

# NebGuide

## Nebraska Extension

Research-Based Information That You Can Use

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## **Drinking Water**

### Certified Water Testing Laboratories in Nebraska

Becky Schuerman, Domestic Water/Wastewater Extension Associate

Katie Pekarek, Water Quality Extension Educator

Bruce I. Dvorak, Extension Environmental Engineering Specialist

This publication explains water testing laboratory certification, requirements for their use, and lists certified water testing laboratories.

Many Nebraska laboratories offer services that include drinking water analyses and other water testing. Some of these laboratories are operated by government agencies and others are commercial laboratories. Certified labs use government approved methods to generate analytical data for regulatory testing.

For additional information on drinking water analyses, see Drinking Water: Testing for Quality, NebGuide 907.

#### **Laboratory Certification**

Laboratories performing drinking water analyses for public water system monitoring as part of the Safe Drinking Water Act (SDWA) have been required to be certified through a U.S. Environmental Protection Agency (EPA) since 1978. A certified laboratory must use prescribed testing methods and equipment and meet specific requirements outlined by the EPA. Certification is given to laboratories to analyze specific contaminant(s) and a laboratory must meet criteria for each analysis for which it wants to be certified. Regulatory certification provides some assurance that the laboratory can perform water quality analyses within an acceptable range of accuracy and will provide reliable results.

Not all laboratories test drinking water for public water systems under the Safe Drinking Water Act. Labs that have not received certification from the EPA or the state for compliance monitoring may use the same equipment and procedures as certified labs. Such laboratories may provide accurate and reliable analyses, but results may not be used to support regulatory programs. Laboratory testing certification and accreditation programs typically are developed for with a specific goal (e.g., perform certain test methods, have appropriate quality management system).

The Nebraska Department of Health and Human Services (DHHS) Public Health Environmental Laboratory is certified and has a contract with a certified laboratory to test all EPA regulated contaminants for public water systems. A list of certified labs in Nebraska, and the parameters for which each is certified, is updated periodically at and can be found on the Nebraska Public Health Environmental Lab website (www.dhhs.ne.gov/lab) under "Laboratory Certification" and at https://water.unl.edu /water-testing. For more related to certification information, including the most current list of certified laboratories in Nebraska, contact:

Nebraska DHHS Public Health Environmental Laboratory 3701 South 14th Lincoln, NE 68502

402-471-8407

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#### When to Use a Certified Lab

Public drinking water systems are required to sample and analyze a specific list of contaminants at specific time periods. These samples must be analyzed at a certified lab. Sometimes a public drinking water system will analyze water for contaminants that are not included in this required list or more often than required. The analyses of additional contaminants, above and beyond the specified list, are not required and therefore may or may not be analyzed at a certified lab.

Private drinking water supplies, such as a private well, are not required to be sampled through the SDWA and therefore the analysis of samples taken from private wells are not required to be conducted by a certified lab. A certified laboratory must be used when test results are needed for public water systems and any time test results might be used for legal action involving contamination.

Many lenders and County Health Departments require properties with residences served by a private water well and/or onsite wastewater system to be inspected prior to the sale, transfer or conveyance of the property in an effort to protect public health and the environment. It is recommended that water samples collected during this process are analyzed at a certified laboratory, although it may or may not be required.

Well water testing by any laboratory can be helpful to consumers as they offer information about its suitability for drinking. When results from a non-certified laboratory indicate elevated nitrate or microbial contamination that may affect human health, a follow up test performed by a certified laboratory is recommended. In situations where considerable investment is necessary to correct a drinking water contamination issue, verification of the severity of the problem by a certified laboratory is advisable to obtain definitive results.

#### **Contacting a Laboratory**

First, identify if you need to use a certified laboratory for the contaminant(s). Then contact individual laboratories to find out about test fees, sampling bottles or kits, and sampling instructions. Typically, there will be a fee for each contaminant tested; however, some laboratories offer "package test kits" which include testing for a suite of contaminants. For many contaminants there are special sample containers, preservatives, sampling procedures and holding times that must be used/adhered to. Carefully follow the sampling instructions provided by the laboratory to get accurate results.

#### **Testing Non-Drinking Water Uses**

Testing water quality has several applications beyond drinking water quality testing. It is important to test water quality for livestock when diagnosing problems related to water quality that could impact productivity. Many laboratories have a sample analysis package that offers an analysis for a suite of parameters that determine suitability of a water source for livestock. If concerned about contaminated water causing adverse effects to your livestock, consult your local veterinarian, the University of Nebraska Veterinary Diagnostic Center or the Nebraska State Veterinarian's Office with the Nebraska Department of Agriculture, (402) 471-2351.

Samples from a private pond may be analyzed for a variety of parameters. The use(s) of a pond will determine which water quality parameters are of greatest concern. If concerned about contaminated pond water, contact the Nebraska Game and Parks: Nebraska Private Waters Program, http://outdoornebraska.gov/privatewatersprogram.

Much of the information in this NebGuide refers to testing water for human domestic consumption and use. There may be occasions when tests are needed to determine the suitability of water for other uses. Many of the laboratories found on the NDHHS Public Health Environmental Laboratory website under "Certified Labs" provide testing for uses other than drinking water.

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