

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052819\  
 Data File : VL033838.D  
 Acq On : 29 May 2019 14:59  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

apatel  
 5/30/2019 3:34:33 PM

Quant Time: May 30 02:04:38 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri May 1  
 QLast Update : Fri May 17 08:15:41 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 804541   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2173217  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2221409m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1676315  | 9.31     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 93.10% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.07 | 85   | 1366466  | 8.059  | ppbv   | 98     |
| 3) Chlorodifluoromethane       | 3.01 | 51   | 966878   | 10.492 | ppbv   | 98     |
| 4) Chloromethane               | 3.17 | 50   | 592921   | 11.249 | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.29 | 62   | 580948   | 10.820 | ppbv   | 99     |
| 6) Bromomethane                | 3.51 | 94   | 365676   | 11.162 | ppbv   | 98     |
| 7) Chloroethane                | 3.60 | 64   | 210359   | 11.024 | ppbv   | 96     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85   | 1447640  | 10.590 | ppbv   | 97     |
| 9) Propene                     | 3.03 | 41   | 460688   | 11.753 | ppbv   | 99     |
| 10) Heptane                    | 8.24 | 43   | 1155509  | 10.410 | ppbv   | 100    |
| 11) Trichlorofluoromethane     | 4.00 | 101  | 1593448  | 9.847  | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101  | 1084745  | 9.599  | ppbv   | 97     |
| 13) Ethanol                    | 3.65 | 45   | 96536    | 7.620  | ppbv   | 99     |
| 14) Bromoethene                | 3.78 | 108  | 482073   | 11.604 | ppbv   | 99     |
| 15) Acetone                    | 3.90 | 43   | 1020624  | 9.143  | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.36 | 39   | 509131   | 11.454 | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.35 | 59   | 1014197  | 11.236 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.35 | 96   | 495579   | 10.390 | ppbv   | 97     |
| 19) Isopropyl Alcohol          | 4.02 | 45   | 765930   | 10.642 | ppbv   | 100    |
| 20) Methylene Chloride         | 4.41 | 84   | 414143   | 9.636  | ppbv   | 97     |
| 21) Allyl Chloride             | 4.47 | 41   | 717009   | 10.298 | ppbv   | 98     |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96   | 509694   | 10.425 | ppbv   | 97     |
| 23) Vinyl Acetate              | 5.15 | 43   | 1657530  | 11.262 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.09 | 63   | 1163377  | 10.398 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.77 | 43   | 1983371  | 10.115 | ppbv   | 100    |
| 26) Hexane                     | 5.78 | 57   | 891344   | 10.574 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.62 | 76   | 1196805  | 10.348 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73   | 1574407  | 11.456 | ppbv   | 100    |
| 29) Chloroform                 | 5.85 | 83   | 1523086  | 9.809  | ppbv   | 99     |
| 30) Cyclohexane                | 7.24 | 84   | 823480   | 11.619 | ppbv   | 97     |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61   | 901968   | 10.791 | ppbv   | 95     |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97   | 1611705  | 10.395 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.33 | 43   | 1315846  | 9.768  | ppbv   | 98     |
| 35) Carbon Tetrachloride       | 7.13 | 117  | 1673634  | 9.614  | ppbv   | 99     |
| 36) Benzene                    | 7.00 | 78   | 2043216  | 10.336 | ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 6.41 | 62   | 1125354  | 8.825  | ppbv   | 98     |
| 38) Trichloroethene            | 7.96 | 130  | 769259   | 10.487 | ppbv   | 99     |
| 39) 1,2-Dichloropropane        | 7.73 | 63   | 717280   | 9.732  | ppbv   | 95     |
| 40) 1,4-Dioxane                | 7.95 | 88   | 300516   | 9.747  | ppbv # | 93     |
| 41) Tetrahydrofuran            | 6.14 | 42   | 774704   | 10.264 | ppbv   | 98     |
| 42) Bromodichloromethane       | 7.91 | 83   | 1652586  | 9.466  | ppbv   | 97     |
| 43) Methyl Methacrylate        | 8.13 | 69   | 751012   | 10.323 | ppbv   | 98     |

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|-------------------------------|-------|------|----------|--------|--------|----------|
| -----                         |       |      |          |        |        |          |
| 44) 2,2,4-Trimethylpentane    | 7.98  | 57   | 3099303  | 9.276  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1059910  | 11.492 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1133592  | 10.497 | ppbv   | 95       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 806685   | 9.634  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.44 | 129  | 1395031  | 9.616  | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1324443  | 10.850 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 1958235  | 9.451  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.26 | 43   | 1645325  | 10.175 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.37 | 164  | 755000   | 10.865 | ppbv   | 95       |
| 53) Toluene                   | 9.94  | 91   | 2244445  | 10.526 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1262112  | 9.877  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 974745   | 9.483  | ppbv   | 97       |
| 57) Chlorobenzene             | 12.30 | 112  | 1735829  | 9.493  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3190282  | 10.845 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.15 | 91   | 5292285m | 20.581 | ppbv   |          |
| 60) o-Xylene                  | 13.84 | 91   | 2592282  | 10.000 | ppbv   | 98       |
| 61) Styrene                   | 13.68 | 104  | 2009487  | 11.514 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.82 | 105  | 3549095  | 10.166 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 1818178  | 9.645  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.72 | 120  | 921189   | 10.201 | ppbv   | 100      |
| 65) tert-Butylbenzene         | 16.91 | 119  | 3111617  | 9.762  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.15 | 91   | 1569184  | 10.337 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.45 | 105  | 4507385  | 10.104 | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 3768689  | 10.221 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.71 | 91   | 3837582  | 9.705  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 2795363  | 10.793 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.99 | 105  | 3137054  | 10.584 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 2962235  | 10.243 | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 2973916  | 9.449  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1791067  | 9.287  | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.30 | 146  | 1791130  | 9.772  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 1738737  | 9.595  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1190791  | 8.691  | ppbv   | 99       |
| 79) Naphthalene               | 22.40 | 128  | 2361764  | 8.079  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 919003   | 8.274  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 1379209  | 8.057  | ppbv   | 100      |
| -----                         |       |      |          |        |        |          |

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

