

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\  
 Data File : VL032806.D  
 Acq On : 21 Nov 2018 9:10  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/26/2018 9:19:11 AM

Quant Time: Nov 22 12:53:21 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.78  | 49   | 1461219  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3915570  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3793541m | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2685214  | 9.46     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 94.60% |

| Target Compounds               |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.08 | 85  | 1504008 | 7.160  | ppbv 99   |
| 3) Chlorodifluoromethane       | 3.02 | 51  | 1093617 | 9.440  | ppbv 98   |
| 4) Chloromethane               | 3.17 | 50  | 617400  | 9.611  | ppbv 96   |
| 5) Vinyl Chloride              | 3.30 | 62  | 641117  | 9.419  | ppbv 100  |
| 6) Bromomethane                | 3.52 | 94  | 413434  | 9.929  | ppbv 94   |
| 7) Chloroethane                | 3.61 | 64  | 242214  | 9.873  | ppbv 96   |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85  | 1532968 | 9.262  | ppbv 95   |
| 9) Propene                     | 3.04 | 41  | 490049  | 10.571 | ppbv 100  |
| 10) Heptane                    | 8.26 | 43  | 1885559 | 10.654 | ppbv 100  |
| 11) Trichlorofluoromethane     | 4.01 | 101 | 1695970 | 8.568  | ppbv 99   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56 | 101 | 1472251 | 9.106  | ppbv 95   |
| 13) Ethanol                    | 3.66 | 45  | 131815  | 8.681  | ppbv 99   |
| 14) Bromoethene                | 3.80 | 108 | 540007  | 10.067 | ppbv 99   |
| 15) Acetone                    | 3.91 | 43  | 1127066 | 8.446  | ppbv 99   |
| 16) 1,3-Butadiene              | 3.37 | 39  | 515785  | 9.981  | ppbv 89   |
| 17) tert-Butyl alcohol         | 4.37 | 59  | 447254  | 10.687 | ppbv 100  |
| 18) 1,1-Dichloroethene         | 4.36 | 96  | 781465  | 9.829  | ppbv 97   |
| 19) Isopropyl Alcohol          | 4.03 | 45  | 817251  | 9.193  | ppbv 100  |
| 20) Methylene Chloride         | 4.42 | 84  | 658476  | 9.532  | ppbv 96   |
| 21) Allyl Chloride             | 4.49 | 41  | 1064538 | 9.493  | ppbv 99   |
| 22) trans-1,2-Dichloroethene   | 4.97 | 96  | 771737  | 9.941  | ppbv 98   |
| 23) Vinyl Acetate              | 5.17 | 43  | 2590054 | 10.648 | ppbv 100  |
| 24) 1,1-Dichloroethane         | 5.10 | 63  | 1880890 | 9.726  | ppbv 99   |
| 25) Ethyl Acetate              | 5.78 | 43  | 3067595 | 9.863  | ppbv 100  |
| 26) Hexane                     | 5.79 | 57  | 1414755 | 10.219 | ppbv 100  |
| 27) Carbon Disulfide           | 4.63 | 76  | 1759755 | 10.024 | ppbv 99   |
| 28) Methyl tert-Butyl Ether    | 5.12 | 73  | 2336189 | 10.581 | ppbv 99   |
| 29) Chloroform                 | 5.86 | 83  | 2463541 | 9.984  | ppbv 97   |
| 30) Cyclohexane                | 7.26 | 84  | 1311393 | 10.830 | ppbv 97   |
| 31) cis-1,2-Dichloroethene     | 5.65 | 61  | 1446367 | 10.391 | ppbv 98   |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97  | 2509400 | 9.278  | ppbv 99   |
| 34) 2-Butanone                 | 5.34 | 43  | 2008246 | 9.889  | ppbv 99   |
| 35) Carbon Tetrachloride       | 7.15 | 117 | 2727268 | 8.664  | ppbv 99   |
| 36) Benzene                    | 7.02 | 78  | 3118853 | 10.003 | ppbv 99   |
| 37) 1,2-Dichloroethane         | 6.43 | 62  | 1880349 | 8.959  | ppbv 98   |
| 38) Trichloroethene            | 7.98 | 130 | 1285453 | 10.187 | ppbv 97   |
| 39) 1,2-Dichloropropane        | 7.75 | 63  | 1154438 | 9.718  | ppbv 95   |
| 40) 1,4-Dioxane                | 7.97 | 88  | 448317  | 10.566 | ppbv 80   |
| 41) Tetrahydrofuran            | 6.16 | 42  | 1171308 | 10.055 | ppbv 99   |
| 42) Bromodichloromethane       | 7.93 | 83  | 2628237 | 9.237  | ppbv # 99 |
| 43) Methyl Methacrylate        | 8.15 | 69  | 1223814 | 10.513 | ppbv 98   |

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| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.00  | 57   | 5149701  | 9.883  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.43  | 75   | 1762235  | 11.282 | ppbv   | 96       |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 2040131  | 10.811 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.63  | 97   | 1359047  | 9.675  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.46 | 129  | 2303397  | 9.648  | ppbv   | 100      |
| 49) Bromoform                 | 13.21 | 173  | 1884939  | 9.560  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.88  | 43   | 3135387  | 9.885  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.28 | 43   | 2174216  | 10.639 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.38 | 164  | 1114295  | 10.273 | ppbv   | 99       |
| 53) Toluene                   | 9.96  | 91   | 3607051  | 11.089 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.77 | 107  | 1975065  | 9.946  | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.29 | 131  | 1618971  | 9.150  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.31 | 112  | 2717095  | 9.357  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.88 | 91   | 4717174  | 10.332 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.16 | 91   | 7998652m | 19.681 | ppbv   |          |
| 60) o-Xylene                  | 13.86 | 91   | 3795426  | 9.288  | ppbv   | 99       |
| 61) Styrene                   | 13.70 | 104  | 2866918  | 10.777 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.84 | 105  | 5429320  | 9.829  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 2477269  | 7.776  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.74 | 120  | 1402347  | 9.652  | ppbv   | 91       |
| 65) tert-Butylbenzene         | 16.92 | 119  | 4675398  | 9.442  | ppbv   | 97       |
| 66) Benzyl Chloride           | 17.17 | 91   | 2528304  | 9.236  | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.47 | 105  | 6564848  | 9.200  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 5545624  | 9.774  | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.73 | 91   | 5582455  | 9.690  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.63 | 91   | 3922115  | 9.521  | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 16.01 | 105  | 4365839  | 9.747  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 4122776  | 9.414  | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 4223288  | 9.012  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 2434491  | 9.056  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.32 | 146  | 2400035  | 9.558  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 2380928  | 9.574  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.56 | 225  | 1815916  | 13.530 | ppbv   | 99       |
| 79) Naphthalene               | 22.43 | 128  | 4300250  | 13.968 | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.12 | 142  | 1216654  | 15.779 | ppbv   | 97       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 2077645  | 13.439 | ppbv   | 100      |

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

