

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034939.D  
 Acq On : 6 May 2020 12:04  
 Operator : SY/AP  
 Sample : VSTDIC0.5  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.5

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:29:38 PM

Quant Time: May 06 12:51:52 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 12:36:21 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1194344  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 2756609  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 2529657  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 2134302  | 10.82    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 108.20% |

| Target Compounds               |      |     |        |              | Ovalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85  | 127299 | 0.778 ppbv   | 95     |
| 3) Chlorodifluoromethane       | 2.95 | 51  | 76332  | 0.572 ppbv   | 96     |
| 4) Chloromethane               | 3.11 | 50  | 42884  | 0.569 ppbv   | 95     |
| 5) Vinyl Chloride              | 3.22 | 62  | 38241  | 0.528 ppbv # | 87     |
| 6) Bromomethane                | 3.45 | 94  | 24832  | 0.588 ppbv   | 95     |
| 7) Chloroethane                | 3.53 | 64  | 14369  | 0.549 ppbv   | 98     |
| 8) Dichlorotetrafluoroethane   | 3.15 | 85  | 101341 | 0.597 ppbv   | 98     |
| 9) Propene                     | 2.98 | 41  | 31100  | 0.488 ppbv   | 99     |
| 10) Heptane                    | 8.13 | 43  | 68581  | 0.437 ppbv   | 98     |
| 11) Trichlorofluoromethane     | 3.93 | 101 | 96971  | 0.557 ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.47 | 101 | 71515  | 0.587 ppbv   | 93     |
| 13) Ethanol                    | 3.58 | 45  | 10266m | 0.530 ppbv   |        |
| 14) Bromoethene                | 3.71 | 108 | 27328  | 0.520 ppbv # | 94     |
| 15) Acetone                    | 3.84 | 43  | 97080  | 0.627 ppbv # | 88     |
| 16) 1,3-Butadiene              | 3.29 | 39  | 37665  | 0.538 ppbv   | 94     |
| 17) tert-Butyl alcohol         | 4.28 | 59  | 80623m | 0.541 ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.27 | 96  | 28768  | 0.533 ppbv # | 91     |
| 19) Isopropyl Alcohol          | 3.95 | 45  | 61063  | 0.625 ppbv # | 91     |
| 20) Methylene Chloride         | 4.32 | 84  | 31477  | 0.643 ppbv   | 94     |
| 21) Allyl Chloride             | 4.39 | 41  | 44645  | 0.449 ppbv   | 93     |
| 22) trans-1,2-Dichloroethene   | 4.88 | 96  | 25395  | 0.464 ppbv   | 100    |
| 23) Vinyl Acetate              | 5.06 | 43  | 92646  | 0.405 ppbv # | 98     |
| 24) 1,1-Dichloroethane         | 5.00 | 63  | 86542  | 0.565 ppbv   | 99     |
| 25) Ethyl Acetate              | 5.67 | 43  | 140731 | 0.510 ppbv   | 98     |
| 26) Hexane                     | 5.68 | 57  | 57156  | 0.481 ppbv   | 88     |
| 27) Carbon Disulfide           | 4.54 | 76  | 66503m | 0.493 ppbv   |        |
| 28) Methyl tert-Butyl Ether    | 5.02 | 73  | 89308m | 0.452 ppbv   |        |
| 29) Chloroform                 | 5.74 | 83  | 104814 | 0.578 ppbv   | 95     |
| 30) Cyclohexane                | 7.14 | 84  | 41287m | 0.417 ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.55 | 61  | 55196  | 0.454 ppbv   | 93     |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97  | 88653  | 0.502 ppbv   | 98     |
| 34) 2-Butanone                 | 5.24 | 43  | 83627  | 0.457 ppbv   | 99     |
| 35) Carbon Tetrachloride       | 7.02 | 117 | 91846m | 0.536 ppbv   |        |
| 36) Benzene                    | 6.90 | 78  | 110494 | 0.450 ppbv # | 91     |
| 37) 1,2-Dichloroethane         | 6.30 | 62  | 76043m | 0.549 ppbv   |        |
| 38) Trichloroethene            | 7.86 | 130 | 44121m | 0.473 ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.63 | 63  | 48170m | 0.495 ppbv   |        |
| 40) 1,4-Dioxane                | 7.88 | 88  | 19516m | 0.531 ppbv   |        |
| 41) Tetrahydrofuran            | 6.06 | 42  | 40285  | 0.406 ppbv   | 98     |
| 42) Bromodichloromethane       | 7.81 | 83  | 98890m | 0.524 ppbv   |        |
| 43) Methyl Methacrylate        | 8.04 | 69  | 42092m | 0.407 ppbv   |        |

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| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.88  | 57   | 205277   | 0.494 | ppbv   | 97       |
| 45) t-1,3-Dichloropropene     | 9.30  | 75   | 36482    | 0.300 | ppbv   | 92       |
| 46) cis-1,3-Dichloropropene   | 8.72  | 75   | 45600    | 0.316 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.50  | 97   | 49387m   | 0.494 | ppbv   |          |
| 48) Dibromochloromethane      | 10.33 | 129  | 70072    | 0.433 | ppbv   | 100      |
| 49) Bromoform                 | 13.08 | 173  | 58209    | 0.403 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.77  | 43   | 115010   | 0.436 | ppbv   | 93       |
| 51) 2-Hexanone                | 10.17 | 43   | 82890m   | 0.387 | ppbv   |          |
| 52) Tetrachloroethene         | 11.26 | 164  | 39122m   | 0.402 | ppbv   |          |
| 53) Toluene                   | 9.82  | 91   | 101089m  | 0.356 | ppbv   |          |
| 54) 1,2-Dibromoethane         | 10.64 | 107  | 70389    | 0.468 | ppbv   | 84       |
| 56) 1,1,1,2-Tetrachloroethane | 12.16 | 131  | 63153m   | 0.556 | ppbv   |          |
| 57) Chlorobenzene             | 12.18 | 112  | 115429m  | 0.583 | ppbv   |          |
| 58) Ethyl Benzene             | 12.75 | 91   | 140289   | 0.410 | ppbv   | 93       |
| 59) m/p-Xylene                | 13.02 | 91   | 275352m  | 0.959 | ppbv   |          |
| 60) o-Xylene                  | 13.73 | 91   | 131299   | 0.469 | ppbv   | 100      |
| 61) Styrene                   | 13.57 | 104  | 67235m   | 0.342 | ppbv   |          |
| 62) Isopropylbenzene          | 14.71 | 105  | 208698   | 0.493 | ppbv   | 97       |
| 63) 1,1,2,2-Tetrachloroethane | 13.72 | 83   | 118929m  | 0.625 | ppbv   |          |
| 64) n-propylbenzene           | 15.60 | 120  | 50993m   | 0.462 | ppbv   |          |
| 65) tert-Butylbenzene         | 16.79 | 119  | 176390m  | 0.476 | ppbv   |          |
| 66) Benzyl Chloride           | 17.04 | 91   | 49751m   | 0.322 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.34 | 105  | 239821   | 0.467 | ppbv   | 97       |
| 69) p-Isopropyltoluene        | 17.70 | 119  | 196444m  | 0.456 | ppbv   |          |
| 70) n-Butylbenzene            | 18.60 | 91   | 209929m  | 0.478 | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.50 | 91   | 149150   | 0.465 | ppbv   | 94       |
| 72) 4-Ethyltoluene            | 15.88 | 105  | 136539   | 0.413 | ppbv # | 97       |
| 73) 1,3,5-Trimethylbenzene    | 16.04 | 105  | 140701   | 0.454 | ppbv # | 86       |
| 74) 1,2,4-Trimethylbenzene    | 16.81 | 105  | 167626   | 0.525 | ppbv   | 94       |
| 75) 1,3-Dichlorobenzene       | 17.05 | 146  | 109388m  | 0.568 | ppbv   |          |
| 76) 1,4-Dichlorobenzene       | 17.18 | 146  | 93907    | 0.489 | ppbv   | 97       |
| 77) 1,2-Dichlorobenzene       | 17.87 | 146  | 96400m   | 0.517 | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.43 | 225  | 89149m   | 0.572 | ppbv   |          |
| 79) Naphthalene               | 22.28 | 128  | 93559m   | 0.376 | ppbv   |          |
| 80) Naphthalene, 2-methyl-    | 25.03 | 142  | 10692    | 0.164 | ppbv   | 95       |
| 81) 1,2,4-Trichlorobenzene    | 22.00 | 180  | 70997m   | 0.449 | ppbv   |          |

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

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