

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092418\  
 Data File : VL032547.D  
 Acq On : 25 Sep 2018 16:10  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

apatel  
 9/26/2018 5:04:23 PM

Quant Time: Sep 26 09:23:09 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Sep 26 09:23:09 2018  
 QLast Update : Tue Sep 25 05:17:15 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.79  | 49   | 1416207  | 10.00 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 7.33  | 114  | 3285248  | 10.00 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 12.28 | 117  | 3370100m | 10.00 | ppbv  | -0.02    |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.61  | 95    | 2536450  | 9.98     | ppbv | -0.02  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.80% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.09 | 85   | 1051209  | 8.025  | ppbv   | 97     |
| 3) Chlorodifluoromethane       | 3.03 | 51   | 1207093  | 10.249 | ppbv   | 100    |
| 4) Chloromethane               | 3.19 | 50   | 696255   | 10.139 | ppbv   | 99     |
| 5) Vinyl Chloride              | 3.31 | 62   | 665758   | 9.594  | ppbv   | 99     |
| 6) Bromomethane                | 3.53 | 94   | 376784   | 9.929  | ppbv   | 97     |
| 7) Chloroethane                | 3.62 | 64   | 243200   | 9.836  | ppbv   | 99     |
| 8) Dichlorotetrafluoroethane   | 3.24 | 85   | 1419591  | 9.919  | ppbv   | 100    |
| 9) Propene                     | 3.05 | 41   | 643526   | 12.594 | ppbv   | 99     |
| 10) Heptane                    | 8.28 | 43   | 2014659  | 10.749 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.02 | 101  | 1411228  | 9.063  | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.57 | 101  | 1218631  | 9.574  | ppbv   | 99     |
| 13) Ethanol                    | 3.67 | 45   | 133567   | 8.696  | ppbv   | 95     |
| 14) Bromoethene                | 3.81 | 108  | 438630   | 9.712  | ppbv   | 99     |
| 15) Acetone                    | 3.92 | 43   | 1203781  | 9.684  | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.38 | 39   | 556790   | 11.044 | ppbv   | 94     |
| 17) tert-Butyl alcohol         | 4.38 | 59   | 188000   | 12.035 | ppbv # | 100    |
| 18) 1,1-Dichloroethene         | 4.37 | 96   | 589693   | 9.892  | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.04 | 45   | 840073   | 9.702  | ppbv # | 98     |
| 20) Methylene Chloride         | 4.43 | 84   | 523404   | 8.695  | ppbv   | 98     |
| 21) Allyl Chloride             | 4.50 | 41   | 1043906  | 10.275 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.99 | 96   | 574067   | 10.218 | ppbv   | 98     |
| 23) Vinyl Acetate              | 5.18 | 43   | 2488878  | 11.330 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.12 | 63   | 1807574  | 9.882  | ppbv   | 100    |
| 25) Ethyl Acetate              | 5.80 | 43   | 2972829  | 9.855  | ppbv   | 100    |
| 26) Hexane                     | 5.81 | 57   | 1379896  | 10.128 | ppbv   | 99     |
| 27) Carbon Disulfide           | 4.64 | 76   | 1501818  | 10.253 | ppbv   | 100    |
| 28) Methyl tert-Butyl Ether    | 5.14 | 73   | 1946084  | 11.466 | ppbv   | 98     |
| 29) Chloroform                 | 5.88 | 83   | 2080630  | 9.952  | ppbv   | 95     |
| 30) Cyclohexane                | 7.28 | 84   | 1235651  | 11.138 | ppbv   | 99     |
| 31) cis-1,2-Dichloroethene     | 5.67 | 61   | 1404226  | 10.821 | ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 6.65 | 97   | 2000432  | 8.979  | ppbv   | 99     |
| 34) 2-Butanone                 | 5.35 | 43   | 2080812  | 10.636 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.17 | 117  | 2107676  | 9.233  | ppbv   | 99     |
| 36) Benzene                    | 7.04 | 78   | 2873052  | 10.821 | ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 6.44 | 62   | 1587291  | 9.920  | ppbv   | 99     |
| 38) Trichloroethene            | 7.99 | 130  | 1045422  | 10.287 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.77 | 63   | 1220878  | 10.204 | ppbv   | 98     |
| 40) 1,4-Dioxane                | 7.98 | 88   | 357434   | 9.743  | ppbv # | 1      |
| 41) Tetrahydrofuran            | 6.18 | 42   | 1284282  | 12.083 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.95 | 83   | 2354377  | 9.822  | ppbv   | 98     |
| 43) Methyl Methacrylate        | 8.17 | 69   | 1255146  | 11.317 | ppbv   | 100    |

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 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.02  | 57   | 5262494  | 10.142 | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.45  | 75   | 1666720  | 12.081 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.87  | 75   | 1778591  | 10.991 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.65  | 97   | 1293027  | 9.730  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.49 | 129  | 2123415  | 10.162 | ppbv   | 99       |
| 49) Bromoform                 | 13.24 | 173  | 1582201  | 9.910  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.90  | 43   | 3059809  | 9.950  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.30 | 43   | 2841075  | 11.171 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.41 | 164  | 903659   | 9.775  | ppbv   | 97       |
| 53) Toluene                   | 9.98  | 91   | 3652814  | 11.290 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.79 | 107  | 1954768  | 10.342 | ppbv   | 100      |
| 56) 1,1,1,2-Tetrachloroethane | 12.32 | 131  | 1401867  | 9.254  | ppbv # | 59       |
| 57) Chlorobenzene             | 12.34 | 112  | 2489281  | 9.169  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.90 | 91   | 4514340  | 11.043 | ppbv   | 97       |
| 59) m/p-Xylene                | 13.19 | 91   | 7316522m | 20.116 | ppbv   |          |
| 60) o-Xylene                  | 13.89 | 91   | 3614118  | 10.206 | ppbv   | 100      |
| 61) Styrene                   | 13.72 | 104  | 2657023  | 11.470 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.87 | 105  | 5077147  | 10.138 | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.87 | 83   | 2681202  | 8.523  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.76 | 120  | 1294916  | 10.065 | ppbv   | 96       |
| 65) tert-Butylbenzene         | 16.95 | 119  | 4220101  | 9.832  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.19 | 91   | 2516202  | 10.171 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.50 | 105  | 6269868  | 9.825  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.85 | 119  | 4926496  | 9.995  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.75 | 91   | 5388924  | 10.009 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.65 | 91   | 3951716  | 10.360 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.04 | 105  | 4124700  | 10.731 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.20 | 105  | 3929256  | 10.519 | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.96 | 105  | 3925376  | 9.760  | ppbv   | 100      |
| 75) 1,3-Dichlorobenzene       | 17.20 | 146  | 2139665  | 8.621  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.34 | 146  | 2155739m | 9.487  | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 18.02 | 146  | 2106910  | 9.027  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.58 | 225  | 1216300  | 13.885 | ppbv   | 99       |
| 79) Naphthalene               | 22.45 | 128  | 3251869  | 11.210 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.14 | 142  | 1061973  | 15.594 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.18 | 180  | 1554446  | 10.455 | ppbv   | 99       |

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

