

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL070715\  
 Data File : VL025610.D  
 Acq On : 7 Jul 2015 14:34  
 Operator : SY/MD  
 Sample : VSTDIC015  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC015

Manual Integrations  
 APPROVED

sam  
 7/8/2015 11:04:36 AM

Quant Time: Jul 07 15:14:12 2015  
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL070715AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Jul 07 2015  
 QLast Update : Tue Jul 07 13:08:42 2015  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 6.66  | 49   | 670083   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 8.34  | 114  | 1820170  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 13.76 | 117  | 2382739m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 16.30  | 95    | 2005648  | 10.19    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.90% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.64 | 85   | 1865697  | 12.01 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.57 | 51   | 1163575  | 14.44 | ppbv   | 98     |
| 4) Chloromethane               | 3.75 | 50   | 523130   | 12.49 | ppbv   | 97     |
| 5) Vinyl Chloride              | 3.89 | 62   | 595333   | 12.76 | ppbv   | 95     |
| 6) Bromomethane                | 4.14 | 94   | 485623   | 15.33 | ppbv   | 98     |
| 7) Chloroethane                | 4.24 | 64   | 274945   | 14.22 | ppbv   | 97     |
| 8) Dichlorotetrafluoroethane   | 3.81 | 85   | 1898112  | 15.11 | ppbv   | 99     |
| 9) Propene                     | 3.59 | 41   | 394469   | 11.72 | ppbv   | 98     |
| 10) Heptane                    | 9.36 | 43   | 1715407  | 14.32 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.70 | 101  | 2933495  | 17.90 | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 5.31 | 101  | 1690049  | 17.09 | ppbv   | 99     |
| 13) Ethanol                    | 4.33 | 45   | 46169    | 7.60  | ppbv   | 98     |
| 14) Bromoethene                | 4.45 | 108  | 553178   | 15.67 | ppbv   | 99     |
| 15) Acetone                    | 4.60 | 43   | 1413498  | 14.32 | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.97 | 39   | 613035   | 14.10 | ppbv   | 98     |
| 17) tert-Butyl alcohol         | 5.12 | 59   | 1442847  | 17.09 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 5.09 | 96   | 652291   | 15.98 | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.74 | 45   | 566024   | 12.60 | ppbv # | 99     |
| 20) Methylene Chloride         | 5.15 | 84   | 593551   | 13.85 | ppbv   | 94     |
| 21) Allyl Chloride             | 5.23 | 41   | 989686   | 15.32 | ppbv   | 97     |
| 22) trans-1,2-Dichloroethene   | 5.77 | 96   | 666035   | 14.00 | ppbv   | 100    |
| 23) Vinyl Acetate              | 5.99 | 43   | 2590602  | 14.97 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.92 | 63   | 1568137  | 13.92 | ppbv   | 99     |
| 25) Ethyl Acetate              | 6.67 | 43   | 2498577  | 14.07 | ppbv   | 99     |
| 26) Hexane                     | 6.67 | 57   | 1151546  | 13.76 | ppbv   | 98     |
| 27) Carbon Disulfide           | 5.39 | 76   | 1878964  | 16.26 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.95 | 73   | 2407342  | 15.46 | ppbv   | 100    |
| 29) Chloroform                 | 6.76 | 83   | 2239609  | 16.12 | ppbv   | 99     |
| 30) Cyclohexane                | 8.29 | 84   | 1142517  | 14.98 | ppbv   | 97     |
| 31) cis-1,2-Dichloroethene     | 6.53 | 61   | 1231805  | 15.37 | ppbv   | 100    |
| 32) 1,1,1-Trichloroethane      | 7.60 | 97   | 2539855  | 16.19 | ppbv   | 100    |
| 34) 2-Butanone                 | 6.20 | 43   | 1496128  | 13.80 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 8.17 | 117  | 2752986  | 16.73 | ppbv   | 99     |
| 36) Benzene                    | 8.03 | 78   | 2471185  | 13.75 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 7.38 | 62   | 2091387  | 16.73 | ppbv   | 99     |
| 38) Trichloroethene            | 9.07 | 130  | 1147616  | 14.78 | ppbv   | 99     |
| 39) 1,2-Dichloropropane        | 8.84 | 63   | 878366   | 13.16 | ppbv   | 95     |
| 40) 1,4-Dioxane                | 9.12 | 88   | 130339   | 8.80  | ppbv # | 1      |
| 41) Tetrahydrofuran            | 7.12 | 42   | 777348   | 13.35 | ppbv   | 99     |
| 42) Bromodichloromethane       | 9.04 | 83   | 2600441  | 16.60 | ppbv   | 99     |
| 43) Methyl Methacrylate        | 9.27 | 69   | 1058380  | 15.84 | ppbv   | 99     |

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| Internal Standards            | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 44) 2,2,4-Trimethylpentane    | 9.09  | 57   | 4170625  | 13.45 | ppbv  | 98       |
| 45) t-1,3-Dichloropropene     | 10.66 | 75   | 1924776  | 18.41 | ppbv  | 98       |
| 46) cis-1,3-Dichloropropene   | 10.03 | 75   | 2045675  | 16.84 | ppbv  | 99       |
| 47) 1,1,2-Trichloroethane     | 10.89 | 97   | 1266136  | 15.15 | ppbv  | 99       |
| 48) Dibromochloromethane      | 11.81 | 129  | 2396388  | 17.82 | ppbv  | 99       |
| 49) Bromoform                 | 14.83 | 173  | 2065112  | 19.18 | ppbv  | 99       |
| 50) 4-Methyl-2-Pentanone      | 10.09 | 43   | 2325495  | 15.83 | ppbv  | 99       |
| 51) 2-Hexanone                | 11.62 | 43   | 2245854  | 17.08 | ppbv  | 99       |
| 52) Tetrachloroethene         | 12.80 | 164  | 1301047  | 15.80 | ppbv  | 99       |
| 53) Toluene                   | 11.24 | 91   | 3696523  | 15.61 | ppbv  | 100      |
| 54) 1,2-Dibromoethane         | 12.15 | 107  | 2072402  | 16.20 | ppbv  | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 13.80 | 131  | 1767742  | 15.62 | ppbv  | 88       |
| 57) Chlorobenzene             | 13.83 | 112  | 3281291  | 14.05 | ppbv  | 99       |
| 58) Ethyl Benzene             | 14.43 | 91   | 5780660  | 15.24 | ppbv  | 98       |
| 59) m/p-Xylene                | 14.73 | 91   | 9503758  | 29.98 | ppbv  | 100      |
| 60) o-Xylene                  | 15.51 | 91   | 5093124  | 15.13 | ppbv  | 100      |
| 61) Styrene                   | 15.32 | 104  | 2225150  | 17.33 | ppbv  | 99       |
| 62) Isopropylbenzene          | 16.55 | 105  | 6709356  | 15.12 | ppbv  | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 15.50 | 83   | 3160820  | 13.24 | ppbv  | 100      |
| 64) n-propylbenzene           | 17.54 | 120  | 1827624  | 15.55 | ppbv  | 93       |
| 65) tert-Butylbenzene         | 18.83 | 119  | 6331011  | 15.34 | ppbv  | 99       |
| 66) Benzyl Chloride           | 19.11 | 91   | 2815202  | 19.94 | ppbv  | 100      |
| 67) sec-Butylbenzene          | 19.43 | 105  | 8645652  | 14.90 | ppbv  | 98       |
| 69) p-Isopropyltoluene        | 19.80 | 119  | 7397326  | 15.68 | ppbv  | 98       |
| 70) n-Butylbenzene            | 20.77 | 91   | 7300780  | 15.90 | ppbv  | 99       |
| 71) 2-Chlorotoluene           | 17.44 | 91   | 5135410  | 15.55 | ppbv  | 100      |
| 72) 4-Ethyltoluene            | 17.83 | 105  | 5878379  | 15.95 | ppbv  | 99       |
| 73) 1,3,5-Trimethylbenzene    | 18.00 | 105  | 5634729  | 15.88 | ppbv  | 97       |
| 74) 1,2,4-Trimethylbenzene    | 18.85 | 105  | 5859778  | 15.31 | ppbv  | 97       |
| 75) 1,3-Dichlorobenzene       | 19.13 | 146  | 3719167  | 15.26 | ppbv  | 99       |
| 76) 1,4-Dichlorobenzene       | 19.28 | 146  | 3859092  | 15.81 | ppbv  | 100      |
| 77) 1,2-Dichlorobenzene       | 20.04 | 146  | 3804162  | 15.71 | ppbv  | 99       |
| 78) Hexachloro-1,3-Butadiene  | 24.67 | 225  | 2207047  | 17.77 | ppbv  | 99       |
| 79) Naphthalene               | 23.94 | 128  | 5776431  | 18.43 | ppbv  | 99       |
| 80) Naphthalene, 2-methyl-    | 26.04 | 142  | 1674829  | 20.83 | ppbv  | 99       |
| 81) 1,2,4-Trichlorobenzene    | 23.74 | 180  | 2742218  | 18.79 | ppbv  | 100      |

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

