

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN101823\  
 Data File : VN079595.D  
 Acq On : 18 Oct 2023 11:47  
 Operator : JC\MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 10/19/2023  
 Supervised By : Mahesh Dadoda 10/20/2023

Quant Time: Oct 19 06:11:36 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N101723W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Oct 18 02:19:15 2023  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                        |                |      |                     |         |        |          |
| Internal Standards           |                |      |                     |         |        |          |
| 1) Bromochloromethane        | 7.812          | 128  | 19772m              | 30.000  | ug/l   | -0.01    |
| 28) 1,4-Difluorobenzene      | 9.106          | 114  | 145700              | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.871         | 117  | 178258              | 30.000  | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.583          | 65   | 85653               | 30.469  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 101.567% |         |        |          |
| 60) 4-Bromofluorobenzene     | 12.853         | 95   | 99039               | 30.382  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 101.267% |         |        |          |
| 63) Toluene-d8               | 10.571         | 98   | 235739              | 30.862  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 102.867% |         |        |          |
| Target Compounds             |                |      |                     |         |        |          |
|                              |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.130          | 85   | 59709               | 20.824  | ug/l   | 99       |
| 3) Chloromethane             | 2.371          | 50   | 73086               | 19.666  | ug/l   | 100      |
| 4) Vinyl Chloride            | 2.518          | 62   | 83564               | 20.835  | ug/l   | 98       |
| 5) Bromomethane              | 2.959          | 94   | 47016               | 18.906  | ug/l   | 93       |
| 6) Chloroethane              | 3.124          | 64   | 54558               | 19.326  | ug/l # | 87       |
| 7) Trichlorofluoromethane    | 3.501          | 101  | 104629              | 21.378  | ug/l   | 99       |
| 8) Diethyl Ether             | 3.965          | 74   | 35255               | 19.876  | ug/l   | 97       |
| 9) 1,1,2-Trichlorotrifluo... | 4.371          | 101  | 59471               | 21.239  | ug/l   | 98       |
| 10) 1,1-Dichloroethene       | 4.342          | 96   | 53592               | 20.116  | ug/l   | 90       |
| 11) Methyl Iodide            | 4.589          | 142  | 60180               | 20.403  | ug/l   | 100      |
| 12) Methyl Acetate           | 5.030          | 43   | 132825              | 20.682  | ug/l   | 98       |
| 13) Acrolein                 | 4.183          | 56   | 55156m              | 103.892 | ug/l   |          |
| 14) Acrylonitrile            | 5.724          | 53   | 156779              | 101.936 | ug/l   | 100      |
| 15) Acetone                  | 4.436          | 58   | 50873               | 104.416 | ug/l   | 80       |
| 16) Carbon Disulfide         | 4.718          | 76   | 159128              | 19.588  | ug/l   | 99       |
| 17) Allyl chloride           | 5.030          | 41   | 80664               | 19.639  | ug/l   | 99       |
| 18) Methylene Chloride       | 5.283          | 84   | 67501               | 20.585  | ug/l   | 94       |
| 19) trans-1,2-Dichloroethene | 5.789          | 96   | 62420               | 20.943  | ug/l   | 97       |
| 20) Diisopropyl ether        | 6.677          | 45   | 199062              | 20.439  | ug/l   | 95       |
| 21) 1,1-Dichloroethane       | 6.577          | 63   | 121709              | 20.565  | ug/l   | 96       |
| 22) cis-1,2-Dichloroethene   | 7.489          | 96   | 71734               | 20.896  | ug/l   | 94       |
| 23) tert-Butyl Alcohol       | 5.518          | 59   | 46031               | 89.502  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.795          | 73   | 178028              | 19.916  | ug/l   | 99       |
| 25) Chloroform               | 7.971          | 83   | 126614              | 21.173  | ug/l   | 91       |
| 26) Cyclohexane              | 8.265          | 56   | 89303               | 19.961  | ug/l # | 98       |
| 29) 1,1-Dichloropropene      | 8.377          | 75   | 90823               | 21.331  | ug/l   | 99       |
| 30) 2-Butanone               | 7.489          | 43   | 216687              | 101.526 | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.489          | 77   | 96866               | 20.177  | ug/l   | 97       |
| 32) 1,1,1-Trichloroethane    | 8.171          | 97   | 106258              | 20.996  | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.365          | 117  | 92542               | 21.501  | ug/l   | 98       |
| 34) Benzene                  | 8.612          | 78   | 271745              | 21.006  | ug/l   | 97       |
| 35) Methacrylonitrile        | 7.783          | 41   | 45512               | 20.271  | ug/l   | 94       |
| 36) 1,2-Dichloroethane       | 8.677          | 62   | 98286               | 21.279  | ug/l   | 100      |
| 37) Trichloroethene          | 9.359          | 130  | 63126               | 20.876  | ug/l   | 99       |
| 38) Methylcyclohexane        | 9.606          | 83   | 80357               | 19.602  | ug/l   | 99       |
| 39) 1,2-Dichloropropane      | 9.630          | 63   | 71825               | 21.039  | ug/l   | 98       |
| 40) Dibromomethane           | 9.718          | 93   | 47067               | 21.008  | ug/l   | 98       |
| 41) Bromodichloromethane     | 9.894          | 83   | 97003               | 20.892  | ug/l   | 97       |
| 42) Vinyl Acetate            | 6.606          | 43   | 538710              | 99.501  | ug/l   | 99       |

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 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Oct 18 02:19:15 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-------------------------------|--------|------|----------|---------|-------|----------|
| 43) Ethyl Acetate             | 7.559  | 43   | 90794    | 22.623  | ug/l  | # 77     |
| 44) Isopropyl Acetate         | 8.694  | 43   | 137651   | 19.294  | ug/l  | 98       |
| 45) 1,4-Dioxane               | 9.700  | 88   | 23081    | 413.304 | ug/l  | 96       |
| 46) Methyl methacrylate       | 9.682  | 41   | 66120    | 20.891  | ug/l  | 98       |
| 47) n-amyl Acetate            | 12.500 | 43   | 101368   | 19.687  | ug/l  | 99       |
| 48) t-1,3-Dichloropropene     | 10.841 | 75   | 93701    | 19.963  | ug/l  | 96       |
| 49) cis-1,3-Dichloropropene   | 10.312 | 75   | 106137   | 20.679  | ug/l  | 94       |
| 50) 1,1,2-Trichloroethane     | 11.018 | 97   | 66458    | 21.382  | ug/l  | 95       |
| 51) Ethyl methacrylate        | 10.877 | 69   | 86589    | 20.192  | ug/l  | 96       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 115766   | 21.025  | ug/l  | 99       |
| 53) Dibromochloromethane      | 11.359 | 129  | 68652    | 21.612  | ug/l  | 100      |
| 54) 1,2-Dibromoethane         | 11.471 | 107  | 65582    | 21.388  | ug/l  | 100      |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 150997   | 92.292  | ug/l  | 99       |
| 56) Bromoform                 | 12.582 | 173  | 43104    | 20.512  | ug/l  | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43   | 435963   | 104.854 | ug/l  | 100      |
| 59) 2-Hexanone                | 11.200 | 43   | 309998   | 101.629 | ug/l  | 99       |
| 61) Tetrachloroethene         | 11.106 | 164  | 52963    | 21.640  | ug/l  | 96       |
| 62) Toluene                   | 10.635 | 91   | 290151   | 21.298  | ug/l  | 99       |
| 64) Chlorobenzene             | 11.894 | 112  | 164812   | 20.859  | ug/l  | 93       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 65210    | 21.665  | ug/l  | 92       |
| 66) Ethyl Benzene             | 11.965 | 91   | 291477   | 20.765  | ug/l  | 99       |
| 67) m/p-Xylenes               | 12.076 | 106  | 225635   | 43.461  | ug/l  | 97       |
| 68) o-Xylene                  | 12.400 | 106  | 105665   | 21.290  | ug/l  | 98       |
| 69) Styrene                   | 12.418 | 104  | 171614   | 21.781  | ug/l  | 99       |
| 70) Isopropylbenzene          | 12.700 | 105  | 269893   | 21.189  | ug/l  | 99       |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 97627    | 21.556  | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane    | 12.994 | 75   | 85389m   | 20.762  | ug/l  |          |
| 73) Bromobenzene              | 12.982 | 156  | 64507    | 21.559  | ug/l  | 99       |
| 74) n-propylbenzene           | 13.041 | 91   | 321773   | 21.699  | ug/l  | 100      |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 197506   | 21.424  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 227497   | 21.849  | ug/l  | 98       |
| 77) t-1,4-Dichloro-2-butene   | 12.741 | 75   | 24271    | 19.336  | ug/l  | 98       |
| 78) 4-Chlorotoluene           | 13.223 | 91   | 186234   | 21.381  | ug/l  | 99       |
| 79) tert-butylbenzene         | 13.441 | 119  | 172016   | 20.547  | ug/l  | 98       |
| 80) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 216539   | 21.462  | ug/l  | 98       |
| 81) sec-Butylbenzene          | 13.623 | 105  | 253760   | 21.592  | ug/l  | 99       |
| 82) p-Isopropyltoluene        | 13.735 | 119  | 200757   | 21.534  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 106140   | 21.572  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene       | 13.818 | 146  | 100672   | 21.343  | ug/l  | 99       |
| 85) n-Butylbenzene            | 14.059 | 91   | 150800   | 20.703  | ug/l  | 99       |
| 86) Hexachloroethane          | 14.335 | 117  | 42063    | 20.870  | ug/l  | 96       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 107191   | 21.919  | ug/l  | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 13451    | 19.491  | ug/l  | 93       |
| 89) 1,2,4-Trichlorobenzene    | 15.847 | 180  | 31719    | 18.401  | ug/l  | 99       |
| 90) Hexachlorobutadiene       | 15.506 | 225  | 24715    | 20.242  | ug/l  | 100      |
| 91) Naphthalene               | 15.647 | 128  | 64814    | 14.577  | ug/l  | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.847 | 180  | 31719    | 18.401  | ug/l  | 99       |

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

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 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
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