

# Basic Sampling Instructions

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This is not a comprehensive sampling guide, but rather a short summary of key points that are occasionally neglected, resulting in invalid data or the need for recollection of samples.

When in doubt, an official environmental sampling guide should be referenced or an environmental sampling professional consulted.

In most cases collecting the sample from the point of use (i.e. kitchen faucet) is permissible, cold water from the tap is preferable to hot water.

One “sample” may have several individual containers to represent a water source.

- Client name, sample location (where the sample was taken), date and time of collection, should be noted on the bottles as well as on the Chain of Custody (COC).

## Sample collection

All containers provided by GAL are clean and may contain dry or liquid preservatives. Containers should remain sealed except during sample collection.

Care should always be taken to avoid any material other than the sample to enter the container as contamination from outside sources is possible with many analytical methods.

- Avoid skin and eye contact with the preservatives.
- Do not rinse or remove the preservatives.
- When filling sample containers it is important not to over-fill the bottles that contain preservatives, as this will dilute the effects of the preservatives and possibly increase exposure to them.
- Fill bottles to the shoulder of the sampling container. Bottles containing acid will be marked with a colored line on the lid and noted on the label of the container.

VOA vials, small 40 mL glass bottles, are the primary sampling containers for many organic compounds and gasses. Examples are: **BTEX, VOCs, TPH, TTHM, Radon** and **RSK-175**. The majority of VOAs will contain an acid preservative. **Cold storage is required.**

Most vials for analysis **must be filled completely**, leaving no air space. When filling, top off the vials so there is no head space, once filled press the cap gently and screw on, so no air remains in the bottle. Soil samples for volatile organics also require no headspace.

Some chlorinated waters will have small acid vials provided separately, and they will need to be added to the vials individually after partially filling with sample water. In this instance, the container must be filled most of the way with sample water before adding the HCl provided for each container.

## Following Sample Collection

While in transit to the lab, the vast majority of sampling containers will require **cold storage**. Metal and radio-chemistry analysis do not require cold storage. Samples received by GAL on the same day as collection must be received **on ice**. If samples are received beyond the same day as collection the samples must be on ice at or below **6°C** and **greater than 0°C**. It is recommended that all samples are store on ice as many refrigerators are not cold enough to maintain temperatures.

It is important to deliver the samples to GAL as soon as possible as some analyses have short hold times and will need to be analyzed as soon as possible.