

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN032723\  
 Data File : VN077201.D  
 Acq On : 27 Mar 2023 14:01  
 Operator : JC\MD  
 Sample : 01627-09  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MDL-WATER-03-QT1-2023

Quant Time: Mar 28 06:43:10 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N032423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Mar 24 05:55:38 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :John Carlone 03/28/2023  
 Supervised By :Semsettin Yesilyurt 03/28/2023

| Compound                     | R.T.           | QIon | Response            | Conc   | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|--------|--------|----------|
| -----                        |                |      |                     |        |        |          |
| Internal Standards           |                |      |                     |        |        |          |
| 1) Bromochloromethane        | 7.819          | 128  | 39907               | 30.000 | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.101          | 114  | 262280              | 30.000 | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.866         | 117  | 289555              | 30.000 | ug/l   | 0.00     |
|                              |                |      |                     |        |        |          |
| System Monitoring Compounds  |                |      |                     |        |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.583          | 65   | 122913              | 30.328 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 101.100% |        |        |          |
| 60) 4-Bromofluorobenzene     | 12.854         | 95   | 139246              | 26.769 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 89.233%  |        |        |          |
| 63) Toluene-d8               | 10.572         | 98   | 310880              | 30.077 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 100.267% |        |        |          |
|                              |                |      |                     |        |        |          |
| Target Compounds             |                |      |                     |        |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.137          | 85   | 9157                | 3.485  | ug/l   | 75       |
| 3) Chloromethane             | 2.372          | 50   | 15607               | 3.732  | ug/l   | 97       |
| 4) Vinyl Chloride            | 2.531          | 62   | 16043               | 2.721  | ug/l # | 83       |
| 5) Bromomethane              | 2.966          | 94   | 14793               | 3.578  | ug/l   | 95       |
| 6) Chloroethane              | 3.131          | 64   | 15020               | 3.056  | ug/l   | 100      |
| 7) Trichlorofluoromethane    | 3.513          | 101  | 29131               | 3.432  | ug/l   | 100      |
| 8) Diethyl Ether             | 3.978          | 74   | 8886                | 2.984  | ug/l   | 76       |
| 9) 1,1,2-Trichlorotrifluo... | 4.390          | 101  | 12663m              | 2.853  | ug/l   |          |
| 10) 1,1-Dichloroethene       | 4.354          | 96   | 11312m              | 2.724  | ug/l   |          |
| 11) Methyl Iodide            | 4.601          | 142  | 11579m              | 2.618  | ug/l   |          |
| 12) Methyl Acetate           | 5.037          | 43   | 20967               | 2.342  | ug/l   | 98       |
| 13) Acrolein                 | 4.195          | 56   | 14211               | 11.711 | ug/l # | 66       |
| 14) Acrylonitrile            | 5.737          | 53   | 34851m              | 12.831 | ug/l   |          |
| 15) Acetone                  | 4.448          | 58   | 11999               | 16.895 | ug/l   | 79       |
| 16) Carbon Disulfide         | 4.725          | 76   | 31572               | 2.692  | ug/l # | 89       |
| 17) Allyl chloride           | 5.031          | 41   | 19464               | 2.665  | ug/l   | 89       |
| 18) Methylene Chloride       | 5.295          | 84   | 15204m              | 2.979  | ug/l   |          |
| 19) trans-1,2-Dichloroethene | 5.801          | 96   | 11655m              | 2.620  | ug/l   |          |
| 20) Diisopropyl ether        | 6.684          | 45   | 40022               | 2.419  | ug/l   | 94       |
| 21) 1,1-Dichloroethane       | 6.578          | 63   | 25574               | 2.746  | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 7.501          | 96   | 14122m              | 2.689  | ug/l   |          |
| 23) tert-Butyl Alcohol       | 5.548          | 59   | 10591m              | 11.487 | ug/l   |          |
| 24) Methyl tert-Butyl Ether  | 5.807          | 73   | 36141               | 2.451  | ug/l # | 81       |
| 25) Chloroform               | 7.966          | 83   | 24918               | 2.734  | ug/l   | 99       |
| 26) Cyclohexane              | 8.254          | 56   | 18392               | 2.341  | ug/l # | 96       |
| 29) 1,1-Dichloropropene      | 8.378          | 75   | 15828               | 2.488  | ug/l   | 84       |
| 30) 2-Butanone               | 7.495          | 43   | 49813               | 13.571 | ug/l # | 96       |
| 31) 2,2-Dichloropropane      | 7.489          | 77   | 19458m              | 3.265  | ug/l   |          |
| 32) 1,1,1-Trichloroethane    | 8.172          | 97   | 20714               | 2.700  | ug/l   | 96       |
| 33) Carbon Tetrachloride     | 8.366          | 117  | 18179               | 2.821  | ug/l   | 95       |
| 34) Benzene                  | 8.613          | 78   | 52217               | 2.677  | ug/l # | 85       |
| 35) Methacrylonitrile        | 7.789          | 41   | 10413               | 2.584  | ug/l   | 92       |
| 36) 1,2-Dichloroethane       | 8.678          | 62   | 20372               | 2.833  | ug/l   | 95       |
| 37) Trichloroethene          | 9.354          | 130  | 12173               | 2.761  | ug/l   | 88       |
| 38) Methylcyclohexane        | 9.601          | 83   | 18630               | 2.460  | ug/l   | 96       |
| 39) 1,2-Dichloropropane      | 9.625          | 63   | 13746               | 2.633  | ug/l   | 99       |
| 40) Dibromomethane           | 9.713          | 93   | 9365                | 2.805  | ug/l   | 94       |
| 41) Bromodichloromethane     | 9.883          | 83   | 17855               | 2.626  | ug/l # | 93       |
| 42) Vinyl Acetate            | 6.613          | 43   | 128011              | 11.635 | ug/l   | 99       |

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Manual Integrations  
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Reviewed By :John Carlone 03/28/2023  
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| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 43) Ethyl Acetate             | 7.572  | 43   | 16931    | 2.309  | ug/l # | 88       |
| 44) Isopropyl Acetate         | 8.695  | 43   | 29584    | 2.500  | ug/l   | 98       |
| 45) 1,4-Dioxane               | 9.695  | 88   | 4537     | 47.152 | ug/l # | 71       |
| 46) Methyl methacrylate       | 9.689  | 41   | 13004    | 2.383  | ug/l   | 80       |
| 47) n-amyl Acetate            | 12.495 | 43   | 20503    | 2.059  | ug/l   | 95       |
| 48) t-1,3-Dichloropropene     | 10.842 | 75   | 17056    | 2.470  | ug/l   | 91       |
| 49) cis-1,3-Dichloropropene   | 10.319 | 75   | 18299    | 2.420  | ug/l # | 87       |
| 50) 1,1,2-Trichloroethane     | 11.013 | 97   | 12777    | 2.726  | ug/l # | 83       |
| 51) Ethyl methacrylate        | 10.877 | 69   | 15684    | 2.167  | ug/l   | 95       |
| 52) 1,3-Dichloropropane       | 11.160 | 76   | 21975    | 2.641  | ug/l   | 77       |
| 53) Dibromochloromethane      | 11.360 | 129  | 12086    | 2.491  | ug/l   | 94       |
| 54) 1,2-Dibromoethane         | 11.471 | 107  | 12012    | 2.604  | ug/l   | 100      |
| 55) 2-Chloroethyl vinyl ether | 10.166 | 63   | 29475    | 9.742  | ug/l   | 98       |
| 56) Bromoform                 | 12.583 | 173  | 8296     | 2.436  | ug/l   | 97       |
| 58) 4-Methyl-2-Pentanone      | 10.448 | 43   | 86006    | 11.509 | ug/l   | 98       |
| 59) 2-Hexanone                | 11.195 | 43   | 60322    | 11.070 | ug/l   | 99       |
| 61) Tetrachloroethene         | 11.107 | 164  | 10271    | 2.826  | ug/l # | 82       |
| 62) Toluene                   | 10.636 | 91   | 53557    | 2.632  | ug/l   | 95       |
| 64) Chlorobenzene             | 11.895 | 112  | 31656    | 2.629  | ug/l   | 96       |
| 65) 1,1,1,2-Tetrachloroethane | 11.960 | 131  | 11457    | 2.591  | ug/l   | 94       |
| 66) Ethyl Benzene             | 11.966 | 91   | 49907    | 2.282  | ug/l   | 92       |
| 67) m/p-Xylenes               | 12.071 | 106  | 37116    | 4.411  | ug/l   | 99       |
| 68) o-Xylene                  | 12.401 | 106  | 18566    | 2.253  | ug/l   | 92       |
| 69) Styrene                   | 12.413 | 104  | 26183    | 1.957  | ug/l   | 96       |
| 70) Isopropylbenzene          | 12.701 | 105  | 44112    | 2.065  | ug/l   | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.936 | 83   | 18063    | 2.583  | ug/l   | 95       |
| 72) 1,2,3-Trichloropropane    | 12.995 | 75   | 15755m   | 2.545  | ug/l   |          |
| 73) Bromobenzene              | 12.983 | 156  | 11711    | 2.452  | ug/l   | 88       |
| 74) n-propylbenzene           | 13.036 | 91   | 49775    | 2.012  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.124 | 91   | 33423    | 2.241  | ug/l   | 97       |
| 76) 1,3,5-Trimethylbenzene    | 13.177 | 105  | 34474    | 1.944  | ug/l   | 94       |
| 77) t-1,4-Dichloro-2-butene   | 12.742 | 75   | 3896     | 1.974  | ug/l   | 92       |
| 78) 4-Chlorotoluene           | 13.224 | 91   | 30300    | 2.112  | ug/l   | 96       |
| 79) tert-butylbenzene         | 13.442 | 119  | 31820    | 2.100  | ug/l   | 96       |
| 80) 1,2,4-Trimethylbenzene    | 13.489 | 105  | 29708    | 1.688  | ug/l   | 98       |
| 81) sec-Butylbenzene          | 13.618 | 105  | 39808    | 1.820  | ug/l   | 96       |
| 82) p-Isopropyltoluene        | 13.730 | 119  | 29338    | 1.673  | ug/l   | 96       |
| 83) 1,3-Dichlorobenzene       | 13.736 | 146  | 20823    | 2.354  | ug/l   | 95       |
| 84) 1,4-Dichlorobenzene       | 13.813 | 146  | 18952    | 2.200  | ug/l   | 97       |
| 85) n-Butylbenzene            | 14.060 | 91   | 24557    | 1.657  | ug/l   | 99       |
| 86) Hexachloroethane          | 14.336 | 117  | 8108     | 2.425  | ug/l   | 95       |
| 87) 1,2-Dichlorobenzene       | 14.112 | 146  | 19620    | 2.218  | ug/l   | 95       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.718 | 75   | 3149     | 2.347  | ug/l   | 91       |
| 89) 1,2,4-Trichlorobenzene    | 15.401 | 180  | 6467     | 1.639  | ug/l # | 71       |
| 90) Hexachlorobutadiene       | 15.501 | 225  | 5498     | 2.470  | ug/l   | 84       |
| 91) Naphthalene               | 15.642 | 128  | 12881    | 0.995  | ug/l # | 95       |
| 92) 1,2,3-Trichlorobenzene    | 15.848 | 180  | 5964     | 1.522  | ug/l   | 93       |

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

