

PFAS Sampling Guide

Summary

Soil Sampling:

- Sampling for per and polyfluoroalkyl substances (PFAS) is similar to sampling for soil metals or asbestos. The main differences are that two containers must be submitted per sample and the containers should be double bagged per sample.

Water Sampling:

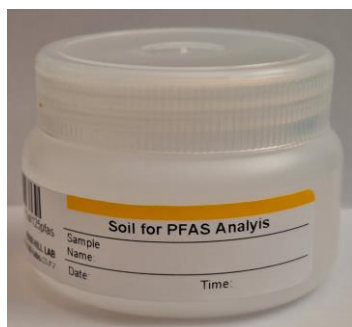
- Sampling for PFAS in water is carried out using a whole sample extraction; therefore, two vials of sample are required to allow for repeats, if necessary.

PFAS Sampling Considerations

Sampling can be challenging due to the widespread use of PFAS. See further information for more details.

- PFAS samples should be collected first, prior to collecting samples for any other parameters.
- Only use PFAS free Type 1 water provided by the laboratory for field blanks and rinsate blanks.
- Use powderless nitrile gloves when sampling. These should be changed regularly, ideally between every sample.
- Reduce the risk of cross-contamination during sampling and do not use permanent markers such as Sharpie®-type markers when labelling containers.
- Samples should be chilled as per ASTM D7698 and ASTM D8241, using PFAS free ice packs.
- Do not filter samples.
- A trip blank and field blank is recommended.
- Keep samples away from Teflon™.

Sampling Steps



Soil:

- Kits supplied by Hill Labs will contain 2 x PFAS125 containers and 2 x plastic bags.
- Both containers should be filled with soil from the same sampling location.
 - One container is for PFAS analysis, and can be used for TCLP/SPLP PFAS, if required.
 - Second container is for dry matter analysis.
- Both containers should be placed in a plastic bag.
- First plastic bag should be placed into the second plastic bag.
- Seal both bags.

Water:

- Kits supplied by Hill Labs will contain 2 x PFAS15Trizma vials, 1 x vial holder and 2 x plastic bags.
- Vials contain Trizma preservative.
- **Fill to 5 mL** in both vials, from the same sampling location.
- **DO NOT** go past the 7 mL line. Only 5 mL of sample is required for this method.
 - The window in the holder provided is between 3 and 7 mL on the vial.
 - One vial is a spare in case of repeats, etc.
- Keep vials in the holder and place into a plastic bag.
- First plastic bag should be placed into the second plastic bag.
- Seal both bags.



Returning samples to lab

Ensure that sample ID, sampling date and time, if required, is included on the containers and that they match the information on the request form, submitted with the samples.

Samples should be sent to the laboratory chilled, using PFAS free ice packs, **DO NOT** use gel packs. Ideally, PFAS samples should be returned in a separate chillybin away from other types of samples.

Recommended holding time is 28 days for soils and waters:

- Soils - If NFDHA is a key analyte, then it should be analysed as soon as possible (EPA 1633 January 2024). Please contact the laboratory prior to sampling.
- Waters - If Perfluorooctane sulfonamide ethanols or perfluorooctane sulfonamidoacetic acids are key analytes, then they should be analysed as soon as possible (EPA 1633 January 2024). Please contact the laboratory prior to sampling.

Summary of methods and containers

Matrix	Containers	Preservative	Method	Notes
Potable Water	2 x PFAS15Trizma	Trizma®	ASTM D8241	Keep chilled and double bag.
Groundwater and Surface water	2 x PFAS15Trizma	Trizma®	ASTM D8241	Keep chilled and double bag.
Soil	2 x Psoil125pfas	None	ASTM D7698	Keep chilled and double bag.

More details on sampling protocols etc. Can be found in the following references:

<https://environment.govt.nz/assets/publications/land/draft-sampling-protocols-guidance.pdf>

<https://pfas-1.itrcweb.org/11-sampling-and-analytical-methods/>

<https://www.dcceew.gov.au/sites/default/files/documents/pfas-nemp-2.pdf>

<https://www.epa.gov/system/files/documents/2024-01/method-1633-final-for-web-posting.pdf>

To obtain a copy of our PFAS technical note and for any queries please contact env.csm@hill-labs.co.nz