empowerDX

Customer Information

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SAMPLE INFORMATION

Sample ID: XXXXXXXXX

Sample Location: Well

Collection Date: Lorem ipsum dolor sit

Collection Time: Lorem ipsum dolor sit

TESTING INFORMATION

Test Performed: empowerDX Pro Water Test Kit

Received Date: Lorem ipsum dolor sit

Reported Date: Lorem ipsum dolor sit

YOUR RESULTS

These results are for personal information only. Our testing is performed under consumer conditions and may differ from official government or municipal testing. For compliance or legal purposes, certified testing may be required.

AI-generated insights

The water test results indicate that most parameters are within expected ranges for general water quality, with no significant health risks identified based on the provided Maximum Contaminant Levels (MCLs). However, fluoride levels (3.87 mg/L) are approaching the EPA's drinking water limit of 4 mg/L, which could potentially affect dental health over time. Copper (1.5 mg/L) exceeds the EPA's non-enforceable goal of 1.3 mg/L, meaning it may slowly damage plumbing and fixtures due to metal deposition. The Langelier Index (-1.9) suggests the water is mildly corrosive, which might contribute to long-term pipe wear and the leaching of metals like lead or iron. Additionally, lead was detected (0.09 mg/L), above safe guidance levels set at 0 mg/L, and could pose risks to children or pregnant individuals if consumed in large amounts over time.

To mitigate potential issues, consider installing point-of-use treatments such as reverse osmosis systems or activated carbon filters to reduce fluoride, copper, lead, and corrosivity. Regularly

SAMPLE

ANALYTE	VALUE	INTERPRETATION	NOTES

flushing pipes and using non-corrosive materials can also help maintain plumbing integrity. Monitoring pH levels (currently at 7.4) can guide adjustments to reduce corrosion, as slightly less acidic water can be gentler on pipes. For more details on safe water practices, consult resources like the EPA's Drinking Water Standards and the CDC's Safe Water Program.

References: EPA (Environmental Protection Agency), CDC (Centers for Disease Control and Prevention), USGS (United States Geological Survey).

This AI-generated summary provides general context for laboratory water-quality results using publicly available regulatory and scientific sources. It is not medical advice or personalized guidance.

Questions? Our AI Assistant has your results and can tell you more.

SAMPLE

ANALYTE	VALUE	INTERPRETATION	NOTES
General Properties			
Calcium hardness as calcium carbonate	51 mg/L	No federal limits	Portion of hardness from calcium; contributes to scaling
Total Hardness as CaCO3	240 mg/L	No federal limits	Values <60 mg/L is 'soft' water, 60-120 mg/L is 'moderately hard', and >120 is 'hard' water.
Magnesium hardness as calcium carbonate	171 mg/L	No federal limits	Portion of hardness from magnesium; contributes to scaling.
Alkalinity	41 mg/L	No federal limits	Shows how well water can resist becoming acidic; low values can make water more corrosive.
Bicarbonate Alkalinity as CaCO3	41 mg/L	No federal limits	The main form of alkalinity in most water; typical range is 20–200 mg/L.
Carbonate Alkalinity as CaCO3	Not Detected		Part of what keeps water stable; helps prevent sudden pH changes.

ANALYTE	VALUE	INTERPRETATION	NOTES
Hydroxide Alkalinity	Not Detected		Usually near zero in normal water; higher levels can make water feel slippery or caustic.
Phenolphthalein Alkalinity	Not Detected		Used to estimate how much carbonate is in the water; mostly for testing balance, not health.
Langelier Index	-1.9 LangSU	No federal limits	0 is balanced. LSI below 0 means it is corrosive, may leach metals from pipes.
Total Dissolved Solids	340 mg/L	No federal limits	
Acidity as CaCO3 to pH 8.3	Not Detected		Typical range is 20–200 mg/L. Low alkalinity may make water corrosive.
Grains per Gallon (GPG)	7.1 NONE	No federal limits	Hardness unit; higher values mean harder water and more scaling.
Sodium Adsorption Ratio (SAR)	2.0 NONE	No federal limits	Typically used in irrigation water quality for soil permeability.
pH	7.4 S.U.	No federal limits	A pH of 7 is neutral; most drinking water is between 6.5 and 8.5.
Specific Conductance	520 umhos/cm	No federal limits	Shows how many dissolved minerals are in the water; higher values mean more minerals.
Turbidity	Not Detected		Shows how clear your water is; under 1 is considered good, and above 5 is high.
Total Metals	Not Detected		Aggregate measure—interpret by the individual metals.
Total Anions	150 mg/L	No federal limits	Sum of negatively charged ions; reflects overall mineral content.
Nutrients / Salts			

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ANALYTE	VALUE	INTERPRETATION	NOTES
Bromide	Not Detected		Can form disinfection byproducts during chlorination.
Fluoride	3.87 mg/L		Your result of 3.87 mg/L is below federal limit (MCL) of 4 mg/L and below federal goal level (MCLG) of 4 mg/L.
Sulfate	150 mg/L	No federal limits	Levels above 250 mg/L can cause bitter taste and laxative effect.
Chloride	75 mg/L	No federal limits	EPA recommends under 250 mg/L for taste and corrosion.
Nitrate as N	0.5 mg/L		Your result of 0.5 mg/L is below federal limit (MCL) of 10 mg/L and below federal goal level (MCLG) of 10 mg/L.
Nitrate Nitrite as N	0.70 mg/L		Your result of 0.70 mg/L is below federal limit (MCL) of 10 mg/L and below federal goal level (MCLG) of 10 mg/L.
Nitrite as N	Not Detected		
Phosphorus	Not Detected		High levels suggest fertilizer runoff.
Potassium	3.7 mg/L	No federal limits	Usually <10 mg/L in water. Water softeners will increase potassium.
Silicon	3.2 mg/L	No federal limits	Typical levels are 0.5–15 mg/L. Not a health concern, but may cause scaling in appliances.
SiO2	6.8 mg/L	No federal limits	Common in natural water (1–30 mg/L). Not a health concern, but may cause scaling.
Sodium	51 mg/L	No federal limits	EPA recommends <20 mg/L for very low-sodium diets.

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ANALYTE	VALUE	INTERPRETATION	NOTES
Strontium	0.21 mg/L	No federal limits	Naturally present in groundwater.
Sulfur	24 mg/L	No federal limits	Levels above 0.05 mg/L can cause a rotten-egg odor but are not a health concern.
Metals			
Mercury	Not Detected		
Aluminum	Not Detected		
Antimony	0.002 mg/L		Trace amount detected but below Reporting Limit of 0.050 mg/L.
Arsenic	Not Detected		
Barium	0.032 mg/L		Your result of 0.032 mg/L is below federal limit (MCL) of 2 mg/L and below federal goal level (MCLG) of 2 mg/L.
Beryllium	Not Detected		
Boron	0.038 mg/L		WHO guideline recommends under ~2.4 mg/L.
Cadmium	Not Detected		
Calcium	205 mg/L	No federal limits	Calcium contributes to water hardness, and is not a health concern. Typical levels are 20–100 mg/L.
Chromium	Not Detected		
Cobalt	Not Detected		High levels may suggest industrial contamination.

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ANALYTE	VALUE	INTERPRETATION	NOTES
Copper	1.5 mg/L		Your result of 1.5 mg/L is above federal limit (MCL) of 1.3 mg/L and above the federal goal level (MCLG) of 1.3 mg/L.
Iron	0.25 mg/L		Your result of 0.25 mg/L is below federal limit (MCL) of 0.3 mg/L.
Lead	0.09 mg/L		
Lithium	Not Detected		Some advisories recommend <0.1 mg/L.
Magnesium	17 mg/L	No federal limits	Magnesium contributes to hardness, and is not a health concern. Typical levels are 5–50 mg/L.
Manganese	Not Detected		EPA recommends <0.05 for taste/staining, and <0.3 for health concerns.
Molybdenum	Not Detected		Typically <0.1 mg/L in natural waters.
Nickel	0.54 mg/L	No federal limits	Some states recommend <0.1 mg/L.
Selenium	Not Detected		
Silver	2.5 mg/L	No federal limits	EPA recommends less than 0.1 mg/L to avoid skin discoloration.
Thallium	Not Detected		
Thorium	Not Detected		Elevated levels may indicate industrial or geologic sources.
Tin	Not Detected		Rare in water; may leach from plumbing or industrial sources.

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ANALYTE	VALUE	INTERPRETATION	NOTES
Titanium	0.00081 mg/L		Common mineral in rocks; not a health concern at typical levels.
Tungsten	Not Detected		Rarely found; may occur near mining areas.
Vanadium	Not Detected		Naturally present in groundwater; some states advise under 0.05 mg/L.
Zinc	Not Detected		Levels above 5 mg/L can cause metallic taste or cloudiness.
Zirconium	Not Detected		Very rare; may indicate industrial contamination.
Bacteria / Biological Indicators			
Coliform	Not Detected		Total coliform indicates possible contamination and triggers follow-up testing.
Escherichia coli	Not Detected		Any E. coli detection means the water is unsafe to drink until resolved.

SAMPLE