

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\  
 Data File : VL033531.D  
 Acq On : 4 Apr 2019 12:31  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 4/8/2019 3:22:12 AM

Quant Time: Apr 05 02:17:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Mar 2  
 QLast Update : Tue Mar 26 16:00:50 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1112290  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2617158  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.24 | 117  | 2746839m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2154088  | 10.00    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.00% |

| Target Compounds               |      |     |         |        | Ovalue   |
|--------------------------------|------|-----|---------|--------|----------|
| 2) Dichlorodifluoromethane     | 3.07 | 85  | 1882665 | 11.605 | ppbv 98  |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 1085208 | 8.475  | ppbv 98  |
| 4) Chloromethane               | 3.17 | 50  | 593399  | 8.757  | ppbv 98  |
| 5) Vinyl Chloride              | 3.29 | 62  | 593631  | 8.916  | ppbv 98  |
| 6) Bromomethane                | 3.51 | 94  | 375445  | 8.775  | ppbv 93  |
| 7) Chloroethane                | 3.60 | 64  | 213837  | 8.630  | ppbv 96  |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 1497589 | 8.664  | ppbv 99  |
| 9) Propene                     | 3.03 | 41  | 464117  | 8.630  | ppbv 99  |
| 10) Heptane                    | 8.24 | 43  | 1209340 | 8.413  | ppbv 99  |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 1693919 | 8.473  | ppbv 97  |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101 | 1135792 | 8.458  | ppbv 99  |
| 13) Ethanol                    | 3.64 | 45  | 136719  | 9.825  | ppbv 65  |
| 14) Bromoethene                | 3.79 | 108 | 460640  | 8.601  | ppbv 100 |
| 15) Acetone                    | 3.90 | 43  | 1044089 | 7.807  | ppbv 99  |
| 16) 1,3-Butadiene              | 3.36 | 39  | 482304  | 9.092  | ppbv 90  |
| 17) tert-Butyl alcohol         | 4.35 | 59  | 214962  | 8.742  | ppbv 100 |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 505453  | 8.763  | ppbv 98  |
| 19) Isopropyl Alcohol          | 4.02 | 45  | 770272  | 9.106  | ppbv 100 |
| 20) Methylene Chloride         | 4.41 | 84  | 426210  | 7.507  | ppbv 94  |
| 21) Allyl Chloride             | 4.47 | 41  | 736858  | 8.716  | ppbv 99  |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 531583  | 8.833  | ppbv 97  |
| 23) Vinyl Acetate              | 5.15 | 43  | 1706903 | 8.967  | ppbv 99  |
| 24) 1,1-Dichloroethane         | 5.09 | 63  | 1205656 | 8.338  | ppbv 99  |
| 25) Ethyl Acetate              | 5.76 | 43  | 2028288 | 8.174  | ppbv 99  |
| 26) Hexane                     | 5.78 | 57  | 897812  | 8.137  | ppbv 99  |
| 27) Carbon Disulfide           | 4.62 | 76  | 1242164 | 9.468  | ppbv 99  |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 1462655 | 9.204  | ppbv 100 |
| 29) Chloroform                 | 5.84 | 83  | 1553230 | 8.213  | ppbv 97  |
| 30) Cyclohexane                | 7.24 | 84  | 778980  | 8.925  | ppbv 99  |
| 31) cis-1,2-Dichloroethene     | 5.64 | 61  | 980163  | 8.936  | ppbv 97  |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97  | 1608287 | 8.930  | ppbv 100 |
| 34) 2-Butanone                 | 5.32 | 43  | 1322956 | 8.414  | ppbv 100 |
| 35) Carbon Tetrachloride       | 7.13 | 117 | 1677740 | 9.051  | ppbv 99  |
| 36) Benzene                    | 7.00 | 78  | 1944651 | 8.856  | ppbv 98  |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 1221387 | 8.298  | ppbv 100 |
| 38) Trichloroethene            | 7.96 | 130 | 770658  | 9.325  | ppbv 96  |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 721346  | 8.386  | ppbv 98  |
| 40) 1,4-Dioxane                | 7.95 | 88  | 283068  | 9.226  | ppbv 87  |
| 41) Tetrahydrofuran            | 6.14 | 42  | 775648  | 8.968  | ppbv 97  |
| 42) Bromodichloromethane       | 7.91 | 83  | 1733917 | 8.649  | ppbv 97  |
| 43) Methyl Methacrylate        | 8.13 | 69  | 795954  | 8.927  | ppbv 99  |

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| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.99  | 57   | 3230401  | 8.418  | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1118947  | 10.221 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1237744  | 9.682  | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 830737   | 8.505  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.45 | 129  | 1543635  | 9.369  | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1422552  | 9.038  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.87  | 43   | 2025154  | 8.796  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.26 | 43   | 1604234  | 9.341  | ppbv   | 100      |
| 52) Tetrachloroethene         | 11.37 | 164  | 776294   | 9.369  | ppbv   | 98       |
| 53) Toluene                   | 9.94  | 91   | 2350678  | 9.212  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.76 | 107  | 1332405  | 8.721  | ppbv   | 96       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 1088007  | 8.642  | ppbv # | 85       |
| 57) Chlorobenzene             | 12.30 | 112  | 1812805  | 8.499  | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3325373  | 9.065  | ppbv   | 97       |
| 59) m/p-Xylene                | 13.15 | 91   | 5675840m | 17.323 | ppbv   |          |
| 60) o-Xylene                  | 13.85 | 91   | 2759904  | 8.711  | ppbv   | 99       |
| 61) Styrene                   | 13.69 | 104  | 2070752  | 9.523  | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.82 | 105  | 3887069  | 8.664  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.84 | 83   | 1924221  | 8.248  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 1014742  | 8.913  | ppbv   | 97       |
| 65) tert-Butylbenzene         | 16.91 | 119  | 3565536  | 9.018  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.15 | 91   | 2051397  | 11.158 | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.46 | 105  | 5015383  | 8.920  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 4196780  | 9.167  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.71 | 91   | 4366258  | 9.002  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 3015392  | 8.839  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 16.00 | 105  | 3277365  | 9.202  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.16 | 105  | 3142515  | 9.221  | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.93 | 105  | 3279922  | 8.979  | ppbv   | 95       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1944515  | 8.613  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.31 | 146  | 1937858  | 8.809  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.99 | 146  | 1896002  | 8.851  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1460921  | 10.302 | ppbv   | 99       |
| 79) Naphthalene               | 22.41 | 128  | 3233088  | 10.339 | ppbv   | 100      |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 1356303  | 12.924 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 1673155  | 9.646  | ppbv   | 100      |

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

