

How to Read Your Private Well Water Lab Report

A lab report is a record of what tests were completed on your water and the results of the testing.



How to Read the Different Sections of Your Report

The first section of your lab report identifies where and when your sample was taken. This is important for:



Record keeping



Helps water quality professionals address potential issues with the well.

The second section of your lab report is the analytical section, where your results are reported. There are a lot of columns in this section, the most important of these are "**Analyte**", "**Results**", and "**Units**". This tells you:



What the test was looking for



How much was found*

The other columns (may vary depending on what tests you ordered) are present for quality control and quality assurance. They show the lab's methods and confidence in their results.

*Note: Units may be reported in ppb or ppm (parts per billion or parts per million), $\mu\text{g/L}$ or mg/L (micrograms per liter or milligrams per liter).

$\mu\text{g/L}$ and ppb: both mean $1/1,000,000^{\text{th}}$ of a gram
 mg/L and ppm: both mean $1/1,000^{\text{th}}$ of a gram

Terms at a Glance

Analyte - Specific substance being tested for.

Analysis Method - EPA approved steps used to complete each test.

Result - Amount or concentration of a substance found in your water.

Units - Standard measurement used to report the amount of a substance.

Blank - A sample that does not contain any analyte.

LOD - Limit of Detection, the smallest amount of a substance the lab equipment can distinguish from a blank.

LOQ - Limit of Quantitation, the smallest amount of a substance the lab equipment can accurately and precisely measure.

F - Flagged, this result is in between the LOD and LOQ and cannot be accurately or precisely measured.

ND - Non-Detect, This indicates the level of substance was less than the LOD.

The final section of the lab report contains reference materials including a table titled “**Drinking Water Public Health Values for Results Interpretation**”, a list of abbreviations, and a list of Responsible Parties. The most important one for reading your results is the table of health values. If your lab report does not contain the table of health values or the analytes you are testing for are not listed you can access the resources listed on **page 3** to find more information.



Lists existing health values for substances that are commonly tested.



Compare the concentrations listed in the table “**Drinking Water Public Health Values for Results Interpretation**” to the concentrations in the “**Results**” column in the Analytical Section.



If your results **are lower or ND**, then your water is considered **within health values**.

You do not need to take any immediate actions at this time.



If your results **are higher**, then your water is considered **above health values**.

Depending on the contaminant(s) that are above health values and who regularly uses the water in your well, the WI Department of Health Services recommends you take action to reduce exposure to the water.

Continue to page 3 to learn more.



If you tested your well for coliform and E. coli bacteria, a smiley face indicates those bacteria were absent; a frowny face indicates those bacteria were present.



What is a Health Value?

Health Values are the amount or concentration of a substance at which exposure may become a health concern. Health Values are developed by public health professionals, and they may be updated as new research becomes available.



Actions you may choose to take in case your results are above health values.

Every well is unique, which means the steps that need to be taken to make sure your water is safe for use will also be unique.



Consider testing your well again to confirm your results.



Reach out to the Wisconsin Department of Health Services (DHS) at dhsenvhealth@dhs.wisconsin.gov or 608-266-2817 to learn more about contaminants and their potential health risks.



Reach out to the Wisconsin Department of Natural Resources (DNR) Private Well Specialist for your county to learn about private well installation and contamination. Use this link to find your specialist: dnr.wisconsin.gov/topic/Wells/PrivateWaterSupply.html



Reach out to the Wisconsin Department of Safety and Professional Services (DSPS) at DspsSbPlbgTech@wi.gov or 608-267-9421 if you have questions about plumbing.



Resource Guide



Find more resources for drinking water and groundwater on the Wisconsin DHS website: www.dhs.wisconsin.gov/water/private.htm



Learn about water concerns based on symptoms you notice about your drinking water on the Wisconsin DNR's website: dnr.wisconsin.gov/topic/DrinkingWater/IdentifySymptoms.html



The Wisconsin DNR provides grants to help address contamination in private wells. Learn about eligibility and covered expenses on their website: dnr.wisconsin.gov/aid/WellCompensation.html



Extension
UNIVERSITY OF WISCONSIN-MADISON

An EEO/AA employer, University of Wisconsin-Madison Division of Extension provides equal opportunities in employment and programming, including Title VI, Title IX, the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act requirements.