

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092419\  
 Data File : VL034197.D  
 Acq On : 24 Sep 2019 10:20  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 9/26/2019 12:39:27 AM

Quant Time: Sep 25 05:44:48 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Sep 18 2019  
 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   | 1177399  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.23  | 114  | 2009697  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.17 | 117  | 2147332m | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.50  | 95    | 1839981  | 9.86     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.60% |

| Target Compounds               |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.03 | 85  | 1310388 | 7.535  | ppbv 98   |
| 3) Chlorodifluoromethane       | 2.97 | 51  | 1314406 | 9.521  | ppbv 100  |
| 4) Chloromethane               | 3.13 | 50  | 785996  | 9.689  | ppbv 97   |
| 5) Vinyl Chloride              | 3.25 | 62  | 689791  | 9.304  | ppbv 100  |
| 6) Bromomethane                | 3.47 | 94  | 336698  | 9.734  | ppbv 96   |
| 7) Chloroethane                | 3.55 | 64  | 259157  | 10.001 | ppbv 91   |
| 8) Dichlorotetrafluoroethane   | 3.18 | 85  | 1438972 | 9.375  | ppbv 97   |
| 9) Propene                     | 2.99 | 41  | 653234  | 9.591  | ppbv 100  |
| 10) Heptane                    | 8.18 | 43  | 1714015 | 9.656  | ppbv 100  |
| 11) Trichlorofluoromethane     | 3.95 | 101 | 1529529 | 9.662  | ppbv 99   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.50 | 101 | 995101  | 9.605  | ppbv 99   |
| 13) Ethanol                    | 3.60 | 45  | 138736  | 8.412  | ppbv 98   |
| 14) Bromoethene                | 3.74 | 108 | 427456  | 10.092 | ppbv 99   |
| 15) Acetone                    | 3.85 | 43  | 1313337 | 8.323  | ppbv 99   |
| 16) 1,3-Butadiene              | 3.32 | 39  | 694468  | 10.084 | ppbv 97   |
| 17) tert-Butyl alcohol         | 4.30 | 59  | 1152786 | 11.529 | ppbv 100  |
| 18) 1,1-Dichloroethene         | 4.29 | 96  | 446742  | 9.887  | ppbv 98   |
| 19) Isopropyl Alcohol          | 3.97 | 45  | 1047552 | 10.795 | ppbv 100  |
| 20) Methylene Chloride         | 4.35 | 84  | 408584  | 8.980  | ppbv 94   |
| 21) Allyl Chloride             | 4.42 | 41  | 910450  | 10.215 | ppbv 99   |
| 22) trans-1,2-Dichloroethene   | 4.90 | 96  | 460068  | 10.176 | ppbv 99   |
| 23) Vinyl Acetate              | 5.10 | 43  | 2258128 | 9.711  | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.03 | 63  | 1473376 | 9.410  | ppbv 99   |
| 25) Ethyl Acetate              | 5.71 | 43  | 2740663 | 9.184  | ppbv 100  |
| 26) Hexane                     | 5.72 | 57  | 1163969 | 9.377  | ppbv 99   |
| 27) Carbon Disulfide           | 4.56 | 76  | 1257354 | 10.983 | ppbv 99   |
| 28) Methyl tert-Butyl Ether    | 5.05 | 73  | 1789026 | 9.704  | ppbv 99   |
| 29) Chloroform                 | 5.79 | 83  | 1711037 | 9.646  | ppbv 99   |
| 30) Cyclohexane                | 7.18 | 84  | 874464  | 9.758  | ppbv 99   |
| 31) cis-1,2-Dichloroethene     | 5.58 | 61  | 1247675 | 9.860  | ppbv 99   |
| 32) 1,1,1-Trichloroethane      | 6.56 | 97  | 1663351 | 9.723  | ppbv 99   |
| 34) 2-Butanone                 | 5.27 | 43  | 1930258 | 9.407  | ppbv 100  |
| 35) Carbon Tetrachloride       | 7.07 | 117 | 1650151 | 9.883  | ppbv 99   |
| 36) Benzene                    | 6.94 | 78  | 2104256 | 9.480  | ppbv 98   |
| 37) 1,2-Dichloroethane         | 6.35 | 62  | 1545403 | 9.789  | ppbv 100  |
| 38) Trichloroethene            | 7.89 | 130 | 714375  | 9.008  | ppbv 97   |
| 39) 1,2-Dichloropropane        | 7.67 | 63  | 943076  | 9.456  | ppbv 99   |
| 40) 1,4-Dioxane                | 7.88 | 88  | 329123  | 10.198 | ppbv # 88 |
| 41) Tetrahydrofuran            | 6.08 | 42  | 1152244 | 9.970  | ppbv 99   |
| 42) Bromodichloromethane       | 7.85 | 83  | 1896764 | 10.011 | ppbv # 99 |
| 43) Methyl Methacrylate        | 8.07 | 69  | 942355m | 10.278 | ppbv      |

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Quant Time: Sep 25 05:44:48 2019  
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 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) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.92  | 57   | 3925863  | 9.188  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.35  | 75   | 1268340  | 11.699 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.77  | 75   | 1397360  | 10.715 | ppbv   | 95       |
| 47) 1,1,2-Trichloroethane     | 9.55  | 97   | 842047   | 9.403  | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.38 | 129  | 1436150  | 10.118 | ppbv   | 99       |
| 49) Bromoform                 | 13.13 | 173  | 1204163  | 10.484 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.80  | 43   | 2850317  | 9.544  | ppbv   | 98       |
| 51) 2-Hexanone                | 10.20 | 43   | 2464611  | 9.834  | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.30 | 164  | 657442m  | 8.965  | ppbv   |          |
| 53) Toluene                   | 9.87  | 91   | 2337826  | 9.637  | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.69 | 107  | 1282312  | 9.629  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.21 | 131  | 931835   | 9.731  | ppbv   | 99       |
| 57) Chlorobenzene             | 12.23 | 112  | 1702834  | 9.108  | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.79 | 91   | 3238913  | 9.348  | ppbv   | 97       |
| 59) m/p-Xylene                | 13.08 | 91   | 5327138m | 18.563 | ppbv   |          |
| 60) o-Xylene                  | 13.78 | 91   | 2616970  | 9.120  | ppbv   | 99       |
| 61) Styrene                   | 13.61 | 104  | 1976355  | 9.615  | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.75 | 105  | 3375643  | 9.087  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.76 | 83   | 1904338  | 8.093  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.64 | 120  | 880336   | 9.367  | ppbv   | 94       |
| 65) tert-Butylbenzene         | 16.84 | 119  | 2885567  | 8.890  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.08 | 91   | 1486134  | 12.942 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.38 | 105  | 4198101  | 9.045  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.74 | 119  | 3396510  | 9.037  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.64 | 91   | 3887356  | 8.883  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.54 | 91   | 2781925  | 9.166  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 15.93 | 105  | 3003038  | 9.263  | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.09 | 105  | 2894963  | 9.243  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.85 | 105  | 2912757  | 8.758  | ppbv   | 99       |
| 75) 1,3-Dichlorobenzene       | 17.09 | 146  | 1569879  | 8.798  | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 17.24 | 146  | 1588389  | 8.692  | ppbv   | 97       |
| 77) 1,2-Dichlorobenzene       | 17.91 | 146  | 1570056  | 8.694  | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.47 | 225  | 1001946  | 8.376  | ppbv   | 99       |
| 79) Naphthalene               | 22.32 | 128  | 2625403  | 8.967  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.05 | 142  | 1394115  | 10.239 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.05 | 180  | 1412796  | 8.711  | ppbv   | 100      |

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

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