



Northern Analytical Laboratory Services

Sampling Instructions for the NALS Water Analysis Package

The reliability of analytical results depends on the integrity of the sample and the sampling procedure. The samples should be representative of the water in question. A sufficient volume needs to be collected to perform all the analyses requested and care needs to be taken to prevent contamination, mislabeling, or expiration. Different collection procedures are required for different tests and different types of source water. We prefer that you use our bottles for your sampling. They can be picked up at our UNBC campus location.

For testing physical parameters, elemental analysis, and dissolved anions the sample container must be appreciably free of contamination. Clear polypropylene (PP), polyethylene (LDPE or HDPE) and polyethylene terephthalate (PET or PETE) plastics typical of drinking water bottles are sufficient for many applications. Where in question, contaminate free sample containers (NALS issued) should be used. Collect a grab sample by rinsing both the interiors of the lid and bottle three times with the intended water. After the third rinse fill the container completely full (with limited head-space) and seal tightly. 100 to 500mL is sufficient for these three tests. Preservation is not required if samples are provided to the lab within 2 days. Label each bottle legibly with a sample name and its date using an indelible marker. Store bottles away from excess heat or light until delivery.

For bacteriological testing (coliforms and *E. coli*), samples should be analyzed as soon as possible. Samples will not be analyzed after 24 hours. Using a clean and sterile container (preferably NALS issued) collect 200mL of a representative sample and seal the container tightly. If water has a chlorine additive (up to 10 ppm) or other oxidant as a treatment measure, samples should be collected in sterile containers with a de-chlorinating additive (sodium thiosulfate). Sterile sample bottles with a de-chlorinating agent and marked fill line are available from NALS. These containers are not meant to be pre-rinsed with sample and are meant to have sufficient head-space for subsequent mixing. Fill to the designated line. If sampling from a faucet, consider removing the screen/ aerator from the tap and sterilizing the mouth of the faucet with a 10% household bleach solution (~0.1% sodium hypochlorite). Before collecting the sample run the water for 2-3 minutes. If a tap has not been used for a prolonged period of time (and would not provide water representative of the water supply), run the tap vigorously for several minutes to flush the line, normally for another 2-3 minutes, and then collect a sample. Label the bottle using an indelible marker with a sample name, the date, and the **sampling time**. It is further recommended that sample bottles then get placed into a sealed bag to prevent contamination and be put in a container with ice during transport. Samples should arrive chilled (but not frozen) if possible.

Given the time sensitive nature of bacteriological testing, pre-arrangement of a drop off time is recommended (call **250-960-5713** or e-mail **nals@unbc.ca**). Samples for bacteriological testing have a strict hold time and are accepted Monday to Thursday 9:00AM - 4:00PM (unless otherwise arranged). Other samples can be submitted 5 days a week. Please call or e-mail in advance to confirm your drop off time. We are located in room 4-234. There is a 10 minute loading zone at the north end of building 4 that is convenient for picking up and dropping off samples.

You can find directions to NALS on Google maps at: <https://goo.gl/mun6v1>