

City of Ironwood  
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Ironwood, MI 49938



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## Manganese in City of Ironwood Water

### Background Information

- The City of Ironwood sampled its drinking water wells for iron and manganese because of customer complaints about discolored water. Iron and manganese are naturally occurring metals that can be found in drinking water.
- Testing results for manganese collected from the wells for Ironwood's water supply were between 1.2 and 520 parts per billion (ppb), and the manganese level leaving the water plant was 280 ppb. The U.S. Environmental Protection Agency health advisory level for children less than 12 months old is 300 ppb for short-term (1-10 day) exposure. The health advisory level for children older than 12 months and adults is 1,000 ppb.
- The EPA has a health-based screening level for iron set at 14,000 ppb. This means that iron in drinking water below this level is not likely to cause health effects. The highest iron level detected in a well was 410 ppb, which is below the screening level.
- On August 7, 2019 the City of Ironwood turned off the well with the highest level of manganese. Ironwood will evaluate their pumping system to ensure the well with the lowest level of manganese will be used as much as possible.
- The EPA does not regulate manganese in drinking water. The City of Ironwood has never been required to sample for manganese.
- Currently, the City of Ironwood is in compliance with all drinking water standards.
- The blended water sample from the pump station is below the EPA's health advisory level of 300 ppb.
- Out of an abundance of caution and in the interest of the public's health, we are notifying customers of these results and of the health risks linked to manganese



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so that you can make the best decision about your drinking water needs at this time.

## **Recommendations**

- For children less than 12 months old, use bottled water to make infant formula. Also use bottled water for their drinking water needs and making their food. This recommendation is given by the Western Upper Peninsula Health Department (WUPHD), who is working with the Michigan Department of Health and Human Services (MDHHS).
- Children older than 12 months and adults can continue to use tap water for drinking and cooking.
- All ages can use tap water for bathing, showering, cleaning, washing your dishes, and all other water-related activities.
- Boiling water does not remove the manganese. Water evaporates during boiling, so the amount of manganese in the water may end up higher than before boiling.

## **Health Information**

- A small amount of manganese is needed for people to stay healthy, but too much can be harmful.
- Because infants' bodies are still developing, their bodies may not be able to get rid of manganese if they have too much.
- Infants less than 12 months old who drink water with levels of manganese greater than 300 ppb over time may have elevated exposure, which can increase their risk for learning and behavior problems.
- Adults and children older than 12 months are better able to remove manganese if they have too much in their body.
- Adults and children older than 12 months who drink water with levels of manganese higher than 1,000 ppb for a long time may develop problems with memory, attention, and motor skills.
- Discoloration of water can occur at much lower levels of manganese than the 300 ppb Health Advisory. Having discolored water cannot tell you whether your water is over the Health Advisory. The EPA Maximum Contaminant Level for staining and taste considerations is 50 ppb.

- If you have health-related questions concerning manganese, contact Lisa Fischer, MDHHS toxicologist, at 517-284-4287 or call the MI-TOXIC hotline at 1-800-648-6942.

### **Is there a medical test to determine whether I've been exposed to manganese?**

Laboratory testing is not helpful in predicting whether someone will have problems and does not accurately reflect past exposure. Therefore, testing is not recommended.

### **Next Steps**

- The City of Ironwood will be providing bottled water for families with infants 12 months and under until further notice. You may pick up bottled water at the Ironwood Public Safety Office located at 123 West McLeod Avenue. The pick-up hours will be Monday through Friday from 9 am – 3 pm and Saturday and Sunday from 10 am – 2 pm.
- The City of Ironwood will continue to test their well(s) and systems for manganese on a quarterly basis.
- WUPHD will be testing up to 25 homes for manganese. More information will be provided to the community when those test results are received. The need for the precautionary advisory will be evaluated after this testing is complete. The community will be notified when that happens.
- A regularly scheduled City Commission meeting will take place on August 12, 2019 at 5:30 pm at the Ironwood Memorial Building (213 S. Marquette St.). The following agencies will be present to provide information and updates on the manganese investigation:
  - Michigan Department of Health and Human Services
  - Michigan Department of Environment, Great Lakes, and Energy
  - Western Upper Peninsula Health Department