

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101119\  
 Data File : VN058670.D  
 Acq On : 10 Oct 2019 17:28  
 Operator : JC/SP  
 Sample : VSTDICC100  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC100

Quant Time: Oct 11 04:23:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N101119W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 11 04:10:20 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.18  | 128  | 74598    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.57  | 114  | 413304   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 384536   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 8.01   | 65    | 184572   | 28.21    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 94.03%  |
| 60) 4-Bromofluorobenzene  | 12.41  | 95    | 205249   | 30.69    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 102.30% |
| 63) Toluene-d8            | 10.08  | 98    | 541724   | 29.48    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 98.27%  |

## Target Compounds

|                               |      |     |         |          | Ovalue     |
|-------------------------------|------|-----|---------|----------|------------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 348010  | 78.876   | ug/l 100   |
| 3) Chloromethane              | 2.04 | 50  | 452044  | 85.756   | ug/l 100   |
| 4) Vinyl Chloride             | 2.17 | 62  | 476688  | 90.101   | ug/l 99    |
| 5) Bromomethane               | 2.53 | 94  | 284741m | 94.398   | ug/l       |
| 6) Chloroethane               | 2.68 | 64  | 290912  | 92.179   | ug/l 98    |
| 7) Trichlorofluoromethane     | 2.99 | 101 | 581189  | 92.958   | ug/l 100   |
| 8) Diethyl Ether              | 3.39 | 74  | 221849  | 81.665   | ug/l 100   |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 334973  | 80.286   | ug/l 99    |
| 10) 1,1-Dichloroethene        | 3.71 | 96  | 321539  | 78.687   | ug/l 97    |
| 11) Methyl Iodide             | 3.93 | 142 | 475021  | 104.486  | ug/l 99    |
| 12) Methyl Acetate            | 4.30 | 43  | 527496  | 93.132   | ug/l 99    |
| 13) Acrolein                  | 3.58 | 56  | 284880  | 1109.904 | ug/l 99    |
| 14) Acrylonitrile             | 4.96 | 53  | 1089479 | 474.295  | ug/l 98    |
| 15) Acetone                   | 3.79 | 58  | 313506  | 492.988  | ug/l 99    |
| 16) Carbon Disulfide          | 4.03 | 76  | 954745  | 82.154   | ug/l 100   |
| 17) Allyl chloride            | 4.30 | 41  | 662865  | 85.613   | ug/l 98    |
| 18) Methylene Chloride        | 4.53 | 84  | 393444  | 81.353   | ug/l 99    |
| 19) trans-1,2-Dichloroethene  | 5.01 | 96  | 358084  | 78.427   | ug/l 95    |
| 20) Diisopropyl ether         | 5.93 | 45  | 1378311 | 84.235   | ug/l 94    |
| 21) 1,1-Dichloroethane        | 5.82 | 63  | 744346  | 81.571   | ug/l 100   |
| 22) cis-1,2-Dichloroethene    | 6.81 | 96  | 431705  | 81.068   | ug/l 98    |
| 23) tert-Butyl Alcohol        | 4.76 | 59  | 435685  | 500.281  | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 5.02 | 73  | 1258158 | 85.104   | ug/l 99    |
| 25) Chloroform                | 7.35 | 83  | 741916  | 80.385   | ug/l 95    |
| 26) Cyclohexane               | 7.63 | 56  | 664101  | 78.981   | ug/l # 97  |
| 29) 1,1-Dichloropropene       | 7.78 | 75  | 564966  | 83.592   | ug/l 99    |
| 30) 2-Butanone                | 6.81 | 43  | 1665381 | 522.047  | ug/l 100   |
| 31) 2,2-Dichloropropane       | 6.80 | 77  | 650860  | 91.452   | ug/l 98    |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 642316  | 86.523   | ug/l 99    |
| 33) Carbon Tetrachloride      | 7.76 | 117 | 565925  | 89.380   | ug/l 99    |
| 34) Benzene                   | 8.03 | 78  | 1653817 | 85.715   | ug/l # 91  |
| 35) Methacrylonitrile         | 7.16 | 41  | 312022m | 111.506  | ug/l       |
| 36) 1,2-Dichloroethane        | 8.11 | 62  | 629398  | 83.349   | ug/l 100   |
| 37) Trichloroethene           | 8.82 | 130 | 409298  | 84.883   | ug/l 98    |
| 38) Methylcyclohexane         | 9.07 | 83  | 663811  | 81.713   | ug/l 99    |
| 39) 1,2-Dichloropropane       | 9.11 | 63  | 447598  | 84.454   | ug/l 97    |
| 40) Dibromomethane            | 9.20 | 93  | 288468  | 86.502   | ug/l 99    |

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| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 41) Bromodichloromethane       | 9.39  | 83   | 596292   | 89.529   | ug/l  | 99       |
| 42) Vinyl Acetate              | 5.87  | 43   | 5784852  | 483.370  | ug/l  | 99       |
| 43) Ethyl Acetate              | 6.91  | 43   | 624362   | 97.597   | ug/l  | 97       |
| 44) Isopropyl Acetate          | 8.15  | 43   | 1043923  | 93.731   | ug/l  | 100      |
| 45) 1,4-Dioxane                | 9.19  | 88   | 163381   | 1789.439 | ug/l  | 98       |
| 46) Methyl methacrylate        | 9.19  | 41   | 489587   | 93.272   | ug/l  | 98       |
| 47) n-amyl Acetate             | 12.07 | 43   | 965718   | 98.873   | ug/l  | 98       |
| 48) t-1,3-Dichloropropene      | 10.38 | 75   | 703331   | 95.237   | ug/l  | 96       |
| 49) cis-1,3-Dichloropropene    | 9.83  | 75   | 738137   | 91.261   | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane      | 10.56 | 97   | 409747   | 87.608   | ug/l  | 97       |
| 51) Ethyl methacrylate         | 10.43 | 69   | 696395   | 93.853   | ug/l  | 99       |
| 52) 1,3-Dichloropropane        | 10.71 | 76   | 724668   | 87.332   | ug/l  | 99       |
| 53) Dibromochloromethane       | 10.90 | 129  | 458164   | 95.552   | ug/l  | 98       |
| 54) 1,2-Dibromoethane          | 11.00 | 107  | 435238   | 90.853   | ug/l  | 99       |
| 55) 2-Chloroethyl vinyl ether  | 9.69  | 63   | 1595635  | 484.142  | ug/l  | 99       |
| 56) Bromoform                  | 12.13 | 173  | 329679   | 106.247  | ug/l  | 99       |
| 58) 4-Methyl-2-Pentanone       | 9.98  | 43   | 3123490  | 499.923  | ug/l  | 97       |
| 59) 2-Hexanone                 | 10.75 | 43   | 2513646  | 528.570  | ug/l  | 97       |
| 61) Tetrachloroethene          | 10.63 | 164  | 347912   | 84.493   | ug/l  | 98       |
| 62) Toluene                    | 10.15 | 91   | 1784954  | 84.442   | ug/l  | 99       |
| 64) Chlorobenzene              | 11.43 | 112  | 1087504  | 83.683   | ug/l  | 98       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 415837   | 89.445   | ug/l  | 98       |
| 66) Ethyl Benzene              | 11.51 | 91   | 2025694  | 88.090   | ug/l  | 99       |
| 67) m/p-Xylenes                | 11.62 | 106  | 1510759  | 170.863  | ug/l  | 98       |
| 68) o-Xylene                   | 11.95 | 106  | 728634   | 84.847   | ug/l  | 100      |
| 69) Styrene                    | 11.97 | 104  | 1251315  | 87.460   | ug/l  | 98       |
| 70) Isopropylbenzene           | 12.25 | 105  | 2006020  | 90.019   | ug/l  | 99       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 657025   | 90.693   | ug/l  | 99       |
| 72) 1,2,3-Trichloropropane     | 12.56 | 75   | 596811m  | 95.113   | ug/l  |          |
| 73) Bromobenzene               | 12.53 | 156  | 471067   | 86.595   | ug/l  | 98       |
| 74) n-propylbenzene            | 12.60 | 91   | 2364616  | 91.767   | ug/l  | 98       |
| 75) 2-Chlorotoluene            | 12.68 | 91   | 1396220  | 86.730   | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene     | 12.74 | 105  | 1714775  | 89.296   | ug/l  | 98       |
| 77) t-1,4-Dichloro-2-butene    | 12.30 | 75   | 244097   | 113.237  | ug/l  | 95       |
| 78) 4-Chlorotoluene            | 12.78 | 91   | 1477857  | 89.620   | ug/l  | 100      |
| 79) tert-butylbenzene          | 13.00 | 119  | 1462902  | 87.617   | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 13.05 | 105  | 1723613  | 90.174   | ug/l  | 100      |
| 81) sec-Butylbenzene           | 13.18 | 105  | 1991433  | 91.369   | ug/l  | 99       |
| 82) p-Isopropyltoluene         | 13.29 | 119  | 1816950  | 92.372   | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene        | 13.29 | 146  | 880586   | 87.931   | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene        | 13.37 | 146  | 878483   | 87.815   | ug/l  | 100      |
| 85) n-Butylbenzene             | 13.62 | 91   | 1695811  | 93.164   | ug/l  | 98       |
| 86) Hexachloroethane           | 13.88 | 117  | 325114   | 98.163   | ug/l  | 97       |
| 87) 1,2-Dichlorobenzene        | 13.66 | 146  | 863888   | 88.407   | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.28 | 75   | 149312   | 101.318  | ug/l  | 96       |
| 89) 1,2,4-Trichlorobenzene     | 14.92 | 180  | 560143   | 87.294   | ug/l  | 100      |
| 90) Hexachlorobutadiene        | 15.02 | 225  | 282096   | 90.125   | ug/l  | 99       |
| 91) Naphthalene                | 15.13 | 128  | 1701014  | 95.211   | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 15.30 | 180  | 544149   | 87.969   | ug/l  | 98       |

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

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