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ALABAMA A & M AND AUBURN UNIVERSITIES

Water Testing

Where Can You Have Your Water Tested?

Many places in Alabama test water for the presence of contaminants. Local health authorities, private laboratories, and water treatment companies can even help determine the tests you need and may make some of the analyses. If you have reason to suspect that your water is contaminated, contact one of the following sources.

Municipal water supply systems regularly test for Primary Drinking Water Standard contaminants, monitor levels of sodium and certain unregulated chemical contaminants, and look for corrosion in the water distribution system. They will provide water quality reports upon request.

The health department in each county can arrange to test for bacteriological contamination, usually for less than \$15.00. The samples are analyzed at state health labs or at certain private laboratories under contract with the County Health Department.

The Alabama Department of Environmental Management (ADEM) certifies laboratories for testing drinking water in Alabama. A current list of certified laboratories may be obtained from ADEM at no charge.

The Alabama Department of Agriculture and Industries (ADAI) tests for special pesticide residue problems at the Alabama Pesticide Residue Laboratory (P.O. Box 370, Highway 29 at Donahue Drive, Auburn, Alabama 36830, 334-844-4705). Contact the pesticide laboratory director or the pesticide education specialist with the Alabama Cooperative Extension System for information on available analyses and specific sampling instructions.

ADAI test samples are sometimes taken for evidence in court cases. Official samples taken by an ADAI inspector are free. Other samples generally cost \$35.00 each. Call ADAI in Montgomery (334-261-2631) with details concerning why an analysis is needed.

ADAI also tests for specific problems at a county Extension agent's request. The number of free samples that can be analyzed at an agent's request, how-

ever, is somewhat limited because of budget constraints and annual work load for the lab.

Many **private laboratories** in Alabama will analyze water from either public or private water supplies. Some labs will test private water supplies for bacteria. Other labs also analyze drinking water for metals, minerals, pesticides, and other organic substances. ADEM has established a list of certified laboratories for water analyses. This list is updated twice yearly. Private testing laboratories are also listed in the yellow pages of the telephone book; make sure they are certified by ADEM for appropriate analyses.

Laboratories in local universities, especially in their departments of agronomy, biology, chemistry, aquaculture, toxicology, or natural resources, may offer a variety of water testing services.

Auburn University offers limited water testing through the Soil Testing Laboratory (118 Funchess Hall, Auburn University, AL 36849, 334-844-3958). Although not certified for drinking water tests, the laboratory offers tests for certain minerals, pH, soluble salts, and nitrates for a fee of \$15.00. The major purpose of this testing service is to provide nutrient value of water. Table 1 lists contaminants tested for in a routine water analysis at the Soil Testing Laboratory.

Tuskegee University offers water testing for nitrate and lead in the Department of Agricultural Science for less than \$10.00. Additional metals can be analyzed by special requests. The university is also beginning an immuno-assay testing program for certain agricultural pesticides. Tuskegee uses EPA approved procedures to test for lead in drinking water. Information on sampling can be obtained from county Extension offices or directly from the Tuskegee Water Quality Laboratory (Department of Agricultural Sciences, Milbank Hall, Tuskegee University, AL 36088, 334-727-8400 or 8073).

Water treatment companies and plumbing supply stores may offer certain tests in your home for free. Local **engineering firms** may also test water for

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Table 1. Contaminants Tested For By The Soil Testing Laboratory At Auburn University.

Contaminant	Concentration In Solution
Minerals:	
Aluminum	ppm ^a
Barium	ppm
Boron	ppm
Calcium	ppm
Chromium ^b	ppm
Cobalt	ppm
Copper	ppm
Iron ^b	ppm
Lead ^b	ppm
Magnesium	ppm
Manganese ^b	ppm
Molybdenum	ppm
Phosphorus	ppm
Potassium	ppm
Silicon	ppm
Sodium	ppm
Zinc	ppm
Nitrate	ppm
pH	pH units
Soluble Salts	ppm

^aFor the purposes of this article ppm = parts per million = mg/L = milligrams per liter.

^bThe upper acceptable Primary Drinking Water Standards for chromium and lead and the upper recommended Secondary Drinking Water Standards for iron and manganese are below the detection limits of this laboratory.

certain contaminants. And local hospital laboratories often offer water testing services.

Home screening tests are currently on the market. These allow you to test for hardness, iron, or nitrate in your home. Keep in mind that these tests are a simplified version of the tests conducted by a lab. The results indicate only whether your sample contains the tested contaminant and the approximate level of that contaminant. These screening tests serve as useful tools for indicating if further testing is needed. If the results are positive, you should follow up with a laboratory test.

Mail-order water tests are now available. The Environmental Protection Agency (EPA) has a list of laboratories that conduct mail-order water tests. Contact EPA's Drinking Water Hotline (1-800-426-4791) for specific information.

Summary

Many places in Alabama can test your water. While free-flowing or soil-filtered water may provide good quality drinking water, it can also be polluted with bacteria or chemicals from unseen sources. If you doubt the quality of your drinking water, you should have your water supply tested for contamination. Full analysis for volatile and synthetic organic contaminants plus inorganic contaminants costs several hundred dollars; thus, you should request testing for the specific suspected contaminants in your water.

Additional information about testing drinking water is available from EPA's Drinking Water Hotline: 1-800-426-4791.

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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