

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN120624\  
 Data File : VN085119.D  
 Acq On : 06 Dec 2024 10:49  
 Operator : JC\MD  
 Sample : VSTDICC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC050

Quant Time: Dec 06 22:29:45 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N120624W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Dec 06 22:19:40 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/09/2024  
 Supervised By :Semsettin Yesilyurt 12/09/2024

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Bromochloromethane        | 7.812          | 128  | 32631      | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.100          | 114  | 169083     | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.865         | 117  | 158595     | 30.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.576          | 65   | 73850      | 28.523   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = | 95.067%  |        |          |
| 60) 4-Bromofluorobenzene     | 12.847         | 95   | 79229      | 30.193   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = | 100.633% |        |          |
| 63) Toluene-d8               | 10.565         | 98   | 220709     | 29.668   | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = | 98.900%  |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 126923     | 48.618   | ug/l   | 95       |
| 3) Chloromethane             | 2.359          | 50   | 109481     | 47.379   | ug/l   | 97       |
| 4) Vinyl Chloride            | 2.512          | 62   | 110184     | 46.620   | ug/l   | 95       |
| 5) Bromomethane              | 2.959          | 94   | 68578      | 45.702   | ug/l   | 97       |
| 6) Chloroethane              | 3.124          | 64   | 68457      | 47.145   | ug/l   | 96       |
| 7) Trichlorofluoromethane    | 3.500          | 101  | 180635     | 46.691   | ug/l   | 99       |
| 8) Diethyl Ether             | 3.959          | 74   | 59301      | 48.393   | ug/l   | 100      |
| 9) 1,1,2-Trichlorotrifluo... | 4.371          | 101  | 103346     | 47.768   | ug/l   | 97       |
| 10) 1,1-Dichloroethene       | 4.341          | 96   | 94788      | 47.699   | ug/l   | 96       |
| 11) Methyl Iodide            | 4.589          | 142  | 133247     | 48.346   | ug/l   | 97       |
| 12) Methyl Acetate           | 5.018          | 43   | 110575     | 47.166   | ug/l   | 99       |
| 13) Acrolein                 | 4.171          | 56   | 81406      | 238.946  | ug/l   | 93       |
| 14) Acrylonitrile            | 5.712          | 53   | 233375     | 239.739  | ug/l   | 97       |
| 15) Acetone                  | 4.418          | 58   | 63386      | 240.283  | ug/l   | 89       |
| 16) Carbon Disulfide         | 4.712          | 76   | 275285     | 46.345   | ug/l   | 100      |
| 17) Allyl chloride           | 5.024          | 41   | 137437     | 48.333   | ug/l   | 92       |
| 18) Methylene Chloride       | 5.277          | 84   | 104822     | 46.488   | ug/l   | 98       |
| 19) trans-1,2-Dichloroethene | 5.788          | 96   | 96901      | 46.913   | ug/l   | 90       |
| 20) Diisopropyl ether        | 6.671          | 45   | 301677     | 48.342   | ug/l   | 99       |
| 21) 1,1-Dichloroethane       | 6.565          | 63   | 177808     | 46.165   | ug/l   | 99       |
| 22) cis-1,2-Dichloroethene   | 7.482          | 96   | 113782     | 47.926   | ug/l   | 98       |
| 23) tert-Butyl Alcohol       | 5.512          | 59   | 80412      | 230.265  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.794          | 73   | 300411     | 48.425   | ug/l # | 77       |
| 25) Chloroform               | 7.965          | 83   | 190773     | 47.279   | ug/l   | 98       |
| 26) Cyclohexane              | 8.253          | 56   | 158534     | 49.989   | ug/l   | 98       |
| 29) 1,1-Dichloropropene      | 8.371          | 75   | 131946     | 48.360   | ug/l   | 99       |
| 30) 2-Butanone               | 7.477          | 43   | 307572     | 245.653  | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.488          | 77   | 169610     | 48.478   | ug/l # | 100      |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97   | 174371     | 47.217   | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.359          | 117  | 159586     | 47.889   | ug/l   | 97       |
| 34) Benzene                  | 8.606          | 78   | 410169     | 47.855   | ug/l   | 98       |
| 35) Methacrylonitrile        | 7.777          | 41   | 72876      | 51.722   | ug/l   | 91       |
| 36) 1,2-Dichloroethane       | 8.671          | 62   | 138391     | 47.430   | ug/l   | 100      |
| 37) Trichloroethene          | 9.353          | 130  | 96801      | 47.426   | ug/l   | 96       |
| 38) Methylcyclohexane        | 9.600          | 83   | 148222     | 49.963   | ug/l   | 95       |
| 39) 1,2-Dichloropropane      | 9.618          | 63   | 98790      | 47.586   | ug/l   | 96       |
| 40) Dibromomethane           | 9.706          | 93   | 71433      | 47.969   | ug/l   | 99       |
| 41) Bromodichloromethane     | 9.882          | 83   | 152481     | 47.898   | ug/l   | 96       |
| 42) Vinyl Acetate            | 6.600          | 43   | 1122209    | 256.138  | ug/l   | 100      |

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Instrument :  
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 ClientSampleId :  
 VSTDICC050

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| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-------------------------------|--------|------|----------|---------|-------|----------|
| 43) Ethyl Acetate             | 7.553  | 43   | 124173   | 49.844  | ug/l  | # 92     |
| 44) Isopropyl Acetate         | 8.682  | 43   | 211189   | 48.782  | ug/l  | 99       |
| 45) 1,4-Dioxane               | 9.694  | 88   | 35720    | 989.420 | ug/l  | 95       |
| 46) Methyl methacrylate       | 9.676  | 41   | 97397    | 49.158  | ug/l  | 94       |
| 47) n-amyl Acetate            | 12.488 | 43   | 184994   | 50.788  | ug/l  | 95       |
| 48) t-1,3-Dichloropropene     | 10.835 | 75   | 152504   | 48.801  | ug/l  | 98       |
| 49) cis-1,3-Dichloropropene   | 10.306 | 75   | 164287   | 48.292  | ug/l  | 96       |
| 50) 1,1,2-Trichloroethane     | 11.018 | 97   | 94692    | 47.189  | ug/l  | 98       |
| 51) Ethyl methacrylate        | 10.870 | 69   | 152776   | 50.057  | ug/l  | 97       |
| 52) 1,3-Dichloropropane       | 11.159 | 76   | 164130   | 48.874  | ug/l  | 99       |
| 53) Dibromochloromethane      | 11.359 | 129  | 116277   | 47.550  | ug/l  | 97       |
| 54) 1,2-Dibromoethane         | 11.465 | 107  | 98049    | 48.496  | ug/l  | 98       |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63   | 363042   | 256.062 | ug/l  | 100      |
| 56) Bromoform                 | 12.576 | 173  | 79589    | 48.542  | ug/l  | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.441 | 43   | 638976   | 246.869 | ug/l  | 98       |
| 59) 2-Hexanone                | 11.194 | 43   | 490910   | 250.312 | ug/l  | 98       |
| 61) Tetrachloroethene         | 11.100 | 164  | 90418    | 47.078  | ug/l  | 96       |
| 62) Toluene                   | 10.629 | 91   | 444180   | 48.023  | ug/l  | 99       |
| 64) Chlorobenzene             | 11.888 | 112  | 274152   | 48.008  | ug/l  | 99       |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 101559   | 47.641  | ug/l  | 95       |
| 66) Ethyl Benzene             | 11.959 | 91   | 487612   | 49.682  | ug/l  | 96       |
| 67) m/p-Xylenes               | 12.070 | 106  | 373298   | 98.889  | ug/l  | 95       |
| 68) o-Xylene                  | 12.394 | 106  | 179899   | 50.744  | ug/l  | 97       |
| 69) Styrene                   | 12.406 | 104  | 307715   | 51.151  | ug/l  | 98       |
| 70) Isopropylbenzene          | 12.694 | 105  | 461786   | 50.502  | ug/l  | 99       |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 132922   | 47.759  | ug/l  | 97       |
| 72) 1,2,3-Trichloropropane    | 12.988 | 75   | 125007m  | 45.469  | ug/l  |          |
| 73) Bromobenzene              | 12.976 | 156  | 111567   | 48.711  | ug/l  | 99       |
| 74) n-propylbenzene           | 13.035 | 91   | 550361   | 50.065  | ug/l  | 99       |
| 75) 2-Chlorotoluene           | 13.123 | 91   | 334590   | 49.227  | ug/l  | 99       |
| 76) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 393277   | 50.202  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.735 | 75   | 48505    | 48.553  | ug/l  | 97       |
| 78) 4-Chlorotoluene           | 13.217 | 91   | 336818   | 48.823  | ug/l  | 98       |
| 79) tert-butylbenzene         | 13.435 | 119  | 324073   | 50.365  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 396249   | 51.207  | ug/l  | 100      |
| 81) sec-Butylbenzene          | 13.611 | 105  | 456540   | 49.942  | ug/l  | 99       |
| 82) p-Isopropyltoluene        | 13.729 | 119  | 386040   | 50.937  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 13.729 | 146  | 204168   | 48.588  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene       | 13.811 | 146  | 200637   | 48.993  | ug/l  | 99       |
| 85) n-Butylbenzene            | 14.053 | 91   | 325144   | 51.146  | ug/l  | 99       |
| 86) Hexachloroethane          | 14.329 | 117  | 71737    | 47.548  | ug/l  | 96       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 193910   | 48.889  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 26674    | 47.975  | ug/l  | 97       |
| 89) 1,2,4-Trichlorobenzene    | 15.835 | 180  | 96150    | 49.499  | ug/l  | 98       |
| 90) Hexachlorobutadiene       | 15.500 | 225  | 45780    | 45.354  | ug/l  | 97       |
| 91) Naphthalene               | 15.641 | 128  | 310785   | 51.498  | ug/l  | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 96150    | 49.499  | ug/l  | 98       |

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

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Sample : VSTDICC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
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