

Water Sampling Instructions

Collecting the Sample



Step One:

Prior to sampling, ensure you have obtained all the sampling equipment you require, such as the proper bottles, filtration devices, *etc.* Refer to the Taiga's Water Sampling Instructions – Ordering Bottles. If there are any questions or concerns, do not hesitate to contact the laboratory. Please have your water license (if applicable) available before contacting the laboratory to ensure proper bottles are ordered. **Note: you may need more than one bottle per sampling site.**



Step Two:

Check your local departure flight schedule to Yellowknife for the day you plan to take your samples. Samples should be shipped to the Laboratory **as soon as possible** after collection. Time your sampling so that the samples can be shipped out by plane as soon as possible.



Step Three:

Follow the sampling instructions on the back of this sheet for each bottle type. Package bottles in a cooler and send to the laboratory. If you require microbiological tests, such as Total Coliforms, E. coli., Fecal Coliforms, BOD, *etc.*, please contact the laboratory with the collection date and time, the Airline name, the waybill number and the expected time of arrival.



Safety Issues:

Wear appropriate gloves when collecting any sample to avoid contamination and possible exposure to unhealthy substances. The sample preservatives provided by the Laboratory are corrosive and will cause a burning sensation on the skin. If you should spill any on your skin or clothes, rinse the area **immediately** with lots of cool water. Call a doctor should the burning sensation continue.



Taiga Environmental Laboratory

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| Parameter Group | | Marking | Preservative | Instructions |
|-----------------|---|-----------------------------------|---|---|
| | Routine | GREEN | Keep cool at 4°C | 1. Rinse bottle three (3) times with sample 2. Fill to top and cap bottle. |
| | Nutrients | BLACK | Keep cool at 4°C | |
| | Biochemical Oxygen Demand (BOD) | PURPLE | Keep cool at 4°C | 1. Rinse bottle three (3) times with sample 2. Fill to top and cap bottle. 3. Sample must be sent to laboratory within 24 hours |
| | Microbiological | STERILE | Sodium thiosulphate and Keep cool at 4°C | 1. DO NOT RINSE BOTTLE 2. Fill to top and cap bottle. 3. Sample must be sent to laboratory within 24 hours |
| | Total Metals | RED | 5mL of 1:3 nitric acid in RED-dot vials | 1. Rinse bottle three (3) times with sample 2. Fill to near the top. 3. Add contents of preservative vial 4. Cap bottle and mix. |
| | Dissolved Metals | RED | 5mL of 1:3 nitric acid in RED-dot vials | 1. Filter Sample with 0.45 µm Cellulose Acetate filter 2. Rinse bottle three (3) times with filtrate 3. Fill to near the top. 4. Add contents of preservative vial 5. Cap bottle and mix. |
| | Hexane Extractable Material (HEM) (also known as Oil and Grease) | YELLOW | 4mL 1:1 sulphuric acid in YELLOW-dot vial | 1. DO NOT RINSE BOTTLE 2. Fill to shoulder of bottle. 3. Add contents of preservative vial 4. Cap bottle and mix |
| | BTEX, THM & Purgeable Hydrocarbons | 40 mL CLEAR GLASS W/ WHITE LID | Keep cool at 4°C | 1. DO NOT RINSE BOTTLE 2. Fill bottle completely leaving NO air bubbles |
| | Extractable Hydrocarbons | 1 L AMBER GLASS W/ WHITE LID | Keep cool at 4°C | 1. DO NOT RINSE BOTTLE 2. Fill to top and cap bottle. |
| | Cyanide | BLUE | 1mL of 6N sodium hydroxide | 1. Rinse bottle three (3) times with sample 2. Fill to near the top. 3. Add contents of preservative vial 4. Cap bottle and mix. |
| | Thiocyanate | ORANGE | 2ml of 25% sulphuric acid | |
| | Phenol | YELLOW with P | 2mL of 20% sulphuric acid | |
| | Sulphide | ORANGE with S | 2mL of 25% zinc acetate | |
| | Radionuclide | RED with R | 25mL of 17.5% nitric acid | |
| | Chlorophyll A | 1L BROWN PLASTIC BOTTLE | Keep cool at 4°C | 1. Rinse bottle three (3) times with sample 2. Fill to top and cap bottle. 3. Sample must be sent to laboratory within 24 hours |