

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN041024\  
 Data File : VN081682.D  
 Acq On : 10 Apr 2024 14:49  
 Operator : JC\MD  
 Sample : VSTDICC150  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Quant Time: Apr 11 09:08:55 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N041024W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Apr 11 09:07:06 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 04/11/2024  
 Supervised By : Mahesh Dadoda 04/11/2024

| Compound                     | R.T. QIon      |     | Response   | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|-----|------------|---------|--------|----------|
| -----                        |                |     |            |         |        |          |
| Internal Standards           |                |     |            |         |        |          |
| 1) Bromochloromethane        | 7.818          | 128 | 34072      | 30.000  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.100          | 114 | 237130     | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.871         | 117 | 310477     | 30.000  | ug/l   | 0.00     |
| System Monitoring Compounds  |                |     |            |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.577          | 65  | 113653     | 27.152  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |     | Recovery = | 90.500% | #      |          |
| 60) 4-Bromofluorobenzene     | 12.847         | 95  | 181515     | 29.736  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |     | Recovery = | 99.133% |        |          |
| 63) Toluene-d8               | 10.571         | 98  | 356934     | 28.660  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |     | Recovery = | 95.533% |        |          |
| Target Compounds             |                |     |            |         |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.124          | 85  | 692625     | 145.482 | ug/l   | 98       |
| 3) Chloromethane             | 2.359          | 50  | 574821     | 139.162 | ug/l   | 98       |
| 4) Vinyl Chloride            | 2.512          | 62  | 670106     | 157.769 | ug/l   | 96       |
| 5) Bromomethane              | 2.930          | 94  | 487717     | 135.585 | ug/l   | 94       |
| 6) Chloroethane              | 3.106          | 64  | 472216     | 142.046 | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 3.489          | 101 | 1194241    | 171.197 | ug/l   | 98       |
| 8) Diethyl Ether             | 3.959          | 74  | 393003     | 151.105 | ug/l   | 98       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365          | 101 | 679201     | 141.960 | ug/l   | 97       |
| 10) 1,1-Dichloroethene       | 4.336          | 96  | 657763     | 157.354 | ug/l   | 98       |
| 11) Methyl Iodide            | 4.589          | 142 | 851461     | 171.252 | ug/l   | 92       |
| 12) Methyl Acetate           | 5.018          | 43  | 550606     | 136.811 | ug/l   | 88       |
| 13) Acrolein                 | 4.177          | 56  | 387804     | 730.864 | ug/l   | 98       |
| 14) Acrylonitrile            | 5.718          | 53  | 1441740    | 718.906 | ug/l   | 99       |
| 15) Acetone                  | 4.424          | 58  | 299823     | 678.074 | ug/l   | 90       |
| 16) Carbon Disulfide         | 4.712          | 76  | 1786054    | 143.156 | ug/l   | 97       |
| 17) Allyl chloride           | 5.018          | 41  | 775227     | 146.058 | ug/l   | 92       |
| 18) Methylene Chloride       | 5.277          | 84  | 711517     | 140.832 | ug/l   | 96       |
| 19) trans-1,2-Dichloroethene | 5.783          | 96  | 697933     | 145.056 | ug/l   | 88       |
| 20) Diisopropyl ether        | 6.671          | 45  | 1864806    | 147.091 | ug/l   | 94       |
| 21) 1,1-Dichloroethane       | 6.571          | 63  | 1181022    | 140.179 | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 7.489          | 96  | 839986     | 144.570 | ug/l   | 93       |
| 23) tert-Butyl Alcohol       | 5.518          | 59  | 502716     | 706.140 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.795          | 73  | 2061254    | 150.211 | ug/l   | 99       |
| 25) Chloroform               | 7.965          | 83  | 1334760    | 139.239 | ug/l   | 99       |
| 26) Cyclohexane              | 8.259          | 56  | 1012320    | 149.883 | ug/l # | 83       |
| 29) 1,1-Dichloropropene      | 8.371          | 75  | 928538     | 148.943 | ug/l   | 97       |
| 30) 2-Butanone               | 7.483          | 43  | 1674201    | 703.184 | ug/l   | 96       |
| 31) 2,2-Dichloropropane      | 7.489          | 77  | 1109762    | 142.915 | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97  | 1237053    | 143.975 | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.365          | 117 | 1113062    | 142.916 | ug/l   | 97       |
| 34) Benzene                  | 8.606          | 78  | 2897195    | 144.265 | ug/l   | 98       |
| 35) Methacrylonitrile        | 7.783          | 41  | 405033     | 150.191 | ug/l   | 91       |
| 36) 1,2-Dichloroethane       | 8.671          | 62  | 906365     | 137.596 | ug/l   | 100      |
| 37) Trichloroethene          | 9.353          | 130 | 794137     | 149.435 | ug/l   | 94       |
| 38) Methylcyclohexane        | 9.600          | 83  | 1189915    | 156.161 | ug/l   | 93       |
| 39) 1,2-Dichloropropane      | 9.624          | 63  | 659177     | 140.695 | ug/l   | 99       |
| 40) Dibromomethane           | 9.712          | 93  | 523610     | 140.302 | ug/l   | 97       |
| 41) Bromodichloromethane     | 9.888          | 83  | 1091308    | 143.395 | ug/l   | 98       |
| 42) Vinyl Acetate            | 6.600          | 43  | 7444973    | 750.628 | ug/l   | 96       |

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 Sample : VSTDICC150  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 04/11/2024  
 Supervised By : Mahesh Dadoda 04/11/2024

Quant Time: Apr 11 09:08:55 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N041024W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Apr 11 09:07:06 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 43) Ethyl Acetate             | 7.559  | 43   | 755451   | 143.532  | ug/l   | 96       |
| 44) Isopropyl Acetate         | 8.688  | 43   | 1295275  | 147.324  | ug/l   | 97       |
| 45) 1,4-Dioxane               | 9.700  | 88   | 279484   | 2879.651 | ug/l   | 91       |
| 46) Methyl methacrylate       | 9.682  | 41   | 574061   | 145.195  | ug/l   | 90       |
| 47) n-amyl Acetate            | 12.494 | 43   | 1231918  | 156.152  | ug/l   | 92       |
| 48) t-1,3-Dichloropropene     | 10.835 | 75   | 1113708  | 153.602  | ug/l   | 96       |
| 49) cis-1,3-Dichloropropene   | 10.312 | 75   | 1176061  | 150.620  | ug/l   | 97       |
| 50) 1,1,2-Trichloroethane     | 11.018 | 97   | 715456   | 143.170  | ug/l   | 98       |
| 51) Ethyl methacrylate        | 10.877 | 69   | 1096805  | 157.629  | ug/l   | 96       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 1167087  | 142.485  | ug/l   | 99       |
| 53) Dibromochloromethane      | 11.365 | 129  | 887041   | 148.597  | ug/l   | 98       |
| 54) 1,2-Dibromoethane         | 11.471 | 107  | 746068   | 144.435  | ug/l   | 100      |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 2754582  | 806.158  | ug/l   | 98       |
| 56) Bromoform                 | 12.582 | 173  | 580525   | 152.088  | ug/l # | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43   | 3883612  | 727.365  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.200 | 43   | 2871205  | 716.040  | ug/l   | 96       |
| 61) Tetrachloroethene         | 11.106 | 164  | 838381   | 145.730  | ug/l   | 95       |
| 62) Toluene                   | 10.629 | 91   | 3331211  | 147.478  | ug/l   | 100      |
| 64) Chlorobenzene             | 11.894 | 112  | 2152671  | 150.295  | ug/l   | 96       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 764451   | 146.930  | ug/l   | 98       |
| 66) Ethyl Benzene             | 11.965 | 91   | 3798269  | 158.159  | ug/l   | 98       |
| 67) m/p-Xylenes               | 12.071 | 106  | 2972741  | 312.498  | ug/l   | 94       |
| 68) o-Xylene                  | 12.400 | 106  | 1443560  | 159.848  | ug/l   | 94       |
| 69) Styrene                   | 12.412 | 104  | 2464863  | 160.265  | ug/l   | 96       |
| 70) Isopropylbenzene          | 12.694 | 105  | 3722444  | 159.776  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 849499   | 139.584  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.994 | 75   | 708285m  | 82.522   | ug/l   |          |
| 73) Bromobenzene              | 12.982 | 156  | 866391   | 150.077  | ug/l   | 89       |
| 74) n-propylbenzene           | 13.035 | 91   | 4380094  | 156.972  | ug/l   | 98       |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 2548469  | 153.387  | ug/l   | 93       |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 3088564  | 156.188  | ug/l   | 98       |
| 77) t-1,4-Dichloro-2-butene   | 12.735 | 75   | 367021   | 157.292  | ug/l   | 93       |
| 78) 4-Chlorotoluene           | 13.223 | 91   | 2539080  | 154.079  | ug/l   | 93       |
| 79) tert-butylbenzene         | 13.441 | 119  | 2719735  | 161.665  | ug/l   | 96       |
| 80) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 3091775  | 156.777  | ug/l   | 97       |
| 81) sec-Butylbenzene          | 13.618 | 105  | 3917341  | 161.459  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 13.729 | 119  | 3353777  | 164.821  | ug/l   | 97       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 1636444  | 151.677  | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 13.812 | 146  | 1615731  | 154.706  | ug/l   | 97       |
| 85) n-Butylbenzene            | 14.059 | 91   | 2844986  | 165.989  | ug/l   | 99       |
| 86) Hexachloroethane          | 14.335 | 117  | 609121   | 156.693  | ug/l   | 88       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 1547584  | 150.695  | ug/l   | 97       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 197729   | 149.035  | ug/l   | 91       |
| 89) 1,2,4-Trichlorobenzene    | 15.841 | 180  | 932041   | 164.447  | ug/l   | 99       |
| 90) Hexachlorobutadiene       | 15.506 | 225  | 351196   | 155.692  | ug/l   | 98       |
| 91) Naphthalene               | 15.641 | 128  | 3162063  | 174.730  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 932041   | 165.582  | ug/l   | 99       |

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

