

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071620\  
 Data File : VN062544.D  
 Acq On : 16 Jul 2020 13:46  
 Operator : JC/MD  
 Sample : VN0716WBS01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0716WBS01

Quant Time: Jul 16 18:45:41 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N071320W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Jul 14 00:52:57 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 42238    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 228557   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 215753   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 108037   | 29.77    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 99.23%  |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 108758   | 29.62    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 98.73%  |
| 63) Toluene-d8            | 10.06  | 98    | 309095   | 30.32    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 101.07% |

## Target Compounds

|                               |      |     |        |         | Ovalue     |
|-------------------------------|------|-----|--------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 47581  | 19.086  | ug/l 99    |
| 3) Chloromethane              | 2.04 | 50  | 65890  | 18.304  | ug/l 94    |
| 4) Vinyl Chloride             | 2.16 | 62  | 57710  | 18.340  | ug/l 98    |
| 5) Bromomethane               | 2.53 | 94  | 27324  | 17.503  | ug/l 96    |
| 6) Chloroethane               | 2.67 | 64  | 28509  | 18.404  | ug/l 96    |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 74153  | 20.107  | ug/l 94    |
| 8) Diethyl Ether              | 3.37 | 74  | 32212  | 18.169  | ug/l 95    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 45285  | 18.994  | ug/l 99    |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 45027  | 18.512  | ug/l 97    |
| 11) Methyl Iodide             | 3.91 | 142 | 57317  | 19.243  | ug/l 97    |
| 12) Methyl Acetate            | 4.28 | 43  | 63522  | 19.473  | ug/l 96    |
| 13) Acrolein                  | 3.57 | 56  | 55481  | 113.836 | ug/l 97    |
| 14) Acrylonitrile             | 4.93 | 53  | 142045 | 93.628  | ug/l 98    |
| 15) Acetone                   | 3.78 | 58  | 39650  | 85.137  | ug/l 90    |
| 16) Carbon Disulfide          | 4.01 | 76  | 145803 | 18.395  | ug/l 100   |
| 17) Allyl chloride            | 4.27 | 41  | 92689  | 17.918  | ug/l 99    |
| 18) Methylene Chloride        | 4.50 | 84  | 58238  | 19.459  | ug/l 98    |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 51087  | 18.977  | ug/l 94    |
| 20) Diisopropyl ether         | 5.90 | 45  | 204400 | 19.221  | ug/l 97    |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 106741 | 18.986  | ug/l 99    |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 57555  | 18.958  | ug/l 99    |
| 23) tert-Butyl Alcohol        | 4.74 | 59  | 49608  | 97.708  | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 5.00 | 73  | 165739 | 18.483  | ug/l 99    |
| 25) Chloroform                | 7.33 | 83  | 99080  | 19.217  | ug/l 99    |
| 26) Cyclohexane               | 7.61 | 56  | 89747  | 18.111  | ug/l # 98  |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 73842  | 19.047  | ug/l 99    |
| 30) 2-Butanone                | 6.79 | 43  | 197964 | 96.283  | ug/l 99    |
| 31) 2,2-Dichloropropane       | 6.77 | 77  | 85596  | 19.581  | ug/l # 71  |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 83720  | 20.092  | ug/l 99    |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 72677  | 20.121  | ug/l 99    |
| 34) Benzene                   | 8.00 | 78  | 226782 | 19.690  | ug/l 98    |
| 35) Methacrylonitrile         | 7.12 | 41  | 30597  | 16.941  | ug/l 96    |
| 36) 1,2-Dichloroethane        | 8.09 | 62  | 83808  | 20.245  | ug/l 99    |
| 37) Trichloroethene           | 8.80 | 130 | 51336  | 19.843  | ug/l 100   |
| 38) Methylcyclohexane         | 9.05 | 83  | 79944  | 18.382  | ug/l 98    |
| 39) 1,2-Dichloropropane       | 9.09 | 63  | 65284  | 19.896  | ug/l 98    |
| 40) Dibromomethane            | 9.18 | 93  | 37418  | 19.787  | ug/l 99    |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 79611    | 19.848  | ug/l   | 100      |
| 42) Vinyl Acetate              | 5.84  | 43   | 833447   | 97.549  | ug/l   | 100      |
| 43) Ethyl Acetate              | 6.88  | 43   | 83671    | 20.242  | ug/l   | 98       |
| 44) Isopropyl Acetate          | 8.13  | 43   | 133058   | 19.185  | ug/l # | 83       |
| 45) 1,4-Dioxane                | 9.17  | 88   | 19963    | 420.781 | ug/l   | 98       |
| 46) Methyl methacrylate        | 9.17  | 41   | 61685    | 18.748  | ug/l   | 96       |
| 47) n-amyl Acetate             | 12.05 | 43   | 107761   | 18.433  | ug/l   | 98       |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 87192    | 18.637  | ug/l   | 100      |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 96894    | 19.186  | ug/l   | 98       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 51569    | 19.455  | ug/l   | 94       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 82986    | 18.595  | ug/l   | 96       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 95802    | 19.692  | ug/l   | 99       |
| 53) Dibromochloromethane       | 10.87 | 129  | 57191    | 19.803  | ug/l   | 97       |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 52549    | 19.368  | ug/l   | 97       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 142807   | 100.185 | ug/l   | 100      |
| 56) Bromoform                  | 12.10 | 173  | 38249    | 19.390  | ug/l   | 99       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 405965   | 96.576  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.72 | 43   | 291103   | 94.425  | ug/l   | 100      |
| 61) Tetrachloroethene          | 10.60 | 164  | 43281    | 19.589  | ug/l   | 96       |
| 62) Toluene                    | 10.12 | 91   | 234920   | 19.193  | ug/l   | 98       |
| 64) Chlorobenzene              | 11.41 | 112  | 137112   | 19.064  | ug/l   | 98       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 51941    | 19.510  | ug/l   | 98       |
| 66) Ethyl Benzene              | 11.48 | 91   | 255108   | 18.822  | ug/l   | 97       |
| 67) m/p-Xylenes                | 11.59 | 106  | 185085   | 37.622  | ug/l   | 99       |
| 68) o-Xylene                   | 11.92 | 106  | 87298    | 18.490  | ug/l   | 98       |
| 69) Styrene                    | 11.94 | 104  | 148808   | 18.570  | ug/l   | 99       |
| 70) Isopropylbenzene           | 12.22 | 105  | 240991   | 19.015  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 80749    | 19.714  | ug/l   | 97       |
| 72) 1,2,3-Trichloropropane     | 12.53 | 75   | 70863m   | 17.785  | ug/l   |          |
| 73) Bromobenzene               | 12.50 | 156  | 56510    | 19.252  | ug/l   | 98       |
| 74) n-propylbenzene            | 12.57 | 91   | 282327   | 18.740  | ug/l   | 100      |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 170859   | 18.837  | ug/l   | 99       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 201837   | 18.690  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene    | 12.27 | 75   | 26060    | 17.488  | ug/l   | 98       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 171011   | 18.477  | ug/l   | 99       |
| 79) tert-butylbenzene          | 12.97 | 119  | 165725   | 18.533  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 196819   | 18.531  | ug/l   | 99       |
| 81) sec-Butylbenzene           | 13.15 | 105  | 220695   | 18.378  | ug/l   | 99       |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 195038   | 18.404  | ug/l   | 100      |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 96067    | 18.846  | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 94192    | 18.726  | ug/l   | 99       |
| 85) n-Butylbenzene             | 13.59 | 91   | 155805   | 17.139  | ug/l   | 100      |
| 86) Hexachloroethane           | 13.85 | 117  | 37805    | 18.487  | ug/l   | 98       |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 93297    | 19.033  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.25 | 75   | 14554    | 18.814  | ug/l   | 98       |
| 89) 1,2,4-Trichlorobenzene     | 14.89 | 180  | 40568    | 16.624  | ug/l   | 97       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 25819    | 19.076  | ug/l   | 97       |
| 91) Naphthalene                | 15.10 | 128  | 100380   | 15.172  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 41483    | 16.867  | ug/l   | 97       |

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(#) = qualifier out of range (m) = manual integration (+) = signals summed

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