

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL100219\  
 Data File : VL034205.D  
 Acq On : 2 Oct 2019 9:40  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 10/7/2019 12:29:06 PM

Quant Time: Oct 03 05:53:25 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Sep 18  
 QLast Update : Wed Sep 18 12:53:31 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.70  | 49   | 1092378  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.22  | 114  | 1930567  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.16 | 117  | 2109075  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.50  | 95    | 1779102  | 9.71     | ppbv | -0.01  |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.10% |

| Target Compounds               |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.03 | 85  | 1335531 | 8.277  | ppbv 99   |
| 3) Chlorodifluoromethane       | 2.97 | 51  | 1305394 | 10.192 | ppbv 100  |
| 4) Chloromethane               | 3.12 | 50  | 794804  | 10.560 | ppbv 98   |
| 5) Vinyl Chloride              | 3.24 | 62  | 717712  | 10.434 | ppbv 99   |
| 6) Bromomethane                | 3.46 | 94  | 343545  | 10.705 | ppbv 99   |
| 7) Chloroethane                | 3.55 | 64  | 255964  | 10.646 | ppbv 100  |
| 8) Dichlorotetrafluoroethane   | 3.17 | 85  | 1444942 | 10.146 | ppbv 98   |
| 9) Propene                     | 2.99 | 41  | 659382  | 10.435 | ppbv 99   |
| 10) Heptane                    | 8.17 | 43  | 1700016 | 10.322 | ppbv 99   |
| 11) Trichlorofluoromethane     | 3.95 | 101 | 1518407 | 10.338 | ppbv 99   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.49 | 101 | 987192  | 10.270 | ppbv 99   |
| 13) Ethanol                    | 3.60 | 45  | 141067  | 9.219  | ppbv 97   |
| 14) Bromoethene                | 3.74 | 108 | 435705  | 11.087 | ppbv 99   |
| 15) Acetone                    | 3.85 | 43  | 1315924 | 8.988  | ppbv 100  |
| 16) 1,3-Butadiene              | 3.31 | 39  | 688593  | 10.777 | ppbv 99   |
| 17) tert-Butyl alcohol         | 4.30 | 59  | 1175772 | 12.675 | ppbv 100  |
| 18) 1,1-Dichloroethene         | 4.29 | 96  | 456842  | 10.897 | ppbv 94   |
| 19) Isopropyl Alcohol          | 3.97 | 45  | 1041841 | 11.572 | ppbv 100  |
| 20) Methylene Chloride         | 4.35 | 84  | 412149  | 9.764  | ppbv 97   |
| 21) Allyl Chloride             | 4.42 | 41  | 915659  | 11.073 | ppbv 100  |
| 22) trans-1,2-Dichloroethene   | 4.90 | 96  | 463949  | 11.061 | ppbv 94   |
| 23) Vinyl Acetate              | 5.09 | 43  | 2290546 | 10.617 | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.03 | 63  | 1482822 | 10.207 | ppbv 99   |
| 25) Ethyl Acetate              | 5.70 | 43  | 2761699 | 9.975  | ppbv 100  |
| 26) Hexane                     | 5.72 | 57  | 1167156 | 10.134 | ppbv 99   |
| 27) Carbon Disulfide           | 4.56 | 76  | 1243968 | 11.712 | ppbv 99   |
| 28) Methyl tert-Butyl Ether    | 5.05 | 73  | 1858615 | 10.866 | ppbv 100  |
| 29) Chloroform                 | 5.78 | 83  | 1728987 | 10.506 | ppbv 97   |
| 30) Cyclohexane                | 7.18 | 84  | 876768  | 10.545 | ppbv 99   |
| 31) cis-1,2-Dichloroethene     | 5.57 | 61  | 1269002 | 10.809 | ppbv 99   |
| 32) 1,1,1-Trichloroethane      | 6.55 | 97  | 1661952 | 10.471 | ppbv 99   |
| 34) 2-Butanone                 | 5.26 | 43  | 1940078 | 9.842  | ppbv 99   |
| 35) Carbon Tetrachloride       | 7.06 | 117 | 1616902 | 10.081 | ppbv 99   |
| 36) Benzene                    | 6.93 | 78  | 2150428 | 10.086 | ppbv 98   |
| 37) 1,2-Dichloroethane         | 6.35 | 62  | 1549359 | 10.216 | ppbv 100  |
| 38) Trichloroethene            | 7.89 | 130 | 732191  | 9.611  | ppbv 98   |
| 39) 1,2-Dichloropropane        | 7.66 | 63  | 966290  | 10.086 | ppbv 99   |
| 40) 1,4-Dioxane                | 7.88 | 88  | 328044  | 10.581 | ppbv # 89 |
| 41) Tetrahydrofuran            | 6.08 | 42  | 1164420 | 10.488 | ppbv 100  |
| 42) Bromodichloromethane       | 7.84 | 83  | 1915203 | 10.523 | ppbv 99   |
| 43) Methyl Methacrylate        | 8.06 | 69  | 958635  | 10.884 | ppbv 98   |

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|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.92  | 57   | 3978650  | 9.693  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.34  | 75   | 1269298  | 12.188 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.76  | 75   | 1427834  | 11.397 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.54  | 97   | 859374   | 9.990  | ppbv   | 96       |
| 48) Dibromochloromethane      | 10.38 | 129  | 1460503  | 10.712 | ppbv   | 100      |
| 49) Bromoform                 | 13.13 | 173  | 1223529m | 11.089 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.79  | 43   | 2823204  | 9.841  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.19 | 43   | 2436839  | 10.121 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.29 | 164  | 665337   | 9.445  | ppbv   | 96       |
| 53) Toluene                   | 9.87  | 91   | 2395295  | 10.279 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.68 | 107  | 1310792  | 10.246 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.20 | 131  | 934551   | 9.936  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.22 | 112  | 1712452  | 9.326  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.79 | 91   | 3268858  | 9.606  | ppbv   | 98       |
| 59) m/p-Xylene                | 13.07 | 91   | 5311905m | 18.845 | ppbv   |          |
| 60) o-Xylene                  | 13.77 | 91   | 2626344  | 9.318  | ppbv   | 99       |
| 61) Styrene                   | 13.61 | 104  | 2004786  | 9.930  | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.75 | 105  | 3423526  | 9.383  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.76 | 83   | 1952042  | 8.446  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.64 | 120  | 890000   | 9.642  | ppbv   | 93       |
| 65) tert-Butylbenzene         | 16.83 | 119  | 2898229  | 9.091  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.08 | 91   | 1565743  | 13.882 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.38 | 105  | 4252962  | 9.329  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.74 | 119  | 3444568  | 9.331  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.63 | 91   | 3955103  | 9.202  | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.54 | 91   | 2826653  | 9.482  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.92 | 105  | 3059713  | 9.609  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.08 | 105  | 2914734  | 9.475  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.85 | 105  | 2937592  | 8.993  | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.09 | 146  | 1604461  | 9.155  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.23 | 146  | 1640967  | 9.143  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.91 | 146  | 1615341  | 9.107  | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.47 | 225  | 1183307  | 10.072 | ppbv   | 99       |
| 79) Naphthalene               | 22.31 | 128  | 2677953  | 9.312  | ppbv   | 97       |
| 80) Naphthalene, 2-methyl-    | 25.05 | 142  | 1449081  | 10.836 | ppbv   | 98       |
| 81) 1,2,4-Trichlorobenzene    | 22.04 | 180  | 1457251  | 9.148  | ppbv   | 98       |

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

