



Public water supplies are tested regularly and customers are notified of violations so users can rely on water utilities and regulators to assure safe drinking water. On the other hand, people who use a private water supply are responsible for all quality and safety aspects of their water. When well or spring location, construction, maintenance (with water tests), or protection is deficient, drinking water may not be safe.

Ensuring Safe Drinking Water

Safe water is supplied by a safe well. Wells and springs are often contaminated because of poor location, inadequate construction, delayed or no maintenance, accidents, and lack of protection. Surveys of private wells show about 80 percent are deficient in construction or location. The most common health-concern contaminants are coliform bacteria, especially *E.coli* or fecal coliform, and nitrate. Others include salts (often sodium chloride), petrochemicals, and pesticides. Corrective steps for the owner or water user are:

First, check the well and water system:

1. Evaluate well location and construction against standards (MF-970) and make needed improvements.

Second, maintain, evaluate, and protect the water source:

2. Do preventive maintenance (MF-2396) including shock chlorination of the well and water system (MF-911).
3. Test water, evaluate results, keep reports for reference, and track trends to detect changes or problems.
4. Develop a plan and follow it to protect your well and groundwater from contamination (MF-2396).

What Tests Are Necessary?

There is no single test for drinking water safety. Tests measure specific contaminants including bacteria, nitrate, lead, arsenic, pesticides, and other contaminants. Surveys show about 60 percent of private wells are polluted by bacteria or nitrate – both have serious health risks.

Test with a purpose (see MF-871). Reasons to test include: assuring safety, detecting changes over time (contamination), and documenting good quality. Annually test for bacteria (coliform and *E.coli* or fecal), nitrate, total dissolved solids, and pH as part of well maintenance. Much more testing is required to assure safe, bacteria-free water, especially when a well has location or construction deficiencies. Always test for total coliform and *E.coli* (or fecal) bacteria after maintenance or repair of the water source or system.

Before using a water supply for drinking, livestock, or irrigation, test its suitability for those purposes. Conduct tests every 3 to 5 years to detect changes. Consider testing for specific chemicals that have been stored, used, or spilled near the well.

Testing to Help Ensure Safe Drinking Water

Which Labs Are Qualified?

The only way to judge the quality of a laboratory's service is through independent evaluation. Kansas Department of Health and Environment (KDHE) certifies laboratories following National Environmental Laboratory Accreditation standards. We recommend using laboratories on this list that are certified for the drinking water tests you need or want. For detailed information about specific chemical certification, contact KDHE, Laboratory Improvement Program office (785) 296-3811 or www.kdheks.gov/envolab/. All states have a laboratory certification program. See the table on the back for contacts in adjacent states.

Selecting the Laboratory

Because any certified laboratory should be capable of doing tests accurately – within standards, price is not a good gauge of quality. Costs for nitrate and bacteria tests may range from \$20 to more than \$40. We recommend selecting a laboratory within overnight shipping distance for the carrier you would use. The trade association, American Council of Independent Laboratories www.acil.org, can help in choosing a laboratory.

Collecting and Transporting the Sample

Contact the laboratory to get a sample container. Follow instructions to collect the sample, either from the laboratory or in *Taking a Water Sample*, MF-963. After collecting, refrigerate but do not freeze the sample. Protect it from sunlight. For accurate results, the bacteria test must be started within 24 hours of sample collection. Ask the lab about sample delivery, days and times that they begin water tests, and plan accordingly.

Related K-State Water Quality Information

*Kansas Home*A*Syst–Environmental Risk Mgmt for Homes*
Kansas Water Well Web site <www.kswaterwell.org>
Organic Chemicals and Radionuclides in Drnkg. Water, MF-1142
Private Water Well—Owner/Operator Manual, MF-2409
Private Well Maintenance and Protection, MF-2396
Private Wells—Safe Location and Construction, MF-970
Recommended Water Tests for Private Wells, MF-871
Restoring a Flooded Well to Service, MF-2733
Safe Water from Wells (video), SV-386
Shock Chlorination for Private Water Systems, MF-911
Taking a Water Sample, MF-963
Understanding Your Water Test Report, MF-912

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KDHE Certified Laboratories in Kansas and Nearby States for Drinking Water Testing – May 6, 2009
Coliform/E. coli Bacteria (B), Lead (L), Metals/Minerals (M), Nitrate (N), Organic (O), Radiochemistry (R), Trihalomethane (T), and Unregulated Organics (U)

Laboratory Name, Location Address and City	Mail Address (If different than location)	Telephone	B	L	M	N	O	R	T	U	Renew
A & E Analytical Lab, Inc, 2626 South Rock Rd, Ste 114, Wichita, KS	Wichita, KS 67210-1857	316-618-8787	B	-	-	-	-	-	-	-	10/09
Accurate Labs Inc, ⁴ 505 South Lowry, Stillwater, OK	Stillwater, OK 74074	405-372-5300	B	L	M	N	O	-	T	-	8/09
Accurate Labs Inc, ⁴ 6558 East 40th St, Tulsa, OK	Tulsa, OK 74145	918-663-5400	B	-	-	-	-	-	-	-	8/09
ALS Laboratory Group, 225 Commerce Dr, Fort Collins CO (formerly Paragon)	Fort Collins, CO 80524	970-490-1511	-	-	-	-	-	R	-	-	10/09
Colorado Analytical Lab, ¹ 240 S. Main Street, Brighton, CO 80601	PO Box 507, Brighton, CO 80601	303-659-2313	B	L	-	-	-	-	-	-	6/09
Continental Analytical Services Inc, 525 N. 8th St, Salina, KS (800-535-3076)	PO Box 3737, Salina 67401-3737	785-827-1273	B	L	M	N	O	-	T	-	7/09
Dean's Water Lab Inc, 1710 Cottonwood Dr, El Dorado, KS 67042	PO Box 610, Andover, KS 67002-9780	316-733-2682	B	-	-	-	-	-	-	-	10/09
Environmental Labs Inc, 821 N. Washington St, Auburn, KS 66402	PO Box 120, Auburn, KS 66402-0120	785-256-7330	B	-	-	-	-	-	-	-	4/10
Hazen Research Inc, 4601 Indiana Street, Golden, CO	Golden, CO 80403-1895	303-279-4501	-	-	-	-	-	R	-	-	10/09
Keystone Laboratories Inc, 1155 Adams St, Ste 120, Kansas City, KS	Kansas City, KS 66103-1359	913-321-7856	B	-	-	-	-	-	-	-	4/10
Olsen's Agricultural Laboratory Inc, ³ 210 East 1st Street, McCook, NE	PO Box 370, McCook, NE 69001-0370	308-345-3670	B	-	-	N	-	-	-	-	12/11
Outreach Laboratory, ⁴ 311 N Aspen, Broken Arrow, OK	Broken Arrow, OK 74012	918-251-2515	-	-	-	-	-	R	-	-	8/09
Pace Analytical Services Inc, 9608 Loiret Boulevard, Lenexa, KS	Lenexa, KS 66219-2406	913-599-5665	B	-	M	N	-	-	-	-	4/10
SDK Laboratories Inc, 1000 Corey Road, Hutchinson, KS (877-464-0623)	PO Box 886, Hutchinson, KS 67504-0886	620-665-5661	B	-	-	N	-	-	-	-	10/09
Servi-Tech Laboratories Inc, 1816 E Wyatt Eap Blvd (800-557-7509)	PO Box 1397, Dodge City, KS 67801-1397	620-227-7123	B	-	M	N	-	-	-	-	10/09
Servi-Tech Laboratories Inc, ³ 1602 Park West Drive, Hastings, NE	PO Box 169, Hastings, NE 68902-0169	402-463-3522	B	L	M	N	-	-	-	-	12/10
TestAmerica Denver, Inc, 4955 Yarrow Street, Arvada, CO	Arvada, CO 80002-4517	303-736-0100	B	L	M	N	-	-	-	-	4/10
TestAmerica St Louis, Inc, 13715 Rider Trail No., Earth City, MO	Earth City, MO 63045-1205	314-298-8566	-	-	-	-	-	R	-	-	10/09
Underwriters Laboratories Inc, 110 South Hill Street, South Bend, IN	South Bend, IN 46617	219-233-4777	B	L	M	N	O	R	T	U	7/09
University Hygienic Laboratory, UI Research Park, Oakdale Campus, Iowa City, IA	102 Oakdale Campus, UI, Iowa City, IA 52242-5002	319-335-4500	B	L	M	N	O	R	T	-	1/10
Water Analysis Inc, ² 111 West 17th Street, Joplin, MO	Joplin, MO 64804	417-623-2626	B	-	-	-	-	-	-	-	3/10

Certified by: ¹Colorado Dept of Public Health and Environment 303-692-3295, Web site: www.cdph.state.co.us/ltr/certification; ²Missouri Dept of Natural Resources 573-526-3832, Web site: [www.dnrm.mo.gov/env/wpp/labs](http://dnrm.mo.gov/env/wpp/labs); ³Nebraska Health and Human Services (Private Drinking Water) 402-471-8426, option 7, Web site: www.hhs.state.ne.us/lab/certificationindex.htm, UofN Extension bulletin, G1614; www.iampubs.unl.edu/public/ltr/g1614/build/g1614.pdf;

⁴Oklahoma Department of Environmental Quality 405-702-1024, Web site: www.deq.state.ok.us/csdcsw/labcert.htm, The NELAC Institute (TNI) develops standards and administers the Laboratory Accreditation System and National Environmental Laboratory Accreditation, Web site: www.nelac-institute.org; National EPA Web site: www.epa.gov/sqfwater/labs/index.html

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