

For Help with Interpretation...

- Compare your results with the drinking water standards on the lab report.

For more complete information, use the **USU Water Quality Extension Water Testing Toolkit**:

<http://extension.usu.edu/waterquality/htm/wqtool>.

This easy to use site provides detailed information to help you interpret all your test results, and provides links for more information.

Utah State University COOPERATIVE EXTENSION

Water Quality

Water Quality Interpretation Tool

USU Water Quality Interpretation Tool

Welcome to the Utah State University water quality interpretation toolkit. This tool has been created to help you evaluate the water quality of your drinking water, irrigation water, livestock water, and environmental water.

Please click on the type of water you have sampled and would like to evaluate.

Water will be used for....

Drinking Water Irrigation Water Livestock Water Aquatic life or recreation

Bacteria

E. Coli colonies/ 100ml

Fecal Coliforms colonies/ 100ml

Total Coliforms colonies/ 100ml

Inorganics and Physical Properties

Alkalinity as CaCO₃ mg/l

Aluminum (Al) mg/l

Pesticides and Volatile Organic Contaminants

1,1,1-Trichloroethane ug/l

1,1,2-Trichloroethane ug/l

1,1-Dichloroethylene mg/l

1,2,4-Trichlorobenzene ug/l

1,2-Dichloroethane mg/l

1,2-Dichloropropane mg/l

2,4-D ug/l

2,4,5-TP ug/l

Utah does not regulate private drinking wells. These standards listed below are used to regulate drinking water for municipalities, but are provided to help you interpret results from your private well.

Table of results:

Beneficial Use Designation—Primary Drinking Standards: Exceeding primary standards may cause health problems.

Test Name	Criterion	Lab Result	Status	Explanation of results
Arsenic (As)	0.01 mg/l maximum	< .02 mg/l	Failed	Studies have linked long-term exposure to arsenic in drinking water to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate. Non-carcinogenic effects of arsenic include cardiovascular, pulmonary, immunological,

- If any values exceed the standards, **DO NOT DRINK THE WATER!**
- If you suspect contamination, identify and remove the source of pollutants.
- Retest to make sure your water is safe!

Keep copies of ALL results to track changes in your drinking water quality over time. Contact USU Water Quality Extension at (435) 797-2580 to obtain a Well Water Records folder.

For more information on:

- Identifying the risk to your well from different contaminant sources
- Techniques to protect your well water from contaminants
- Common drinking water pollutants in Utah

Contact USU Extension's water quality program (435-797-2580) or visit our web page:

www.extension.usu.edu/waterquality



Testing Your Well Water

If your drinking water comes from a private well, it is up to you to assure that your water is safe.

Learn the warning signs of polluted drinking water, how to get your water tested and where to go to help you interpret your results.



Water is Life: Quality Matters

When to test your well water

New Wells or New Homes:

- Test for bacteria
- Routine water chemistry analysis*

Existing wells:

Every year:

- Test for bacteria, pH, nitrate and total dissolved solids (TDS).
- Also...test for any constituents that were at or near the drinking water standard in previous tests.

Every five years:

- Routine water chemistry analysis.

How do I take a water sample?

Contact the lab **BEFORE** taking the samples to make sure you use proper containers and procedures. The lab you contact will provide bottles and instructions for each type of test.

A poorly collected sample is worse than no sample at all, because you don't get reliable results and you waste your money!

Contact your Local Health Departments for certified labs in your area: <http://www.drinkingwater.utah.gov/partners.htm>

Check USU Extension's web page for a list of drinking water certified labs throughout Utah.
<http://extension.usu.edu/waterquality/htm/homeownerswater>

Suggested tests when you think you have a problem

Illness or special health needs	Test For:
Recurring gastro-intestinal illness	Coliform bacteria
You are pregnant, are planning a pregnancy, or have an infant less than six months old	Nitrates, lead
Member of household has compromised immune system	Cryptosporidium & other microbial contaminants
Drinking water has taste, odor or appearance problems	Test For:
Rotten egg smell or metallic taste	Hydrogen sulfide, corrosion, metals
Water appears cloudy, frothy, or colored	Color, detergents
Odor of gasoline or fuel oil	Volatile organic compounds
Salty taste	Chloride, total dissolved solids, sodium
Possible contamination within your home	Test For:
Household plumbing contains lead	Lead, copper, pH
Radon in indoor air or region is radon rich	Radon
Corrosion of pipes, plumbing	Corrosion, pH, lead
Stained plumbing fixtures, laundry	Iron, copper, manganese
Scaly residues, soaps don't lather	Hardness
Rapid wear of water treatment equipment	Corrosion, pH
Water softener needed to treat hardness	Manganese, iron
Possible outside contamination of your well	Test For:
Your well does not meet construction codes	Coliform bacteria, total dissolved solids, nitrates
The area around the wellhead has been flooded or submerged	Coliform bacteria, total dissolved solids
Back-siphoning has occurred	Coliform bacteria, total dissolved solids, nitrates
You have mixed or used pesticides near the well, or have spilled pesticides or fuel near the well	Pesticides, volatile organic compounds
You have a heating oil tank or underground fuel tank near the well that you know has leaked	Volatile organic compounds
Your septic system absorption field, or your neighbor's, is close to the well (within 100 feet)	Coliform bacteria
Nearby areas of intensive agriculture	Nitrate, pesticides, coliform bacteria
Coal or other mining operations nearby	Metals, pH, corrosion
Gas drilling operations nearby	Chloride, sodium, barium, strontium
Landfill, factory, or gas station nearby	Volatile organic compounds, total dissolved solids, pH, sulfate, chloride, metals
Seawater or a heavily salted roadway nearby	Chloride, total dissolved solids, sodium