

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080123\  
 Data File : VN078721.D  
 Acq On : 01 Aug 2023 17:00  
 Operator : JC\MD  
 Sample : VSTDICV020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN080123

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/02/2023  
 Supervised By : Mahesh Dadoda 08/02/2023

Quant Time: Aug 02 04:26:45 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N080123W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Aug 02 04:20:43 2023  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|----------|--------|----------|
| -----                        |        |       |          |          |        |          |
| Internal Standards           |        |       |          |          |        |          |
| 1) Bromochloromethane        | 7.824  | 128   | 106162   | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.112  | 114   | 590670   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.871 | 117   | 517429   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.588  | 65    | 237546   | 29.851   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 110 | Recovery | =      | 99.500%  |
| 60) 4-Bromofluorobenzene     | 12.853 | 95    | 223562   | 28.830   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 63 - 112 | Recovery | =      | 96.100%  |
| 63) Toluene-d8               | 10.571 | 98    | 745558   | 29.168   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 112 | Recovery | =      | 97.233%  |
| Target Compounds             |        |       |          |          |        |          |
|                              |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.136  | 85    | 125978   | 18.813   | ug/l   | 98       |
| 3) Chloromethane             | 2.377  | 50    | 177432   | 21.526   | ug/l   | 98       |
| 4) Vinyl Chloride            | 2.518  | 62    | 235730   | 21.044   | ug/l   | 93       |
| 5) Bromomethane              | 2.965  | 94    | 156561   | 18.697   | ug/l   | 98       |
| 6) Chloroethane              | 3.130  | 64    | 145641   | 19.963   | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 3.506  | 101   | 347011   | 30.199   | ug/l   | 96       |
| 8) Diethyl Ether             | 3.971  | 74    | 73846    | 19.685   | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 4.377  | 101   | 122879   | 19.922   | ug/l   | 95       |
| 10) 1,1-Dichloroethene       | 4.353  | 96    | 117044   | 19.789   | ug/l   | 95       |
| 11) Methyl Iodide            | 4.600  | 142   | 164733   | 19.815   | ug/l   | 95       |
| 12) Methyl Acetate           | 5.036  | 43    | 192294   | 20.045   | ug/l   | 99       |
| 13) Acrolein                 | 4.189  | 56    | 107033   | 104.771  | ug/l   | 96       |
| 14) Acrylonitrile            | 5.736  | 53    | 278487   | 99.135   | ug/l   | 98       |
| 15) Acetone                  | 4.442  | 58    | 83064    | 102.055  | ug/l   | 99       |
| 16) Carbon Disulfide         | 4.718  | 76    | 314650   | 18.833   | ug/l   | 98       |
| 17) Allyl chloride           | 5.042  | 41    | 147790   | 18.301   | ug/l   | 97       |
| 18) Methylene Chloride       | 5.289  | 84    | 143536   | 20.228   | ug/l   | 93       |
| 19) trans-1,2-Dichloroethene | 5.800  | 96    | 129006   | 18.865   | ug/l   | 89       |
| 20) Diisopropyl ether        | 6.683  | 45    | 361511   | 19.882   | ug/l   | 98       |
| 21) 1,1-Dichloroethane       | 6.583  | 63    | 242468   | 20.138   | ug/l   | 97       |
| 22) cis-1,2-Dichloroethene   | 7.500  | 96    | 152719   | 19.886   | ug/l   | 99       |
| 23) tert-Butyl Alcohol       | 5.536  | 59    | 111427   | 97.070   | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.818  | 73    | 391216m  | 19.671   | ug/l   |          |
| 25) Chloroform               | 7.977  | 83    | 263169   | 20.645   | ug/l   | 99       |
| 26) Cyclohexane              | 8.265  | 56    | 183278   | 20.665   | ug/l # | 99       |
| 29) 1,1-Dichloropropene      | 8.377  | 75    | 185894   | 21.389   | ug/l   | 99       |
| 30) 2-Butanone               | 7.494  | 43    | 379002   | 110.312  | ug/l # | 97       |
| 31) 2,2-Dichloropropane      | 7.500  | 77    | 213395   | 21.397   | ug/l   | 100      |
| 32) 1,1,1-Trichloroethane    | 8.171  | 97    | 243470   | 22.141   | ug/l   | 97       |
| 33) Carbon Tetrachloride     | 8.365  | 117   | 214813   | 21.995   | ug/l   | 90       |
| 34) Benzene                  | 8.612  | 78    | 567065   | 21.720   | ug/l   | 99       |
| 35) Methacrylonitrile        | 7.783  | 41    | 83116    | 22.030   | ug/l   | 81       |
| 36) 1,2-Dichloroethane       | 8.683  | 62    | 199595   | 21.768   | ug/l   | 99       |
| 37) Trichloroethene          | 9.359  | 130   | 148717   | 20.299   | ug/l   | 99       |
| 38) Methylcyclohexane        | 9.612  | 83    | 181935   | 20.373   | ug/l   | 98       |
| 39) 1,2-Dichloropropane      | 9.630  | 63    | 140555   | 20.083   | ug/l   | 96       |
| 40) Dibromomethane           | 9.718  | 93    | 105130   | 21.703   | ug/l   | 97       |
| 41) Bromodichloromethane     | 9.894  | 83    | 215572   | 22.260   | ug/l # | 99       |
| 42) Vinyl Acetate            | 6.618  | 43    | 1139252  | 103.138  | ug/l   | 99       |

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 ALS Vial : 11 Sample Multiplier: 1

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Aug 02 04:20:43 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-------------------------------|--------|------|----------|---------|-------|----------|
| 43) Ethyl Acetate             | 7.571  | 43   | 137831   | 19.405  | ug/l  | 96       |
| 44) Isopropyl Acetate         | 8.694  | 43   | 273685   | 21.962  | ug/l  | 97       |
| 45) 1,4-Dioxane               | 9.700  | 88   | 51569    | 449.853 | ug/l  | 100      |
| 46) Methyl methacrylate       | 9.688  | 41   | 126395   | 22.148  | ug/l  | 96       |
| 47) n-amyl Acetate            | 12.494 | 43   | 237127   | 24.706  | ug/l  | 98       |
| 48) t-1,3-Dichloropropene     | 10.841 | 75   | 209265   | 20.246  | ug/l  | 97       |
| 49) cis-1,3-Dichloropropene   | 10.318 | 75   | 225243   | 20.517  | ug/l  | 95       |
| 50) 1,1,2-Trichloroethane     | 11.024 | 97   | 138467   | 20.193  | ug/l  | 97       |
| 51) Ethyl methacrylate        | 10.882 | 69   | 196415   | 20.922  | ug/l  | 96       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 241041   | 19.558  | ug/l  | 99       |
| 53) Dibromochloromethane      | 11.365 | 129  | 158809   | 20.501  | ug/l  | 96       |
| 54) 1,2-Dibromoethane         | 11.476 | 107  | 143296   | 20.811  | ug/l  | 97       |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 343570   | 114.850 | ug/l  | 98       |
| 56) Bromoform                 | 12.588 | 173  | 108428   | 21.392  | ug/l  | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.453 | 43   | 773246   | 99.840  | ug/l  | 99       |
| 59) 2-Hexanone                | 11.200 | 43   | 563897   | 96.161  | ug/l  | 97       |
| 61) Tetrachloroethene         | 11.112 | 164  | 128492   | 18.885  | ug/l  | 95       |
| 62) Toluene                   | 10.635 | 91   | 621871   | 19.980  | ug/l  | 98       |
| 64) Chlorobenzene             | 11.894 | 112  | 369216   | 20.319  | ug/l  | 99       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 147269   | 20.550  | ug/l  | 99       |
| 66) Ethyl Benzene             | 11.971 | 91   | 635784   | 20.269  | ug/l  | 99       |
| 67) m/p-Xylenes               | 12.076 | 106  | 488562   | 40.775  | ug/l  | 99       |
| 68) o-Xylene                  | 12.406 | 106  | 249541   | 20.468  | ug/l  | 98       |
| 69) Styrene                   | 12.418 | 104  | 396323   | 20.203  | ug/l  | 99       |
| 70) Isopropylbenzene          | 12.700 | 105  | 613786   | 20.351  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 193428   | 19.743  | ug/l  | 99       |
| 72) 1,2,3-Trichloropropane    | 13.000 | 75   | 158407m  | 19.274  | ug/l  |          |
| 73) Bromobenzene              | 12.982 | 156  | 146579   | 19.828  | ug/l  | 96       |
| 74) n-propylbenzene           | 13.041 | 91   | 648802   | 19.408  | ug/l  | 98       |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 416526   | 18.042  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 488272   | 18.132  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.741 | 75   | 55014    | 19.152  | ug/l  | 91       |
| 78) 4-Chlorotoluene           | 13.229 | 91   | 385855   | 17.310  | ug/l  | 99       |
| 79) tert-butylbenzene         | 13.441 | 119  | 415798   | 17.940  | ug/l  | 98       |
| 80) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 462919   | 17.999  | ug/l  | 96       |
| 81) sec-Butylbenzene          | 13.623 | 105  | 521498   | 17.554  | ug/l  | 98       |
| 82) p-Isopropyltoluene        | 13.735 | 119  | 417055   | 17.100  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 232945   | 17.769  | ug/l  | 97       |
| 84) 1,4-Dichlorobenzene       | 13.817 | 146  | 223482   | 18.209  | ug/l  | 98       |
| 85) n-Butylbenzene            | 14.059 | 91   | 304569   | 18.008  | ug/l  | 99       |
| 86) Hexachloroethane          | 14.335 | 117  | 85637    | 19.271  | ug/l  | 94       |
| 87) 1,2-Dichlorobenzene       | 14.112 | 146  | 240952   | 19.638  | ug/l  | 97       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.729 | 75   | 30110    | 18.097  | ug/l  | 94       |
| 89) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 62089    | 17.737  | ug/l  | 97       |
| 90) Hexachlorobutadiene       | 15.506 | 225  | 52240    | 19.589  | ug/l  | 98       |
| 91) Naphthalene               | 15.647 | 128  | 189984   | 17.915  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene    | 15.847 | 180  | 74338    | 18.660  | ug/l  | 96       |

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

