

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071719\  
 Data File : VL034037.D  
 Acq On : 17 Jul 2019 17:54  
 Operator : SY/AP  
 Sample : VL0717ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0717ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 7/19/2019 1:37:12 AM

Quant Time: Jul 18 04:57:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070219AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Tue Jul 0  
 QLast Update : Tue Jul 02 19:31:31 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.73  | 49   | 1164722  | 10.00 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 7.25  | 114  | 3081533  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.19 | 117  | 3085114m | 10.00 | ppbv  | -0.01    |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.53  | 95    | 2387790  | 9.07     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 90.70% |

| Target Compounds               |      |     |          |        | Ovalue   |
|--------------------------------|------|-----|----------|--------|----------|
| 2) Dichlorodifluoromethane     | 3.06 | 85  | 1942878  | 8.083  | ppbv 99  |
| 3) Chlorodifluoromethane       | 2.99 | 51  | 1278882  | 8.892  | ppbv 100 |
| 4) Chloromethane               | 3.15 | 50  | 756502   | 9.147  | ppbv 98  |
| 5) Vinyl Chloride              | 3.27 | 62  | 808887   | 8.698  | ppbv 89  |
| 6) Bromomethane                | 3.49 | 94  | 520187   | 9.486  | ppbv 98  |
| 7) Chloroethane                | 3.57 | 64  | 315742   | 9.500  | ppbv 90  |
| 8) Dichlorotetrafluoroethane   | 3.20 | 85  | 2083247  | 8.890  | ppbv 99  |
| 9) Propene                     | 3.01 | 41  | 505007   | 9.545  | ppbv 98  |
| 10) Heptane                    | 8.21 | 43  | 1395722  | 10.535 | ppbv 100 |
| 11) Trichlorofluoromethane     | 3.98 | 101 | 2220311  | 8.215  | ppbv 100 |
| 12) 1,1,2-Trichlorotrifluoroet | 4.52 | 101 | 1592768  | 8.326  | ppbv 98  |
| 13) Ethanol                    | 3.63 | 45  | 123556   | 7.517  | ppbv 100 |
| 14) Bromoethene                | 3.76 | 108 | 681984   | 9.546  | ppbv 99  |
| 15) Acetone                    | 3.88 | 43  | 1530745  | 7.817  | ppbv 98  |
| 16) 1,3-Butadiene              | 3.34 | 39  | 700861   | 10.136 | ppbv 98  |
| 17) tert-Butyl alcohol         | 4.33 | 59  | 1411818  | 9.043  | ppbv 98  |
| 18) 1,1-Dichloroethene         | 4.32 | 96  | 724807   | 8.507  | ppbv 95  |
| 19) Isopropyl Alcohol          | 4.00 | 45  | 1078801  | 8.207  | ppbv 100 |
| 20) Methylene Chloride         | 4.38 | 84  | 622993   | 7.294  | ppbv 98  |
| 21) Allyl Chloride             | 4.45 | 41  | 1099184  | 9.002  | ppbv 99  |
| 22) trans-1,2-Dichloroethene   | 4.93 | 96  | 749600   | 9.233  | ppbv 96  |
| 23) Vinyl Acetate              | 5.12 | 43  | 2074049  | 10.611 | ppbv 98  |
| 24) 1,1-Dichloroethane         | 5.06 | 63  | 1636941  | 9.450  | ppbv 99  |
| 25) Ethyl Acetate              | 5.73 | 43  | 2643521  | 9.870  | ppbv 100 |
| 26) Hexane                     | 5.74 | 57  | 1199439  | 9.786  | ppbv 100 |
| 27) Carbon Disulfide           | 4.59 | 76  | 1933632  | 9.280  | ppbv 100 |
| 28) Methyl tert-Butyl Ether    | 5.08 | 73  | 2137357  | 10.297 | ppbv 100 |
| 29) Chloroform                 | 5.81 | 83  | 2069286  | 8.984  | ppbv 100 |
| 30) Cyclohexane                | 7.20 | 84  | 1033186m | 10.915 | ppbv     |
| 31) cis-1,2-Dichloroethene     | 5.61 | 61  | 1249148  | 10.549 | ppbv 97  |
| 32) 1,1,1-Trichloroethane      | 6.58 | 97  | 2083998  | 8.927  | ppbv 98  |
| 34) 2-Butanone                 | 5.30 | 43  | 1635579  | 10.029 | ppbv 99  |
| 35) Carbon Tetrachloride       | 7.10 | 117 | 2198923  | 9.014  | ppbv 97  |
| 36) Benzene                    | 6.97 | 78  | 2486904  | 10.314 | ppbv 97  |
| 37) 1,2-Dichloroethane         | 6.38 | 62  | 1581400  | 8.903  | ppbv 99  |
| 38) Trichloroethene            | 7.92 | 130 | 1064604  | 9.923  | ppbv 94  |
| 39) 1,2-Dichloropropane        | 7.70 | 63  | 908168   | 10.129 | ppbv 95  |
| 40) 1,4-Dioxane                | 7.92 | 88  | 375940m  | 9.082  | ppbv     |
| 41) Tetrahydrofuran            | 6.11 | 42  | 856420   | 10.708 | ppbv 100 |
| 42) Bromodichloromethane       | 7.88 | 83  | 2277255  | 9.555  | ppbv 99  |
| 43) Methyl Methacrylate        | 8.10 | 69  | 1013069  | 11.074 | ppbv 99  |

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| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| -----                         |       |      |          |        |        |          |
| 44) 2,2,4-Trimethylpentane    | 7.95  | 57   | 4157381  | 9.989  | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.37  | 75   | 1389599  | 11.616 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.79  | 75   | 1546458  | 11.162 | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.57  | 97   | 1059014  | 9.394  | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.41 | 129  | 1906290  | 8.862  | ppbv   | 98       |
| 49) Bromoform                 | 13.15 | 173  | 1704235  | 9.274  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.83  | 43   | 2458478  | 10.159 | ppbv   | 99       |
| 51) 2-Hexanone                | 10.23 | 43   | 1992355  | 10.208 | ppbv # | 100      |
| 52) Tetrachloroethene         | 11.33 | 164  | 994335   | 9.581  | ppbv   | 99       |
| 53) Toluene                   | 9.90  | 91   | 3004262  | 10.885 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.72 | 107  | 1637376  | 9.842  | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.24 | 131  | 1279590  | 9.280  | ppbv   | 98       |
| 57) Chlorobenzene             | 12.25 | 112  | 2287620  | 9.314  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.82 | 91   | 4000094  | 10.782 | ppbv   | 99       |
| 59) m/p-Xylene                | 13.11 | 91   | 6735550m | 20.051 | ppbv   |          |
| 60) o-Xylene                  | 13.80 | 91   | 3300765  | 9.822  | ppbv   | 98       |
| 61) Styrene                   | 13.64 | 104  | 2420673  | 10.884 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.78 | 105  | 4376510  | 8.472  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.79 | 83   | 2213964  | 8.511  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.67 | 120  | 1134374  | 8.468  | ppbv   | 99       |
| 65) tert-Butylbenzene         | 16.86 | 119  | 3916925  | 8.916  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.11 | 91   | 2185300  | 9.723  | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.41 | 105  | 5568445  | 9.030  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.77 | 119  | 4657715  | 9.161  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.67 | 91   | 4902889  | 9.180  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.57 | 91   | 3317213  | 8.774  | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 15.96 | 105  | 3878411  | 8.987  | ppbv   | 98       |
| 73) 1,3,5-Trimethylbenzene    | 16.11 | 105  | 3715662  | 9.253  | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 16.88 | 105  | 3863295  | 8.686  | ppbv   | 98       |
| 75) 1,3-Dichlorobenzene       | 17.12 | 146  | 2297165  | 8.131  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.26 | 146  | 2293559  | 8.620  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.94 | 146  | 2220340  | 8.487  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.50 | 225  | 1906207  | 8.563  | ppbv   | 98       |
| 79) Naphthalene               | 22.35 | 128  | 4198683  | 11.229 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.07 | 142  | 1014083  | 7.453  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.08 | 180  | 2403894  | 10.010 | ppbv   | 99       |
| -----                         |       |      |          |        |        |          |

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

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