

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110718\  
 Data File : VL032740.D  
 Acq On : 8 Nov 2018 9:49  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/12/2018 12:30:25 PM

Quant Time: Nov 08 12:17:47 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 2  
 QLast Update : Thu Oct 25 05:15:43 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1362311  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.31  | 114  | 3400844  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3521654m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2654405  | 10.12    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.20% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.08 | 85   | 1752836  | 12.629 | ppbv   | 100    |
| 3) Chlorodifluoromethane       | 3.02 | 51   | 999587   | 9.382  | ppbv   | 98     |
| 4) Chloromethane               | 3.18 | 50   | 517956   | 8.700  | ppbv   | 95     |
| 5) Vinyl Chloride              | 3.30 | 62   | 540048   | 8.374  | ppbv   | 99     |
| 6) Bromomethane                | 3.52 | 94   | 351370   | 8.739  | ppbv   | 94     |
| 7) Chloroethane                | 3.61 | 64   | 212034   | 8.929  | ppbv   | 90     |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85   | 1355142  | 9.263  | ppbv   | 93     |
| 9) Propene                     | 3.04 | 41   | 386768   | 8.821  | ppbv   | 100    |
| 10) Heptane                    | 8.26 | 43   | 1703422  | 10.082 | ppbv   | 100    |
| 11) Trichlorofluoromethane     | 4.01 | 101  | 1610249  | 8.882  | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101  | 1586902  | 10.525 | ppbv   | 94     |
| 13) Ethanol                    | 3.66 | 45   | 100567   | 8.025  | ppbv   | 96     |
| 14) Bromoethene                | 3.80 | 108  | 469945   | 9.223  | ppbv   | 98     |
| 15) Acetone                    | 3.91 | 43   | 1058604  | 8.415  | ppbv   | 97     |
| 16) 1,3-Butadiene              | 3.37 | 39   | 454300   | 9.817  | ppbv   | 82     |
| 17) tert-Butyl alcohol         | 4.36 | 59   | 120217   | 3.249  | ppbv # | 100    |
| 18) 1,1-Dichloroethene         | 4.36 | 96   | 698811   | 10.550 | ppbv   | 98     |
| 19) Isopropyl Alcohol          | 4.03 | 45   | 696756   | 7.777  | ppbv   | 99     |
| 20) Methylene Chloride         | 4.42 | 84   | 614129   | 9.617  | ppbv   | 91     |
| 21) Allyl Chloride             | 4.49 | 41   | 1159573  | 11.227 | ppbv   | 96     |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96   | 670247   | 9.865  | ppbv   | 91     |
| 23) Vinyl Acetate              | 5.17 | 43   | 2220719  | 9.962  | ppbv   | 100    |
| 24) 1,1-Dichloroethane         | 5.10 | 63   | 1542880  | 8.817  | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.78 | 43   | 2819932  | 9.739  | ppbv   | 99     |
| 26) Hexane                     | 5.79 | 57   | 1261346  | 9.206  | ppbv   | 95     |
| 27) Carbon Disulfide           | 4.63 | 76   | 1804240  | 10.856 | ppbv   | 98     |
| 28) Methyl tert-Butyl Ether    | 5.13 | 73   | 1643722  | 8.348  | ppbv   | 99     |
| 29) Chloroform                 | 5.86 | 83   | 2287859  | 10.454 | ppbv   | 96     |
| 30) Cyclohexane                | 7.26 | 84   | 1136396  | 10.479 | ppbv   | 97     |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61   | 1313951  | 10.343 | ppbv   | 96     |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97   | 2309756  | 10.385 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.34 | 43   | 1825699  | 10.014 | ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.15 | 117  | 2526718  | 10.468 | ppbv   | 100    |
| 36) Benzene                    | 7.02 | 78   | 2725750  | 9.870  | ppbv   | 98     |
| 37) 1,2-Dichloroethane         | 6.43 | 62   | 1821937  | 10.756 | ppbv   | 100    |
| 38) Trichloroethene            | 7.97 | 130  | 1104172  | 10.801 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.75 | 63   | 1028181  | 9.641  | ppbv # | 88     |
| 40) 1,4-Dioxane                | 7.97 | 88   | 380914   | 10.458 | ppbv # | 99     |
| 41) Tetrahydrofuran            | 6.16 | 42   | 1078773  | 10.619 | ppbv   | 99     |
| 42) Bromodichloromethane       | 7.93 | 83   | 2544197  | 10.720 | ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.15 | 69   | 1121927  | 11.085 | ppbv   | 95     |

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| Internal Standards            | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------------|-------|------|----------|--------|-------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 4680229  | 9.927  | ppbv  | 98       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1582576  | 11.681 | ppbv  | 100      |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 1880258  | 12.147 | ppbv  | 97       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 1274522  | 10.114 | ppbv  | 96       |
| 48) Dibromochloromethane      | 10.46 | 129  | 2195560  | 10.453 | ppbv  | 100      |
| 49) Bromoform                 | 13.21 | 173  | 1952572  | 11.830 | ppbv  | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 3051245  | 11.297 | ppbv  | 98       |
| 51) 2-Hexanone                | 10.28 | 43   | 2275342  | 11.333 | ppbv  | 97       |
| 52) Tetrachloroethene         | 11.38 | 164  | 997058   | 10.355 | ppbv  | 97       |
| 53) Toluene                   | 9.96  | 91   | 3254150  | 10.279 | ppbv  | 98       |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1863650  | 10.881 | ppbv  | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1585096  | 10.293 | ppbv  | 98       |
| 57) Chlorobenzene             | 12.32 | 112  | 2560307  | 9.886  | ppbv  | 95       |
| 58) Ethyl Benzene             | 12.88 | 91   | 4502631  | 11.006 | ppbv  | 99       |
| 59) m/p-Xylene                | 13.16 | 91   | 7423975m | 20.377 | ppbv  |          |
| 60) o-Xylene                  | 13.86 | 91   | 3715777  | 10.573 | ppbv  | 99       |
| 61) Styrene                   | 13.70 | 104  | 2657884  | 11.280 | ppbv  | 99       |
| 62) Isopropylbenzene          | 14.84 | 105  | 5294337  | 10.645 | ppbv  | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2696927  | 9.795  | ppbv  | 99       |
| 64) n-propylbenzene           | 15.73 | 120  | 1359281m | 10.996 | ppbv  |          |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4673038  | 11.032 | ppbv  | 99       |
| 66) Benzyl Chloride           | 17.17 | 91   | 2587315  | 11.830 | ppbv  | 99       |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6661752  | 11.058 | ppbv  | 99       |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 5485549  | 11.490 | ppbv  | 99       |
| 70) n-Butylbenzene            | 18.72 | 91   | 5726477  | 11.651 | ppbv  | 99       |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 4113906  | 11.638 | ppbv  | 100      |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 4350442  | 11.623 | ppbv  | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 4157148  | 11.403 | ppbv  | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 4272166  | 10.973 | ppbv  | 93       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 2456139  | 10.971 | ppbv  | 99       |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2420360  | 11.715 | ppbv  | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2399016  | 11.310 | ppbv  | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 1538465  | 15.351 | ppbv  | 99       |
| 79) Naphthalene               | 22.43 | 128  | 3290415  | 13.597 | ppbv  | 99       |
| 80) Naphthalene, 2-methyl-    | 25.13 | 142  | 842750   | 14.321 | ppbv  | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 1726887  | 13.779 | ppbv  | 99       |

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

