

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
 Data File : VV011093.D  
 Acq On : 29 May 2019 06:52  
 Operator : SY/MD  
 Sample : K3016-22  
 Misc : 4.69G/10ML/MSVOA V/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 A51D9

## 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\_V\METHOD\SOM2VLM052819S.M  
 Title : VOC Analysis

Signal : TIC

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|--------|----------|------------|----------|-----------|-------|-------------|------------|--------------|------------|
| 1      | 1.110    | 3          | 6        | 27        | rVB2  | 43411       | 53710      | 3.24%        | 0.400%     |
| 2      | 1.200    | 29         | 34       | 46        | rVB4  | 26818       | 38785      | 2.34%        | 0.289%     |
| 3      | 1.309    | 61         | 68       | 76        | rVB   | 221224      | 204125     | 12.31%       | 1.520%     |
| 4      | 1.380    | 85         | 90       | 102       | rVB   | 68235       | 70427      | 4.25%        | 0.524%     |
| 5      | 1.553    | 138        | 144      | 155       | rVB   | 159444      | 186734     | 11.26%       | 1.391%     |
| 6      | 1.801    | 216        | 221      | 230       | rVB   | 37720       | 46685      | 2.81%        | 0.348%     |
| 7      | 2.113    | 309        | 318      | 330       | rVB2  | 287666      | 423208     | 25.51%       | 3.152%     |
| 8      | 2.184    | 333        | 340      | 353       | rVB   | 138616      | 204188     | 12.31%       | 1.521%     |
| 9      | 2.454    | 415        | 424      | 436       | rVB   | 74850       | 119601     | 7.21%        | 0.891%     |
| 10     | 2.524    | 439        | 446      | 457       | rVB   | 14744       | 26212      | 1.58%        | 0.195%     |
| 11     | 2.849    | 544        | 547      | 552       | rVB7  | 1444        | 1554       | 0.09%        | 0.012%     |
| 12     | 2.987    | 580        | 590      | 599       | rBV4  | 7748        | 13804      | 0.83%        | 0.103%     |
| 13     | 3.058    | 605        | 612      | 624       | rVB5  | 7333        | 15488      | 0.93%        | 0.115%     |
| 14     | 3.200    | 651        | 656      | 664       | rBV7  | 3419        | 4350       | 0.26%        | 0.032%     |
| 15     | 3.743    | 814        | 825      | 849       | rVV3  | 26527       | 67036      | 4.04%        | 0.499%     |
| 16     | 3.933    | 872        | 884      | 906       | rBV2  | 68079       | 184951     | 11.15%       | 1.377%     |
| 17     | 4.389    | 1006       | 1026     | 1050      | rBV   | 215839      | 536712     | 32.36%       | 3.997%     |
| 18     | 4.512    | 1061       | 1064     | 1065      | rBV4  | 2372        | 1224       | 0.07%        | 0.009%     |
| 19     | 4.933    | 1193       | 1195     | 1200      | rBV5  | 1346        | 1275       | 0.08%        | 0.009%     |
| 20     | 5.087    | 1224       | 1243     | 1266      | rBV2  | 577478      | 1416546    | 85.40%       | 10.549%    |
| 21     | 5.232    | 1285       | 1288     | 1292      | rBV5  | 1605        | 1018       | 0.06%        | 0.008%     |
| 22     | 5.370    | 1318       | 1331     | 1349      | rBV2  | 22722       | 55516      | 3.35%        | 0.413%     |
| 23     | 5.573    | 1373       | 1394     | 1406      | rBV   | 40693       | 93297      | 5.62%        | 0.695%     |
| 24     | 5.656    | 1407       | 1420     | 1445      | rVB   | 471668      | 946743     | 57.07%       | 7.050%     |
| 25     | 5.778    | 1455       | 1458     | 1460      | rBV5  | 1744        | 991        | 0.06%        | 0.007%     |
| 26     | 5.946    | 1504       | 1510     | 1513      | rBV6  | 3583        | 4205       | 0.25%        | 0.031%     |
| 27     | 6.007    | 1525       | 1529     | 1530      | rBV4  | 1446        | 1032       | 0.06%        | 0.008%     |
| 28     | 6.113    | 1548       | 1562     | 1583      | rVV   | 331210      | 672266     | 40.53%       | 5.006%     |
| 29     | 6.325    | 1618       | 1628     | 1648      | rBV   | 138916      | 264649     | 15.95%       | 1.971%     |
| 30     | 6.685    | 1736       | 1740     | 1741      | rBV4  | 1607        | 1209       | 0.07%        | 0.009%     |
| 31     | 6.810    | 1776       | 1779     | 1783      | rBV4  | 1142        | 991        | 0.06%        | 0.007%     |
| 32     | 7.026    | 1822       | 1846     | 1864      | rBV   | 185853      | 339026     | 20.44%       | 2.525%     |
| 33     | 7.187    | 1889       | 1896     | 1907      | rVB   | 5079        | 9205       | 0.55%        | 0.069%     |
| 34     | 7.357    | 1929       | 1949     | 1964      | rBV   | 675071      | 1223325    | 73.75%       | 9.110%     |

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 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\_V\METHOD\SOM2VLM052819S.M  
 Title : VOC Analysis

|    |        |      |      |      |       |         |         |         |         |
|----|--------|------|------|------|-------|---------|---------|---------|---------|
| 35 | 7.659  | 2033 | 2043 | 2058 | rBV   | 123169  | 205641  | 12.40%  | 1.531%  |
| 36 | 7.749  | 2064 | 2071 | 2084 | rVB8  | 11358   | 21919   | 1.32%   | 0.163%  |
| 37 | 7.978  | 2127 | 2142 | 2159 | rBV4  | 18381   | 44383   | 2.68%   | 0.331%  |
| 38 | 8.132  | 2175 | 2190 | 2220 | rBV   | 271517  | 513768  | 30.97%  | 3.826%  |
| 39 | 8.280  | 2224 | 2236 | 2260 | rBV   | 1026578 | 1658786 | 100.00% | 12.353% |
| 40 | 8.579  | 2325 | 2329 | 2331 | rBV4  | 1544    | 1044    | 0.06%   | 0.008%  |
| 41 | 8.637  | 2343 | 2347 | 2352 | rBV8  | 1314    | 1544    | 0.09%   | 0.011%  |
| 42 | 8.894  | 2410 | 2427 | 2453 | rBV   | 670209  | 1111807 | 67.03%  | 8.279%  |
| 43 | 9.052  | 2473 | 2476 | 2480 | rVV4  | 1182    | 1150    | 0.07%   | 0.009%  |
| 44 | 9.180  | 2511 | 2516 | 2519 | rBV3  | 3701    | 3824    | 0.23%   | 0.028%  |
| 45 | 9.354  | 2564 | 2570 | 2580 | rVB5  | 16625   | 24047   | 1.45%   | 0.179%  |
| 46 | 9.479  | 2606 | 2609 | 2612 | rVB5  | 1610    | 982     | 0.06%   | 0.007%  |
| 47 | 9.524  | 2612 | 2623 | 2637 | rBV2  | 37475   | 84494   | 5.09%   | 0.629%  |
| 48 | 9.707  | 2677 | 2680 | 2682 | rBV4  | 1166    | 992     | 0.06%   | 0.007%  |
| 49 | 9.746  | 2686 | 2692 | 2703 | rVB   | 7839    | 11988   | 0.72%   | 0.089%  |
| 50 | 9.849  | 2715 | 2724 | 2742 | rBV2  | 83449   | 132405  | 7.98%   | 0.986%  |
| 51 | 9.942  | 2748 | 2753 | 2754 | rBV4  | 1479    | 1040    | 0.06%   | 0.008%  |
| 52 | 9.994  | 2762 | 2769 | 2775 | rVV4  | 5294    | 7909    | 0.48%   | 0.059%  |
| 53 | 10.161 | 2817 | 2821 | 2824 | rBV5  | 1283    | 1234    | 0.07%   | 0.009%  |
| 54 | 10.215 | 2835 | 2838 | 2839 | rVV3  | 2122    | 1154    | 0.07%   | 0.009%  |
| 55 | 10.261 | 2841 | 2852 | 2867 | rVB   | 301733  | 480839  | 28.99%  | 3.581%  |
| 56 | 10.424 | 2890 | 2903 | 2913 | rVB3  | 19413   | 35017   | 2.11%   | 0.261%  |
| 57 | 10.505 | 2925 | 2928 | 2930 | rVV4  | 1567    | 1155    | 0.07%   | 0.009%  |
| 58 | 10.521 | 2930 | 2933 | 2935 | rVV4  | 1605    | 1213    | 0.07%   | 0.009%  |
| 59 | 10.566 | 2936 | 2947 | 2958 | rVV5  | 13646   | 29669   | 1.79%   | 0.221%  |
| 60 | 10.624 | 2958 | 2965 | 2982 | rVB2  | 15905   | 30011   | 1.81%   | 0.223%  |
| 61 | 10.756 | 2996 | 3006 | 3014 | rBV4  | 16205   | 28958   | 1.75%   | 0.216%  |
| 62 | 10.804 | 3016 | 3021 | 3034 | rVB4  | 11775   | 21079   | 1.27%   | 0.157%  |
| 63 | 10.871 | 3034 | 3042 | 3046 | rBV9  | 3893    | 6130    | 0.37%   | 0.046%  |
| 64 | 10.978 | 3056 | 3075 | 3090 | rVB   | 60315   | 126302  | 7.61%   | 0.941%  |
| 65 | 11.087 | 3103 | 3109 | 3110 | rBV5  | 3392    | 3185    | 0.19%   | 0.024%  |
| 66 | 11.196 | 3132 | 3143 | 3161 | rBV2  | 54776   | 97619   | 5.88%   | 0.727%  |
| 67 | 11.293 | 3162 | 3173 | 3190 | rVB   | 402839  | 647440  | 39.03%  | 4.821%  |
| 68 | 11.579 | 3254 | 3262 | 3273 | rBV3  | 11813   | 19740   | 1.19%   | 0.147%  |
| 69 | 11.669 | 3279 | 3290 | 3303 | rBV   | 351545  | 564280  | 34.02%  | 4.202%  |
| 70 | 11.823 | 3333 | 3338 | 3345 | rBV8  | 2699    | 3978    | 0.24%   | 0.030%  |
| 71 | 11.990 | 3381 | 3390 | 3394 | rBV10 | 3116    | 4517    | 0.27%   | 0.034%  |

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 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 A51D9

## 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\_V\METHOD\SOM2VLM052819S.M  
 Title : VOC Analysis

|     |        |      |      |      |       |       |       |       |        |
|-----|--------|------|------|------|-------|-------|-------|-------|--------|
| 72  | 12.055 | 3402 | 3410 | 3424 | rVB2  | 23017 | 42026 | 2.53% | 0.313% |
| 73  | 12.296 | 3475 | 3485 | 3491 | rBV   | 12150 | 21421 | 1.29% | 0.160% |
| 74  | 12.392 | 3506 | 3515 | 3526 | rVV2  | 36251 | 57391 | 3.46% | 0.427% |
| 75  | 12.479 | 3540 | 3542 | 3546 | rVB5  | 1532  | 1032  | 0.06% | 0.008% |
| 76  | 12.717 | 3606 | 3616 | 3626 | rBV5  | 12641 | 20770 | 1.25% | 0.155% |
| 77  | 12.788 | 3630 | 3638 | 3641 | rBV8  | 4975  | 7023  | 0.42% | 0.052% |
| 78  | 12.929 | 3675 | 3682 | 3691 | rVB8  | 5000  | 8033  | 0.48% | 0.060% |
| 79  | 13.003 | 3699 | 3705 | 3712 | rVV9  | 2370  | 3460  | 0.21% | 0.026% |
| 80  | 13.042 | 3715 | 3717 | 3722 | rVB6  | 1523  | 1143  | 0.07% | 0.009% |
| 81  | 13.183 | 3754 | 3761 | 3773 | rVB6  | 9410  | 16747 | 1.01% | 0.125% |
| 82  | 13.370 | 3814 | 3819 | 3825 | rBV9  | 2289  | 3086  | 0.19% | 0.023% |
| 83  | 13.479 | 3845 | 3853 | 3861 | rBV7  | 10480 | 15896 | 0.96% | 0.118% |
| 84  | 13.556 | 3872 | 3877 | 3886 | rVB10 | 2297  | 2449  | 0.15% | 0.018% |
| 85  | 13.633 | 3890 | 3901 | 3908 | rBV3  | 11156 | 18145 | 1.09% | 0.135% |
| 86  | 13.730 | 3928 | 3931 | 3939 | rVB8  | 1867  | 2117  | 0.13% | 0.016% |
| 87  | 13.874 | 3972 | 3976 | 3983 | rVB9  | 2733  | 3287  | 0.20% | 0.024% |
| 88  | 14.038 | 4022 | 4027 | 4029 | rBV6  | 1011  | 1178  | 0.07% | 0.009% |
| 89  | 14.090 | 4031 | 4043 | 4044 | rBV9  | 3808  | 4519  | 0.27% | 0.034% |
| 90  | 14.225 | 4078 | 4085 | 4096 | rVV9  | 7545  | 12843 | 0.77% | 0.096% |
| 91  | 14.267 | 4096 | 4098 | 4103 | rVB5  | 1743  | 1038  | 0.06% | 0.008% |
| 92  | 14.379 | 4125 | 4133 | 4144 | rBV9  | 6255  | 10147 | 0.61% | 0.076% |
| 93  | 14.456 | 4152 | 4157 | 4163 | rBV8  | 1441  | 1714  | 0.10% | 0.013% |
| 94  | 14.582 | 4192 | 4196 | 4202 | rBV10 | 1229  | 1503  | 0.09% | 0.011% |
| 95  | 14.865 | 4280 | 4284 | 4288 | rVV6  | 2601  | 2548  | 0.15% | 0.019% |
| 96  | 15.145 | 4369 | 4371 | 4375 | rBV3  | 1286  | 1042  | 0.06% | 0.008% |
| 97  | 15.186 | 4380 | 4384 | 4386 | rBV4  | 1742  | 1398  | 0.08% | 0.010% |
| 98  | 15.672 | 4531 | 4535 | 4536 | rBV4  | 2269  | 1829  | 0.11% | 0.014% |
| 99  | 15.775 | 4562 | 4567 | 4569 | rBV6  | 2238  | 2421  | 0.15% | 0.018% |
| 100 | 15.839 | 4585 | 4587 | 4592 | rBV4  | 1328  | 1057  | 0.06% | 0.008% |

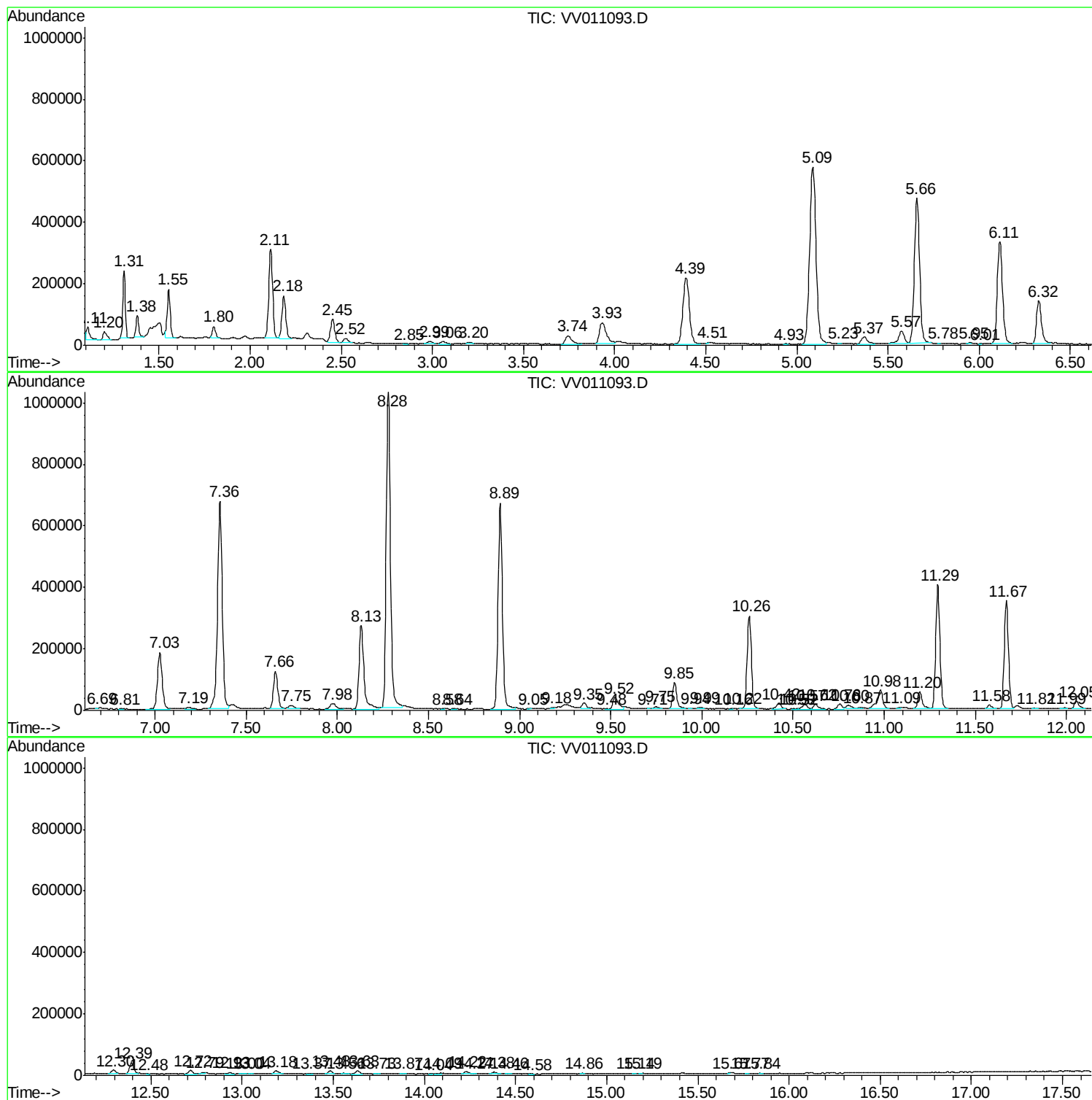
Sum of corrected areas: 13428594

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Instrument :  
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ClientSampled :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

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



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
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Instrument :  
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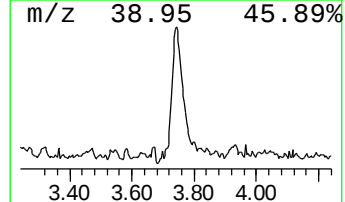
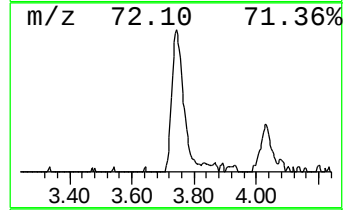
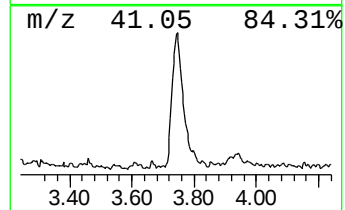
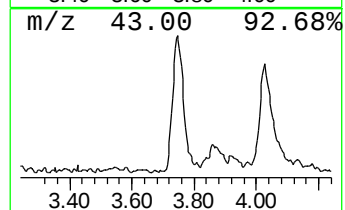
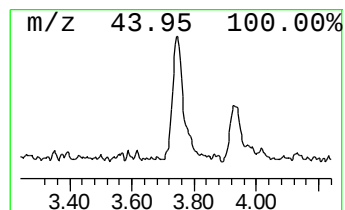
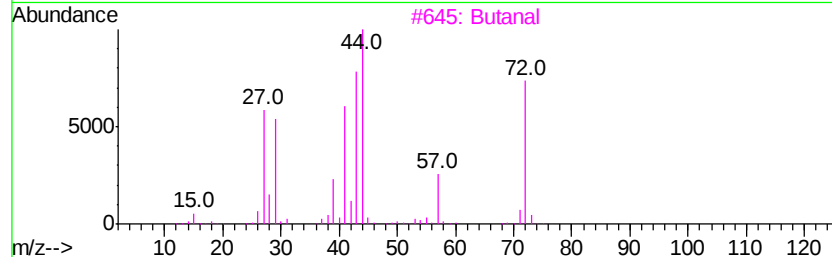
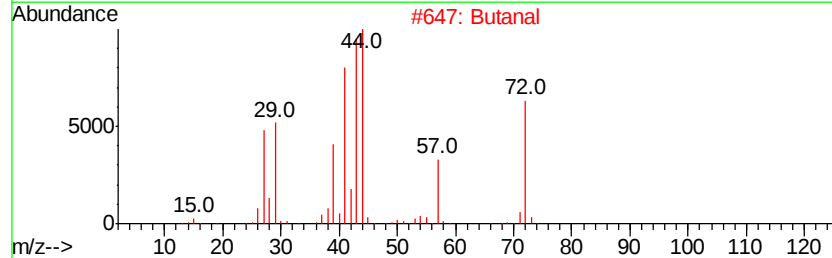
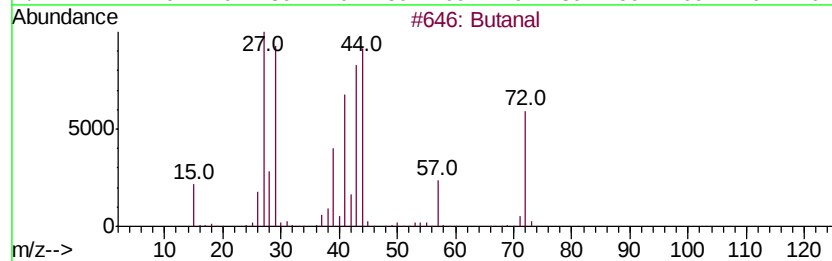
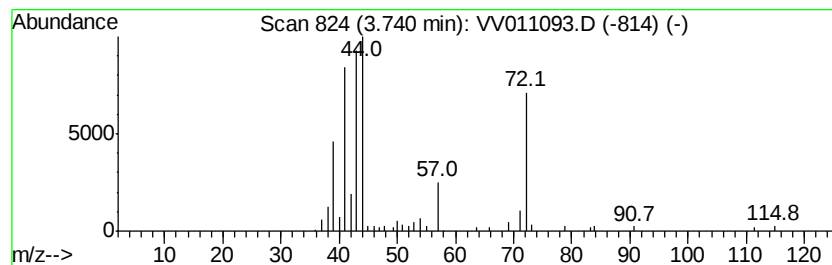
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 3 Butanal Concentration Rank 11

| R.T. | EstConc   | Area  | Relative to ISTD    | R.T. |
|------|-----------|-------|---------------------|------|
| 3.74 | 1.77 ug/L | 67036 | 1,4-Difluorobenzene | 5.66 |

| Hit# | of | Tentative ID        | MW | MolForm | CAS#        | Qual |
|------|----|---------------------|----|---------|-------------|------|
| 1    | 5  | Butanal             | 72 | C4H8O   | 000123-72-8 | 91   |
| 2    |    | Butanal             | 72 | C4H8O   | 000123-72-8 | 91   |
| 3    |    | Butanal             | 72 | C4H8O   | 000123-72-8 | 64   |
| 4    |    | Ethene, ethoxy-     | 72 | C4H8O   | 000109-92-2 | 50   |
| 5    |    | Propanal, 2-methyl- | 72 | C4H8O   | 000078-84-2 | 47   |



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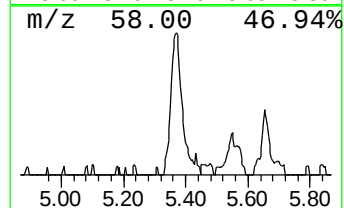
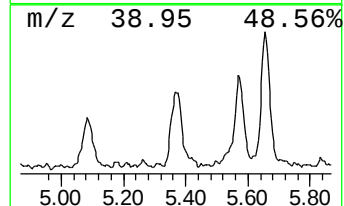
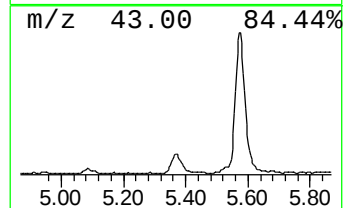
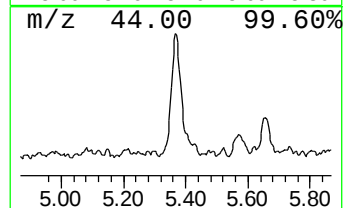
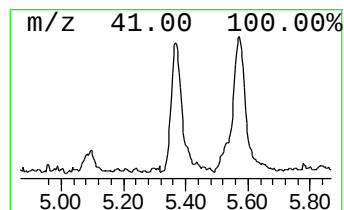
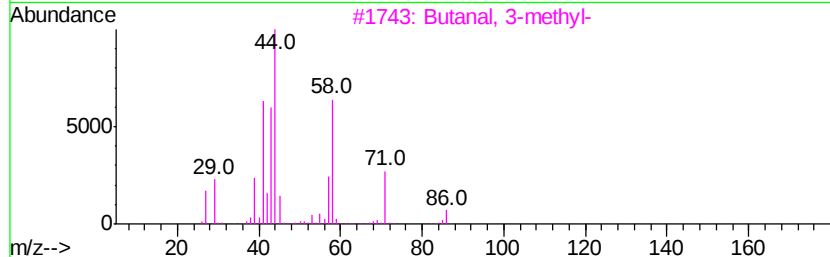
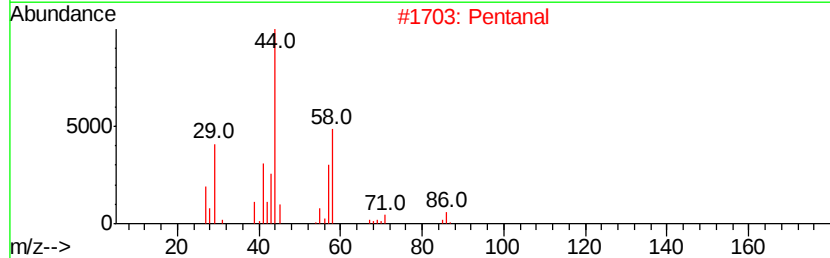
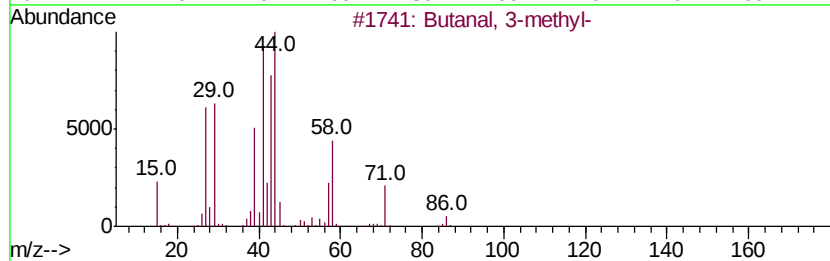
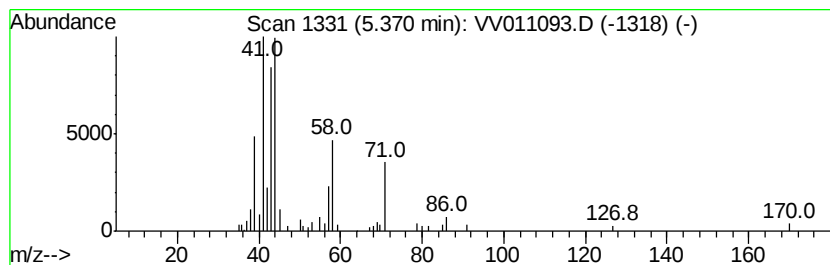
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Quant Title : VOC Analysis

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

\*\*\*\*\*  
Peak Number 4 Butanal, 3-methyl- Concentration Rank 13

| R.T. | EstConc   | Area  | Relative to ISTD    | R.T. |
|------|-----------|-------|---------------------|------|
| 5.37 | 1.47 ug/L | 55516 | 1,4-Difluorobenzene | 5.66 |

| Hit# | of | 5 | Tentative ID       | MW | MolForm | CAS#        | Qual |
|------|----|---|--------------------|----|---------|-------------|------|
| 1    |    |   | Butanal, 3-methyl- | 86 | C5H10O  | 000590-86-3 | 90   |
| 2    |    |   | Pentanal           | 86 | C5H10O  | 000110-62-3 | 49   |
| 3    |    |   | Butanal, 3-methyl- | 86 | C5H10O  | 000590-86-3 | 49   |
| 4    |    |   | 3-Butenamide       | 85 | C4H7NO  | 028446-58-4 | 46   |
| 5    |    |   | Butanal, 3-methyl- | 86 | C5H10O  | 000590-86-3 | 36   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

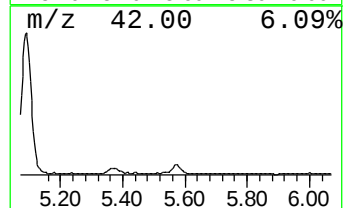
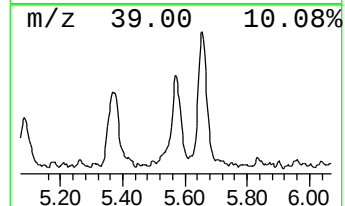
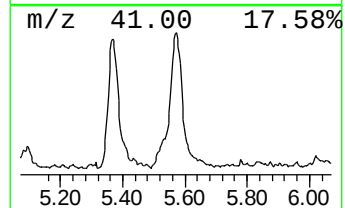
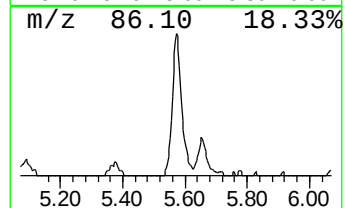
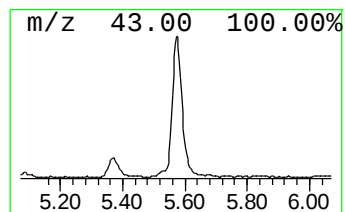
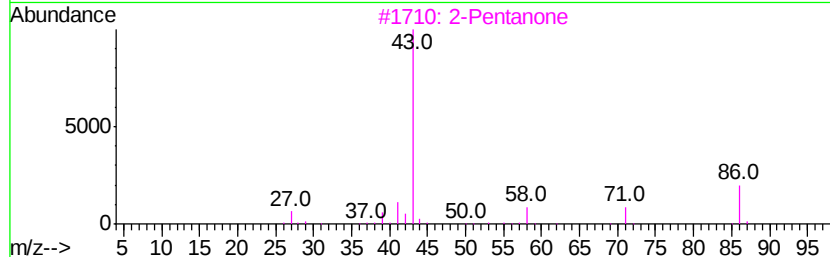
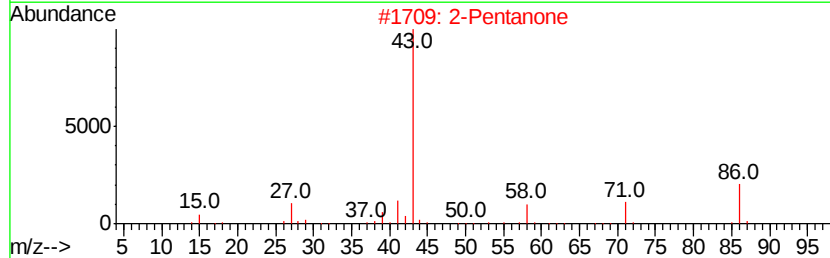
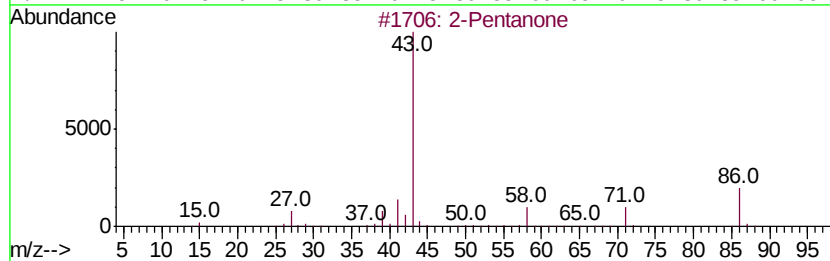
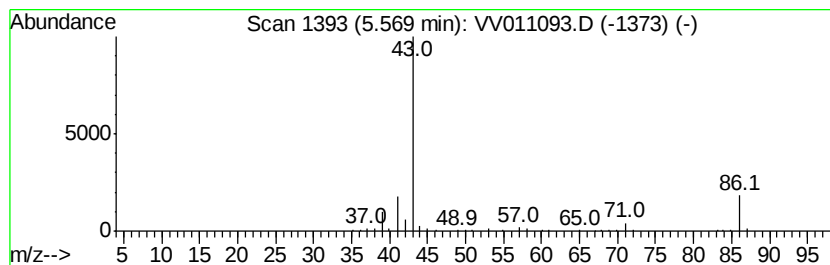
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TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 5 2-Pentanone Concentration Rank 7

| R.T. | EstConc   | Area  | Relative to ISTD    | R.T. |
|------|-----------|-------|---------------------|------|
| 5.57 | 2.46 ug/L | 93297 | 1,4-Difluorobenzene | 5.66 |

| Hit# | of | Tentative ID    | MW | MolForm | CAS#        | Qual |
|------|----|-----------------|----|---------|-------------|------|
| 1    | 5  | 2-Pentanone     | 86 | C5H10O  | 000107-87-9 | 59   |
| 2    |    | 2-Pentanone     | 86 | C5H10O  | 000107-87-9 | 53   |
| 3    |    | 2-Pentanone     | 86 | C5H10O  | 000107-87-9 | 52   |
| 4    |    | 2,3-Butanedione | 86 | C4H6O2  | 000431-03-8 | 40   |
| 5    |    | 2,3-Butanedione | 86 | C4H6O2  | 000431-03-8 | 40   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

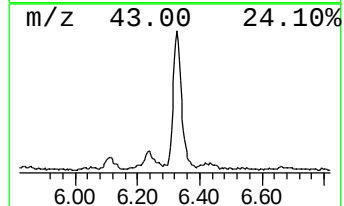
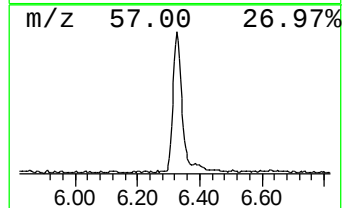
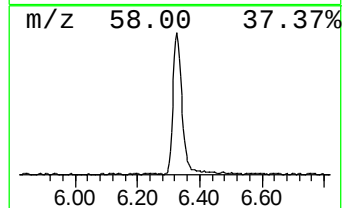
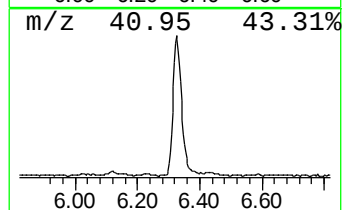
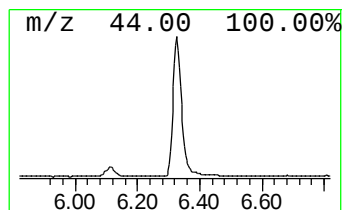
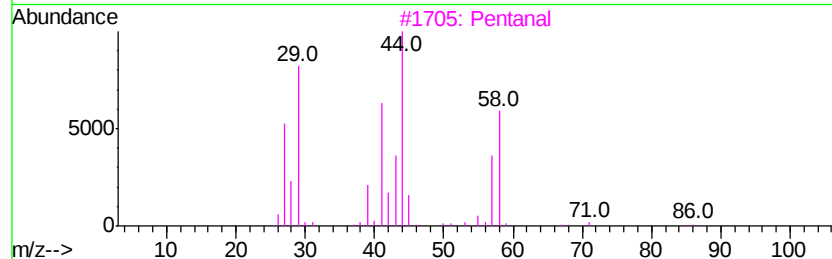
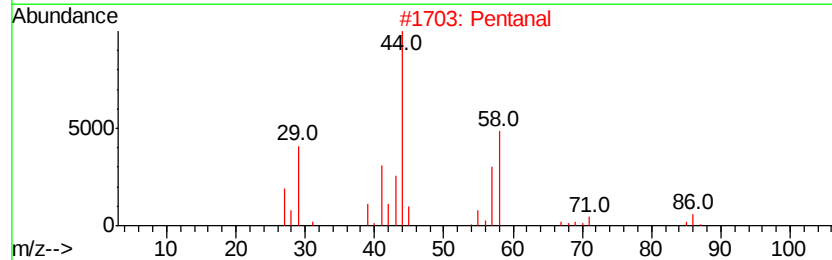
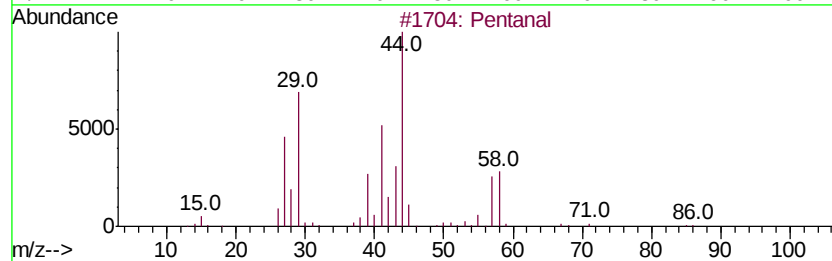
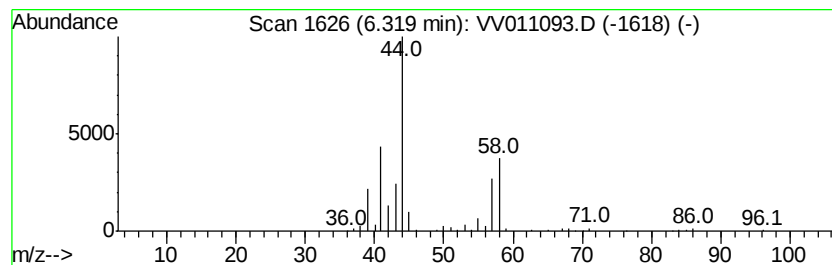
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 6 Pentanal Concentration Rank 3

| R.T. | EstConc   | Area   | Relative to ISTD    | R.T. |
|------|-----------|--------|---------------------|------|
| 6.32 | 6.99 ug/L | 264649 | 1,4-Difluorobenzene | 5.66 |

| Hit# | of | Tentative ID         | MW | MolForm | CAS#        | Qual |
|------|----|----------------------|----|---------|-------------|------|
| 1    | 5  | Pentanal             | 86 | C5H10O  | 000110-62-3 | 83   |
| 2    |    | Pentanal             | 86 | C5H10O  | 000110-62-3 | 78   |
| 3    |    | Pentanal             | 86 | C5H10O  | 000110-62-3 | 58   |
| 4    |    | Butanal, 3-methyl-   | 86 | C5H10O  | 000590-86-3 | 42   |
| 5    |    | Cyclopropyl carbinol | 72 | C4H8O   | 002516-33-8 | 39   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

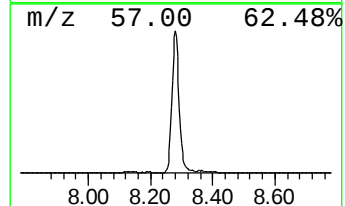
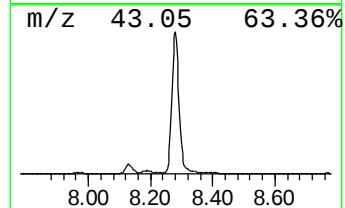
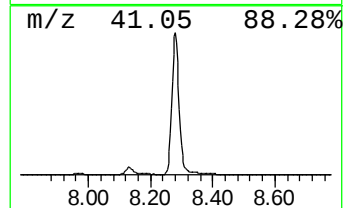
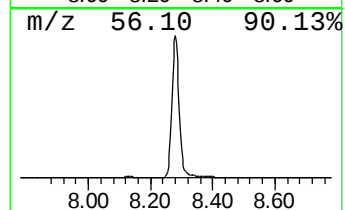
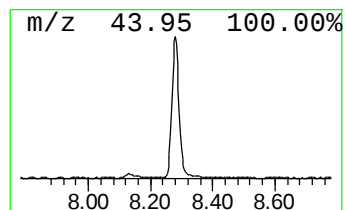
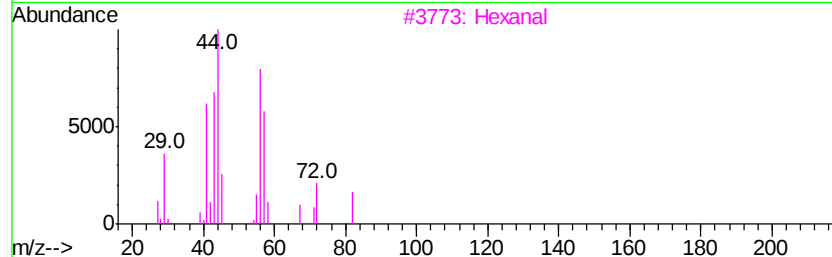
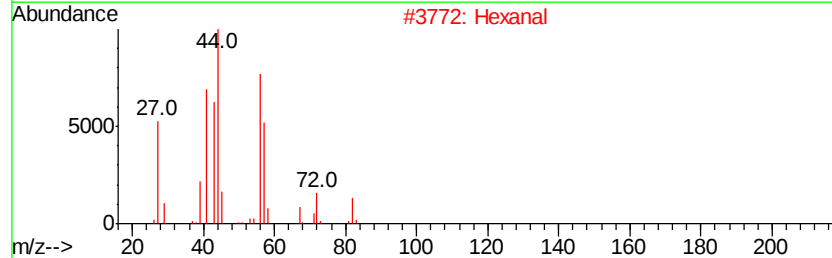
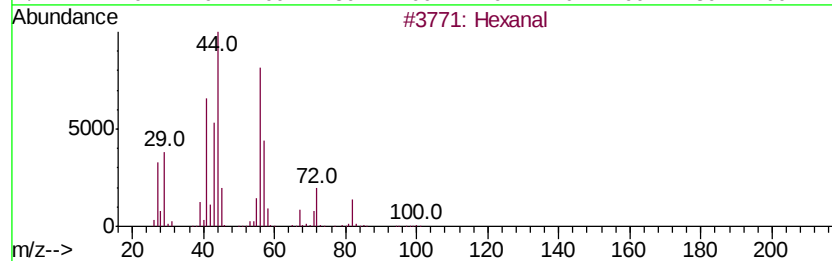
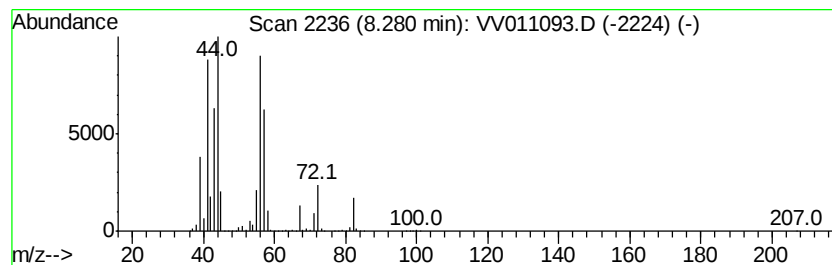
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 8 Hexanal Concentration Rank 1

| R.T. | EstConc    | Area    | Relative to ISTD | R.T. |
|------|------------|---------|------------------|------|
| 8.28 | 37.30 ug/L | 1658790 | Chlorobenzene-d5 | 8.89 |

| Hit# of | 5       | Tentative ID | MW  | MolForm | CAS#        | Qual |
|---------|---------|--------------|-----|---------|-------------|------|
| 1       | Hexanal |              | 100 | C6H12O  | 000066-25-1 | 80   |
| 2       | Hexanal |              | 100 | C6H12O  | 000066-25-1 | 80   |
| 3       | Hexanal |              | 100 | C6H12O  | 000066-25-1 | 80   |
| 4       | Hexanal |              | 100 | C6H12O  | 000066-25-1 | 72   |
| 5       | Butanal |              | 72  | C4H8O   | 000123-72-8 | 43   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

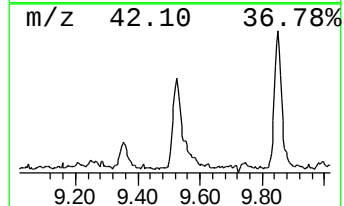
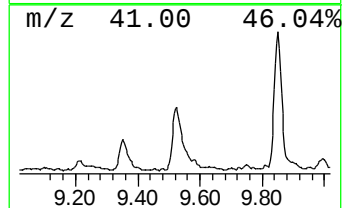
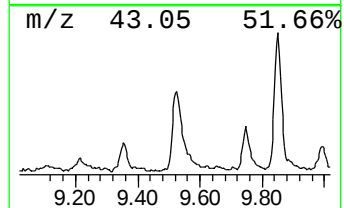
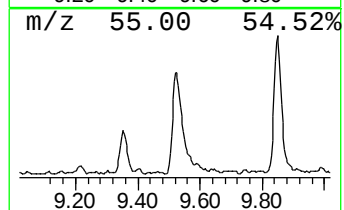
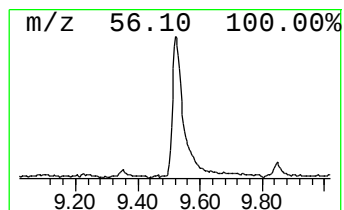
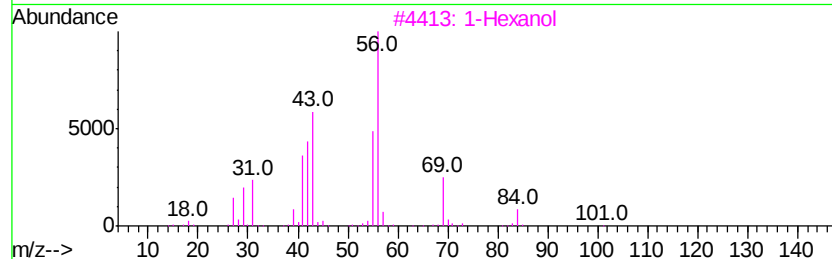
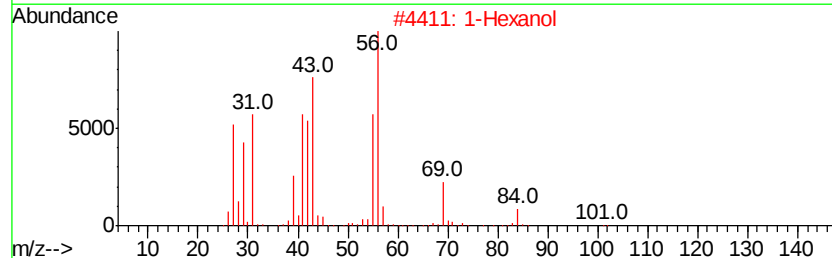
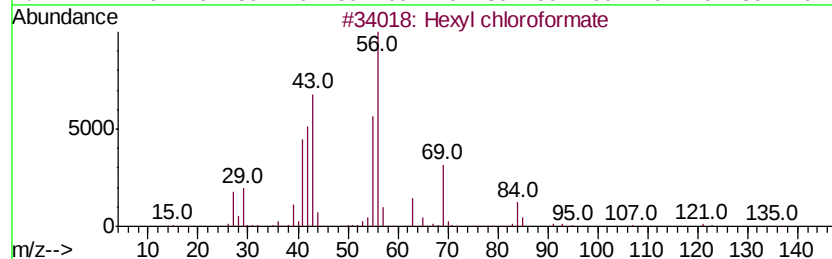
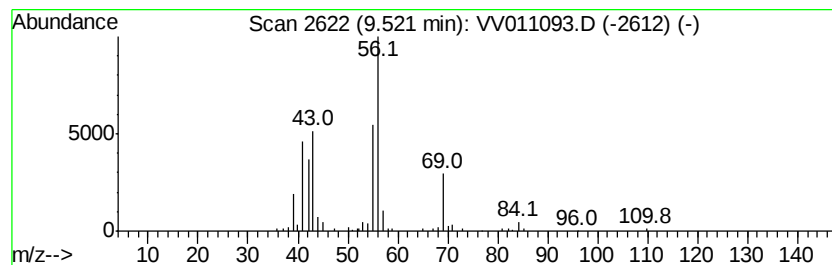
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

\*\*\*\*\*  
Peak Number 9 Hexyl chloroformate Concentration Rank 9

| R.T. | EstConc   | Area  | Relative to ISTD | R.T. |
|------|-----------|-------|------------------|------|
| 9.52 | 1.90 ug/L | 84494 | Chlorobenzene-d5 | 8.89 |

| Hit# | of | Tentative ID          | MW  | MolForm   | CAS#        | Qual |
|------|----|-----------------------|-----|-----------|-------------|------|
| 1    | 5  | Hexyl chloroformate   | 164 | C7H13ClO2 | 006092-54-2 | 78   |
| 2    |    | 1-Hexanol             | 102 | C6H14O    | 000111-27-3 | 78   |
| 3    |    | 1-Hexanol             | 102 | C6H14O    | 000111-27-3 | 78   |
| 4    |    | 1-Hexanol             | 102 | C6H14O    | 000111-27-3 | 78   |
| 5    |    | Cyclopropane, propyl- | 84  | C6H12     | 002415-72-7 | 72   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

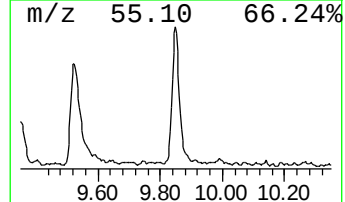
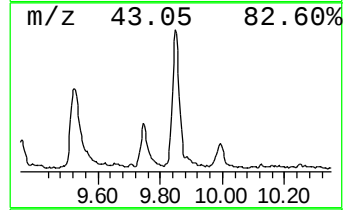
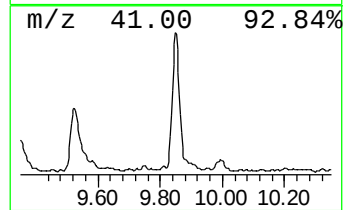
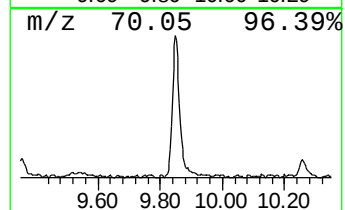
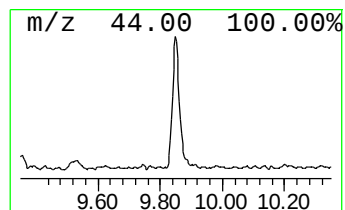
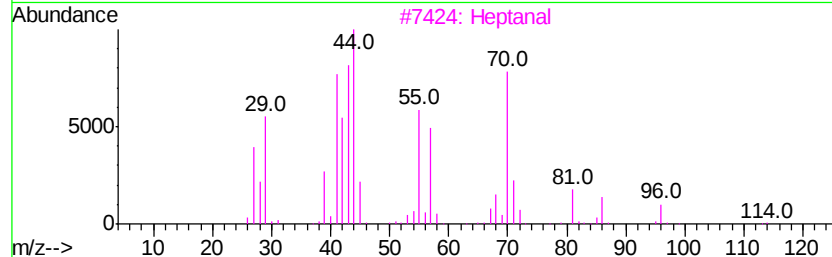
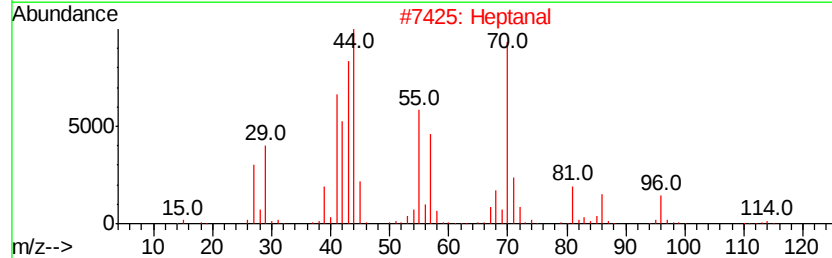
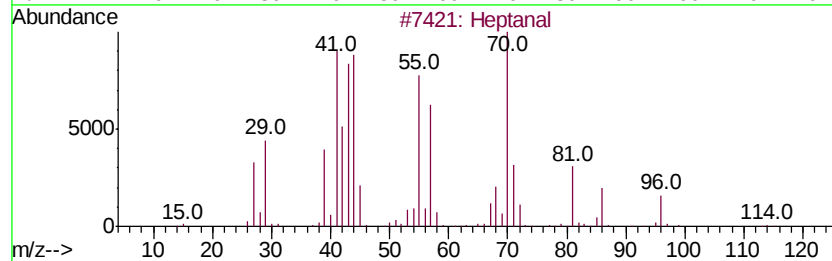
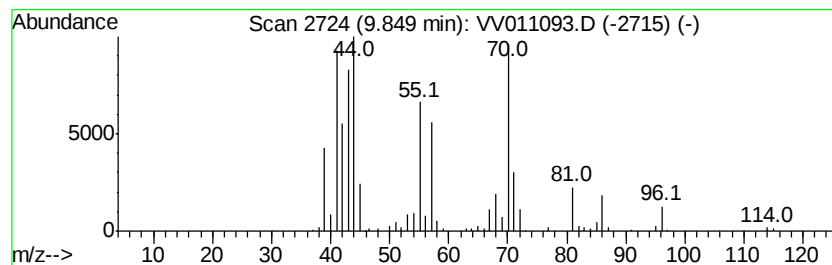
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Quant Title : VOC Analysis

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

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Peak Number 10 Heptanal Concentration Rank 6

| R.T. | EstConc   | Area   | Relative to ISTD | R.T. |
|------|-----------|--------|------------------|------|
| 9.85 | 2.98 ug/L | 132405 | Chlorobenzene-d5 | 8.89 |

| Hit# | of | Tentative ID | MW  | MolForm | CAS#        | Qual |
|------|----|--------------|-----|---------|-------------|------|
| 1    | 5  | Heptanal     | 114 | C7H14O  | 000111-71-7 | 98   |
| 2    |    | Heptanal     | 114 | C7H14O  | 000111-71-7 | 96   |
| 3    |    | Heptanal     | 114 | C7H14O  | 000111-71-7 | 91   |
| 4    |    | Heptanal     | 114 | C7H14O  | 000111-71-7 | 90   |
| 5    |    | Heptanal     | 114 | C7H14O  | 000111-71-7 | 38   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

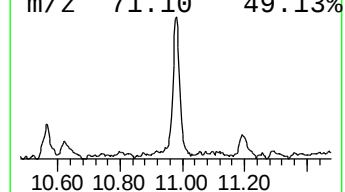
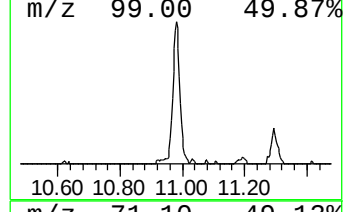
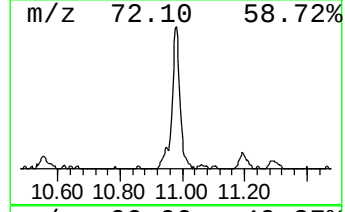
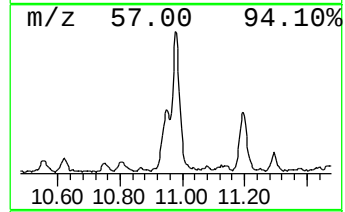
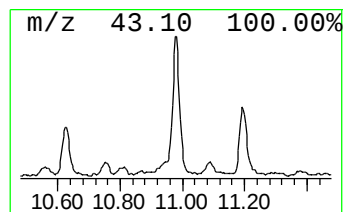
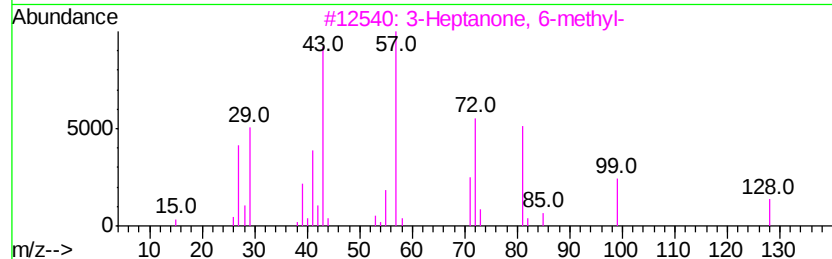
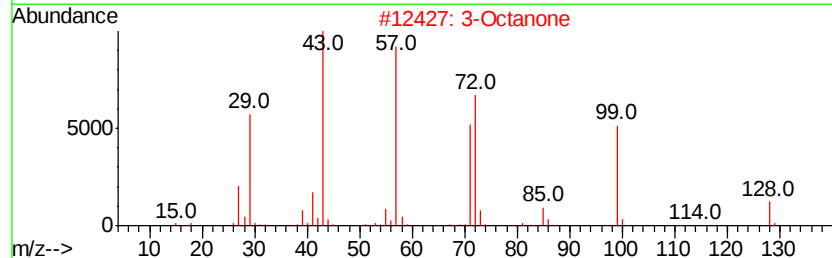
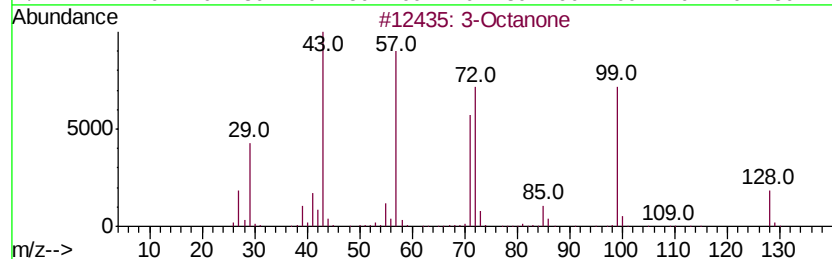
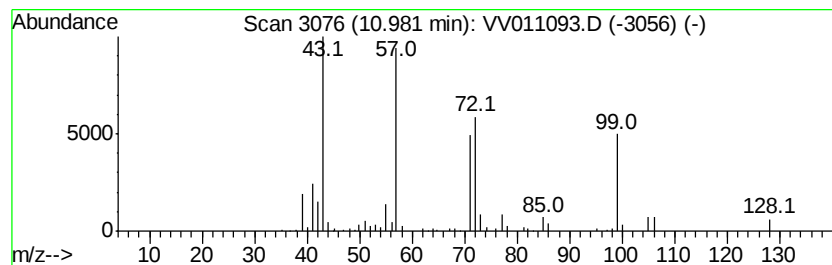
Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

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

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Peak Number 12 3-Octanone Concentration Rank 4

| R.T.  | EstConc   | Area   | Relative to ISTD                    |     | R.T.    |             |      |
|-------|-----------|--------|-------------------------------------|-----|---------|-------------|------|
| 10.98 | 4.88 ug/L | 126302 | 1,4-Dichlorobenzene-d4              |     | 11.30   |             |      |
| Hit#  | of        | 5      | Tentative ID                        | MW  | MolForm | CAS#        | Qual |
| 1     |           |        | 3-Octanone                          | 128 | C8H16O  | 000106-68-3 | 83   |
| 2     |           |        | 3-Octanone                          | 128 | C8H16O  | 000106-68-3 | 59   |
| 3     |           |        | 3-Heptanone, 6-methyl-              | 128 | C8H16O  | 000624-42-0 | 47   |
| 4     |           |        | 1-Propene, 1-methoxy-               | 72  | C4H8O   | 007319-16-6 | 43   |
| 5     |           |        | Ethanone, 1-(3,3-dimethyloxiranyl)- | 114 | C6H10O2 | 004478-63-1 | 43   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

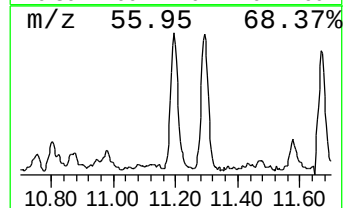
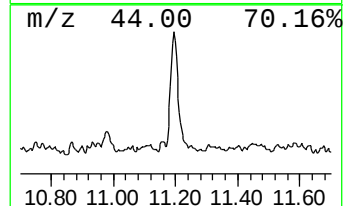
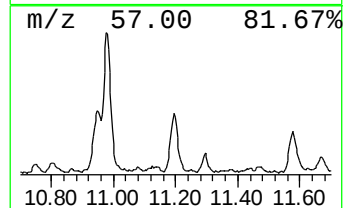
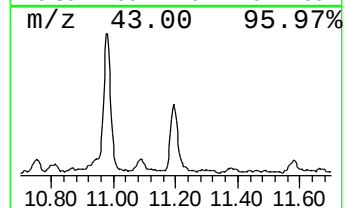
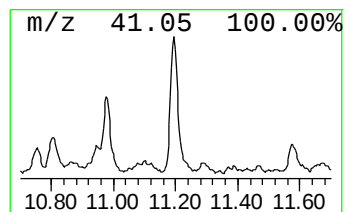
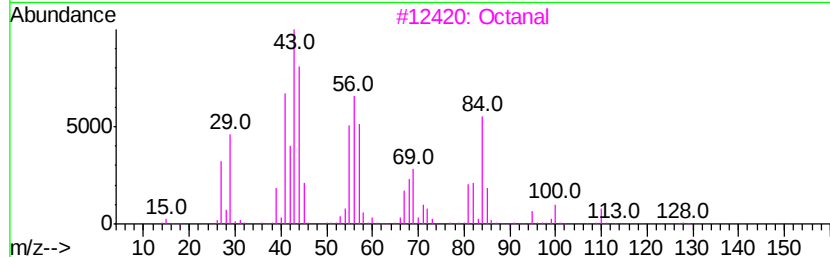
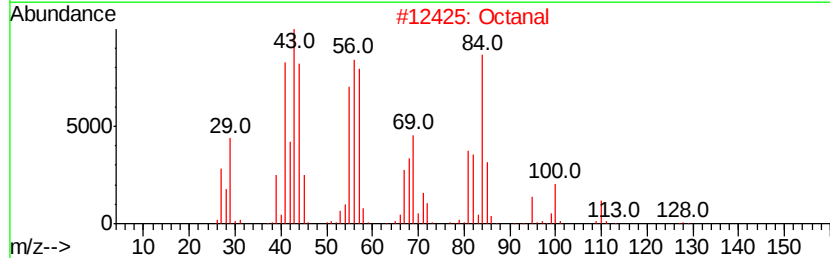
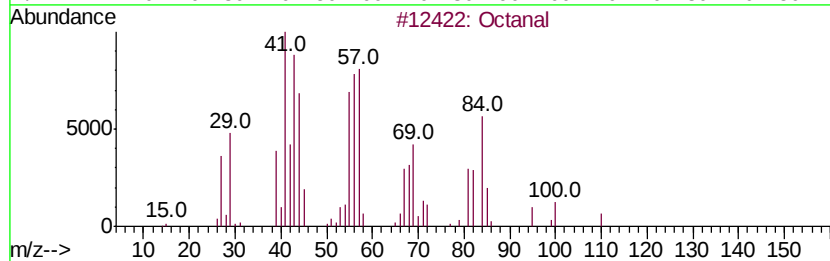
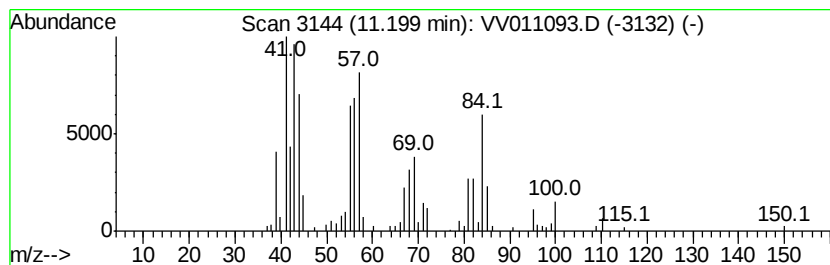
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 13 Octanal Concentration Rank 5

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 11.20 | 3.77 ug/L | 97619 | 1,4-Dichlorobenzene-d4 | 11.30 |

| Hit# | of | Tentative ID | MW  | MolForm | CAS#        | Qual |
|------|----|--------------|-----|---------|-------------|------|
| 1    | 5  | Octanal      | 128 | C8H16O  | 000124-13-0 | 91   |
| 2    |    | Octanal      | 128 | C8H16O  | 000124-13-0 | 91   |
| 3    |    | Octanal      | 128 | C8H16O  | 000124-13-0 | 90   |
| 4    |    | Octanal      | 128 | C8H16O  | 000124-13-0 | 78   |
| 5    |    | Octanal      | 128 | C8H16O  | 000124-13-0 | 72   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

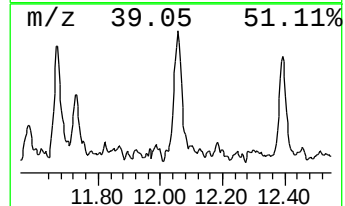
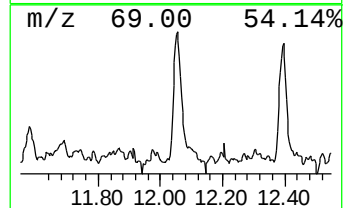
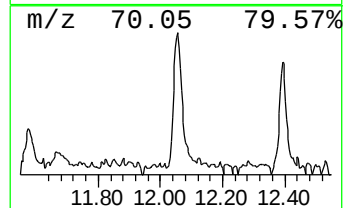
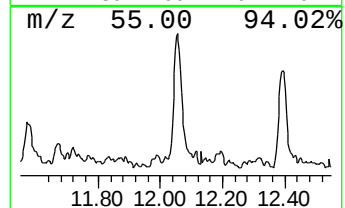
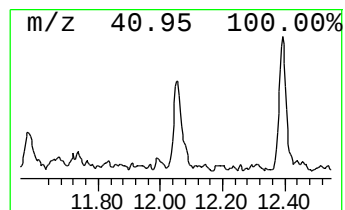
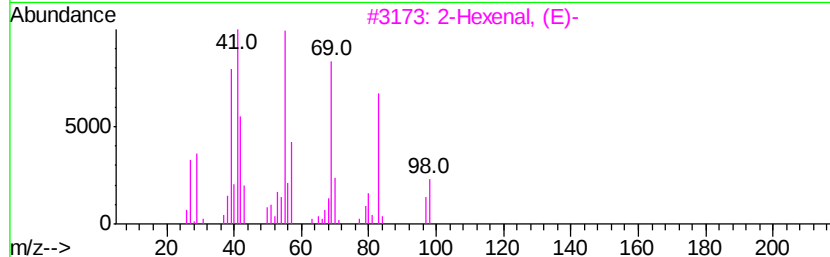
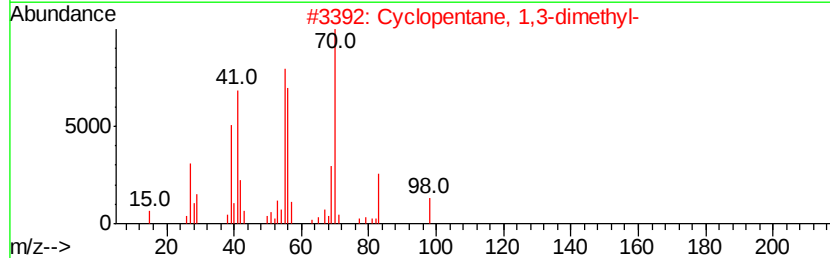
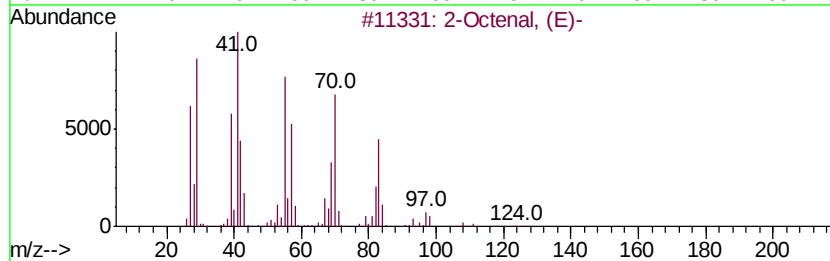
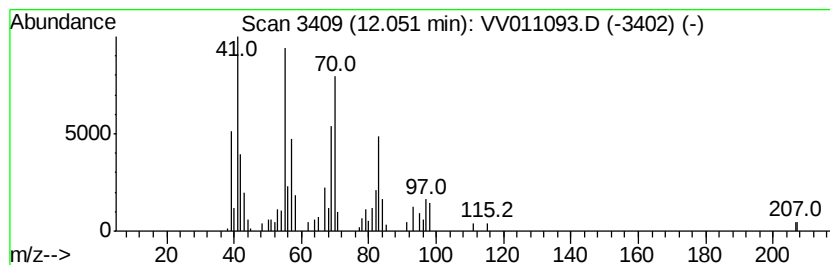
TIC Library : C:\DATABASE\NIST11.L  
TIC Integration Parameters: LSCINT.P

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Peak Number 14 2-Octenal, (E)- Concentration Rank 12

| R.T.  | EstConc   | Area  | Relative to ISTD       | R.T.  |
|-------|-----------|-------|------------------------|-------|
| 12.05 | 1.62 ug/L | 42026 | 1,4-Dichlorobenzene-d4 | 11.30 |

| Hit# | of | 5 | Tentative ID                | MW  | MolForm | CAS#         | Qual |
|------|----|---|-----------------------------|-----|---------|--------------|------|
| 1    |    |   | 2-Octenal, (E)-             | 126 | C8H14O  | 002548-87-0  | 72   |
| 2    |    |   | Cyclopentane, 1,3-dimethyl- | 98  | C7H14   | 002453-00-1  | 38   |
| 3    |    |   | 2-Hexenal, (E)-             | 98  | C6H10O  | 006728-26-3  | 38   |
| 4    |    |   | (E)-1,3-Butadien-1-ol       | 70  | C4H6O   | 070411-98-2  | 38   |
| 5    |    |   | 4-Methyl-cyclohex-2-en-1-ol | 112 | C7H12O  | 1000144-17-5 | 35   |



Data Path : Z:\V0ASRV\HPCHEM1\MSVOA V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

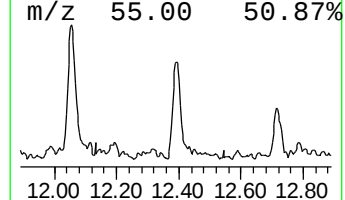
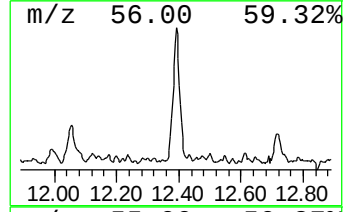
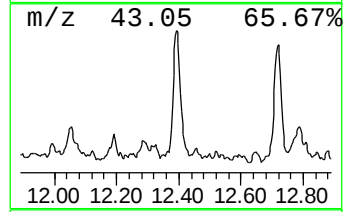
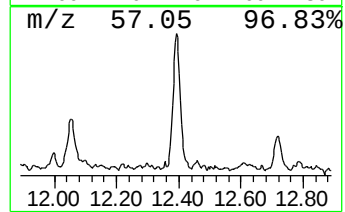
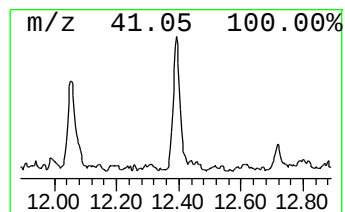
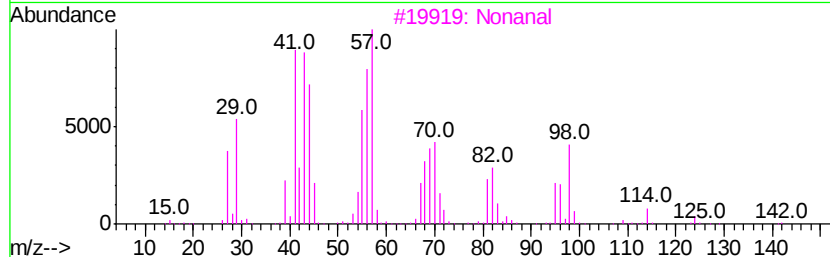
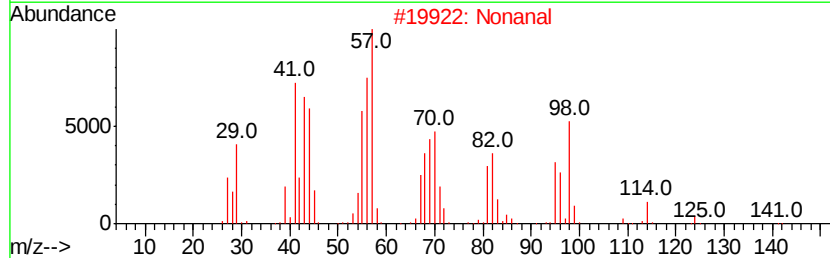
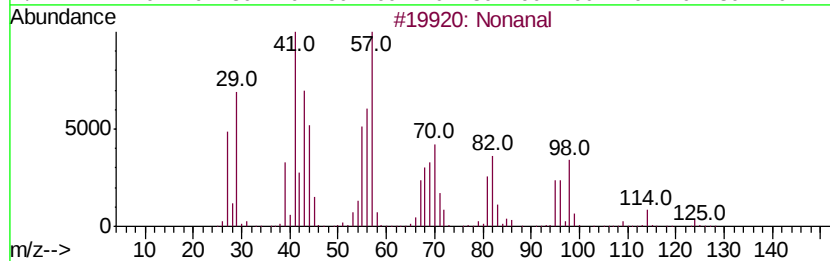
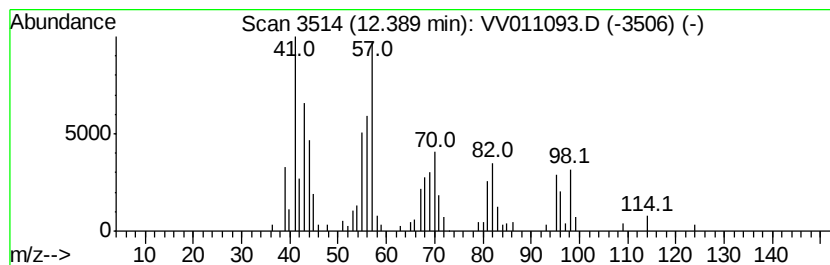
Instrument :  
MSVOA\_V  
ClientSampled :  
A51D9

Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.M  
Quant Title : VOC Analysis

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

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Peak Number 15 Nonanal Concentration Rank 8

| R.T.    | EstConc            | Area         | Relative to ISTD       | R.T.           |
|---------|--------------------|--------------|------------------------|----------------|
| 12.39   | 2.22 ug/L          | 57391        | 1,4-Dichlorobenzene-d4 | 11.30          |
| Hit# of | 5                  | Tentative ID | MW MolForm             | CAS# Qual      |
| 1       | Nonanal            |              | 142 C9H18O             | 000124-19-6 91 |
| 2       | Nonanal            |              | 142 C9H18O             | 000124-19-6 91 |
| 3       | Nonanal            |              | 142 C9H18O             | 000124-19-6 90 |
| 4       | Nonanal            |              | 142 C9H18O             | 000124-19-6 80 |
| 5       | Heptane, 4-chloro- |              | 134 C7H15Cl            | 000998-95-8 35 |



Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_V\DATA\VV052819\  
Data File : VV011093.D  
Acq On : 29 May 2019 06:52  
Operator : SY/MD  
Sample : K3016-22  
Misc : 4.69G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
A51D9

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM052819S.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 |
| Butanal             | 3.74  | 1.8     | ug/L  | 67036    | 1                     | 5.66  | 946743  | 25.0 |
| Butanal, 3-methyl-  | 5.37  | 1.5     | ug/L  | 55516    | 1                     | 5.66  | 946743  | 25.0 |
| 2-Pentanone         | 5.57  | 2.5     | ug/L  | 93297    | 1                     | 5.66  | 946743  | 25.0 |
| Pentanal            | 6.32  | 7.0     | ug/L  | 264649   | 1                     | 5.66  | 946743  | 25.0 |
| Hexanal             | 8.28  | 37.3    | ug/L  | 1658790  | 2                     | 8.89  | 1111810 | 25.0 |
| Hexyl chloroformate | 9.52  | 1.9     | ug/L  | 84494    | 2                     | 8.89  | 1111810 | 25.0 |
| Heptanal            | 9.85  | 3.0     | ug/L  | 132405   | 2                     | 8.89  | 1111810 | 25.0 |
| 3-Octanone          | 10.98 | 4.9     | ug/L  | 126302   | 3                     | 11.30 | 647440  | 25.0 |
| Octanal             | 11.20 | 3.8     | ug/L  | 97619    | 3                     | 11.30 | 647440  | 25.0 |
| 2-Octenal, (E)-     | 12.05 | 1.6     | ug/L  | 42026    | 3                     | 11.30 | 647440  | 25.0 |
| Nonanal             | 12.39 | 2.2     | ug/L  | 57391    | 3                     | 11.30 | 647440  | 25.0 |