

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN121321\  
 Data File : VN070029.D  
 Acq On : 13 Dec 2021 12:01  
 Operator : JC/MD  
 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Quant Time: Dec 13 13:25:37 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N121321W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Dec 13 13:20:37 2021  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 12/14/2021  
 Supervised By : Amit Patel 12/15/2021

| Compound                     | R.T.           | QIon | Response            | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|----------|--------|----------|
| -----                        |                |      |                     |          |        |          |
| Internal Standards           |                |      |                     |          |        |          |
| 1) Bromochloromethane        | 7.659          | 128  | 175866              | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 8.968          | 114  | 976983              | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.744         | 117  | 942063              | 30.000   | ug/l   | 0.00     |
|                              |                |      |                     |          |        |          |
| System Monitoring Compounds  |                |      |                     |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.437          | 65   | 465559              | 30.524   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 101.733% |          |        |          |
| 60) 4-Bromofluorobenzene     | 12.731         | 95   | 489853              | 32.493   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 108.300% |          |        |          |
| 63) Toluene-d8               | 10.443         | 98   | 1257197             | 28.903   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 96.333%  |          |        |          |
|                              |                |      |                     |          |        |          |
| Target Compounds             |                |      |                     |          |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.070          | 85   | 2010553             | 154.713  | ug/l   | 98       |
| 3) Chloromethane             | 2.301          | 50   | 2221008             | 163.918  | ug/l   | 95       |
| 4) Vinyl Chloride            | 2.446          | 62   | 2097860             | 152.694  | ug/l   | 100      |
| 5) Bromomethane              | 2.824          | 94   | 1155881             | 131.364  | ug/l   | 98       |
| 6) Chloroethane              | 3.001          | 64   | 1167889             | 134.732  | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 3.368          | 101  | 2699802             | 134.068  | ug/l   | 97       |
| 8) Diethyl Ether             | 3.821          | 74   | 1098567             | 172.823  | ug/l   | 77       |
| 9) 1,1,2-Trichlorotrifluo... | 4.202          | 101  | 1585324m            | 170.129  | ug/l   |          |
| 10) 1,1-Dichloroethene       | 4.175          | 96   | 1539784             | 175.203  | ug/l   | 86       |
| 11) Methyl Iodide            | 4.417          | 142  | 2210520             | 180.523  | ug/l   | 96       |
| 12) Methyl Acetate           | 4.851          | 43   | 3948888m            | 156.017  | ug/l   |          |
| 13) Acrolein                 | 4.039          | 56   | 1601748             | 2301.704 | ug/l   | 100      |
| 14) Acrylonitrile            | 5.554          | 53   | 5659343             | 819.562  | ug/l   | 100      |
| 15) Acetone                  | 4.285          | 58   | 1874323             | 814.592  | ug/l   | 77       |
| 16) Carbon Disulfide         | 4.524          | 76   | 4610443             | 209.871  | ug/l   | 98       |
| 17) Allyl chloride           | 4.835          | 41   | 3584272             | 191.884  | ug/l   | 88       |
| 18) Methylene Chloride       | 5.093          | 84   | 1816912             | 162.278  | ug/l # | 84       |
| 19) trans-1,2-Dichloroethene | 5.594          | 96   | 1629164             | 168.924  | ug/l # | 82       |
| 20) Diisopropyl ether        | 6.498          | 45   | 6811677             | 170.184  | ug/l # | 92       |
| 21) 1,1-Dichloroethane       | 6.385          | 63   | 3510882             | 172.900  | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 7.324          | 96   | 1961618             | 163.993  | ug/l   | 88       |
| 23) tert-Butyl Alcohol       | 5.385          | 59   | 1917590             | 797.921  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.616          | 73   | 5743751             | 163.073  | ug/l   | 95       |
| 25) Chloroform               | 7.818          | 83   | 3442028             | 163.942  | ug/l   | 99       |
| 26) Cyclohexane              | 8.094          | 56   | 3299967             | 171.169  | ug/l # | 85       |
| 29) 1,1-Dichloropropene      | 8.220          | 75   | 2623595             | 175.919  | ug/l   | 95       |
| 30) 2-Butanone               | 7.335          | 43   | 9035425             | 837.011  | ug/l # | 90       |
| 31) 2,2-Dichloropropane      | 7.324          | 77   | 2859497             | 181.365  | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.016          | 97   | 3070664             | 176.370  | ug/l   | 95       |
| 33) Carbon Tetrachloride     | 8.206          | 117  | 2684434             | 186.683  | ug/l   | 99       |
| 34) Benzene                  | 8.459          | 78   | 7630487             | 168.247  | ug/l   | 100      |
| 35) Methacrylonitrile        | 7.638          | 41   | 1757882             | 177.551  | ug/l   | 88       |
| 36) 1,2-Dichloroethane       | 8.528          | 62   | 3030082             | 173.299  | ug/l   | 97       |
| 37) Trichloroethene          | 9.218          | 130  | 1849712             | 168.820  | ug/l   | 91       |
| 38) Methylcyclohexane        | 9.459          | 83   | 3165666             | 171.570  | ug/l   | 88       |
| 39) 1,2-Dichloropropane      | 9.491          | 63   | 2062128             | 171.678  | ug/l   | 99       |
| 40) Dibromomethane           | 9.577          | 93   | 1347480             | 167.504  | ug/l   | 95       |
| 41) Bromodichloromethane     | 9.762          | 83   | 2866296             | 189.828  | ug/l   | 96       |
| 42) Vinyl Acetate            | 6.434          | 43   | 27857281            | 913.155  | ug/l # | 95       |

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 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

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 Supervised By : Amit Patel 12/15/2021

Quant Time: Dec 13 13:25:37 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N121321W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Dec 13 13:20:37 2021  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response  | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|-----------|----------|--------|----------|
| 43) Ethyl Acetate             | 7.413  | 43   | 3310651   | 165.489  | ug/l   | 98       |
| 44) Isopropyl Acetate         | 8.560  | 43   | 5407093   | 173.367  | ug/l   | 95       |
| 45) 1,4-Dioxane               | 9.569  | 88   | 767765    | 3032.538 | ug/l # | 84       |
| 46) Methyl methacrylate       | 9.561  | 41   | 2572828   | 179.114  | ug/l   | 81       |
| 47) n-amyl Acetate            | 12.388 | 43   | 4322821   | 180.493  | ug/l   | 96       |
| 48) t-1,3-Dichloropropene     | 10.717 | 75   | 3192321   | 197.004  | ug/l   | 100      |
| 49) cis-1,3-Dichloropropene   | 10.188 | 75   | 3356869   | 190.374  | ug/l   | 94       |
| 50) 1,1,2-Trichloroethane     | 10.899 | 97   | 1868024   | 163.524  | ug/l   | 96       |
| 51) Ethyl methacrylate        | 10.760 | 69   | 3379725   | 176.463  | ug/l   | 89       |
| 52) 1,3-Dichloropropane       | 11.044 | 76   | 3317721   | 168.137  | ug/l   | 99       |
| 53) Dibromochloromethane      | 11.237 | 129  | 2126966   | 194.845  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 11.347 | 107  | 1988637   | 168.091  | ug/l   | 97       |
| 55) 2-Chloroethyl vinyl ether | 10.041 | 63   | 3930278   | 902.159  | ug/l   | 96       |
| 56) Bromoform                 | 12.457 | 173  | 1703084   | 217.565  | ug/l # | 100      |
| 58) 4-Methyl-2-Pentanone      | 10.328 | 43   | 16842666m | 814.481  | ug/l   |          |
| 59) 2-Hexanone                | 11.087 | 43   | 12909871  | 820.724  | ug/l   | 96       |
| 61) Tetrachloroethene         | 10.977 | 164  | 1582631   | 156.523  | ug/l   | 95       |
| 62) Toluene                   | 10.505 | 91   | 8258536   | 159.530  | ug/l   | 98       |
| 64) Chlorobenzene             | 11.771 | 112  | 5076794   | 163.458  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 11.840 | 131  | 1893317   | 173.151  | ug/l   | 100      |
| 66) Ethyl Benzene             | 11.843 | 91   | 9518307   | 166.113  | ug/l   | 100      |
| 67) m/p-Xylenes               | 11.953 | 106  | 7013162   | 329.529  | ug/l   | 96       |
| 68) o-Xylene                  | 12.280 | 106  | 3513171   | 164.865  | ug/l   | 94       |
| 69) Styrene                   | 12.294 | 104  | 5944969   | 172.081  | ug/l   | 96       |
| 70) Isopropylbenzene          | 12.578 | 105  | 9322663   | 167.284  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.827 | 83   | 2887922   | 157.043  | ug/l   | 98       |
| 72) 1,2,3-Trichloropropane    | 12.881 | 75   | 2551696m  | 142.440  | ug/l   |          |
| 73) Bromobenzene              | 12.860 | 156  | 2171109   | 169.003  | ug/l   | 91       |
| 74) n-propylbenzene           | 12.921 | 91   | 11007698  | 171.987  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.007 | 91   | 6654248   | 170.790  | ug/l   | 95       |
| 76) 1,3,5-Trimethylbenzene    | 13.058 | 105  | 7667805   | 167.636  | ug/l   | 100      |
| 77) t-1,4-Dichloro-2-butene   | 12.626 | 75   | 1018286   | 210.577  | ug/l   | 95       |
| 78) 4-Chlorotoluene           | 13.104 | 91   | 6560938   | 175.841  | ug/l   | 94       |
| 79) tert-butylbenzene         | 13.324 | 119  | 6705624   | 166.655  | ug/l   | 98       |
| 80) 1,2,4-Trimethylbenzene    | 13.367 | 105  | 7430289m  | 166.523  | ug/l   |          |
| 81) sec-Butylbenzene          | 13.501 | 105  | 9547232   | 169.586  | ug/l   | 100      |
| 82) p-Isopropyltoluene        | 13.616 | 119  | 7702187   | 171.466  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.616 | 146  | 3689283   | 167.967  | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 13.694 | 146  | 3618443   | 169.815  | ug/l   | 98       |
| 85) n-Butylbenzene            | 13.943 | 91   | 6833778   | 182.280  | ug/l   | 98       |
| 86) Hexachloroethane          | 14.209 | 117  | 1498629   | 201.586  | ug/l   | 87       |
| 87) 1,2-Dichlorobenzene       | 13.989 | 146  | 3460783   | 163.260  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.603 | 75   | 623899    | 193.809  | ug/l   | 96       |
| 89) 1,2,4-Trichlorobenzene    | 15.263 | 180  | 1881594   | 185.125  | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 15.370 | 225  | 897404    | 163.273  | ug/l   | 99       |
| 91) Naphthalene               | 15.504 | 128  | 5459207   | 186.451  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.700 | 180  | 1777650   | 177.910  | ug/l   | 100      |

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

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 Acq On : 13 Dec 2021 12:01  
 Operator : JC/MD  
 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC150

## Manual Integrations

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QLast Update : Mon Dec 13 13:20:37 2021

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