

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX030524\  
 Data File : VX040581.D  
 Acq On : 05 Mar 2024 11:44  
 Operator : JC/MD  
 Sample : VSTDICC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 03/05/2024  
 Supervised By : Mahesh Dadoda 03/06/2024

Quant Time: Mar 05 13:15:21 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X030524W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Mar 05 13:11:20 2024  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                        |                |      |                     |         |        |          |
| Internal Standards           |                |      |                     |         |        |          |
| 1) Bromochloromethane        | 4.903          | 128  | 14094               | 30.000  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 6.763          | 114  | 80975               | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 10.055         | 117  | 76859               | 30.000  | ug/l   | 0.00     |
|                              |                |      |                     |         |        |          |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 5.958          | 65   | 41303               | 18.693  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 62.300%# |         |        |          |
| 60) 4-Bromofluorobenzene     | 11.079         | 95   | 41824               | 24.672  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 82.233%  |         |        |          |
| 63) Toluene-d8               | 8.647          | 98   | 102841              | 32.545  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 108.467% |         |        |          |
|                              |                |      |                     |         |        |          |
| Target Compounds             |                |      |                     |         |        |          |
|                              |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 46052               | 19.340  | ug/l   | 100      |
| 3) Chloromethane             | 1.294          | 50   | 46129               | 17.437  | ug/l   | 98       |
| 4) Vinyl Chloride            | 1.374          | 62   | 49966               | 19.353  | ug/l   | 99       |
| 5) Bromomethane              | 1.599          | 94   | 34875               | 28.267  | ug/l   | 99       |
| 6) Chloroethane              | 1.685          | 64   | 32608               | 27.747  | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 87459               | 23.989  | ug/l   | 97       |
| 8) Diethyl Ether             | 2.136          | 74   | 29522               | 21.642  | ug/l   | 98       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 43225               | 19.357  | ug/l   | 95       |
| 10) 1,1-Dichloroethene       | 2.319          | 96   | 40793               | 19.066  | ug/l   | 98       |
| 11) Methyl Iodide            | 2.453          | 142  | 51461               | 21.949  | ug/l   | 97       |
| 12) Methyl Acetate           | 2.703          | 43   | 70648               | 20.502  | ug/l   | 98       |
| 13) Acrolein                 | 2.233          | 56   | 65161               | 126.737 | ug/l   | 98       |
| 14) Acrylonitrile            | 3.062          | 53   | 135082              | 85.482  | ug/l   | 98       |
| 15) Acetone                  | 2.380          | 58   | 39102               | 78.447  | ug/l   | 77       |
| 16) Carbon Disulfide         | 2.508          | 76   | 112632              | 19.526  | ug/l   | 98       |
| 17) Allyl chloride           | 2.660          | 41   | 74994               | 17.775  | ug/l   | 85       |
| 18) Methylene Chloride       | 2.788          | 84   | 46600               | 18.631  | ug/l   | 98       |
| 19) trans-1,2-Dichloroethene | 3.093          | 96   | 45431               | 20.011  | ug/l   | 98       |
| 20) Diisopropyl ether        | 3.763          | 45   | 149882              | 18.200  | ug/l   | 93       |
| 21) 1,1-Dichloroethane       | 3.611          | 63   | 87613               | 19.054  | ug/l   | 96       |
| 22) cis-1,2-Dichloroethene   | 4.489          | 96   | 53733               | 20.248  | ug/l   | 99       |
| 23) tert-Butyl Alcohol       | 2.965          | 59   | 61274               | 82.775  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 3.117          | 73   | 150774              | 19.226  | ug/l   | 94       |
| 25) Chloroform               | 5.099          | 83   | 95668               | 21.199  | ug/l   | 96       |
| 26) Cyclohexane              | 5.470          | 56   | 72333               | 18.133  | ug/l # | 97       |
| 29) 1,1-Dichloropropene      | 5.690          | 75   | 69844               | 30.057  | ug/l   | 97       |
| 30) 2-Butanone               | 4.556          | 43   | 208516              | 125.111 | ug/l   | 98       |
| 31) 2,2-Dichloropropane      | 4.477          | 77   | 74652               | 28.895  | ug/l   | 98       |
| 32) 1,1,1-Trichloroethane    | 5.379          | 97   | 85055               | 31.670  | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 5.678          | 117  | 73588               | 34.757  | ug/l   | 95       |
| 34) Benzene                  | 6.037          | 78   | 184912              | 26.824  | ug/l   | 98       |
| 35) Methacrylonitrile        | 4.916          | 41   | 42251               | 26.347  | ug/l   | 96       |
| 36) 1,2-Dichloroethane       | 6.086          | 62   | 82599               | 30.557  | ug/l   | 95       |
| 37) Trichloroethene          | 7.129          | 130  | 50091               | 30.584  | ug/l   | 91       |
| 38) Methylcyclohexane        | 7.379          | 83   | 77667               | 27.318  | ug/l   | 98       |
| 39) 1,2-Dichloropropane      | 7.427          | 63   | 48657               | 26.197  | ug/l   | 97       |
| 40) Dibromomethane           | 7.580          | 93   | 38474               | 30.666  | ug/l   | 97       |
| 41) Bromodichloromethane     | 7.824          | 83   | 76058               | 32.715  | ug/l   | 96       |
| 42) Vinyl Acetate            | 3.721          | 43   | 720313              | 130.715 | ug/l   | 99       |

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Mar 05 13:11:20 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 4.714  | 43   | 75219    | 24.079  | ug/l   | 99       |
| 44) Isopropyl Acetate         | 6.336  | 43   | 126495   | 26.194  | ug/l   | 95       |
| 45) 1,4-Dioxane               | 7.659  | 88   | 25702    | 552.025 | ug/l   | 97       |
| 46) Methyl methacrylate       | 7.690  | 41   | 63744    | 27.484  | ug/l   | 92       |
| 47) n-amyl Acetate            | 10.841 | 43   | 118176   | 28.020  | ug/l   | 98       |
| 48) t-1,3-Dichloropropene     | 8.976  | 75   | 81755    | 32.673  | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene   | 8.366  | 75   | 83871    | 30.606  | ug/l   | 94       |
| 50) 1,1,2-Trichloroethane     | 9.153  | 97   | 49862    | 28.993  | ug/l   | 98       |
| 51) Ethyl methacrylate        | 9.116  | 69   | 81387    | 28.330  | ug/l   | 96       |
| 52) 1,3-Dichloropropane       | 9.305  | 76   | 88021    | 29.659  | ug/l   | 99       |
| 53) Dibromochloromethane      | 9.518  | 129  | 57545    | 35.955  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 9.610  | 107  | 55950    | 31.042  | ug/l   | 100      |
| 55) 2-Chloroethyl vinyl ether | 8.244  | 63   | 202739   | 145.030 | ug/l   | 99       |
| 56) Bromoform                 | 10.799 | 173  | 43019    | 39.906  | ug/l # | 97       |
| 58) 4-Methyl-2-Pentanone      | 8.574  | 43   | 429348   | 169.828 | ug/l   | 99       |
| 59) 2-Hexanone                | 9.427  | 43   | 342748   | 167.483 | ug/l   | 97       |
| 61) Tetrachloroethene         | 9.275  | 164  | 47177    | 46.338  | ug/l   | 98       |
| 62) Toluene                   | 8.720  | 91   | 214469   | 37.640  | ug/l   | 99       |
| 64) Chlorobenzene             | 10.079 | 112  | 132983   | 40.142  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 51775    | 43.960  | ug/l   | 97       |
| 66) Ethyl Benzene             | 10.195 | 91   | 253488   | 40.515  | ug/l   | 98       |
| 67) m/p-Xylenes               | 10.299 | 106  | 188438   | 82.454  | ug/l   | 96       |
| 68) o-Xylene                  | 10.640 | 106  | 91055    | 39.686  | ug/l   | 94       |
| 69) Styrene                   | 10.652 | 104  | 154032   | 41.994  | ug/l   | 98       |
| 70) Isopropylbenzene          | 10.963 | 105  | 244332   | 40.347  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 84760    | 36.441  | ug/l   | 98       |
| 72) 1,2,3-Trichloropropane    | 11.238 | 75   | 72535m   | 37.284  | ug/l   |          |
| 73) Bromobenzene              | 11.195 | 156  | 57195    | 42.779  | ug/l   | 96       |
| 74) n-propylbenzene           | 11.305 | 91   | 304808   | 42.215  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 11.366 | 91   | 178383   | 39.768  | ug/l   | 98       |
| 76) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 211325   | 40.849  | ug/l   | 98       |
| 77) t-1,4-Dichloro-2-butene   | 11.018 | 75   | 23945    | 37.505  | ug/l   | 83       |
| 78) 4-Chlorotoluene           | 11.451 | 91   | 210904   | 42.392  | ug/l   | 97       |
| 79) tert-butylbenzene         | 11.713 | 119  | 204686   | 41.756  | ug/l   | 98       |
| 80) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 212241   | 41.339  | ug/l   | 100      |
| 81) sec-Butylbenzene          | 11.890 | 105  | 267444   | 42.452  | ug/l   | 100      |
| 82) p-Isopropyltoluene        | 12.006 | 119  | 215095   | 42.900  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 11.969 | 146  | 110069   | 44.047  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene       | 12.042 | 146  | 112237   | 45.284  | ug/l   | 98       |
| 85) n-Butylbenzene            | 12.329 | 91   | 212687   | 46.348  | ug/l   | 98       |
| 86) Hexachloroethane          | 12.536 | 117  | 38002    | 44.302  | ug/l   | 89       |
| 87) 1,2-Dichlorobenzene       | 12.335 | 146  | 108993   | 43.522  | ug/l   | 100      |
| 88) 1,2-Dibromo-3-Chloropr... | 12.939 | 75   | 22767    | 40.878  | ug/l   | 100      |
| 89) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 70901    | 50.216  | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 13.725 | 225  | 29724    | 48.090  | ug/l   | 99       |
| 91) Naphthalene               | 13.774 | 128  | 240190   | 43.603  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 13.957 | 180  | 72496    | 49.591  | ug/l   | 99       |

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

