Initial Findings:
National Survey of MTBE, Other Ether Oxygenates, and Other VOCs in Community Drinking-Water Sources

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Survey's Main Purpose and Scope
- Determine the occurrence, concentration, and seasonal variation of methyl tert-butyl ether (MTBE), other ether oxygenates, and other volatile organic compounds (VOCs) in community water systems (CWS) source water prior to treatment.
- Randomly select and sample 954 source-water sites in the United States and Puerto Rico (fig. 1) considering:
  - two source-water categories (surface water and ground water);
  - five CWS-size categories based on population served; and
  - number of CWSs and population served by each source-size category.
- Analyze for MTBE, 3 other ether oxygenates, and 62 additional VOCs.

Frequency of Occurrence of MTBE (reporting level of 0.2 micrograms per liter)
- MTBE was detected:
  - in 24 States;
  - in about 9 percent of all source-water sites sampled;
  - five times more frequently in MTBE high-use areas than in other areas;
  - generally more frequently in surface-water sources (about 14 percent) than in ground-water sources (about 5 percent); and
  - more frequently in large and very large CWSs (fig. 2).

Concentrations of MTBE and Other VOCs
- MTBE concentrations were almost always less than the U.S. Environmental Protection Agency's (USEPA) analytical and odor advisory of 20-40 micrograms per liter (ug/L) and the highest level (50 ug/L) used as an odor advisory set by a State (California, 1993) (fig. 3).
- Other VOCs were also found at low levels. Less than 1 percent of the source-water sites had a concentration that exceeded USEPA's Maximum Contaminant Levels or Health Advisories.

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