

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN051622\  
 Data File : VN072501.D  
 Acq On : 16 May 2022 14:40  
 Operator : JC\MD  
 Sample : VSTDICV020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN051622

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 05/17/2022  
 Supervised By : Mahesh Dadoda 05/17/2022

Quant Time: May 17 07:16:42 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N051622W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue May 17 06:34:50 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                        |                |      |                     |         |        |          |
| Internal Standards           |                |      |                     |         |        |          |
| 1) Bromochloromethane        | 7.657          | 128  | 28273               | 30.000  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 8.963          | 114  | 158888              | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.739         | 117  | 145990              | 30.000  | ug/l   | 0.00     |
|                              |                |      |                     |         |        |          |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.428          | 65   | 97273               | 30.575  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 101.933% |         |        |          |
| 60) 4-Bromofluorobenzene     | 12.727         | 95   | 84091               | 29.500  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 98.333%  |         |        |          |
| 63) Toluene-d8               | 10.439         | 98   | 242313              | 30.406  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 101.367% |         |        |          |
|                              |                |      |                     |         |        |          |
| Target Compounds             |                |      |                     |         |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.069          | 85   | 53215               | 22.658  | ug/l   | 98       |
| 3) Chloromethane             | 2.299          | 50   | 49870               | 23.510  | ug/l   | 91       |
| 4) Vinyl Chloride            | 2.440          | 62   | 41289               | 23.058  | ug/l   | 100      |
| 5) Bromomethane              | 2.828          | 94   | 32966               | 22.634  | ug/l   | 97       |
| 6) Chloroethane              | 3.005          | 64   | 25552               | 21.851  | ug/l   | 100      |
| 7) Trichlorofluoromethane    | 3.363          | 101  | 96454               | 22.803  | ug/l   | 99       |
| 8) Diethyl Ether             | 3.822          | 74   | 30024               | 23.596  | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 4.204          | 101  | 47361               | 23.764  | ug/l # | 52       |
| 10) 1,1-Dichloroethene       | 4.181          | 96   | 41020               | 22.826  | ug/l   | 92       |
| 11) Methyl Iodide            | 4.422          | 142  | 57711               | 21.325  | ug/l   | 96       |
| 12) Methyl Acetate           | 4.857          | 43   | 70075               | 24.104  | ug/l   | 96       |
| 13) Acrolein                 | 4.040          | 56   | 46873               | 102.611 | ug/l   | 99       |
| 14) Acrylonitrile            | 5.551          | 53   | 145918              | 118.965 | ug/l   | 99       |
| 15) Acetone                  | 4.287          | 58   | 39710               | 123.464 | ug/l   | 81       |
| 16) Carbon Disulfide         | 4.528          | 76   | 107003              | 22.954  | ug/l   | 97       |
| 17) Allyl chloride           | 4.834          | 41   | 73608               | 22.692  | ug/l   | 94       |
| 18) Methylene Chloride       | 5.098          | 84   | 49049               | 23.059  | ug/l   | 90       |
| 19) trans-1,2-Dichloroethene | 5.593          | 96   | 45684               | 23.145  | ug/l   | 93       |
| 20) Diisopropyl ether        | 6.493          | 45   | 154218              | 22.869  | ug/l   | 96       |
| 21) 1,1-Dichloroethane       | 6.381          | 63   | 89982               | 22.313  | ug/l   | 99       |
| 22) cis-1,2-Dichloroethene   | 7.328          | 96   | 55366               | 23.891  | ug/l   | 94       |
| 23) tert-Butyl Alcohol       | 5.369          | 59   | 65639               | 122.002 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.610          | 73   | 170938              | 23.186  | ug/l   | 100      |
| 25) Chloroform               | 7.816          | 83   | 100609              | 23.132  | ug/l   | 99       |
| 26) Cyclohexane              | 8.092          | 56   | 78930               | 24.118  | ug/l # | 96       |
| 29) 1,1-Dichloropropene      | 8.216          | 75   | 68310               | 21.587  | ug/l   | 97       |
| 30) 2-Butanone               | 7.334          | 43   | 209076              | 114.157 | ug/l   | 97       |
| 31) 2,2-Dichloropropane      | 7.328          | 77   | 88319               | 22.497  | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.010          | 97   | 96841               | 21.455  | ug/l   | 99       |
| 33) Carbon Tetrachloride     | 8.204          | 117  | 86572               | 21.583  | ug/l   | 97       |
| 34) Benzene                  | 8.457          | 78   | 197486              | 21.964  | ug/l   | 96       |
| 35) Methacrylonitrile        | 7.634          | 41   | 42236               | 21.811  | ug/l   | 89       |
| 36) 1,2-Dichloroethane       | 8.528          | 62   | 89098               | 21.278  | ug/l   | 98       |
| 37) Trichloroethene          | 9.210          | 130  | 53061               | 21.752  | ug/l   | 93       |
| 38) Methylcyclohexane        | 9.457          | 83   | 81746               | 22.344  | ug/l   | 93       |
| 39) 1,2-Dichloropropane      | 9.486          | 63   | 50015               | 22.082  | ug/l   | 99       |
| 40) Dibromomethane           | 9.575          | 93   | 37191               | 21.271  | ug/l   | 91       |
| 41) Bromodichloromethane     | 9.757          | 83   | 78564               | 21.209  | ug/l   | 99       |
| 42) Vinyl Acetate            | 6.434          | 43   | 700952              | 113.711 | ug/l   | 100      |

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 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 7.416  | 43   | 88845    | 24.840  | ug/l # | 93       |
| 44) Isopropyl Acetate         | 8.557  | 43   | 128501   | 22.444  | ug/l   | 98       |
| 45) 1,4-Dioxane               | 9.563  | 88   | 25102    | 460.326 | ug/l   | 96       |
| 46) Methyl methacrylate       | 9.557  | 41   | 58895    | 21.739  | ug/l   | 90       |
| 47) n-amyl Acetate            | 12.380 | 43   | 84195    | 21.968  | ug/l   | 95       |
| 48) t-1,3-Dichloropropene     | 10.716 | 75   | 84012    | 21.484  | ug/l   | 93       |
| 49) cis-1,3-Dichloropropene   | 10.186 | 75   | 88098    | 22.352  | ug/l   | 95       |
| 50) 1,1,2-Trichloroethane     | 10.892 | 97   | 53131    | 22.031  | ug/l   | 97       |
| 51) Ethyl methacrylate        | 10.757 | 69   | 83215    | 22.128  | ug/l   | 88       |
| 52) 1,3-Dichloropropane       | 11.039 | 76   | 91316    | 21.916  | ug/l   | 97       |
| 53) Dibromochloromethane      | 11.233 | 129  | 64230    | 22.058  | ug/l   | 99       |
| 54) 1,2-Dibromoethane         | 11.339 | 107  | 56219    | 21.915  | ug/l   | 96       |
| 55) 2-Chloroethyl vinyl ether | 10.039 | 63   | 91950    | 96.368  | ug/l   | 98       |
| 56) Bromoform                 | 12.451 | 173  | 47080    | 21.439  | ug/l # | 100      |
| 58) 4-Methyl-2-Pentanone      | 10.328 | 43   | 412704   | 119.971 | ug/l   | 99       |
| 59) 2-Hexanone                | 11.080 | 43   | 309301   | 122.391 | ug/l   | 99       |
| 61) Tetrachloroethene         | 10.975 | 164  | 49177    | 22.493  | ug/l   | 94       |
| 62) Toluene                   | 10.504 | 91   | 228299   | 23.148  | ug/l   | 99       |
| 64) Chlorobenzene             | 11.769 | 112  | 136919   | 22.255  | ug/l   | 97       |
| 65) 1,1,1,2-Tetrachloroethane | 11.833 | 131  | 58341    | 22.935  | ug/l   | 96       |
| 66) Ethyl Benzene             | 11.839 | 91   | 250951   | 22.621  | ug/l   | 96       |
| 67) m/p-Xylenes               | 11.951 | 106  | 192202   | 45.698  | ug/l   | 96       |
| 68) o-Xylene                  | 12.275 | 106  | 95596    | 22.993  | ug/l   | 98       |
| 69) Styrene                   | 12.292 | 104  | 152438   | 23.022  | ug/l   | 95       |
| 70) Isopropylbenzene          | 12.574 | 105  | 252034   | 22.845  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.822 | 83   | 79164    | 23.498  | ug/l   | 97       |
| 72) 1,2,3-Trichloropropane    | 12.874 | 75   | 65760m   | 20.812  | ug/l   |          |
| 73) Bromobenzene              | 12.857 | 156  | 58525    | 22.043  | ug/l   | 97       |
| 74) n-propylbenzene           | 12.916 | 91   | 273352   | 22.634  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.004 | 91   | 175283   | 22.464  | ug/l   | 96       |
| 76) 1,3,5-Trimethylbenzene    | 13.057 | 105  | 216945   | 22.992  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.622 | 75   | 22901    | 21.935  | ug/l   | 98       |
| 78) 4-Chlorotoluene           | 13.098 | 91   | 169630   | 23.194  | ug/l   | 93       |
| 79) tert-butylbenzene         | 13.321 | 119  | 187255   | 22.587  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene    | 13.363 | 105  | 213332m  | 23.462  | ug/l   |          |
| 81) sec-Butylbenzene          | 13.498 | 105  | 248508   | 22.609  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 13.610 | 119  | 206392   | 22.689  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.610 | 146  | 101123   | 22.311  | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 13.692 | 146  | 98990    | 22.444  | ug/l   | 98       |
| 85) n-Butylbenzene            | 13.939 | 91   | 154433   | 22.909  | ug/l   | 99       |
| 86) Hexachloroethane          | 14.204 | 117  | 37429    | 22.346  | ug/l   | 88       |
| 87) 1,2-Dichlorobenzene       | 13.986 | 146  | 102857   | 23.212  | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.598 | 75   | 19296    | 24.332  | ug/l   | 96       |
| 89) 1,2,4-Trichlorobenzene    | 15.263 | 180  | 48340    | 24.100  | ug/l   | 96       |
| 90) Hexachlorobutadiene       | 15.363 | 225  | 29655    | 23.922  | ug/l   | 96       |
| 91) Naphthalene               | 15.504 | 128  | 145663   | 24.834  | ug/l   | 98       |
| 92) 1,2,3-Trichlorobenzene    | 15.698 | 180  | 47533    | 23.280  | ug/l   | 99       |

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

