

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN081420\  
 Data File : VN062932.D  
 Acq On : 14 Aug 2020 00:57  
 Operator : JC/MD  
 Sample : VSTDICV020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 36 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN081420

Quant Time: Aug 14 06:34:44 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N081420W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Aug 14 06:20:27 2020  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvqRF | CCRF   | %Dev   | Area% | Dev(min) |
|------|-----------------------------|-------|--------|--------|-------|----------|
| 1 I  | Bromochloromethane          | 1.000 | 1.000  | 0.0    | 106   | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 2.572 | 2.772  | -7.8   | 107   | 0.00     |
| 3 M  | Chloromethane               | 2.228 | 2.932  | -31.6# | 151#  | 0.00     |
| 4 M  | Vinyl Chloride              | 2.354 | 3.696  | -57.0# | 191#  | 0.00     |
| 5 M  | Bromomethane                | 2.030 | 2.169  | -6.8   | 114   | 0.00     |
| 6 M  | Chloroethane                | 2.041 | 2.081  | -2.0   | 106   | 0.00     |
| 7 M  | Trichlorofluoromethane      | 4.589 | 4.446  | 3.1    | 93    | 0.00     |
| 8 T  | Diethyl Ether               | 1.004 | 0.939  | 6.5    | 103   | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 1.510 | 1.469  | 2.7    | 106   | 0.00     |
| 10 M | 1,1-Dichloroethene          | 1.384 | 1.344  | 2.9    | 108   | 0.00     |
| 11   | Methyl Iodide               | 1.922 | 1.592  | 17.2   | 94    | 0.00     |
| 12   | Methyl Acetate              | 2.096 | 2.178  | -3.9   | 115   | 0.00     |
| 13 M | Acrolein                    | 0.268 | 0.261  | 2.6    | 120   | 0.00     |
| 14 M | Acrylonitrile               | 0.915 | 0.907  | 0.9    | 112   | 0.00     |
| 15 M | Acetone                     | 0.244 | 0.248  | -1.6   | 108   | 0.00     |
| 16 M | Carbon Disulfide            | 3.948 | 3.652  | 7.5    | 109   | 0.00     |
| 17   | Allyl chloride              | 2.384 | 2.418  | -1.4   | 118   | 0.00     |
| 18 M | Methylene Chloride          | 1.791 | 1.814  | -1.3   | 113   | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 1.546 | 1.416  | 8.4    | 105   | 0.01     |
| 20 T | Diisopropyl ether           | 5.582 | 5.923  | -6.1   | 115   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 3.267 | 3.272  | -0.2   | 107   | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 1.848 | 1.813  | 1.9    | 108   | 0.00     |
| 23 M | tert-Butyl Alcohol          | 0.392 | 0.376  | 4.1    | 104   | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 6.015 | 5.757  | 4.3    | 106   | 0.00     |
| 25 M | Chloroform                  | 3.545 | 3.437  | 3.0    | 106   | 0.00     |
| 26   | Cyclohexane                 | 2.766 | 2.839  | -2.6   | 117   | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 2.680 | 2.721  | -1.5   | 106   | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 1.000 | 1.000  | 0.0    | 105   | 0.00     |
| 29   | 1,1-Dichloropropene         | 0.443 | 0.445  | -0.5   | 108   | 0.00     |
| 30 M | 2-Butanone                  | 0.228 | 0.226  | 0.9    | 108   | 0.00     |
| 31   | 2,2-Dichloropropane         | 0.441 | 0.394  | 10.7   | 94    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 0.606 | 0.614  | -1.3   | 108   | 0.00     |
| 33 M | Carbon Tetrachloride        | 0.538 | 0.526  | 2.2    | 104   | 0.00     |
| 34 M | Benzene                     | 1.330 | 1.343  | -1.0   | 109   | 0.00     |
| 35   | Methacrylonitrile           | 0.203 | 0.209  | -3.0   | 127   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 0.578 | 0.578  | 0.0    | 107   | 0.00     |
| 37 M | Trichloroethene             | 0.330 | 0.310  | 6.1    | 100   | 0.00     |
| 38   | Methylcyclohexane           | 0.529 | 0.491  | 7.2    | 103   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 0.363 | 0.361  | 0.6    | 107   | 0.00     |
| 40   | Dibromomethane              | 0.246 | 0.245  | 0.4    | 105   | 0.00     |
| 41 M | Bromodichloromethane        | 0.552 | 0.544  | 1.4    | 104   | 0.00     |
| 42 M | Vinyl Acetate               | 0.772 | 0.787  | -1.9   | 116   | 0.00     |
| 43   | Ethyl Acetate               | 0.449 | 0.438  | 2.4    | 108   | 0.00     |
| 44   | Isopropyl Acetate           | 0.733 | 0.741  | -1.1   | 115   | 0.00     |
| 45 T | 1,4-Dioxane                 | 0.007 | 0.007# | 0.0    | 102   | 0.00     |

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Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvqRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 46   | Methyl methacrylate         | 0.366 | 0.370 | -1.1 | 115   | 0.00     |
| 47   | n-amyl Acetate              | 0.654 | 0.633 | 3.2  | 111   | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 0.577 | 0.564 | 2.3  | 107   | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 0.580 | 0.576 | 0.7  | 110   | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 0.354 | 0.361 | -2.0 | 108   | 0.00     |
| 51   | Ethyl methacrylate          | 0.538 | 0.534 | 0.7  | 113   | 0.00     |
| 52   | 1,3-Dichloropropane         | 0.611 | 0.631 | -3.3 | 110   | 0.00     |
| 53 M | Dibromochloromethane        | 0.423 | 0.420 | 0.7  | 106   | 0.00     |
| 54 M | 1,2-Dibromoethane           | 0.362 | 0.381 | -5.2 | 116   | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 0.130 | 0.110 | 15.4 | 108   | 0.00     |
| 56 M | Bromoform                   | 0.300 | 0.303 | -1.0 | 110   | 0.00     |
| 57 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 111   | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 0.522 | 0.474 | 9.2  | 105   | 0.00     |
| 59 M | 2-Hexanone                  | 0.381 | 0.386 | -1.3 | 117   | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 0.528 | 0.506 | 4.2  | 112   | 0.00     |
| 61 M | Tetrachloroethene           | 0.310 | 0.291 | 6.1  | 109   | 0.00     |
| 62 M | Toluene                     | 1.582 | 1.409 | 10.9 | 102   | 0.00     |
| 63 S | Toluene-d8                  | 1.403 | 1.306 | 6.9  | 103   | 0.00     |
| 64 M | Chlorobenzene               | 0.992 | 0.946 | 4.6  | 111   | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 0.410 | 0.390 | 4.9  | 107   | 0.00     |
| 66 M | Ethyl Benzene               | 1.761 | 1.642 | 6.8  | 111   | 0.00     |
| 67 M | m/p-Xylenes                 | 0.652 | 0.637 | 2.3  | 112   | 0.00     |
| 68 M | o-Xylene                    | 0.626 | 0.605 | 3.4  | 115   | 0.00     |
| 69 M | Styrene                     | 1.111 | 1.038 | 6.6  | 108   | 0.00     |
| 70   | Isopropylbenzene            | 1.781 | 1.672 | 6.1  | 110   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 0.586 | 0.583 | 0.5  | 115   | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 0.580 | 0.566 | 2.4  | 106   | 0.00     |
| 73   | Bromobenzene                | 0.437 | 0.413 | 5.5  | 111   | 0.00     |
| 74   | n-propylbenzene             | 2.055 | 1.912 | 7.0  | 111   | 0.00     |
| 75   | 2-Chlorotoluene             | 1.290 | 1.183 | 8.3  | 107   | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 1.583 | 1.446 | 8.7  | 109   | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 0.187 | 0.164 | 12.3 | 109   | 0.00     |
| 78   | 4-Chlorotoluene             | 1.312 | 1.190 | 9.3  | 108   | 0.00     |
| 79   | tert-butylbenzene           | 1.308 | 1.211 | 7.4  | 110   | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 1.547 | 1.419 | 8.3  | 110   | 0.00     |
| 81   | sec-Butylbenzene            | 1.727 | 1.584 | 8.3  | 111   | 0.00     |
| 82   | p-Isopropyltoluene          | 1.544 | 1.401 | 9.3  | 111   | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 0.765 | 0.706 | 7.7  | 110   | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 0.751 | 0.684 | 8.9  | 112   | 0.00     |
| 85   | n-Butylbenzene              | 1.316 | 1.077 | 18.2 | 115   | 0.00     |
| 86 T | Hexachloroethane            | 0.334 | 0.282 | 15.6 | 106   | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 0.790 | 0.689 | 12.8 | 110   | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.138 | 0.116 | 15.9 | 118   | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 0.364 | 0.282 | 22.5 | 112   | 0.00     |
| 90   | Hexachlorobutadiene         | 0.243 | 0.215 | 11.5 | 112   | 0.00     |

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Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|------------------------|-------|-------|------|-------|----------|
| 91 M | Naphthalene            | 0.985 | 0.803 | 18.5 | 128   | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 0.364 | 0.299 | 17.9 | 117   | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0