Government of
Northwest Territories

Test your drinking water for lead – random daytime sampling

Applicable building types:

Single Family Homes, Townhouses, Rowhouses, Semi-Detached Homes, Trailers, Manufactured Homes, Home-Based Daycares

Important information before starting

Accredited laboratory for water testing

Do not use home test kits, online or store-bought kits, to check for lead in water. They are unreliable and may yield incorrect results. **Instead, use an accredited laboratory for testing.**

There are three laboratories in the Northwest Territories accredited to test for lead in drinking water in accordance with the national guideline.

Once you have decided on your sampling plan and you know how many water samples you will be collecting, contact the laboratories directly for cost estimates and to obtain sample bottles, sample submission forms, and information on sampling:

Taiga Environmental	Phone: 867-767-9235 Email: taiga@gov.nt.ca
Bureau Veritas – Environmental Services Centre	Phone: (867) 873-2112
ALS Environmental	Phone: (867) 873-5593

Step 1: Plan for testing

- Make a list of taps used for drinking or food preparation/cooking.
- Give each tap a unique identifier.
- Calculate the total number of taps/fixtures that you need to test.
    - Ideally, you only need to test taps/fixtures that are used for drinking water. Generally, those are kitchen or drinking water dispenser taps.

    - There is no need to test laundry sink, janitor supply, or bathroom sinks. It is recommended that these types of sinks not be used to access water for drinking and/or cooking.

*See the example of the tracking sheet at the end of the document.

Step 2: Contact the lab and get sample bottles

- Some labs may require two small sampling bottles for each tap/fixture or one large sampling bottle for each tap/fixture.
- Let the lab know whether you will be shipping or dropping off the samples and ask if a preservative is needed.
- As per your total tap/fixture location, request the correct number of sampling bottles from an accredited lab.
- Other items you will need
    - Sample bottles from the lab
    - Cooler
    - Frozen ice packs
    - Permanent marker
    - Chain-of-custody form from the lab

Step 3: Label your sampling bottles taps/fixtures

- Label your sampling bottles as per your established unique identifier(s).
- Do not open the bottles or tamper with them before sampling.
- Keep bottles away from any heat or anything that can damage the bottles.

Step 4: Select time and collect your sample

- Sample during the day from Monday to Thursday. This will ensure the lab is open and available to receive your samples when you are ready to submit your samples.
- For Random Daytime Sampling, DO NOT SAMPLE first thing in the morning. Ideally, collect samples when your home, unit or building is occupied to reflect normal use.
- Gather supplies: labelled sample bottles, permanent marker, notebook, cooler, ice packs, chain-of-custody form.
- Use cold water taps only. For single-handed faucets, use the cold water setting only.
- Do not remove aerators or screens.
- For each tap, collect either 1 or 2 samples based on the lab's direction.

Note: Each lab may have slightly different sampling instructions. Follow the instructions provided by the lab if they differ from the steps below.

- Wash your hands before sampling.
- Turn on the cold water of the tap at a medium steady flow.
- Be careful not to touch the inside of the lid or the mouth of the bottles.
- Fill the bottles completely with water.
- Cap the bottle and set aside.
- Record observations (leaks, discoloration, pressure changes).
- Repeat for all selected taps/fixtures.
- If the lab has provided you with preservatives, add them to the sample as directed by the lab.
- Store samples in a refrigerator or cooler with frozen ice packs. Do not allow the samples to freeze.
- Deliver or ship samples to the lab with the chain-of-custody form. Check with the lab to confirm that they are available to receive the sample(s).

Step 5: Submit to the lab on time

- Drop off or ship samples to the lab the same day that you sample
- **If you do not have an accredited lab in your community:**
    - Keep samples refrigerated or in a cooler with ice packs.
    - If the lab has provided you with preservatives, remember to add them to the sample(s) as directed by the lab.
    - Ship the samples to the lab following their instructions.
    - Generally, samples should arrive within 24-28 hours to remain valid.
    - Fill out and include the chain-of-custody form.

Step 6: Receive results

- Depending on the number of samples, your location and the lab, the results may take a week or more to be finalized and sent to you.

Step 7: understand your risk

- Review your results against the Health Canada guideline value of 0.005 mg/L (5 µg/L). Make sure you pay close attention to the reporting units and compare them based on milligrams (mg) or micrograms (µg).
- If results are above this level, it is recommended that you do not use water from those specific tap(s)/fixture(s) “as is” and that you take certain steps to limit your exposure.

Step 8: Decide if you require additional testing

- If results show lead over Health Canada's recommended Maximum Acceptable Concentration of 0.005 mg/L (5 µg/L), it is recommended that additional testing be carried out as per the Advanced Sampling Method which includes:
    - **Overnight Stagnation Sampling (First Draw or Pre Flush):** Estimates worst-case exposure after water sits overnight; and
    - **30 – Minutes Stagnation Sampling (Post-flush Sampling):** Helps identify if lead is coming from fixtures or from within the plumbing system.

Please contact the Environmental Health Unit to get support for understanding these sampling methods.

Step 9: Remediation

- If your results are over Health Canada's recommended Maximum Acceptable Concentration of 0.005 mg/L (5 µg/L), you will need to take action:
    - Use a water filter that is certified to remove lead. Look for certification to NSF/ANSI Standard 53 with a claim of lead reduction, or
    - Use an alternate source of water, such as pre-packaged bottled water.
- You may need to:
    - Replace your taps/fixtures, and/or
    - Replace plumbing components if the issue is located within pipes.

Step 10: Re-testing

- It is recommended that, following any renovations and remediation for lead removal, repeat testing be carried out to confirm lead removal from water.
- Depending on your results, it may be recommended to resample annually to ensure lead levels remain below Health Canada's recommended Maximum Acceptable Concentration of 0.005 mg/L (5 µg/L).

Test Your Drinking Water for Lead – Fixture Tracking

Name:
Home or Building Address:
Date:

Number	Tap/Fixture ID (Bottle Label)	Description	Sampling Time	Notes
1.	e.g. Kit-01	e.g. Tap in kitchen	e.g. 13:30	e.g. Low pressure
2.				
3.				
4.				
5.				
6.				
7.				
8.				