

Western UP Regional Public Health Laboratory ··· Western UP Health Department

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Water Sample Collection for Nitrates & Nitrites in Drinking Water

Collecting samples for drinking water analysis involves more than turning on the faucet and filling a bottle. Proper sampling protocols are essential to ensuring reliable and accurate results. Please read the instructions to familiarize yourself with each step prior to collecting your sample.

Step 1 – Preparation:

- 1. The Laboratory will provide the collection containers required for each test type requested. Samples not collected in laboratory-provided containers will be rejected.
- 2. It is important to keep the bottle free from contamination. If the sample container is accidentally contaminated, please discard and pick up a new container prior to collection.
- 3. Do not rinse the sample container before collecting the sample.
- 4. To decrease the likelihood of external bacterial contamination, wear latex gloves when collecting samples. If gloves are not available, wash your hands as thoroughly as possible with soap and hot water and avoid touching the inside of the bottle or cap.
- 5. Use a water-resistant marker or pen for labeling your sample.
- 6. Make sure to prepare the included ice bottle or ice packs for sample transport to the lab.



Step 2 - Find the proper sampling location:

- 1. Collect the sample from the faucet closest to your water source but before any treatment devices (including water softeners).
- 2. Remove any devices that are attached to the faucet, including aerators, screens, strainers, hoses and purification devices. These devices can harbor bacteria which can contaminate your sample.
- 3. Use only cold water. Open tap fully and let the cold water run for 3 minutes to clear the line.
- 4. Turn off the water and disinfect the opening and outside of the faucet with bleach or alcohol.
- 5. Open cold water tap fully and let water run for another 3 to 5 minutes to rinse any foreign material that may have been dislodged during disinfection and to ensure no residual chlorine remains from the bleach.
- 6. To prevent splashing when acquiring a sample, adjust the water flow to produce a slow steady stream.

Step 3 - Sample carefully:

Important Tips – To avoid sample contamination, do not touch the inside of the sample container or the inside of the lid.

- 1. Fill the sample container almost to the top, but not overflowing.
- 2. Replace the cap immediately and securely to prevent contamination and leakage.
- 3. Label your sample with the site and date/time of collection that correlates with the information on your submission form. Place in the sample bag to protect the label from condensation from melting ice.

Step 4 – Keep it cool:

Important Tip - Under no circumstances should the sample be allowed to freeze, subjected to extreme heat or direct

sunlight. Samples with evidence of exposure to extreme temperatures will be rejected by the laboratory.

- 1. Nitrate and Nitrite Samples must be kept cold following collection 2°C-6°C (35.6°F-42.8°F). If delivering to the laboratory the same day as collection, keep the sample in a cooler with the included ice bottle.
- 2. If you plan to submit water sample to the laboratory more than 3 hours after collection, the sample(s) can be stored in a refrigerator following collection.
- 3. Keep samples away from direct sunlight
- 4. Samples received above 6°C shall be rejected.

Step 5 - Get it to the lab on time:

Important Tip – Samples to be tested for Nitrates and Nitrites must not exceed 48 hours between time of collection and analysis. *Samples received at the laboratory in exceedance of stated hold times will be rejected.*

1. Complete your portion of the Chain of Custody form completely. Incomplete forms may result in testing delays and sample rejection.

Laboratory Details

Laboratory Hours:

Samples for Nitrate & Nitrite analysis are accepted Monday through Thursday, between the hours of 8:30 am and 3:00 pm. The lab is closed on weekends and holidays. Results are typically available within 48 hours.

Result Notification:

The U.S. Environmental Protection Agency's (EPA) maximum contaminant levels (MCLs) for nitrates and nitrites in drinking water are:

Nitrate: 10 parts per million (ppm) or 10 mg/L

Nitrite: 1 ppm or 1 mg/L for nitrite

- Results higher than the above listed action levels will result in a phone call from the laboratory, followed by an email of the result report. If your results are above action levels established by the EPA, you may receive a call from the Environmental Health Division to discuss mitigation measures.
- Negative results will be emailed, without phone notification.

UNSUITABLE FOR ANALYSIS – If your sample is rejected for temperature, contamination, or issues within the laboratory, you will be notified of the rejection and encouraged to submit a new sample.