THE MEANING OF WATER TEST RESULTS

LAB ANALYSIS	DRINKING WATER ANALYTES DESCRIPTION OF SOURCES, HEALTH RISKS & RECOMMENDATIONS	HEALTH IMPACTS CAN OCCUR AT THIS LEVEL
COLIFORM & E. COLI BACTERIA	**Source/Health risk:** Coliform bacteria are living organisms found in the intestines of humans and other warm-blooded animals, as well as in soil. Their presence in well water indicates contamination by sewage, animals, and/or surface water. Coliform bacteria signals that disease-causing bacteria and viruses may be present in the water supply. **Recommendation:** If coliform or E. Coli bacteria are present do not drink the water. Identify and correct the contamination source, disinfect the system, and retest the water supply until it's free of coliform bacteria.	PRESENT (MCL)
NITRATE-NITROGEN	**Source/Health risk:** Nitrate-nitrogen sources include manure, sewage, and fertilizer. The illness methemoglobinemia, or "bluebaby" syndrome, has been found in infants who consume food and water with elevated nitrate levels. BOILING THE WATER WILL INCREASE THE NITRATE CONCENTRATION. **Recommendation:** Pregnant women and nursing mothers should avoid consuming water containing 10 mg/L or more of nitrate-nitrogen. Do not use water with 10 mg/L or more of nitrate-nitrogen to prepare infant formula or cereal.	10 mg/L (HRL)
NITRITE-NITROGEN	**Source/Health risk:** Nitrite-nitrogen is rarely found in groundwater, except where water is significantly affected by nearby contamination sources, such as those listed for nitrate-nitrogen. **Recommendation:** Water with detectable nitrite-nitrogen should not be used for preparation of infant formula or cereal.	1 mg/L (MCL)
FLUORIDE	**Source/Health risk:** Fluoride occurs naturally from rock and soil at about 0.2 mg/L in S.E. Minnesota groundwater. Fluoride levels between 0.7 and 1.2 ppm in drinking water can improve the ability of teeth to resist decay. **Recommendation:** Seek advice from your dentist or physician regarding your optimal fluoride intake.	4 mg/L (HRL)
LEAD	**Source/Health risk:** Lead can enter drinking water from lead-containing plumbing components and service lines. Low levels in children can interfere with physical development, cognitive growth, attention span, hearing, and blood formation. In adults low-level effects include increased blood pressure, reproductive issues (men and women), concentration issues, joint pain, and nerve disorders. **Recommendation:** If present, use the cold-water faucet for drinking, cooking, or making baby formula. If the water has not been used for 6 or more hours, let the water run for at least 1 minute before using for drinking or cooking. For lead service lines, let it run for 5-10 minutes.	Any level is harmful 10 µg/L (AL)
ARSENIC	**Source/Health risk:** Arsenic contamination of water supplies can occur through natural deposits in rock, soil, and groundwater. Exposure to arsenic can cause skin damage, affect circulatory systems, and may increase the risk of skin, lung, bladder and prostate cancer. **Recommendation:** If the level exceeds 10 µg/L, it is recommended to treat or find an alternative source.	Any level is harmful 10 µg/L (MCL)
MANGANESE	**Source/Health risk:** Manganese contamination of a water supply is indicated by black to brown color, black staining, and bitter metallic taste. Long term exposure to manganese may lead to problems with memory, attention, and motor skills. Infants may develop learning and behavior problems. **Recommendation:** Monitor water with detectable levels of manganese and avoid levels above 100 µg/L.	100 µg/L (HRL)
CHLORIDE	**Source/Health risk:** Chloride is a nuisance analyte from water softener discharge, road salt, and fertilizer. **Recommendation:** Water with more than 250 mg/L may be perceived as tasting salty.	NA
SULFATE	**Source/Health risk:** Sulfate is a nuisance analyte related to naturally occurring minerals and rainfall. **Recommendation:** Water with more than 250 mg/L may be perceived as tasting salty.	NA

ADDITIONAL RESOURCES

Please review available resources prior to contacting laboratory.
Your local county planning department and well drilling professionals are also a source of valuable information.

Meaning of Your Water Test Results
https://survey123.arcgis.com/share/c900c50971ed44ffab0e77880cf80819

MINNESOTA DEPARTMENT OF HEALTH WELL DISINFECTION GUIDE
https://www.health.state.mn.us/communities/environment/water/wells/waterquality/disinfection.html

MINNESOTA WELL INDEX (MAY CONTAIN WELL CONSTRUCTION DETAILS)
https://www.health.state.mn.us/communities/environment/water/mwi/index.html

MINNESOTA DEPARTMENT OF HEALTH WELL OWNER'S HANDBOOK
https://www.health.state.mn.us/communities/environment/water/docs/wells/construction/handbook.pdf

MINNESOTA DEPARTMENT OF HEALTH LEAD IN DRINKING WATER
https://www.health.state.mn.us/communities/environment/water/contaminants/lead.html

Scan QR code for Meaning of Your Water Test Results:

SCAN ME

KEY:
mg/L = milligrams per Liter (or parts per million)
µg/L = micrograms per Liter (or parts per billion)
AL = Action Level (pertains to the Copper and Lead Rule established for municipal water supplies)
MCL = Maximum Contaminant Level (an EPA guideline for drinking water quality)
HRL = Health Risk Limit (a Minnesota state guideline for groundwater contaminants)

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