

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN031722\  
 Data File : VN071361.D  
 Acq On : 17 Mar 2022 19:11  
 Operator : JC\MD  
 Sample : VSTDC0020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDC0020EC

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 03/18/2022  
 Supervised By : Semsettin Yesilyurt 03/21/2022

Quant Time: Mar 18 07:03:14 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N031722W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Mar 17 06:37:08 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Bromochloromethane        | 7.657          | 128  | 100666     | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 8.963          | 114  | 551966     | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.739         | 117  | 497563     | 30.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.433          | 65   | 236505     | 29.592   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = | 98.633%  |        |          |
| 60) 4-Bromofluorobenzene     | 12.727         | 95   | 230762     | 30.020   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = | 100.067% |        |          |
| 63) Toluene-d8               | 10.439         | 98   | 700931     | 30.623   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = | 102.067% |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.069          | 85   | 146362     | 22.486   | ug/l   | 95       |
| 3) Chloromethane             | 2.299          | 50   | 190331     | 21.918   | ug/l   | 98       |
| 4) Vinyl Chloride            | 2.440          | 62   | 172686     | 21.654   | ug/l   | 99       |
| 5) Bromomethane              | 2.846          | 94   | 79818      | 19.971   | ug/l   | 97       |
| 6) Chloroethane              | 3.010          | 64   | 105779     | 21.796   | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 3.369          | 101  | 224698     | 22.342   | ug/l   | 97       |
| 8) Diethyl Ether             | 3.822          | 74   | 94623      | 21.661   | ug/l   | 83       |
| 9) 1,1,2-Trichlorotrifluo... | 4.210          | 101  | 125560     | 22.201   | ug/l # | 68       |
| 10) 1,1-Dichloroethene       | 4.181          | 96   | 123770     | 21.505   | ug/l   | 89       |
| 11) Methyl Iodide            | 4.422          | 142  | 113859     | 14.367   | ug/l   | 89       |
| 12) Methyl Acetate           | 4.851          | 43   | 246512     | 22.380   | ug/l   | 91       |
| 13) Acrolein                 | 4.040          | 56   | 146132     | 101.189  | ug/l   | 99       |
| 14) Acrylonitrile            | 5.545          | 53   | 510443     | 111.158  | ug/l   | 99       |
| 15) Acetone                  | 4.287          | 58   | 134976     | 111.817  | ug/l   | 90       |
| 16) Carbon Disulfide         | 4.528          | 76   | 336712     | 21.634   | ug/l   | 99       |
| 17) Allyl chloride           | 4.840          | 41   | 258335     | 21.781   | ug/l   | 83       |
| 18) Methylene Chloride       | 5.092          | 84   | 152568     | 21.741   | ug/l   | 90       |
| 19) trans-1,2-Dichloroethene | 5.592          | 96   | 133887     | 22.134   | ug/l   | 88       |
| 20) Diisopropyl ether        | 6.492          | 45   | 536954     | 22.494   | ug/l   | 93       |
| 21) 1,1-Dichloroethane       | 6.381          | 63   | 284048     | 22.362   | ug/l   | 99       |
| 22) cis-1,2-Dichloroethene   | 7.322          | 96   | 158044     | 21.556   | ug/l   | 94       |
| 23) tert-Butyl Alcohol       | 5.357          | 59   | 181601     | 106.915  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.616          | 73   | 479408     | 21.825   | ug/l   | 96       |
| 25) Chloroform               | 7.816          | 83   | 268005     | 21.969   | ug/l   | 99       |
| 26) Cyclohexane              | 8.092          | 56   | 249279     | 21.679   | ug/l # | 89       |
| 29) 1,1-Dichloropropene      | 8.222          | 75   | 198141     | 22.305   | ug/l   | 96       |
| 30) 2-Butanone               | 7.334          | 43   | 715340     | 113.730  | ug/l   | 95       |
| 31) 2,2-Dichloropropane      | 7.328          | 77   | 198562     | 23.845   | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 8.010          | 97   | 232726     | 22.467   | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.204          | 117  | 194153     | 22.044   | ug/l   | 99       |
| 34) Benzene                  | 8.457          | 78   | 615828     | 22.398   | ug/l   | 97       |
| 35) Methacrylonitrile        | 7.633          | 41   | 143691     | 23.579   | ug/l   | 90       |
| 36) 1,2-Dichloroethane       | 8.528          | 62   | 224052     | 22.818   | ug/l   | 97       |
| 37) Trichloroethene          | 9.216          | 130  | 146030     | 22.288   | ug/l   | 100      |
| 38) Methylcyclohexane        | 9.457          | 83   | 232569     | 21.816   | ug/l   | 92       |
| 39) 1,2-Dichloropropane      | 9.486          | 63   | 163420     | 22.422   | ug/l   | 99       |
| 40) Dibromomethane           | 9.575          | 93   | 102042     | 22.131   | ug/l   | 92       |
| 41) Bromodichloromethane     | 9.763          | 83   | 207577     | 22.328   | ug/l # | 96       |
| 42) Vinyl Acetate            | 6.428          | 43   | 2319840    | 112.865  | ug/l   | 98       |

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 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC020EC

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 03/18/2022  
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Quant Time: Mar 18 07:03:14 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N031722W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Mar 17 06:37:08 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 7.410  | 43   | 291010   | 23.791  | ug/l   | 99       |
| 44) Isopropyl Acetate         | 8.557  | 43   | 452998   | 23.030  | ug/l   | 95       |
| 45) 1,4-Dioxane               | 9.563  | 88   | 80259    | 458.177 | ug/l   | 90       |
| 46) Methyl methacrylate       | 9.557  | 41   | 187475   | 21.544  | ug/l   | 78       |
| 47) n-amyl Acetate            | 12.386 | 43   | 285316   | 21.866  | ug/l   | 98       |
| 48) t-1,3-Dichloropropene     | 10.716 | 75   | 217170   | 21.447  | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene   | 10.186 | 75   | 242009   | 22.105  | ug/l   | 93       |
| 50) 1,1,2-Trichloroethane     | 10.898 | 97   | 150303   | 22.386  | ug/l   | 98       |
| 51) Ethyl methacrylate        | 10.757 | 69   | 250500   | 21.687  | ug/l   | 86       |
| 52) 1,3-Dichloropropane       | 11.039 | 76   | 270769   | 22.392  | ug/l   | 100      |
| 53) Dibromochloromethane      | 11.233 | 129  | 152305   | 21.760  | ug/l   | 99       |
| 54) 1,2-Dibromoethane         | 11.345 | 107  | 150950   | 21.682  | ug/l   | 94       |
| 55) 2-Chloroethyl vinyl ether | 10.039 | 63   | 505072   | 144.182 | ug/l   | 98       |
| 56) Bromoform                 | 12.457 | 173  | 112179   | 20.781  | ug/l # | 99       |
| 58) 4-Methyl-2-Pentanone      | 10.327 | 43   | 1410626  | 118.067 | ug/l   | 97       |
| 59) 2-Hexanone                | 11.080 | 43   | 1038173  | 116.895 | ug/l   | 99       |
| 61) Tetrachloroethene         | 10.974 | 164  | 127823   | 23.549  | ug/l   | 92       |
| 62) Toluene                   | 10.504 | 91   | 644980   | 22.672  | ug/l   | 96       |
| 64) Chlorobenzene             | 11.769 | 112  | 380336   | 22.044  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 11.839 | 131  | 144243   | 22.534  | ug/l   | 99       |
| 66) Ethyl Benzene             | 11.839 | 91   | 694441   | 22.151  | ug/l   | 99       |
| 67) m/p-Xylenes               | 11.951 | 106  | 536190   | 45.513  | ug/l   | 100      |
| 68) o-Xylene                  | 12.274 | 106  | 264783   | 22.330  | ug/l   | 99       |
| 69) Styrene                   | 12.292 | 104  | 415412   | 22.234  | ug/l   | 98       |
| 70) Isopropylbenzene          | 12.574 | 105  | 682164   | 22.745  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.821 | 83   | 240741   | 23.137  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.874 | 75   | 196938m  | 20.825  | ug/l   |          |
| 73) Bromobenzene              | 12.857 | 156  | 157637   | 22.447  | ug/l   | 93       |
| 74) n-propylbenzene           | 12.916 | 91   | 746092   | 22.570  | ug/l   | 100      |
| 75) 2-Chlorotoluene           | 13.004 | 91   | 474357   | 22.893  | ug/l   | 96       |
| 76) 1,3,5-Trimethylbenzene    | 13.057 | 105  | 540581   | 22.707  | ug/l   | 98       |
| 77) t-1,4-Dichloro-2-butene   | 12.621 | 75   | 67229    | 21.469  | ug/l   | 94       |
| 78) 4-Chlorotoluene           | 13.104 | 91   | 424818   | 22.125  | ug/l   | 96       |
| 79) tert-butylbenzene         | 13.321 | 119  | 480539   | 22.103  | ug/l   | 97       |
| 80) 1,2,4-Trimethylbenzene    | 13.363 | 105  | 531219m  | 23.002  | ug/l   |          |
| 81) sec-Butylbenzene          | 13.498 | 105  | 648087   | 22.394  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 13.610 | 119  | 519652   | 22.326  | ug/l   | 98       |
| 83) 1,3-Dichlorobenzene       | 13.610 | 146  | 263208   | 22.957  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene       | 13.692 | 146  | 244414   | 22.393  | ug/l   | 99       |
| 85) n-Butylbenzene            | 13.939 | 91   | 385494   | 22.244  | ug/l   | 97       |
| 86) Hexachloroethane          | 14.210 | 117  | 93895    | 21.182  | ug/l   | 83       |
| 87) 1,2-Dichlorobenzene       | 13.986 | 146  | 259702   | 23.352  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.598 | 75   | 47716    | 23.879  | ug/l   | 98       |
| 89) 1,2,4-Trichlorobenzene    | 15.262 | 180  | 116708   | 22.663  | ug/l   | 95       |
| 90) Hexachlorobutadiene       | 15.368 | 225  | 71481    | 24.566  | ug/l   | 99       |
| 91) Naphthalene               | 15.504 | 128  | 352623   | 21.877  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.698 | 180  | 117015   | 22.156  | ug/l   | 99       |

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

