NUMBER 4

JULY/AUGUST 1986

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## **Bottled Trouble: Uncapping Tainted Waters**

Some buy it for the bubbles. some for the taste, still others for the brand-name cachet, but most consumers who pay a premium for bottled water do so with the confidence that they are buying water that is impeccably pure and healthful. With concerns over polluted water supplies mounting, per capita consumption of bottled water has more than tripled in the past decade; today, 1 out of 17 people in the United States drink their water from a jug instead of a tap. Unfortunately, those willing to pay the price for a supposed margin of safety may be in for a disappointing surprise. While brand-name water may cost 1000 times more than tap water, consumers have no guarantee that it is any cleaner.

On occasion, it may even be worse. In California, the source of 40 percent of the nation's bottled water, consumers have complained of finding chewing gum, cellophane tape, mold and "a glob . . . which looked like a slug" in bottles of water produced by state-licensed plants. State health authorities investigated the complaints and made some discoveries of their own, including trace amounts of benzene (an ingredient of gasoline), toluene (an industrial solvent), chloroform, nitrates and dioctyl phthalate, a plasticizer used in manufacturing food-packaging materials.

Since bottled water is technically a food item, it falls under the jurisdiction of the Food and Drug Administration (FDA), which simply adopted the Environmental Protection Agency's (EPA) standards for municipal water supplies. Under the Safe Drinking Water Act of 1974, the EPA established Maximum Contaminant Levels (MCLs) for 32 contaminants. The EPA is in the process of setting MCLs for more substances, but so far, no enforceable standards exist for a host of deadly organic (carbon-containing) chemicals, including many pesticides, herbicides and industrial solvents.

A comprehensive national survey on bottled-water quality is yet to be done. New York State's Department of Health conducted one of the most extensive tests in 1982, when it analyzed 22 brands of bottled water for 40 organic compounds. The state found traces of these chemicals in 68 percent of the products it tested. New York is now nearing completion of a more extensive battery of tests. It is analyzing 85 brands distributed in the state for a long list of potential contaminants, including 65 organic chemicals. None of the results have been released yet. But Richard Bonczek, chief engineering technician for the New York Department of Health, expects that the testing will raise still more questions about bottled-water standards. "What the study is going to tell us," he says, "is that there may be a need to do additional sampling at the *sources* to see whether any problems we find are coming from them or from the bottling process. My guess is that they come from the bottling process."

-bottled water from a filtered municipal source cannot, for example, be labeled "spring water," and labels cannot have any therapeutic claims printed on them – but labels are not required to identify the water's source nor to disclose whether the water has been filtered or otherwise treated. Bottles labeled "mineral water" – Perrier



Richard Stump, lab director for Suburban Water Testing Laboratories, Inc., says that the problem may lie less with the bottling process than with the bottles themselves. Most are made of a plastic that is easily permeated by a group of potentially harmful chemicals called organic halogens. One of these, trichloroethylene (TCE) -a carcinogen that has been detected in hundreds of community water systems-appeared in some bottled-water samples that Stump's laboratory recently tested. TCE is sometimes used as a solvent to remove grease from machine parts. If a water-bottling company used TCE on its equipment, the chemical might come into contact with bottles. permeate the plastic and enter the water. Stump still thinks that bottled water is a safer bet than most wells. "But," he adds, "I'd prefer glass bottles over plastic ones, from what I've seen."

The FDA inspects federally licensed water-bottling plants for sanitary conditions, but one to three years may pass between routine inspections. The bottlers themselves are responsible for having their water tested weekly for harmful bacteria, annually for chemicals and once every four years for radiological contaminants. Water bottlers must meet federal truth-in-labeling standards

and the like—aren't even required to meet the federal standards for tap water.

One way to find out more about a given brand of bottled water is to contact the bottler directly and ask some questions. Is the vendor a member of the International Bottled Water Association (IBWA), and does it test its water for the IBWA's list of 129 "priority pollutants"? Where does the vendor's water come from? Does the vendor conduct any testing beyond what is required by federal regulations? If so, for what contaminants?

In the end, bottled-water drinkers may only find peace of mind by having their brand tested by an EPA-certified lab. State and local health departments maintain lists of such labs. Another alternative is to contact one of the mail-order testing labs listed below. Adequate testing can cost anywhere from a few dollars to several hundred, but it may be the only way to find out exactly what's in the bottle.

SUBURBAN WATER TEST-ING LABORATORIES, INC. 4600 Kutztown Road Temple, PA 19560 (215) 929-3666; or in PA, call (800) 525-6464

WATERTEST CORPORATION 33 South Commercial Street Manchester, NH 03101 (603) 623-7400

