

**Table 8A.** Quality-control summary of matrix spike recoveries of volatile organic compounds, gasoline additives, NDMA, perchlorate, and 1,2,3-trichloropropane in samples collected for the Monterey Bay and Salinas Valley Ground-Water Ambient Monitoring and Assessment (GAMA) study, California, July to October 2005.

[Acceptable recovery range is between 70 and 130 percent]

| Constituent (common name)                     | Number of spiked samples | Minimum recovery (percent) | Maximum recovery (percent) | Median recovery (percent) |
|-----------------------------------------------|--------------------------|----------------------------|----------------------------|---------------------------|
| 1,1,1,2-Tetrachloroethane                     | 9                        | 88                         | 98                         | 96                        |
| 1,1,1-Trichloroethane (TCA) <sup>1</sup>      | 9                        | 96                         | 104                        | 98                        |
| 1,1,2,2-Tetrachloroethane                     | 9                        | 89                         | 107                        | 98                        |
| 1,1,2-Trichloroethane                         | 9                        | 79                         | 100                        | 89                        |
| 1,1,2-Trichlorotrifluoroethane (CFC-113)      | 9                        | 84                         | 105                        | 96                        |
| 1,1-Dichloroethane <sup>1</sup>               | 9                        | 94                         | 103                        | 98                        |
| 1,1-Dichloroethylene (DCE)                    | 9                        | 88                         | 102                        | 94                        |
| 1,1-Dichloropropene                           | 9                        | 95                         | 138                        | 102                       |
| 1,2,3,4-Tetramethylbenzene                    | 9                        | 97                         | 121                        | 106                       |
| 1,2,3,5-Tetramethylbenzene (isodurene)        | 9                        | 111                        | 124                        | 115                       |
| 1,2,3-Trichlorobenzene <sup>1</sup>           | 9                        | 94                         | 118                        | 102                       |
| 1,2,3-Trichloropropane                        | 9                        | 87                         | 107                        | 97                        |
| 1,2,3-Trimethylbenzene <sup>1</sup>           | 9                        | 97                         | 106                        | 97                        |
| 1,2,4-Trichlorobenzene                        | 9                        | 88                         | 106                        | 97                        |
| 1,2,4-Trimethylbenzene                        | 9                        | 102                        | 121                        | 111                       |
| 1,2-Dibromo-3-chloropropane (DBCP)            | 9                        | 91                         | 113                        | 102                       |
| 1,2-Dibromoethane                             | 9                        | 88                         | 102                        | 92                        |
| 1,2-Dichlorobenzene                           | 9                        | 87                         | 109                        | 100                       |
| 1,2-Dichloroethane                            | 9                        | 98                         | 107                        | 107                       |
| 1,2-Dichloropropene                           | 9                        | 89                         | 96                         | 94                        |
| 1,3,5-Trimethylbenzene                        | 9                        | 98                         | 109                        | 104                       |
| 1,3-Dichlorobenzene                           | 9                        | 89                         | 104                        | 98                        |
| 1,3-Dichloropropane                           | 9                        | 98                         | 107                        | 98                        |
| 1,4-Dichlorobenzene                           | 9                        | 87                         | 104                        | 98                        |
| 1,2,3-Trichloropropane (TCP) <sup>2</sup>     | 4                        | 88                         | 103                        | 90                        |
| 2,2-Dichloropropane                           | 9                        | 83                         | 91                         | 87                        |
| 2-Chlorotoluene                               | 9                        | 91                         | 106                        | 100                       |
| 2-Hexanone                                    | 9                        | 93                         | 108                        | 98                        |
| 3-Chloropropene                               | 9                        | 100                        | 110                        | 103                       |
| 4-Chlorotoluene                               | 9                        | 91                         | 104                        | 100                       |
| 4-Isopropyl-1-methylbenzene                   | 9                        | 94                         | 107                        | 99                        |
| 4-Methyl-2-pentanone                          | 9                        | 88                         | 103                        | 92                        |
| Acetone 1,3                                   | 9                        | 97                         | 128                        | 107                       |
| Acrylonitrile                                 | 9                        | 97                         | 106                        | 106                       |
| Benzene                                       | 9                        | 100                        | 113                        | 104                       |
| Bromobenzene                                  | 9                        | 88                         | 98                         | 94                        |
| Bromochloromethane <sup>1</sup>               | 9                        | 94                         | 111                        | 103                       |
| Bromodichloromethane                          | 9                        | 96                         | 106                        | 100                       |
| Bromoethene                                   | 9                        | 96                         | 128                        | 112                       |
| Bromoform (tribromomethane) <sup>1</sup>      | 9                        | 82                         | 100                        | 93                        |
| Bromomethane                                  | 9                        | 86                         | 139                        | 118                       |
| Butylbenzene                                  | 9                        | 83                         | 94                         | 88                        |
| Carbon disulfide <sup>1</sup>                 | 9                        | 71                         | 95                         | 88                        |
| Chlorobenzene                                 | 9                        | 88                         | 104                        | 94                        |
| Chloroethane                                  | 9                        | 88                         | 106                        | 88                        |
| Chloroform (trichloromethane) <sup>1</sup>    | 9                        | 94                         | 126                        | 100                       |
| Chloromethane                                 | 9                        | 88                         | 119                        | 100                       |
| <i>cis</i> -1,2-Dichloroethylene <sup>1</sup> | 9                        | 94                         | 106                        | 102                       |
| <i>cis</i> -1,3-Dichloropropene               | 9                        | 82                         | 92                         | 86                        |
| Dibromochloromethane <sup>1</sup>             | 9                        | 89                         | 107                        | 95                        |
| Dibromomethane                                | 9                        | 91                         | 111                        | 100                       |
| Dichlorodifluoromethane (CFC-12)              | 9                        | 59                         | 91                         | 88                        |

**Table 8A.** Quality-control summary of matrix spike recoveries of volatile organic compounds, gasoline additives, NDMA, perchlorate, and 1,2,3-trichloropropane in samples collected for the Monterey Bay and Salinas Valley Ground-Water Ambient Monitoring and Assessment (GAMA) study, California, July to October 2005—Continued.

[Acceptable recovery range is between 70 and 130 percent]

| Constituent (common name)                              | Number of spiked samples | Minimum recovery (percent) | Maximum recovery (percent) | Median recovery (percent) |
|--------------------------------------------------------|--------------------------|----------------------------|----------------------------|---------------------------|
| Dichloromethane (methylene chloride)                   | 9                        | 95                         | 107                        | 101                       |
| Diethyl ether                                          | 9                        | 100                        | 113                        | 100                       |
| Diisopropyl ether <sup>1</sup>                         | 9                        | 90                         | 105                        | 97                        |
| Ethyl methacrylate                                     | 9                        | 86                         | 98                         | 90                        |
| 2-Butanone (Ethyl methyl ketone)                       | 9                        | 98                         | 119                        | 104                       |
| Ethylbenzene                                           | 9                        | 91                         | 113                        | 102                       |
| Hexachlorobutadiene                                    | 9                        | 84                         | 99                         | 92                        |
| Hexachloroethane                                       | 9                        | 89                         | 106                        | 95                        |
| Isopropylbenzene                                       | 9                        | 96                         | 115                        | 104                       |
| <i>m</i> - and <i>p</i> -Xylene <sup>1</sup>           | 9                        | 95                         | 118                        | 107                       |
| Methyl acetate                                         | 4                        | 96                         | 106                        | 102                       |
| Methyl acrylate                                        | 9                        | 94                         | 108                        | 102                       |
| Methyl acrylonitrile                                   | 9                        | 97                         | 115                        | 106                       |
| Methyl iodide                                          | 9                        | 80                         | 152                        | 124                       |
| Methyl methacrylate                                    | 9                        | 78                         | 90                         | 84                        |
| Methyl <i>tert</i> -butyl ether (MTBE) <sup>1,3</sup>  | 9                        | 94                         | 110                        | 94                        |
| Naphthalene                                            | 9                        | 89                         | 128                        | 104                       |
| Nitrosodimethylamine (NDMA) <sup>2</sup>               | 4                        | 81                         | 95                         | 91                        |
| <i>n</i> -Propylbenzene                                | 9                        | 91                         | 109                        | 98                        |
| <i>o</i> -Ethyl toluene                                | 9                        | 93                         | 107                        | 102                       |
| <i>o</i> -Xylene <sup>1</sup>                          | 9                        | 93                         | 105                        | 100                       |
| Perchlorate <sup>2</sup>                               | 4                        | 40                         | 84                         | 78                        |
| <i>sec</i> -Butylbenzene                               | 9                        | 94                         | 109                        | 96                        |
| Styrene                                                | 9                        | 64                         | 109                        | 100                       |
| Methyl <i>tert</i> -pentyl ether <sup>1</sup>          | 9                        | 91                         | 109                        | 97                        |
| <i>tert</i> -Amyl alcohol                              | 4                        | 83                         | 97                         | 94                        |
| <i>tert</i> -Butyl alcohol                             | 4                        | 84                         | 95                         | 92                        |
| <i>tert</i> -Butyl ethyl ether (ETBE) <sup>1</sup>     | 9                        | 87                         | 115                        | 102                       |
| <i>tert</i> -Butylbenzene                              | 9                        | 104                        | 117                        | 110                       |
| Tetrachloroethylene (PCE) <sup>1</sup>                 | 9                        | 88                         | 121                        | 96                        |
| Tetrachloromethane (carbon tetrachloride) <sup>1</sup> | 9                        | 91                         | 104                        | 98                        |
| Tetrahydrofuran <sup>1</sup>                           | 9                        | 107                        | 128                        | 112                       |
| Toluene <sup>1</sup>                                   | 9                        | 91                         | 100                        | 96                        |
| <i>trans</i> -1,2-Dichloroethylene                     | 9                        | 96                         | 106                        | 104                       |
| <i>trans</i> -1,3-Dichloropropene                      | 9                        | 84                         | 99                         | 92                        |
| <i>trans</i> -1,4-Dichloro-2-butene                    | 9                        | 91                         | 121                        | 108                       |
| Trichloroethylene (TCE) <sup>1</sup>                   | 9                        | 90                         | 100                        | 94                        |
| Trichlorofluoromethane (CFC-11)                        | 9                        | 85                         | 101                        | 96                        |
| Vinyl chloride                                         | 9                        | 96                         | 125                        | 106                       |

<sup>1</sup>Constituents detected in ground-water samples.

<sup>2</sup>Constituents analyzed by Montgomery Watson-Harza Laboratory, Monrovia, California, on the Constituents of Special Interest Schedule.

<sup>3</sup>Constituents on schedules 2020 and 4024; only values from schedule 2020 are reported because it is the preferred analytical schedule.