

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX071523\  
 Data File : VX036548.D  
 Acq On : 14 Jul 2023 08:49  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

Reviewed By :John  
 Carlone

07/17/2023  
 Supervised By :Semsettin  
 Yesilyurt

Quant Time: Jul 17 01:20:33 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X071423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Jul 14 04:32:22 2023  
 Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 4.903  | 128  | 34083    | 30.000 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.757  | 114  | 185321   | 30.000 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.055 | 117  | 170364   | 30.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 27) 1,2-Dichloroethane-d4   | 5.952  | 65    | 83743    | 29.604   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 110 | Recovery | =    | 98.667%  |
| 60) 4-Bromofluorobenzene    | 11.079 | 95    | 85126    | 30.804   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 63 - 112 | Recovery | =    | 102.667% |
| 63) Toluene-d8              | 8.647  | 98    | 234722   | 29.941   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 112 | Recovery | =    | 99.800%  |

|                              |       |     |        |        |        |        |
|------------------------------|-------|-----|--------|--------|--------|--------|
| Target Compounds             |       |     |        |        |        | Qvalue |
| 2) Dichlorodifluoromethane   | 1.166 | 85  | 35154  | 18.460 | ug/l   | 97     |
| 3) Chloromethane             | 1.300 | 50  | 44714  | 17.163 | ug/l   | 96     |
| 4) Vinyl Chloride            | 1.374 | 62  | 45873  | 17.075 | ug/l   | 99     |
| 5) Bromomethane              | 1.611 | 94  | 47018  | 17.089 | ug/l   | 99     |
| 6) Chloroethane              | 1.685 | 64  | 34059  | 18.626 | ug/l   | 96     |
| 7) Trichlorofluoromethane    | 1.886 | 101 | 77220  | 17.717 | ug/l   | 100    |
| 8) Diethyl Ether             | 2.136 | 74  | 32892  | 18.163 | ug/l   | 95     |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 36546  | 18.520 | ug/l   | 97     |
| 10) 1,1-Dichloroethene       | 2.319 | 96  | 34886  | 17.491 | ug/l   | 96     |
| 11) Methyl Iodide            | 2.453 | 142 | 36847  | 16.212 | ug/l   | 98     |
| 12) Methyl Acetate           | 2.703 | 43  | 82343  | 17.564 | ug/l   | 95     |
| 13) Acrolein                 | 2.245 | 56  | 21581  | 56.113 | ug/l   | 95     |
| 14) Acrylonitrile            | 3.062 | 53  | 113755 | 86.564 | ug/l   | 97     |
| 15) Acetone                  | 2.386 | 58  | 32540  | 87.462 | ug/l   | 87     |
| 16) Carbon Disulfide         | 2.514 | 76  | 84348  | 17.431 | ug/l   | 99     |
| 17) Allyl chloride           | 2.666 | 41  | 63418  | 17.924 | ug/l   | 97     |
| 18) Methylene Chloride       | 2.788 | 84  | 44918  | 18.703 | ug/l   | 95     |
| 19) trans-1,2-Dichloroethene | 3.093 | 96  | 39011  | 17.894 | ug/l   | 99     |
| 20) Diisopropyl ether        | 3.757 | 45  | 136558 | 18.937 | ug/l   | 90     |
| 21) 1,1-Dichloroethane       | 3.611 | 63  | 75270  | 17.904 | ug/l   | 99     |
| 22) cis-1,2-Dichloroethene   | 4.483 | 96  | 47444  | 18.082 | ug/l   | 99     |
| 23) tert-Butyl Alcohol       | 2.971 | 59  | 51980m | 85.179 | ug/l   |        |
| 24) Methyl tert-Butyl Ether  | 3.111 | 73  | 135271 | 18.650 | ug/l   | 99     |
| 25) Chloroform               | 5.092 | 83  | 80225  | 18.457 | ug/l   | 98     |
| 26) Cyclohexane              | 5.470 | 56  | 58388  | 18.103 | ug/l # | 100    |
| 29) 1,1-Dichloropropene      | 5.690 | 75  | 54703  | 19.575 | ug/l   | 99     |
| 30) 2-Butanone               | 4.556 | 43  | 162315 | 92.246 | ug/l   | 99     |
| 31) 2,2-Dichloropropane      | 4.471 | 77  | 59206  | 19.319 | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane    | 5.379 | 97  | 62682  | 18.876 | ug/l   | 99     |
| 33) Carbon Tetrachloride     | 5.678 | 117 | 54463  | 19.224 | ug/l   | 95     |
| 34) Benzene                  | 6.037 | 78  | 169046 | 19.624 | ug/l   | 98     |
| 35) Methacrylonitrile        | 4.916 | 41  | 33304  | 18.242 | ug/l   | 98     |
| 36) 1,2-Dichloroethane       | 6.086 | 62  | 65403  | 19.774 | ug/l   | 99     |
| 37) Trichloroethene          | 7.123 | 130 | 42928  | 18.935 | ug/l   | 92     |
| 38) Methylcyclohexane        | 7.379 | 83  | 61967  | 19.060 | ug/l   | 99     |
| 39) 1,2-Dichloropropane      | 7.427 | 63  | 45919  | 19.666 | ug/l   | 99     |
| 40) Dibromomethane           | 7.580 | 93  | 32899  | 19.452 | ug/l   | 99     |
| 41) Bromodichloromethane     | 7.818 | 83  | 59609  | 19.420 | ug/l   | 95     |
| 42) Vinyl Acetate            | 3.721 | 43  | 528320 | 99.404 | ug/l   | 100    |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX071523\  
 Data File : VX036548.D  
 Acq On : 14 Jul 2023 08:49  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

Reviewed By :John  
 Carlone

07/17/2023  
 Supervised By :Semsettin  
 Yesilyurt

Quant Time: Jul 17 01:20:33 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X071423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Jul 14 04:32:22 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 4.715  | 43   | 65053    | 18.993  | ug/l   | 96       |
| 44) Isopropyl Acetate         | 6.336  | 43   | 104922   | 19.209  | ug/l   | 98       |
| 45) 1,4-Dioxane               | 7.677  | 88   | 22110    | 356.603 | ug/l # | 1        |
| 46) Methyl methacrylate       | 7.690  | 41   | 49935    | 19.128  | ug/l   | 90       |
| 47) n-amyl Acetate            | 10.841 | 43   | 89383    | 19.293  | ug/l   | 99       |
| 48) t-1,3-Dichloropropene     | 8.976  | 75   | 65752    | 19.530  | ug/l   | 93       |
| 49) cis-1,3-Dichloropropene   | 8.366  | 75   | 71401    | 19.633  | ug/l   | 95       |
| 50) 1,1,2-Trichloroethane     | 9.153  | 97   | 46637    | 20.313  | ug/l   | 92       |
| 51) Ethyl methacrylate        | 9.116  | 69   | 70251    | 19.490  | ug/l   | 98       |
| 52) 1,3-Dichloropropane       | 9.305  | 76   | 77205    | 19.926  | ug/l   | 99       |
| 53) Dibromochloromethane      | 9.519  | 129  | 45152    | 19.484  | ug/l   | 99       |
| 54) 1,2-Dibromoethane         | 9.610  | 107  | 48297    | 20.025  | ug/l   | 99       |
| 55) 2-Chloroethyl vinyl ether | 8.238  | 63   | 187335   | 96.635  | ug/l   | 100      |
| 56) Bromoform                 | 10.799 | 173  | 30416    | 18.865  | ug/l   | 100      |
| 58) 4-Methyl-2-Pentanone      | 8.574  | 43   | 329543   | 93.543  | ug/l   | 100      |
| 59) 2-Hexanone                | 9.427  | 43   | 246586   | 92.007  | ug/l   | 100      |
| 61) Tetrachloroethene         | 9.275  | 164  | 37667    | 18.460  | ug/l   | 94       |
| 62) Toluene                   | 8.714  | 91   | 183506   | 19.198  | ug/l   | 99       |
| 64) Chlorobenzene             | 10.079 | 112  | 113781   | 19.120  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 10.159 | 131  | 41209    | 19.174  | ug/l   | 99       |
| 66) Ethyl Benzene             | 10.195 | 91   | 196315   | 18.897  | ug/l   | 97       |
| 67) m/p-Xylenes               | 10.299 | 106  | 151871   | 37.499  | ug/l   | 97       |
| 68) o-Xylene                  | 10.640 | 106  | 76242    | 18.968  | ug/l   | 97       |
| 69) Styrene                   | 10.652 | 104  | 126267   | 19.375  | ug/l   | 99       |
| 70) Isopropylbenzene          | 10.963 | 105  | 190788   | 19.058  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 69794    | 19.101  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 11.238 | 75   | 65767m   | 19.424  | ug/l   |          |
| 73) Bromobenzene              | 11.195 | 156  | 46684    | 18.865  | ug/l   | 98       |
| 74) n-propylbenzene           | 11.305 | 91   | 222621   | 18.894  | ug/l   | 100      |
| 75) 2-Chlorotoluene           | 11.366 | 91   | 136704   | 19.079  | ug/l   | 98       |
| 76) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 162381   | 18.876  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene   | 11.018 | 75   | 18589    | 16.719  | ug/l   | 97       |
| 78) 4-Chlorotoluene           | 11.451 | 91   | 157549   | 19.311  | ug/l   | 100      |
| 79) tert-butylbenzene         | 11.713 | 119  | 149408   | 18.299  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 163322   | 19.161  | ug/l   | 99       |
| 81) sec-Butylbenzene          | 11.890 | 105  | 189867   | 18.475  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 12.006 | 119  | 159181   | 18.617  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 11.969 | 146  | 86807    | 18.859  | ug/l   | 99       |
| 84) 1,4-Dichlorobenzene       | 12.042 | 146  | 88321    | 19.256  | ug/l   | 99       |
| 85) n-Butylbenzene            | 12.335 | 91   | 138974   | 17.856  | ug/l   | 98       |
| 86) Hexachloroethane          | 12.536 | 117  | 25312    | 17.880  | ug/l   | 91       |
| 87) 1,2-Dichlorobenzene       | 12.335 | 146  | 89364    | 19.355  | ug/l   | 96       |
| 88) 1,2-Dibromo-3-Chloropr... | 12.939 | 75   | 13912    | 16.933  | ug/l   | 95       |
| 89) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 52030    | 17.870  | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 13.725 | 225  | 19187    | 18.143  | ug/l   | 98       |
| 91) Naphthalene               | 13.774 | 128  | 185976   | 18.204  | ug/l   | 100      |
| 92) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 52721    | 17.939  | ug/l   | 99       |

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

