

Envirolab

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Please note the following sampling guide to assist site engineers. It is intended as a guide only and provided in good faith. For more detailed guidance on sampling techniques, it is recommended that samplers seek advice from experienced site engineers and/or refer to the relevant applicable BS EN ISO, CIRIA, EA or other industry accepted documents*.

Generally, Envirolab recommend that inorganics should be sampled in plastic containers and organics should be sampled in glass containers, although glass can be used for most analyses. If you're not sure how much sample is needed or what sample containers are appropriate please contact Envirolab, we will be happy to help.

Storage and transportation temperature

After receipt at Envirolab samples awaiting analysis are stored in refrigerated areas to minimise loss of temperature sensitive analytes. It is important that you take steps to cool samples during storage on site and during transportation as it is possible that loss of temperature sensitive analytes will occur if samples are not cooled. Trials performed at Envirolab demonstrate that MTBE shows significant losses after only 6 days when stored at ambient temperature. Other volatile compounds will behave similarly and may show quicker deterioration. No detailed information exists to quantify the rate of loss for temperature sensitive compounds but allowing samples to remain at ambient temperatures may mean reported results do not represent concentrations at the time of sampling.

Soils

Usually, industry guidance advises grab samples for site investigations and composite samples for waste sampling. Always fill sample containers to the brim, avoiding voids where possible.

Waters

When preserved bottles are required, only the nitric acid (HNO₃) preserved bottles used for metals and the hydrochloric acid (HCl) preserved bottle used for Fe²⁺ and Mn²⁺ need to have the water filtered. All other containers can be filled without pre-filtering the water.

Always fill sample containers to the brim, avoiding headspace where possible.

Filtering water samples. When filtering water samples for preserved bottles, if samples are very silty and the filter blocks, try backflushing to clear the filter of sediment and carry on. Alternatively, let the water settle for a while (move onto the next sampling location in the meantime), then go back and filter the settled water.

Backflushing. Place the end of the syringe with the blocked filter still attached, ideally into some deionised water, or into a clear settled portion of your current sample. Pull back the syringe, sucking up water, this will dislodge sediment from the filter back up into the syringe. Disconnect the filter and squirt out the water from the syringe. Take up some fresh water from your sampling location into the syringe, reconnect the cleared filter and restart filtering into the stabilised bottle.

Clearly label all jars/tubs with the location (for example, BH1, TP2), the depth (if applicable), the sampling date and site name or reference using a permanent marker pen. This information should also be included on the schedule chain of custody sheet (please also refer to the Envirolab "Completing the COC schedule form" document).

Make sure samples are packed into coolboxes appropriately (Please also refer to the Envirolab "Safe Transport of Samples" document).

It is important that samples get to the laboratory as soon as possible (Please also refer to the Envirolab "Deviating samples - Preservation and Holding Times" document).

Health and Safety Moment

Gloves should be worn when taking any samples.

For the preservative chemicals especially, in case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice.

Please also refer to the Envirolab "MSDS – Material Safety Data Sheet" documents.

If in doubt, or require any additional information, please contact us as we will be happy to help. Either call Envirolab or e-mail ask@envlab.co.uk.

*BS 5930, BS 10175, BS ISO 10381 and/or BS EN ISO 5667 (BS 6068-6) maybe of use, but many other standards are also available.