

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN102822\  
 Data File : VN075075.D  
 Acq On : 28 Oct 2022 21:00  
 Operator : JC\MD  
 Sample : VSTDC0020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDC0020EC

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 10/31/2022  
 Supervised By : Mahesh Dadoda 10/31/2022

Quant Time: Oct 31 01:51:23 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N102522W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Oct 27 10:19:47 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response             | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|----------------------|---------|--------|----------|
| -----                        |                |      |                      |         |        |          |
| Internal Standards           |                |      |                      |         |        |          |
| 1) Bromochloromethane        | 7.818          | 128  | 13945                | 30.000  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.106          | 114  | 84401                | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.865         | 117  | 76761                | 30.000  | ug/l   | 0.00     |
|                              |                |      |                      |         |        |          |
| System Monitoring Compounds  |                |      |                      |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.583          | 65   | 42494                | 33.327  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 111.100%# |         |        |          |
| 60) 4-Bromofluorobenzene     | 12.847         | 95   | 42465                | 28.156  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 93.867%   |         |        |          |
| 63) Toluene-d8               | 10.571         | 98   | 128853               | 30.013  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 100.033%  |         |        |          |
|                              |                |      |                      |         |        |          |
| Target Compounds             |                |      |                      |         |        |          |
|                              |                |      |                      |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.136          | 85   | 15400                | 22.685  | ug/l   | 98       |
| 3) Chloromethane             | 2.371          | 50   | 19241                | 21.547  | ug/l   | 91       |
| 4) Vinyl Chloride            | 2.524          | 62   | 28987                | 21.467  | ug/l   | 92       |
| 5) Bromomethane              | 2.912          | 94   | 23413                | 21.932  | ug/l   | 97       |
| 6) Chloroethane              | 3.089          | 64   | 21917                | 21.043  | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 3.489          | 101  | 34375                | 23.657  | ug/l   | 91       |
| 8) Diethyl Ether             | 3.971          | 74   | 13680                | 22.897  | ug/l   | 94       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365          | 101  | 19705                | 23.134  | ug/l   | 99       |
| 10) 1,1-Dichloroethene       | 4.336          | 96   | 18041m               | 22.581  | ug/l   |          |
| 11) Methyl Iodide            | 4.589          | 142  | 28652                | 22.988  | ug/l   | 92       |
| 12) Methyl Acetate           | 5.036          | 43   | 31246                | 23.087  | ug/l   | 96       |
| 13) Acrolein                 | 4.189          | 56   | 19538                | 117.865 | ug/l # | 65       |
| 14) Acrylonitrile            | 5.730          | 53   | 61441                | 109.883 | ug/l   | 99       |
| 15) Acetone                  | 4.448          | 58   | 18070                | 115.671 | ug/l   | 76       |
| 16) Carbon Disulfide         | 4.718          | 76   | 37916                | 21.558  | ug/l   | 98       |
| 17) Allyl chloride           | 5.030          | 41   | 23950                | 22.372  | ug/l   | 83       |
| 18) Methylene Chloride       | 5.283          | 84   | 23204                | 23.183  | ug/l   | 97       |
| 19) trans-1,2-Dichloroethene | 5.795          | 96   | 19604                | 22.071  | ug/l   | 99       |
| 20) Diisopropyl ether        | 6.677          | 45   | 61895                | 22.276  | ug/l # | 96       |
| 21) 1,1-Dichloroethane       | 6.577          | 63   | 39538                | 22.911  | ug/l   | 96       |
| 22) cis-1,2-Dichloroethene   | 7.494          | 96   | 24781                | 22.081  | ug/l   | 92       |
| 23) tert-Butyl Alcohol       | 5.547          | 59   | 27174m               | 104.984 | ug/l   |          |
| 24) Methyl tert-Butyl Ether  | 5.806          | 73   | 74871                | 22.913  | ug/l # | 77       |
| 25) Chloroform               | 7.971          | 83   | 42541                | 22.314  | ug/l   | 95       |
| 26) Cyclohexane              | 8.259          | 56   | 29927                | 21.588  | ug/l # | 90       |
| 29) 1,1-Dichloropropene      | 8.371          | 75   | 29221                | 20.184  | ug/l   | 96       |
| 30) 2-Butanone               | 7.489          | 43   | 81996                | 98.251  | ug/l # | 94       |
| 31) 2,2-Dichloropropane      | 7.500          | 77   | 30872                | 17.457  | ug/l   | 100      |
| 32) 1,1,1-Trichloroethane    | 8.171          | 97   | 37863                | 20.194  | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.365          | 117  | 31762                | 19.239  | ug/l   | 96       |
| 34) Benzene                  | 8.612          | 78   | 92793                | 20.966  | ug/l   | 95       |
| 35) Methacrylonitrile        | 7.789          | 41   | 16297                | 20.374  | ug/l   | 94       |
| 36) 1,2-Dichloroethane       | 8.677          | 62   | 34107                | 20.797  | ug/l # | 92       |
| 37) Trichloroethene          | 9.353          | 130  | 23093                | 20.997  | ug/l   | 100      |
| 38) Methylcyclohexane        | 9.606          | 83   | 33757                | 18.806  | ug/l   | 97       |
| 39) 1,2-Dichloropropane      | 9.624          | 63   | 23427                | 21.026  | ug/l   | 98       |
| 40) Dibromomethane           | 9.712          | 93   | 16756                | 19.822  | ug/l   | 100      |
| 41) Bromodichloromethane     | 9.888          | 83   | 33647                | 20.445  | ug/l   | 95       |
| 42) Vinyl Acetate            | 6.612          | 43   | 266910m              | 113.544 | ug/l   |          |

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 Operator : JC\MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC020EC

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 10/31/2022  
 Supervised By : Mahesh Dadoda 10/31/2022

Quant Time: Oct 31 01:51:23 2022  
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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Oct 27 10:19:47 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 7.571  | 43   | 34455    | 20.890  | ug/l   | 98       |
| 44) Isopropyl Acetate         | 8.694  | 43   | 51930    | 19.629  | ug/l   | 95       |
| 45) 1,4-Dioxane               | 9.706  | 88   | 12634    | 387.984 | ug/l # | 94       |
| 46) Methyl methacrylate       | 9.682  | 41   | 23323    | 19.652  | ug/l   | 87       |
| 47) n-amyl Acetate            | 12.494 | 43   | 46502    | 20.461  | ug/l   | 97       |
| 48) t-1,3-Dichloropropene     | 10.835 | 75   | 33415    | 18.585  | ug/l   | 97       |
| 49) cis-1,3-Dichloropropene   | 10.312 | 75   | 36684    | 19.412  | ug/l   | 89       |
| 50) 1,1,2-Trichloroethane     | 11.018 | 97   | 25509    | 20.598  | ug/l   | 97       |
| 51) Ethyl methacrylate        | 10.877 | 69   | 37456    | 19.412  | ug/l   | 85       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 40834    | 19.715  | ug/l   | 99       |
| 53) Dibromochloromethane      | 11.359 | 129  | 25094    | 18.734  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 11.471 | 107  | 25077    | 19.572  | ug/l   | 97       |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 81929    | 103.929 | ug/l   | 99       |
| 56) Bromoform                 | 12.582 | 173  | 16933    | 17.219  | ug/l # | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43   | 174043   | 105.116 | ug/l   | 95       |
| 59) 2-Hexanone                | 11.200 | 43   | 132301   | 104.162 | ug/l   | 94       |
| 61) Tetrachloroethene         | 11.106 | 164  | 17516    | 20.518  | ug/l   | 96       |
| 62) Toluene                   | 10.635 | 91   | 102154   | 20.555  | ug/l   | 98       |
| 64) Chlorobenzene             | 11.894 | 112  | 60996    | 19.805  | ug/l   | 98       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 24155    | 20.531  | ug/l   | 98       |
| 66) Ethyl Benzene             | 11.965 | 91   | 112302   | 20.050  | ug/l   | 98       |
| 67) m/p-Xylenes               | 12.071 | 106  | 88688    | 39.481  | ug/l   | 98       |
| 68) o-Xylene                  | 12.400 | 106  | 44993    | 19.926  | ug/l   | 100      |
| 69) Styrene                   | 12.412 | 104  | 70802    | 19.174  | ug/l   | 98       |
| 70) Isopropylbenzene          | 12.694 | 105  | 117334   | 19.944  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 40073    | 20.910  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.994 | 75   | 35061m   | 20.148  | ug/l   |          |
| 73) Bromobenzene              | 12.982 | 156  | 25470    | 19.450  | ug/l   | 92       |
| 74) n-propylbenzene           | 13.035 | 91   | 129411   | 19.643  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 82032    | 20.460  | ug/l   | 95       |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 99000    | 19.865  | ug/l   | 97       |
| 77) t-1,4-Dichloro-2-butene   | 12.741 | 75   | 11202    | 18.429  | ug/l   | 78       |
| 78) 4-Chlorotoluene           | 13.223 | 91   | 77708    | 19.954  | ug/l   | 98       |
| 79) tert-butylbenzene         | 13.441 | 119  | 86033    | 19.334  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 99370    | 19.601  | ug/l # | 81       |
| 81) sec-Butylbenzene          | 13.618 | 105  | 122051   | 19.510  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 13.729 | 119  | 99300    | 18.816  | ug/l   | 97       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 47649    | 18.400  | ug/l   | 97       |
| 84) 1,4-Dichlorobenzene       | 13.812 | 146  | 47660    | 19.077  | ug/l   | 99       |
| 85) n-Butylbenzene            | 14.059 | 91   | 78930    | 18.647  | ug/l   | 97       |
| 86) Hexachloroethane          | 14.335 | 117  | 17411    | 17.803  | ug/l   | 94       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 49154    | 19.190  | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 7755     | 19.252  | ug/l   | 96       |
| 89) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 21177    | 18.718  | ug/l   | 99       |
| 90) Hexachlorobutadiene       | 15.500 | 225  | 10106    | 19.422  | ug/l   | 96       |
| 91) Naphthalene               | 15.641 | 128  | 83419    | 18.604  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 21583    | 18.845  | ug/l   | 98       |

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

