

Zinc

Recommended Safety Standards

NC groundwater: 1 mg/L

EPA drinking water: 5 mg/L

❖ What is zinc?

Zinc is a bluish-white metal that occurs in igneous rocks in small amounts.

❖ How does zinc get into my well water?

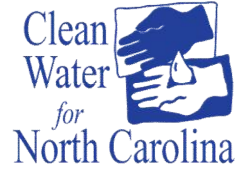
Zinc leaches from piping and fittings when they corrode. Zinc is correlated with leaching from hazardous waste sites. Various zinc compounds are used within multiple industrial sectors such as paints, rubber, dyes, and within the drug industry, including supplements and ointments. If your well water is acidic (lower pH than normal range), the level of dissolved zinc may be higher.

❖ What are the health effects of zinc?

Zinc is an essential trace element our bodies need in small amounts. High levels of zinc can be the cause of unpleasant astringent tastes in your well water. Your water may have a greasy film when boiled if zinc concentrations are elevated. In addition, the water may appear slightly opalescent. Stomach cramps, nausea, and vomiting may occur with ingestion of large concentrations of zinc. If ingestion continues, pancreatic issues and anemia may result. For further reading on the health effects of zinc, please visit <https://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=54>.

❖ Who is most affected by zinc?

Children living near waste sites with zinc-containing compounds are more likely to drink contaminated water.



❖ How do I know if my well water is contaminated with zinc?

If your well was installed before July 2008, call your local environmental health office and ask for the well program or contact Clean Water for North Carolina if you are unsure of the appropriate point of contact for your area.

Still have questions or concerns?

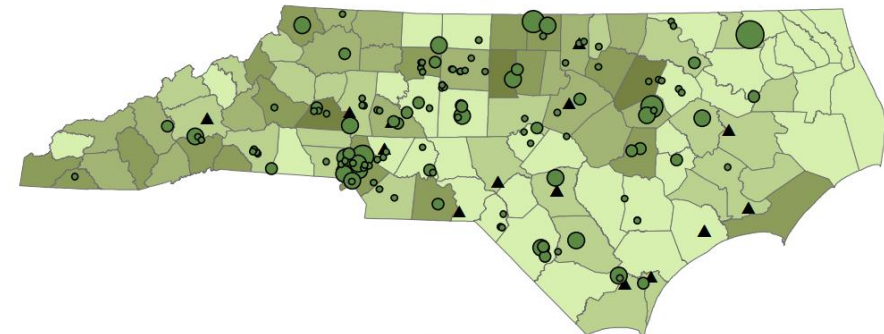
Call Clean Water for North Carolina.

Asheville office: 800-929-4480, amanda@cwfn.org

Durham office: 919-401-9600, hope@cwfn.org

Website: <http://www.cwfn.org>

Concentration of Zinc Detected in NC Private Well Water ($\mu\text{g/L}$), Average 2010



Zinc reported in Toxics Release Inventory (lbs.)

- 0.1 - 15,058
- 15,059 - 46,665
- 46,666 - 123,174
- 123,175 - 263,689
- 263,690 - 2,196,875

▲ National Priorities List sites reporting zinc

Concentration of zinc detected in private wells ($\mu\text{g/L}$)

- 25.00 - 100.00
- 100.01 - 250.00
- 250.01 - 500.00
- 500.01 - 1,000.00
- 1,000.01 - 5,000.00
- 5,000.01 - 10,000.00

Zinc SMCL: 5,000 $\mu\text{g/L}$

Zinc is a naturally-occurring element and may enter ground water from the erosion of natural deposits. Mining, steel production, coal combustion, and the burning of waste can also introduce zinc to the environment.^{11,37}