MolForm | CAS#        | Qual |
|------|----|---------------------|-----|---------|-------------|------|
| 1    | 5  | Indane              | 118 | C9H10   | 000496-11-7 | 93   |
| 2    |    | Indane              | 118 | C9H10   | 000496-11-7 | 93   |
| 3    |    | Indane              | 118 | C9H10   | 000496-11-7 | 92   |
| 4    |    | (Z)-1-Phenylpropene | 118 | C9H10   | 000766-90-5 | 81   |
| 5    |    | Deltacyclene        | 118 | C9H10   | 007785-10-6 | 68   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

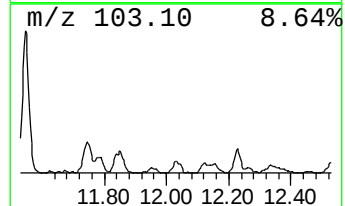
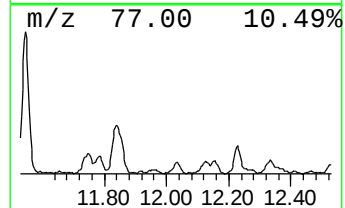
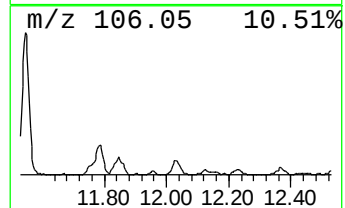
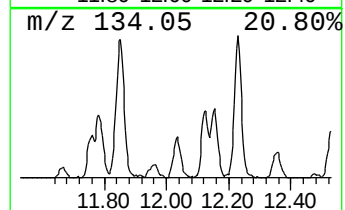
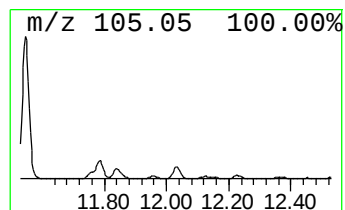
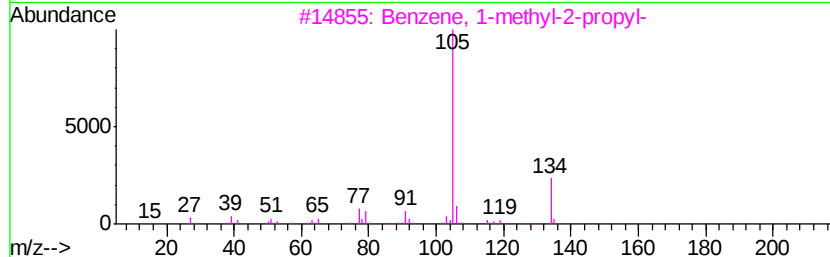
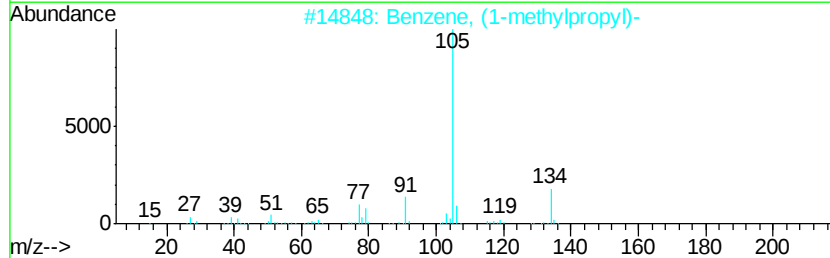
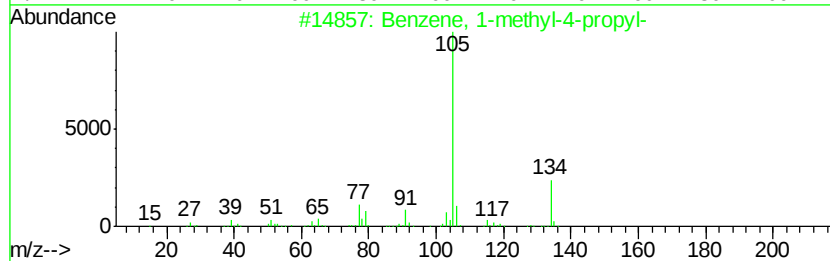
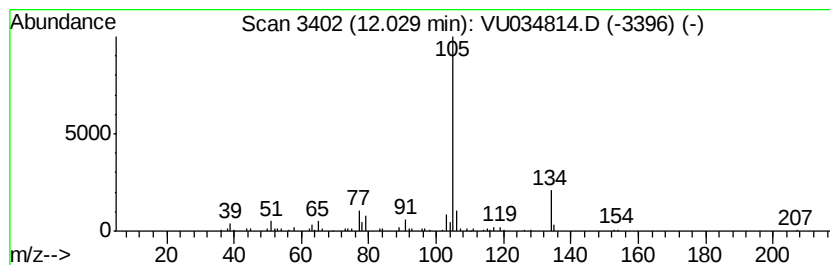
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 14 Benzene, 1-methyl-4-propyl- Concentration Rank 32

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 12.03 | 2.88 ug/L | 74769 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, 1-methyl-4-propyl- | 134 | C10H14  | 001074-55-1 | 91   |
| 2    |    | Benzene, (1-methylpropyl)-  | 134 | C10H14  | 000135-98-8 | 91   |
| 3    |    | Benzene, 1-methyl-2-propyl- | 134 | C10H14  | 001074-17-5 | 90   |
| 4    |    | Benzene, (1-methylpropyl)-  | 134 | C10H14  | 000135-98-8 | 90   |
| 5    |    | Benzene, 1-methyl-2-propyl- | 134 | C10H14  | 001074-17-5 | 90   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

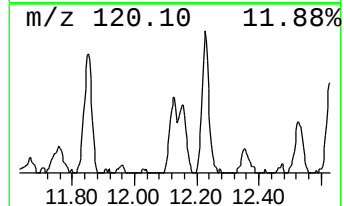
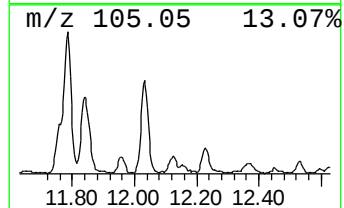
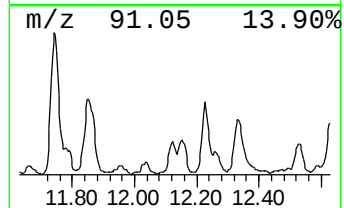
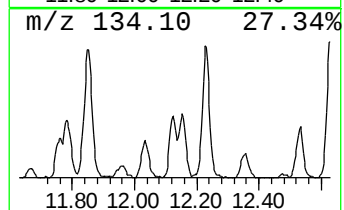
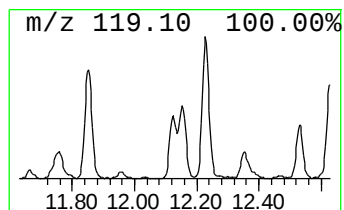
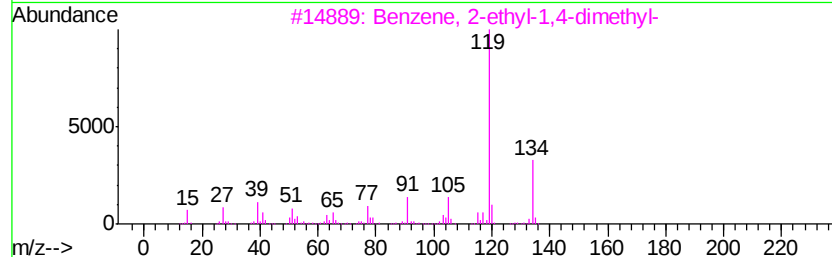
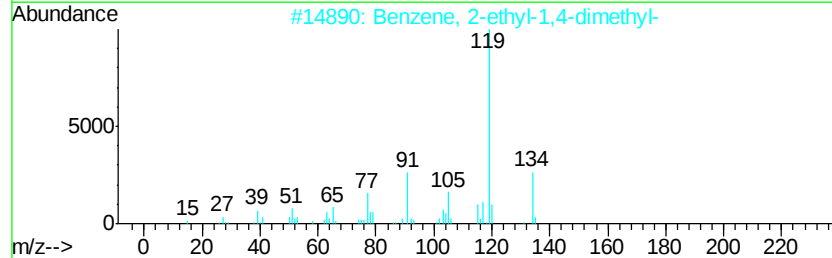
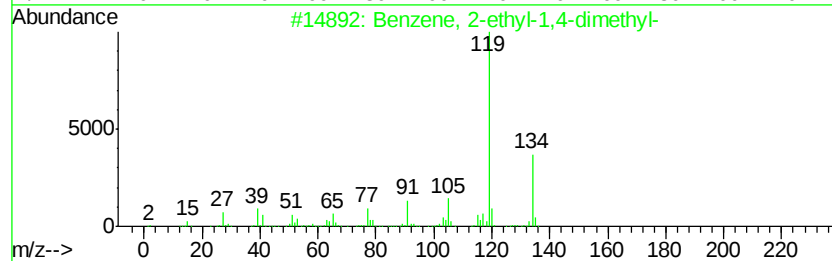
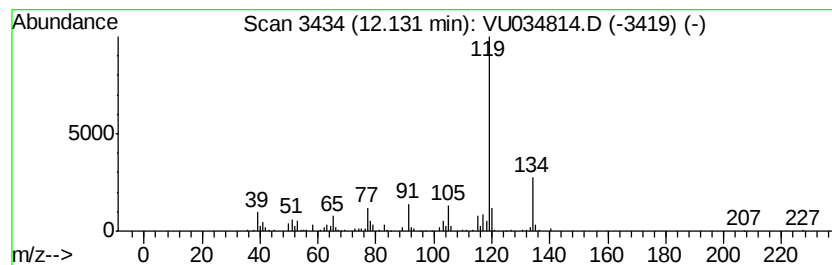
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 15 Benzene, 2-ethyl-1,4-dimethyl- Concentration Rank 26

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 12.13 | 4.45 ug/L | 115672 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                   | MW  | MolForm | CAS#        | Qual |
|------|----|--------------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, 2-ethyl-1,4-dimethyl- | 134 | C10H14  | 001758-88-9 | 97   |
| 2    |    | Benzene, 2-ethyl-1,4-dimethyl- | 134 | C10H14  | 001758-88-9 | 96   |
| 3    |    | Benzene, 2-ethyl-1,4-dimethyl- | 134 | C10H14  | 001758-88-9 | 96   |
| 4    |    | Benzene, 4-ethyl-1,2-dimethyl- | 134 | C10H14  | 000934-80-5 | 95   |
| 5    |    | Benzene, 1-ethyl-2,3-dimethyl- | 134 | C10H14  | 000933-98-2 | 95   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

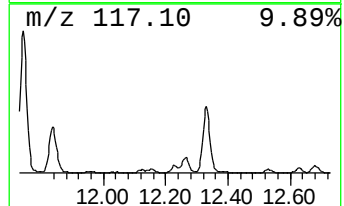
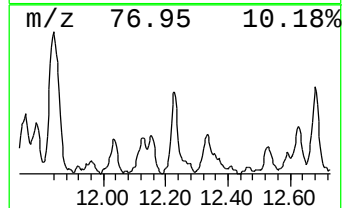
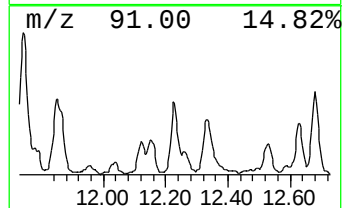
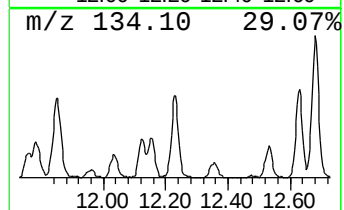
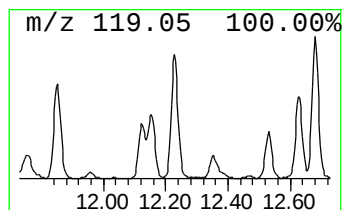
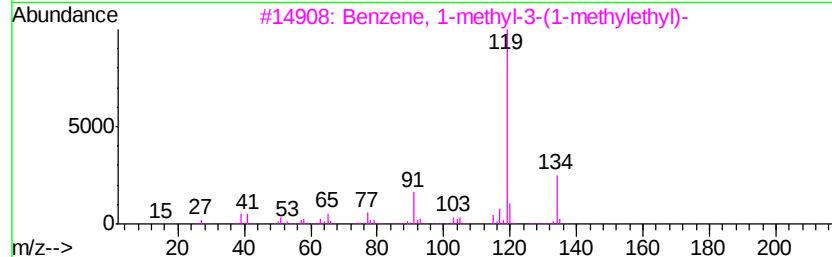
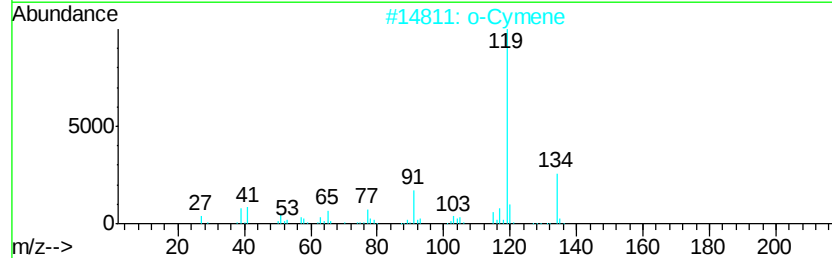
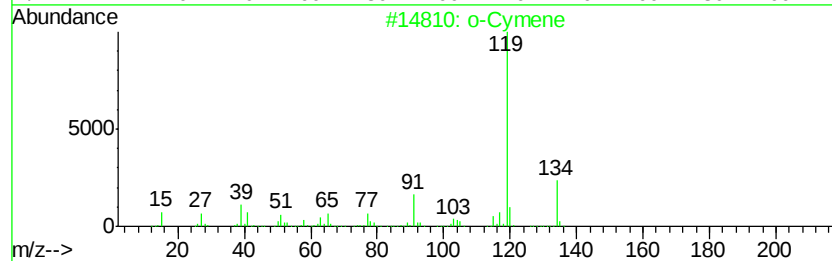
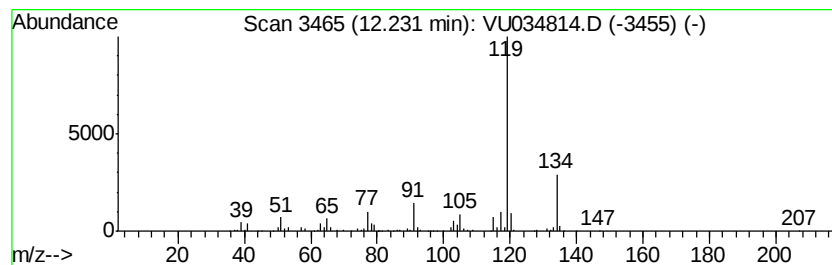
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 17 o-Cymene Concentration Rank 17

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 12.23 | 7.81 ug/L | 202774 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | 5 | Tentative ID                         | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------------------------------|-----|---------|-------------|------|
| 1    |    |   | o-Cymene                             | 134 | C10H14  | 000527-84-4 | 97   |
| 2    |    |   | o-Cymene                             | 134 | C10H14  | 000527-84-4 | 97   |
| 3    |    |   | Benzene, 1-methyl-3-(1-methylethyl)- | 134 | C10H14  | 000535-77-3 | 95   |
| 4    |    |   | p-Cymene                             | 134 | C10H14  | 000099-87-6 | 95   |
| 5    |    |   | Benzene, 1-ethyl-2,3-dimethyl-       | 134 | C10H14  | 000933-98-2 | 95   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

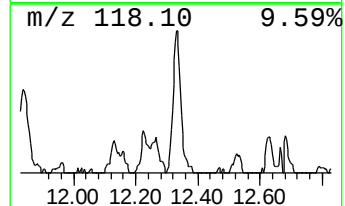
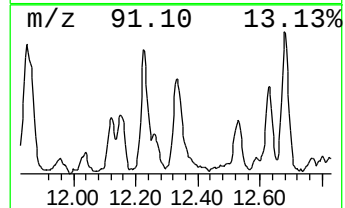
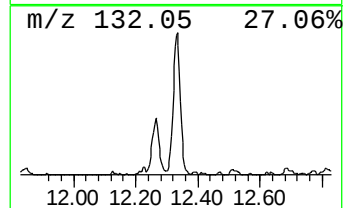
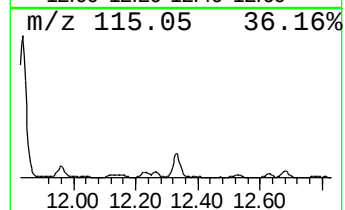
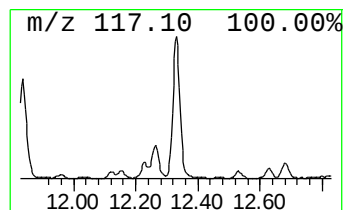
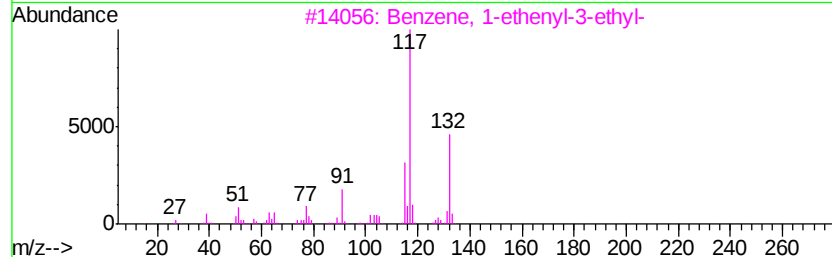
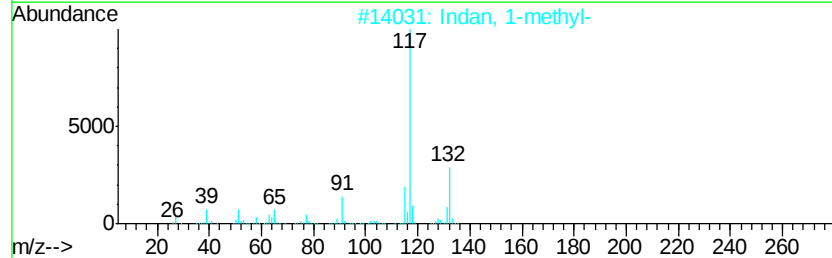
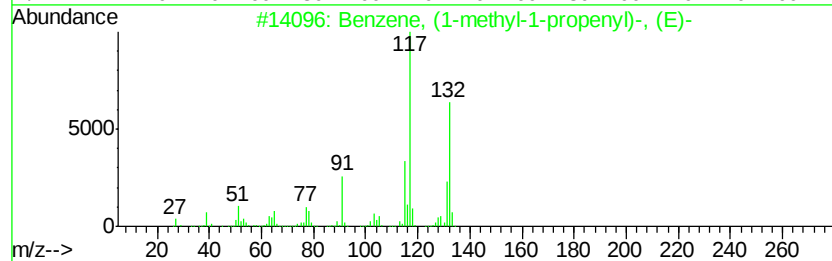
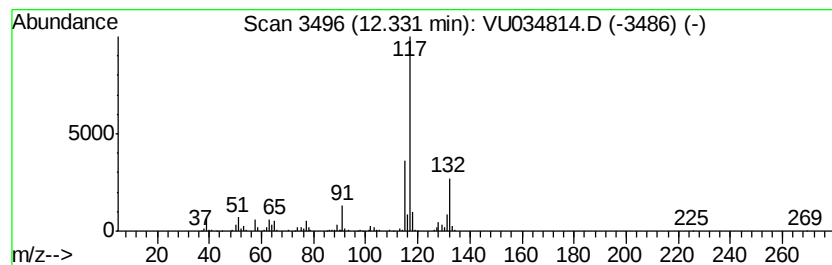
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 18 Benzene, (1-methyl-1-propen... Concentration Rank 15

| R.T.  | EstConc    | Area   | Relative to ISTD       | R.T.  |
|-------|------------|--------|------------------------|-------|
| 12.33 | 10.12 ug/L | 262663 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                         | MW  | MolForm | CAS#         | Qual |
|------|----|--------------------------------------|-----|---------|--------------|------|
| 1    | 5  | Benzene, (1-methyl-1-propenyl)-, ... | 132 | C10H12  | 000768-00-3  | 87   |
| 2    |    | Indan, 1-methyl-                     | 132 | C10H12  | 000767-58-8  | 87   |
| 3    |    | Benzene, 1-ethenyl-3-ethyl-          | 132 | C10H12  | 007525-62-4  | 86   |
| 4    |    | Benzene, (2-methyl-1-propenyl)-      | 132 | C10H12  | 000768-49-0  | 83   |
| 5    |    | Benzene, (2-methylcyclopropyl)-      | 132 | C10H12  | 1000327-39-0 | 80   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

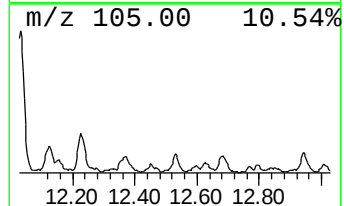
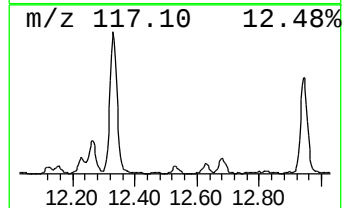
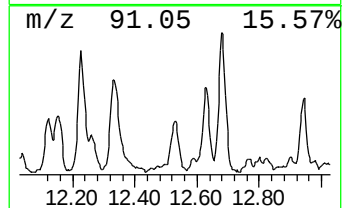
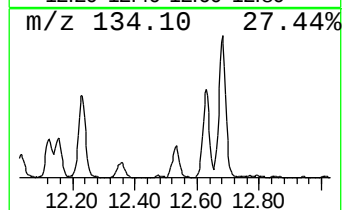
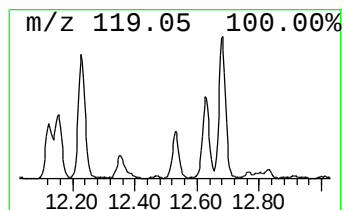
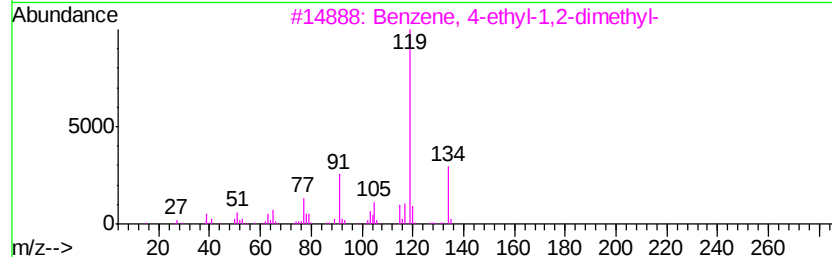
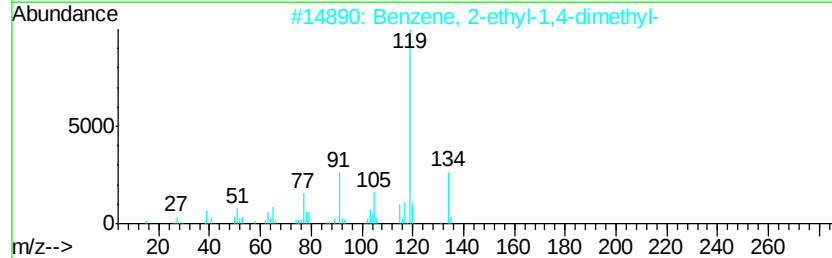
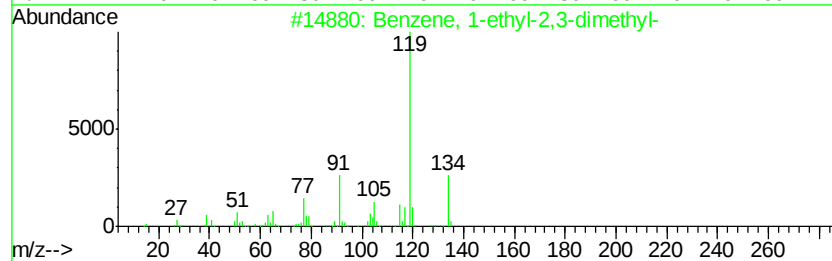
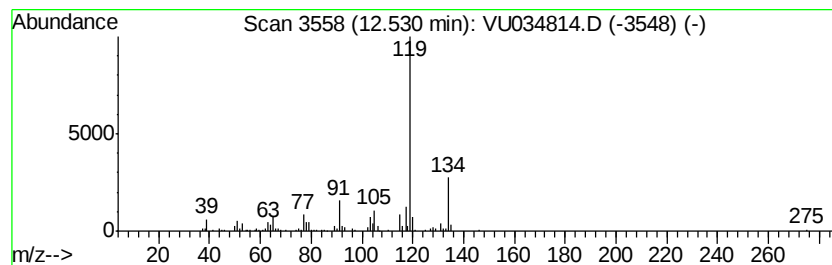
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 19 Benzene, 1-ethyl-2,3-dimethyl- Concentration Rank 28

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 12.53 | 4.08 ug/L | 106022 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzene, 1-ethyl-2,3-dimethyl-      | 134 | C10H14  | 000933-98-2 | 95   |
| 2    |    |   | Benzene, 2-ethyl-1,4-dimethyl-      | 134 | C10H14  | 001758-88-9 | 95   |
| 3    |    |   | Benzene, 4-ethyl-1,2-dimethyl-      | 134 | C10H14  | 000934-80-5 | 93   |
| 4    |    |   | 1,4-Cyclohexadiene, 3-ethenyl-1,... | 134 | C10H14  | 062338-57-2 | 90   |
| 5    |    |   | Benzene, 4-ethyl-1,2-dimethyl-      | 134 | C10H14  | 000934-80-5 | 90   |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

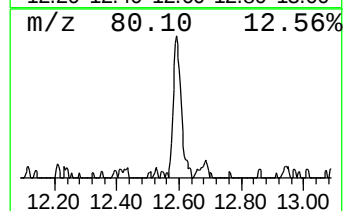
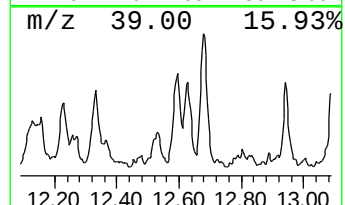
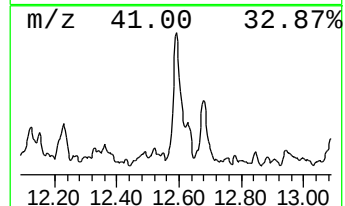
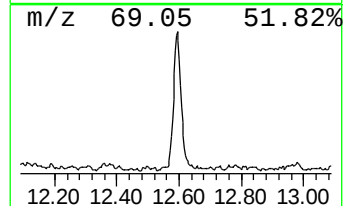
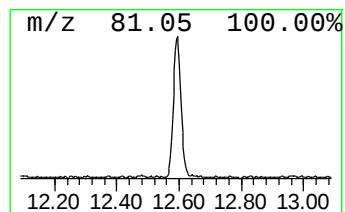
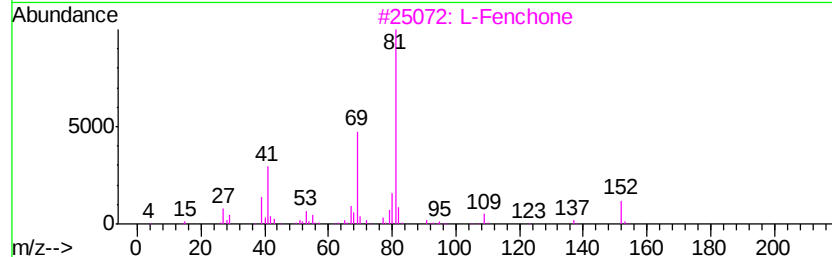
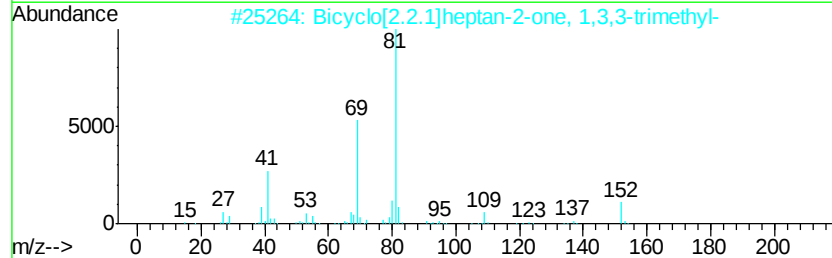
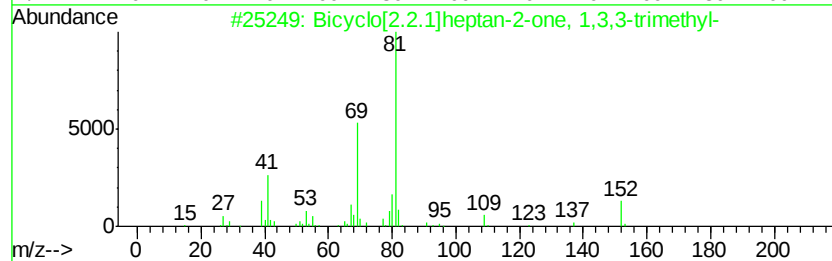
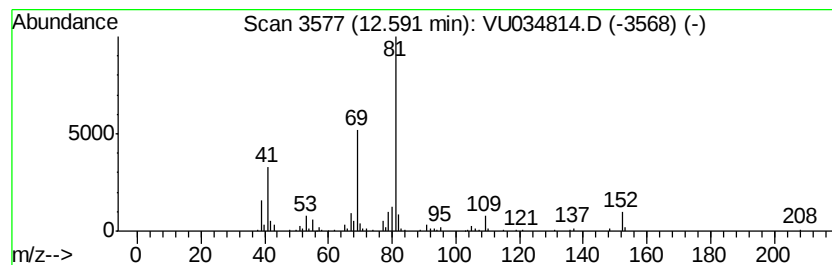
Instrument :  
MSVOA\_U  
ClientSampleId :  
BFDF4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 20 Bicyclo[2.2.1]heptan-2-one,... Concentration Rank 24

| R.T.    | EstConc   | Area                                | Relative to ISTD       | R.T.           |
|---------|-----------|-------------------------------------|------------------------|----------------|
| 12.59   | 5.20 ug/L | 134935                              | 1,4-Dichlorobenzene-d4 | 11.46          |
| Hit# of | 5         | Tentative ID                        | MW MolForm             | CAS# Qual      |
| 1       |           | Bicyclo[2.2.1]heptan-2-one, 1,3,... | 152 C10H16O            | 001195-79-5 95 |
| 2       |           | Bicyclo[2.2.1]heptan-2-one, 1,3,... | 152 C10H16O            | 001195-79-5 90 |
| 3       |           | L-Fenchone                          | 152 C10H16O            | 007787-20-4 90 |
| 4       |           | Bicyclo[2.2.1]heptan-2-one, 1,3,... | 152 C10H16O            | 001195-79-5 90 |
| 5       |           | Bicyclo[2.2.1]heptan-2-one, 1,3,... | 152 C10H16O            | 001195-79-5 80 |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

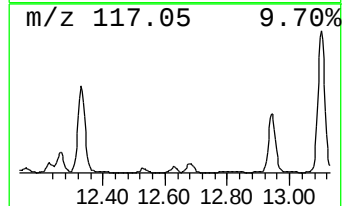
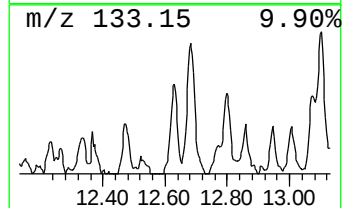
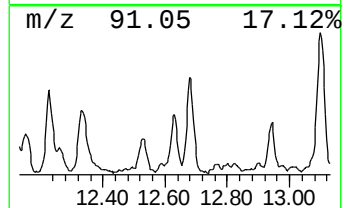
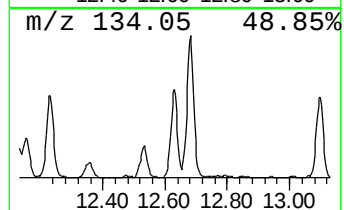
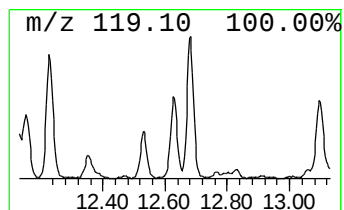
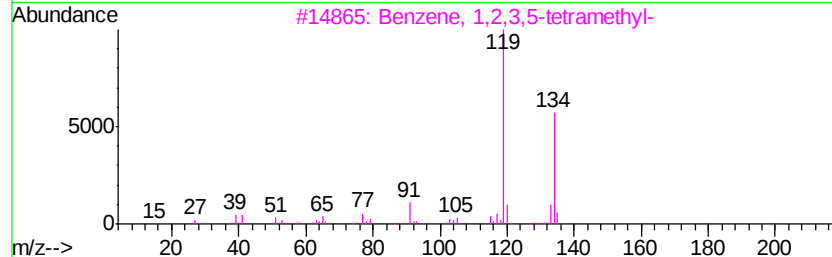
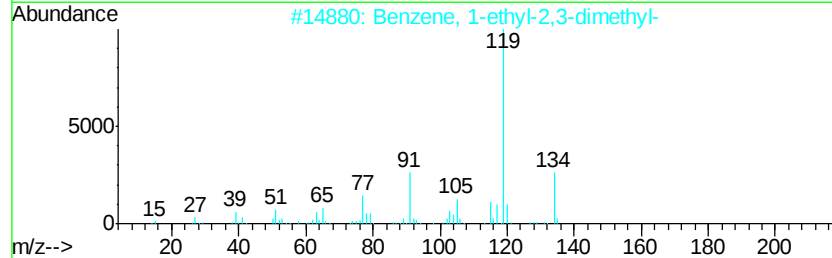
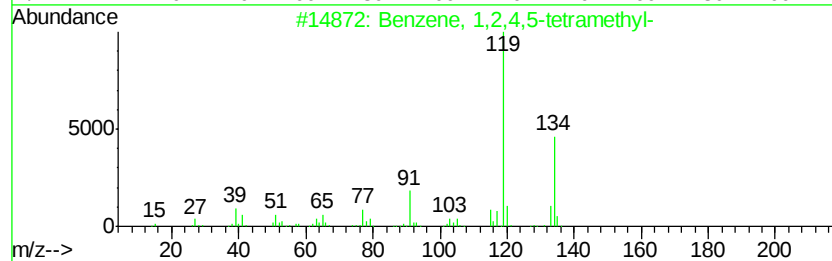
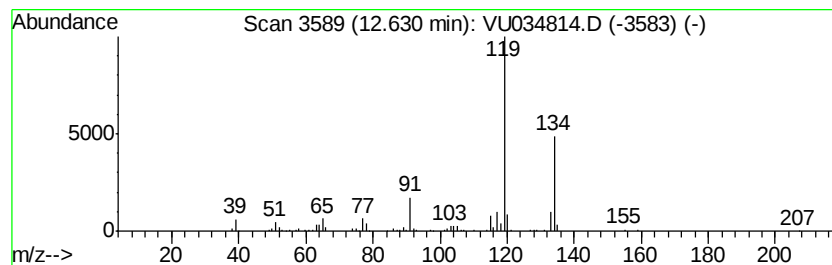
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 21 Benzene, 1,2,4,5-tetramethyl- Concentration Rank 22

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 12.63 | 6.11 ug/L | 158550 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | 5 | Tentative ID                   | MW  | MolForm | CAS#        | Qual |
|------|----|---|--------------------------------|-----|---------|-------------|------|
| 1    |    |   | Benzene, 1,2,4,5-tetramethyl-  | 134 | C10H14  | 000095-93-2 | 94   |
| 2    |    |   | Benzene, 1-ethyl-2,3-dimethyl- | 134 | C10H14  | 000933-98-2 | 93   |
| 3    |    |   | Benzene, 1,2,3,5-tetramethyl-  | 134 | C10H14  | 000527-53-7 | 91   |
| 4    |    |   | Benzene, 1,2,3,5-tetramethyl-  | 134 | C10H14  | 000527-53-7 | 91   |
| 5    |    |   | Benzene, 1,2,4,5-tetramethyl-  | 134 | C10H14  | 000095-93-2 | 91   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

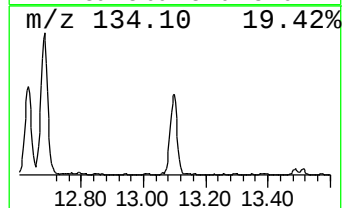
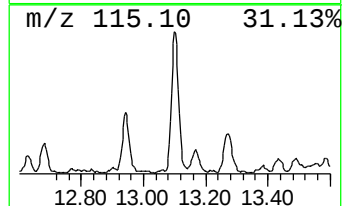
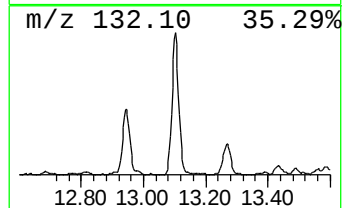
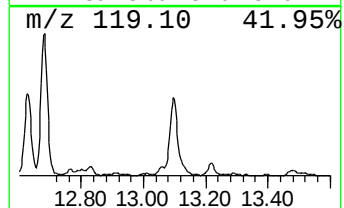
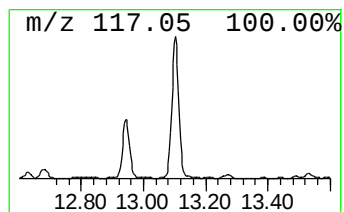
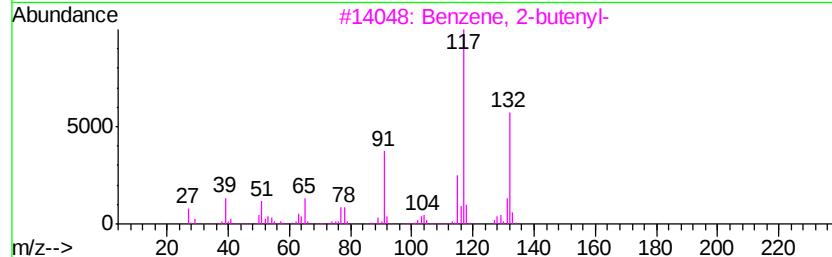
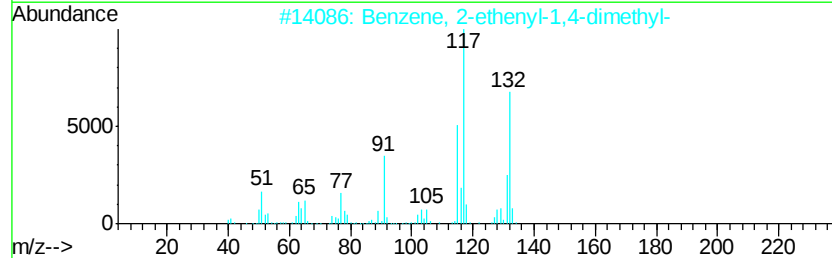
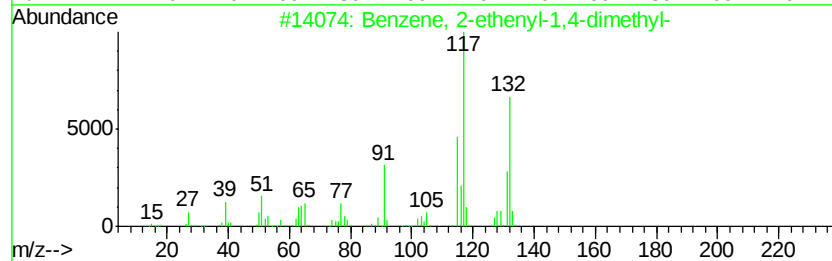
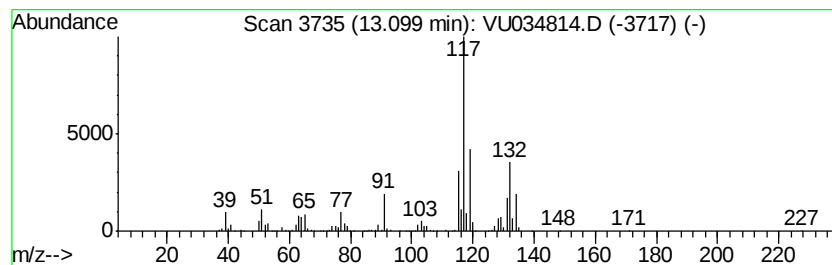
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 24 Benzene, 2-ethenyl-1,4-dime... Concentration Rank 11

| R.T.  | EstConc    | Area   | Relative to ISTD       | R.T.  |
|-------|------------|--------|------------------------|-------|
| 13.10 | 21.20 ug/L | 550451 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                     | MW  | MolForm | CAS#        | Qual |
|------|----|----------------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12  | 002039-89-6 | 95   |
| 2    |    | Benzene, 2-ethenyl-1,4-dimethyl- | 132 | C10H12  | 002039-89-6 | 87   |
| 3    |    | Benzene, 2-butenyl-              | 132 | C10H12  | 001560-06-1 | 70   |
| 4    |    | 3-Phenylbut-1-ene                | 132 | C10H12  | 000934-10-1 | 70   |
| 5    |    | Benzene, 1-ethenyl-4-ethyl-      | 132 | C10H12  | 003454-07-7 | 64   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

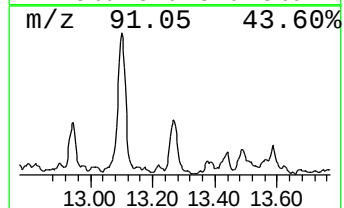
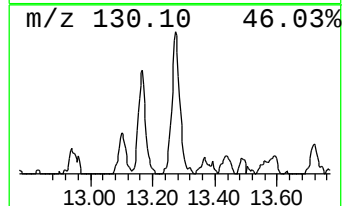
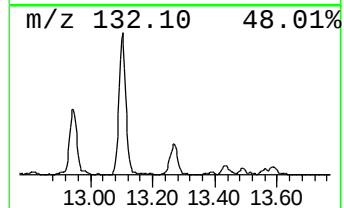
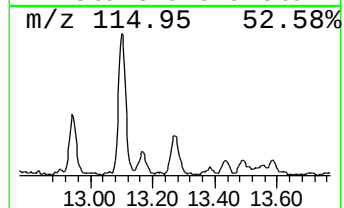
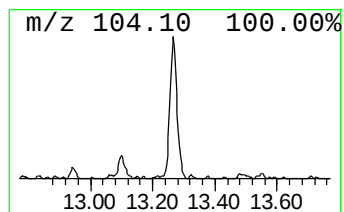
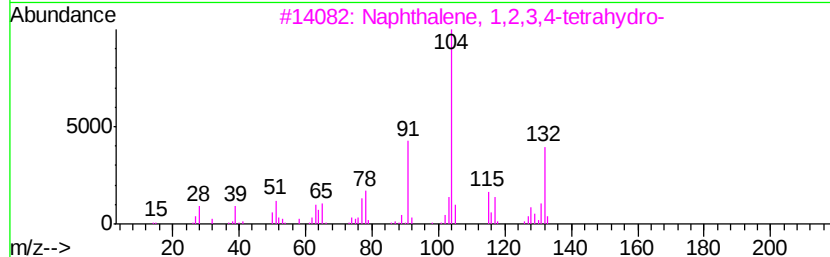
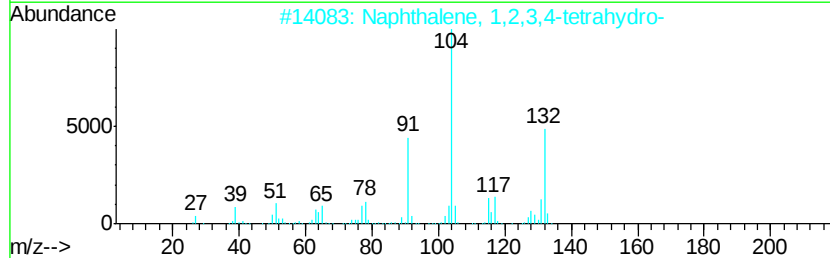
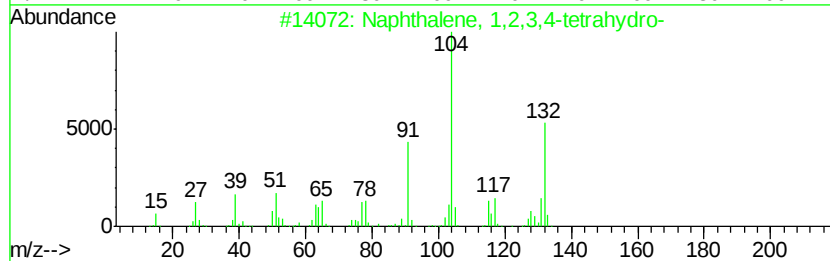
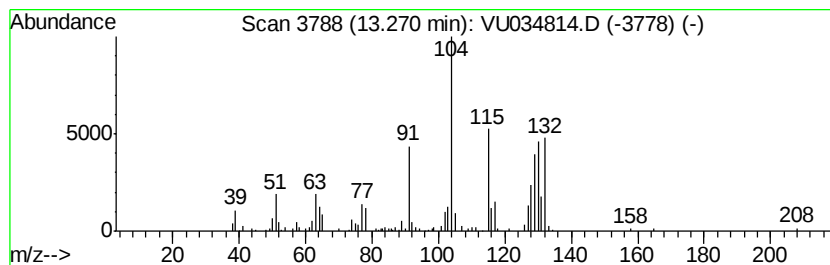
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 25 Naphthalene, 1,2,3,4-tetrahydro... Concentration Rank 23

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 13.27 | 5.23 ug/L | 135721 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                      | MW  | MolForm | CAS#        | Qual |
|------|----|-----------------------------------|-----|---------|-------------|------|
| 1    | 5  | Naphthalene, 1,2,3,4-tetrahydro-  | 132 | C10H12  | 000119-64-2 | 70   |
| 2    |    | Naphthalene, 1,2,3,4-tetrahydro-  | 132 | C10H12  | 000119-64-2 | 55   |
| 3    |    | Naphthalene, 1,2,3,4-tetrahydro-  | 132 | C10H12  | 000119-64-2 | 50   |
| 4    |    | Naphthalene, 1,2,3,4-tetrahydro-  | 132 | C10H12  | 000119-64-2 | 50   |
| 5    |    | Benzene,1-methyl-1,2-propadienyl- | 130 | C10H10  | 022433-39-2 | 42   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

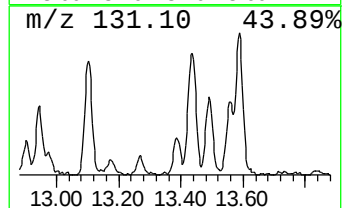
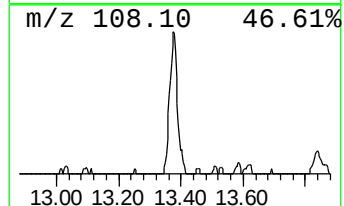
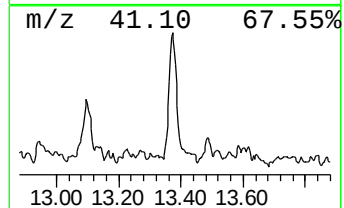
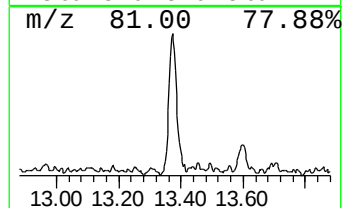
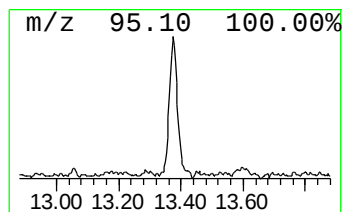
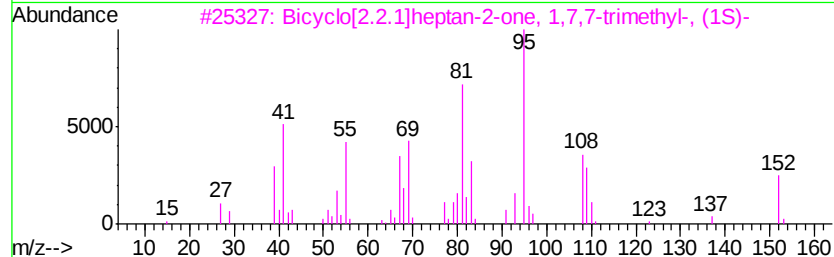
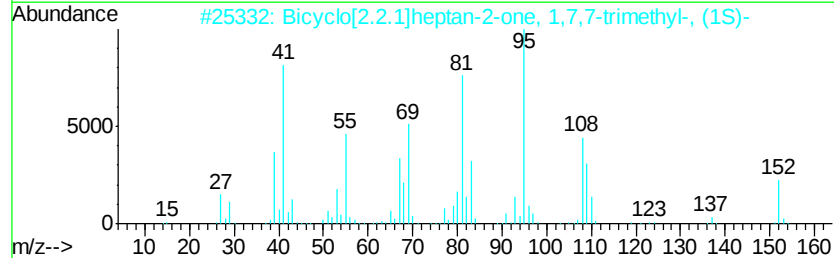
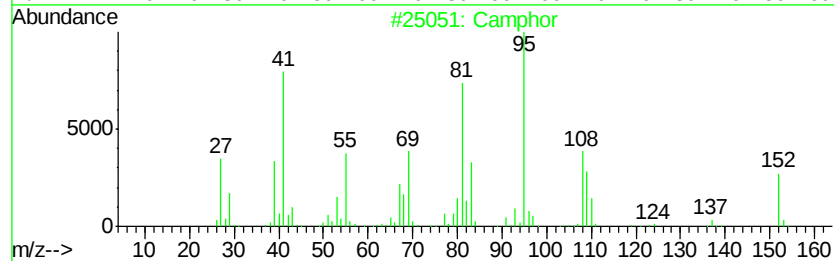
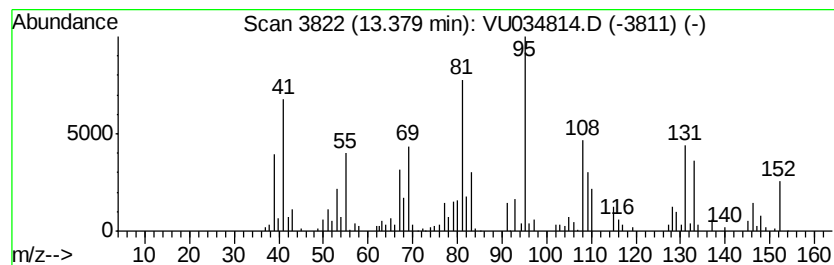
Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 26 Camphor Concentration Rank 25

| R.T.    | EstConc                             | Area         | Relative to ISTD       | R.T.           |
|---------|-------------------------------------|--------------|------------------------|----------------|
| 13.38   | 4.95 ug/L                           | 128662       | 1,4-Dichlorobenzene-d4 | 11.46          |
| Hit# of | 5                                   | Tentative ID | MW MolForm             | CAS# Qual      |
| 1       | Camphor                             |              | 152 C10H16O            | 000076-22-2 93 |
| 2       | Bicyclo[2.2.1]heptan-2-one, 1,7,... |              | 152 C10H16O            | 000464-48-2 93 |
| 3       | Bicyclo[2.2.1]heptan-2-one, 1,7,... |              | 152 C10H16O            | 000464-48-2 89 |
| 4       | Bicyclo[2.2.1]heptan-2-one, 1,7,... |              | 152 C10H16O            | 000464-48-2 89 |
| 5       | (+)-2-Bornanone                     |              | 152 C10H16O            | 000464-49-3 89 |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

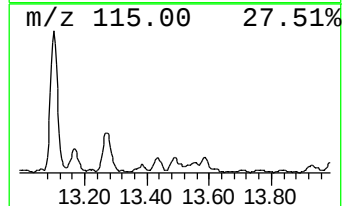
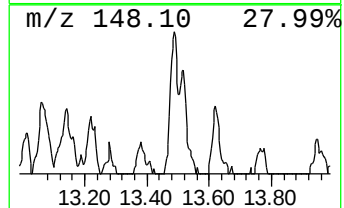
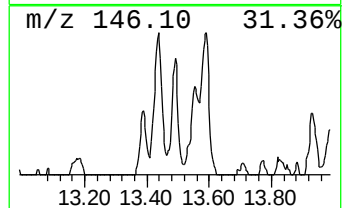
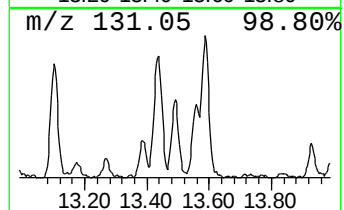
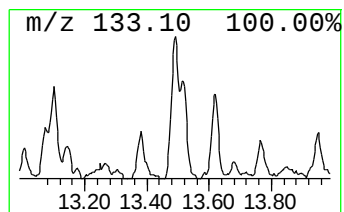
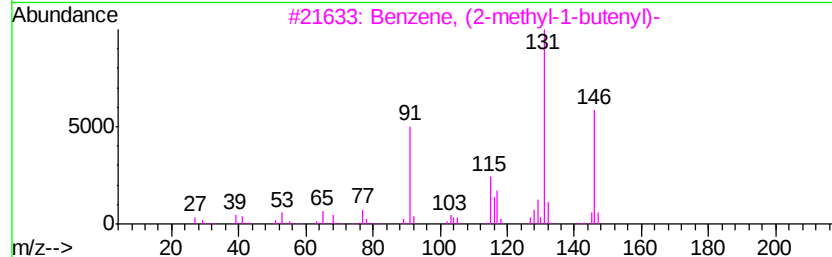
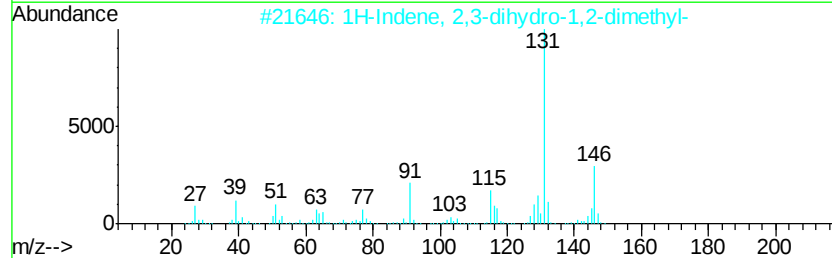
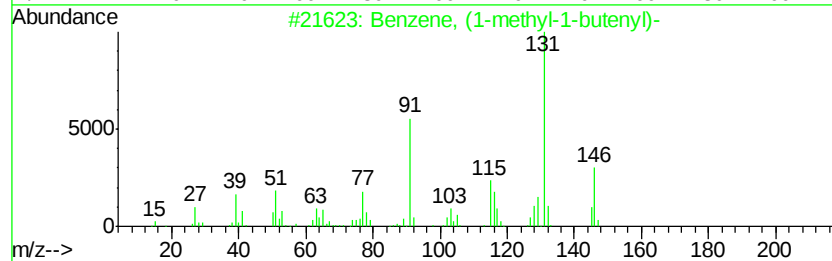
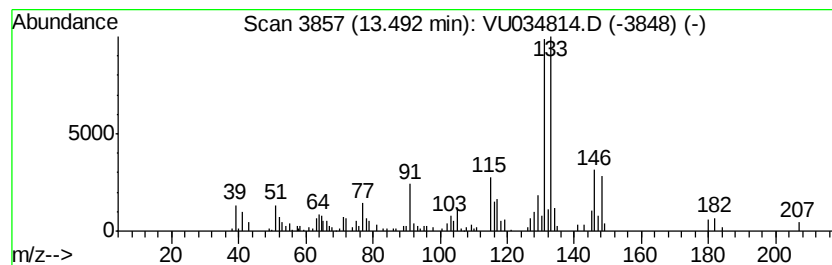
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 27 Benzene, (1-methyl-1-butenyl)- Concentration Rank 30

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 13.49 | 3.07 ug/L | 79843 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|-------------------------------------|-----|---------|-------------|------|
| 1    | 5  | Benzene, (1-methyl-1-butenyl)-      | 146 | C11H14  | 053172-84-2 | 91   |
| 2    |    | 1H-Indene, 2,3-dihydro-1,2-dimet... | 146 | C11H14  | 017057-82-8 | 87   |
| 3    |    | Benzene, (2-methyl-1-butenyl)-      | 146 | C11H14  | 056253-64-6 | 86   |
| 4    |    | Benzene, (3-methyl-2-butenyl)-      | 146 | C11H14  | 004489-84-3 | 86   |
| 5    |    | Benzene, (1,2-dimethyl-1-propenyl)- | 146 | C11H14  | 000769-57-3 | 70   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

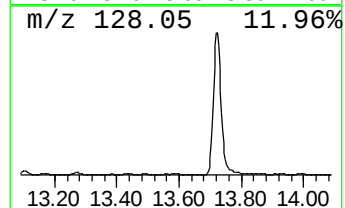
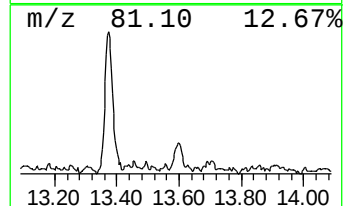
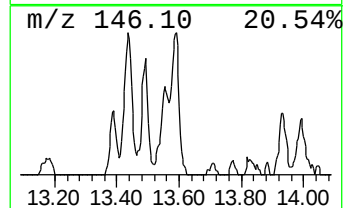
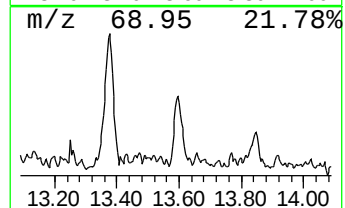
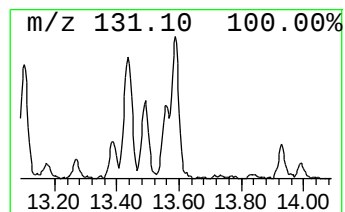
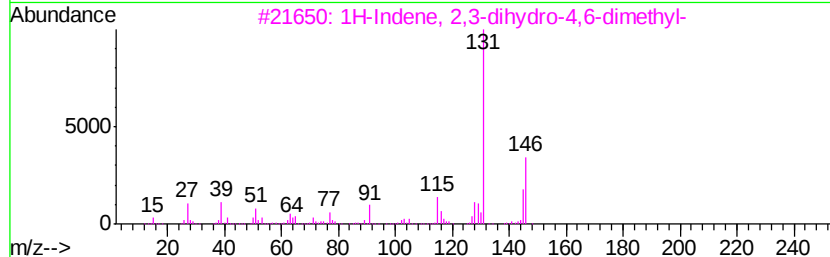
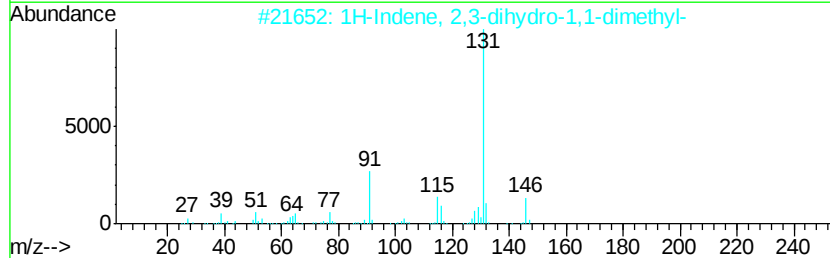
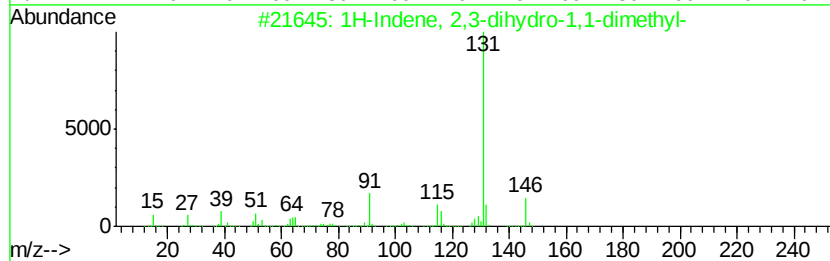
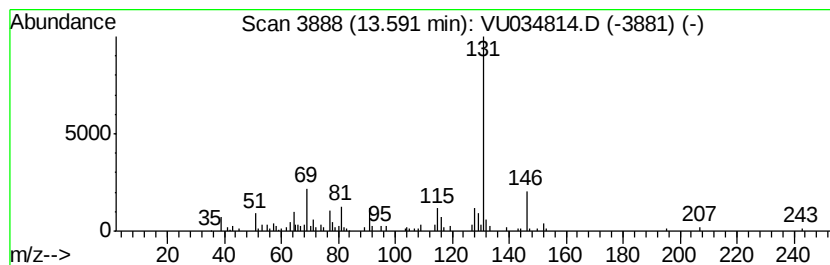
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 28 1H-Indene, 2,3-dihydro-1,1-... Concentration Rank 27

| R.T.  | EstConc   | Area   | Relative to ISTD       | R.T.  |
|-------|-----------|--------|------------------------|-------|
| 13.59 | 4.42 ug/L | 114866 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm  | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|----------|-------------|------|
| 1    |    |   | 1H-Indene, 2,3-dihydro-1,1-dimet... | 146 | C11H14   | 004912-92-9 | 80   |
| 2    |    |   | 1H-Indene, 2,3-dihydro-1,1-dimet... | 146 | C11H14   | 004912-92-9 | 80   |
| 3    |    |   | 1H-Indene, 2,3-dihydro-4,6-dimet... | 146 | C11H14   | 001685-82-1 | 72   |
| 4    |    |   | Benzene, 1-(chloromethyl)-4-(2-p... | 166 | C10H11Cl | 036875-10-2 | 64   |
| 5    |    |   | Cyclopropane, 2-bromo-1-methyl-1... | 210 | C10H11Br | 055091-64-0 | 64   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
BFDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

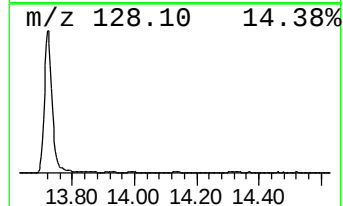
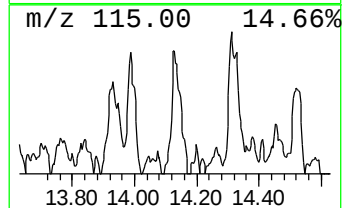
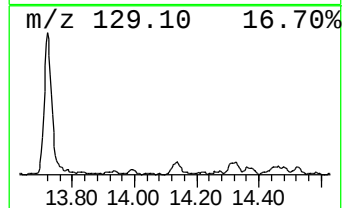
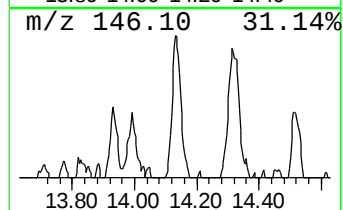
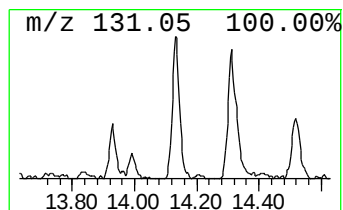
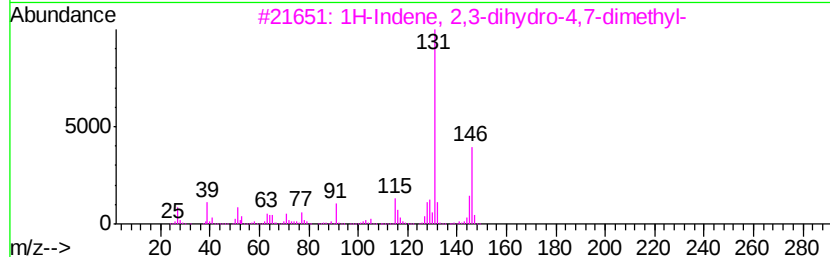
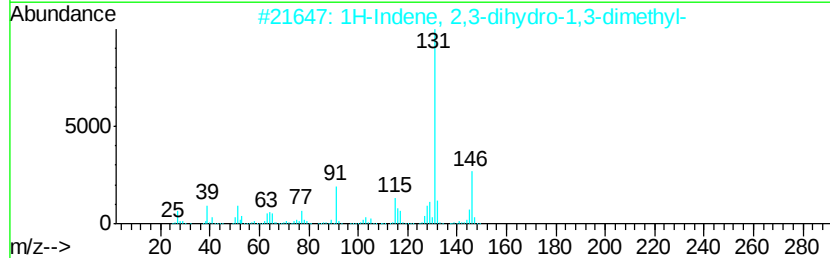
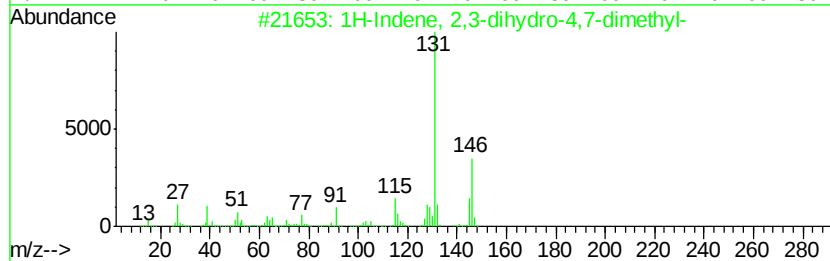
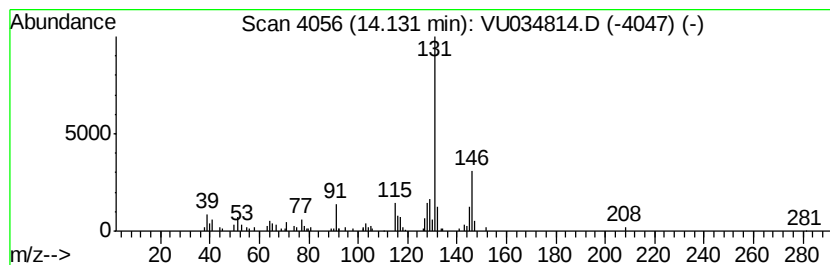
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 30 1H-Indene, 2,3-dihydro-4,7-... Concentration Rank 33

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 14.13 | 2.55 ug/L | 66206 | 1,4-Dichlorobenzene-d4 | 11.46 |

| Hit# | of | 5 | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
|------|----|---|-------------------------------------|-----|---------|-------------|------|
| 1    |    |   | 1H-Indene, 2,3-dihydro-4,7-dimet... | 146 | C11H14  | 006682-71-9 | 96   |
| 2    |    |   | 1H-Indene, 2,3-dihydro-1,3-dimet... | 146 | C11H14  | 004175-53-5 | 95   |
| 3    |    |   | 1H-Indene, 2,3-dihydro-4,7-dimet... | 146 | C11H14  | 006682-71-9 | 94   |
| 4    |    |   | 1H-Indene, 2,3-dihydro-1,6-dimet... | 146 | C11H14  | 017059-48-2 | 91   |
| 5    |    |   | 1H-Indene, 2,3-dihydro-1,2-dimet... | 146 | C11H14  | 017057-82-8 | 91   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU092519\  
Data File : VU034814.D  
Acq On : 25 Sep 2019 19:57  
Operator : JC/SP  
Sample : K4983-03  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 25 Sample Multiplier: 1

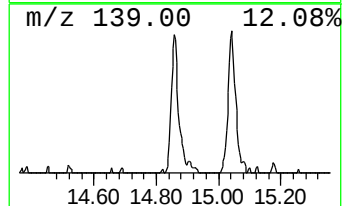
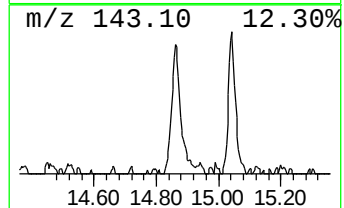
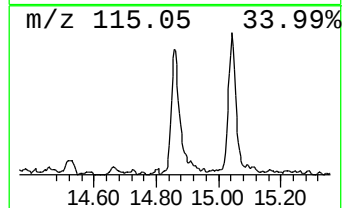
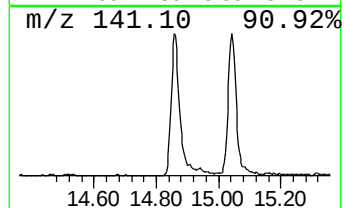
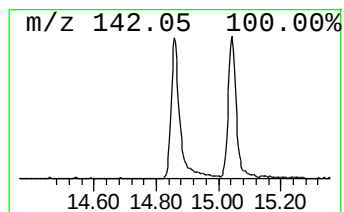
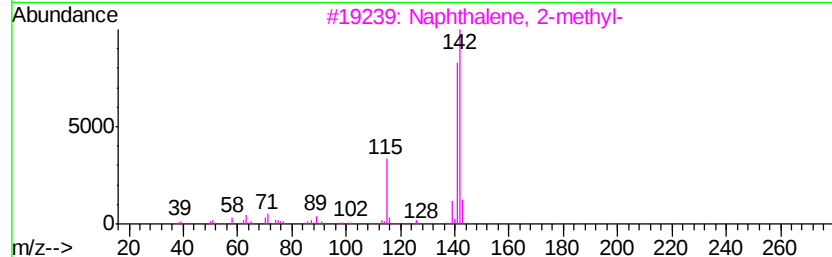
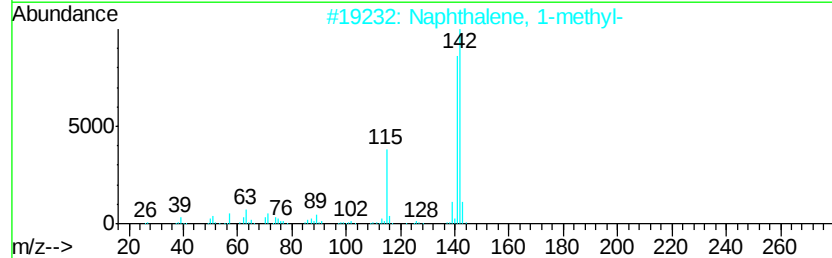
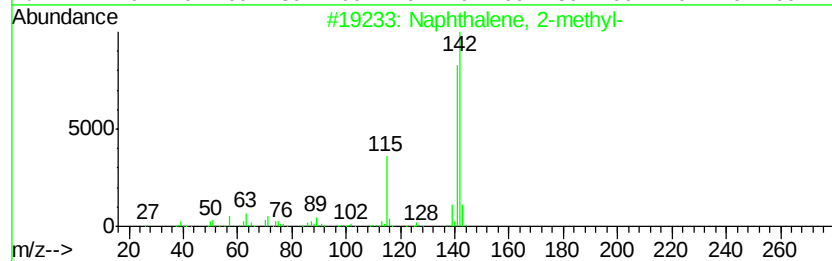
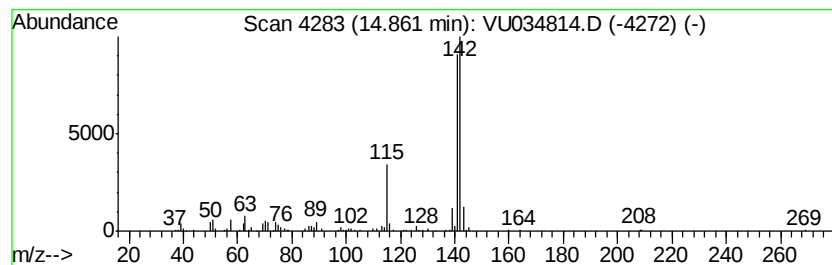
Instrument :  
MSVOA\_U  
ClientSampleId :  
BPDF4

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
Quant Title : VOC Analysis

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

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Peak Number 32 Naphthalene, 1-methyl- Concentration Rank 18

| R.T.      | EstConc                             | Area   | Relative to ISTD       | R.T.        |      |
|-----------|-------------------------------------|--------|------------------------|-------------|------|
| 14.86     | 7.70 ug/L                           | 199832 | 1,4-Dichlorobenzene-d4 | 11.46       |      |
| Hit# of 5 | Tentative ID                        | MW     | MolForm                | CAS#        | Qual |
| 1         | Naphthalene, 2-methyl-              | 142    | C11H10                 | 000091-57-6 | 96   |
| 2         | Naphthalene, 1-methyl-              | 142    | C11H10                 | 000090-12-0 | 96   |
| 3         | Naphthalene, 2-methyl-              | 142    | C11H10                 | 000091-57-6 | 95   |
| 4         | Naphthalene, 2-methyl-              | 142    | C11H10                 | 000091-57-6 | 94   |
| 5         | Bicyclo[4.4.1]undeca-1,3,5,7,9-p... | 142    | C11H10                 | 002443-46-1 | 94   |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU092519\  
 Data File : VU034814.D  
 Acq On : 25 Sep 2019 19:57  
 Operator : JC/SP  
 Sample : K4983-03  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BFDF4

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091919WMA.M  
 Quant Title : VOC Analysis

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

| TIC Top Hit name     | RT    | EstConc | Units | Response | --Internal Standard-- |       |         |      |
|----------------------|-------|---------|-------|----------|-----------------------|-------|---------|------|
|                      |       |         |       |          | #                     | RT    | Resp    | Conc |
| Isopropyl acetate    | 5.53  | 7.9     | ug/L  | 166484   | 1                     | 5.86  | 1050440 | 50.0 |
| n-Propyl acetate     | 6.68  | 131.3   | ug/L  | 2758400  | 1                     | 5.86  | 1050440 | 50.0 |
| Propanoic acid, 2... | 8.13  | 17.3    | ug/L  | 486211   | 2                     | 9.07  | 1409080 | 50.0 |
| Propanoic acid, p... | 8.40  | 26.3    | ug/L  | 739921   | 2                     | 9.07  | 1409080 | 50.0 |
| Butanoic acid, 1-... | 8.88  | 32.9    | ug/L  | 925757   | 2                     | 9.07  | 1409080 | 50.0 |
| Benzene, propyl-     | 10.57 | 6.8     | ug/L  | 176519   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1-ethyl-... | 10.66 | 39.7    | ug/L  | 1031570  | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1,2,3-tr... | 10.75 | 20.6    | ug/L  | 534954   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1,2,4-tr... | 11.13 | 54.7    | ug/L  | 1419250  | 3                     | 11.46 | 1298320 | 50.0 |
| Indane               | 11.74 | 22.8    | ug/L  | 591402   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1-methyl... | 12.03 | 2.9     | ug/L  | 74769    | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 2-ethyl-... | 12.13 | 4.5     | ug/L  | 115672   | 3                     | 11.46 | 1298320 | 50.0 |
| o-Cymene             | 12.23 | 7.8     | ug/L  | 202774   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, (1-methy... | 12.33 | 10.1    | ug/L  | 262663   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1-ethyl-... | 12.53 | 4.1     | ug/L  | 106022   | 3                     | 11.46 | 1298320 | 50.0 |
| Bicyclo[2.2.1]hep... | 12.59 | 5.2     | ug/L  | 134935   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 1,2,4,5-... | 12.63 | 6.1     | ug/L  | 158550   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, 2-etheny... | 13.10 | 21.2    | ug/L  | 550451   | 3                     | 11.46 | 1298320 | 50.0 |
| Naphthalene, 1,2,... | 13.27 | 5.2     | ug/L  | 135721   | 3                     | 11.46 | 1298320 | 50.0 |
| Camphor              | 13.38 | 5.0     | ug/L  | 128662   | 3                     | 11.46 | 1298320 | 50.0 |
| Benzene, (1-methy... | 13.49 | 3.1     | ug/L  | 79843    | 3                     | 11.46 | 1298320 | 50.0 |
| 1H-Indene, 2,3-di... | 13.59 | 4.4     | ug/L  | 114866   | 3                     | 11.46 | 1298320 | 50.0 |
| 1H-Indene, 2,3-di... | 14.13 | 2.5     | ug/L  | 66206    | 3                     | 11.46 | 1298320 | 50.0 |
| Naphthalene, 1-me... | 14.86 | 7.7     | ug/L  | 199832   | 3                     | 11.46 | 1298320 | 50.0 |