

FROM: Nebraska State Drinking Water Program
TO: City of West Point Public Water System
SUBJECT: Manganese Sampling & Analysis – Drinking Water

West Point recently collected and analyzed drinking water samples, as required under the U.S. Environmental Protection Agency's (U.S. EPA) Unregulated Contaminant Monitoring Rule or UCMR. This national survey is one of the primary sources of information on occurrence and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water. Manganese is on the current list for monitoring.

Manganese is a naturally occurring mineral and an essential nutrient for many body functions. The USDA recommends around 2,000 micrograms/day (ug/day) for adults and teenagers and between 300-2,000 ug/day for younger children. It occurs in many foods and in most drinking water sources at levels around 50 ug/liter. Higher levels in drinking water can have an off taste, color, or odor, and cause staining in sinks or on laundry. Although manganese is an essential nutrient at low doses, chronic exposure to high doses may be associated with central nervous system effects.

Manganese was detected recently at 400 ug/L and 300 ug/L in two points in the West Point Public Water Distribution System. Manganese is not regulated, so no action is required. However, this level exceeds the U.S. EPA's Lifetime Health Advisory of 300 micrograms per liter (ug/L). This value is intended to be protective of even the most vulnerable in a population, formula-fed infants. Therefore, near-term actions to address public health concerns, particularly for formula-fed infants may be warranted as they have higher absorption and lower excretion of manganese. For older children and adults, however, the lifetime health advisory is 1,000 ug/L.

Additional Manganese test results from 30 samples from several locations in the distribution system were below the Health Advisory values including several repeat samples from the original detects.

The UCMR sampling results for manganese:

Nov. 13th 0.0 ug/l
Nov. 19th 0.0 ug/l
Nov. 27th 200 ug/l
Dec. 4th 0.0 ug/l
Dec. 10th 0.0 ug/l

For more information about the current UCMR list, please see the link below:
<https://www.epa.gov/dwucmr>