



PFAS DRINKING WATER SAMPLING INSTRUCTIONS

PLEASE READ INSTRUCTIONS ENTIRELY PRIOR TO SAMPLING EVENT

Sampling for PFAS can be challenging due to the prevalence of these compounds in consumer products. The following guidelines are strongly recommended when conducting sampling. Sample for PFAS first when other parameters are also required, as containers for other methods may contain PFAS.

This guide is limited in use to collection and analysis of finished drinking water for analysis by Method 537.1 and/or Method 533. It may also be used for sampling untreated source water designated for human consumption. Note that it is possible that project-specific data quality objectives, QAPP requirements, or state-specific sample collection protocols may include modifications or additions to the following guidance.



CLOTHING and PPE

- No clothing or boots containing Gore-Tex™.
- Safety boots must be made from polyurethane or PVC.
- Wet weather wear - made of polyurethane and PVC only.
- Do not handle or use water-, oil- or stain-resistant materials prior to sample collection (i.e., water-repellant face masks, food packaging and wrappers, Gore-Tex or Tyvek clothing, plastic clipboards).
- Do not use fabric softener on clothing to be worn during sampling.
- Do not use cosmetics, moisturizers, hand cream, sunscreen, insect repellent, or other related products prior to sampling.

FOOD CONSIDERATIONS

- No food or drink on site except for bottled water and/or hydration drinks that is available for consumption only in the Support Zone.

SAMPLE CONTAINERS

- Sample containers made of HDPE or polypropylene are required.
- Caps are unlined and made of HDPE or polypropylene (no Teflon®-lined caps).
- Please see Exhibit 1 for more details regarding sample containers. If you have questions, please contact your project manager (name/number typically provided in bottle order).
- Do not use Sharpies to label sample bottles.

PREPARATION FOR SAMPLING

Sampler must wash hands and put on nitrile gloves in order to limit contamination during sampling. Each sample set requires a set of containers to comply with the method as indicated below. A sample set is composed of samples collected from the same sample site and at the same time.



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Sampling Instructions

1. **IMPORTANT NOTE:** These instructions are for a drinking water sampling event involving 537.1 OR 533. If both methods are being sampled and analyzed, make sure to duplicate the container requirements using the correct containers for the specific method being sampled.
2. Each sample requires two (2) containers to be filled to the neck of the provided containers for each sampling location. Depending on container, it is possible there will be gradation marks on the side. Fill to the “250” mark, if present. If not, fill to start of the neck.
 - a. You may receive additional containers labelled as “MS/MSD”; please select one sample (per batch of 20) and fill four (4) containers for that sample, indicating “MS/MSD” on the Chain of Custody (COC).
3. If sampling from a drinking water faucet, remove faucet aerator, hoses, tubing and/or Teflon tape, run water for 5 or more minutes, slow water to flow of pencil to avoid splashing, fill sample containers to neck of container, close container tightly, and invert bottle 5 times to mix preservative into sample. Do not overfill the containers and thereby rinse out the dry chemical preservative.
4. If sampling from any other location, slow water flow sufficiently to avoid splashing when filling container, fill sample containers to neck of container, close container tightly, and invert bottle 5 times to mix preservative into sample. Do not overfill the containers and thereby rinse out the dry chemical preservative.
5. Place all PFAS containers in sealed ZipLoc® bags and place them all in a separate cooler (*i.e.*, no other container types, if applicable).
6. Ensure Chain-of-Custody and all labels on containers contain required information. Place sample(s) and Field QC sample(s) in cooler and thoroughly pack with wet ice, leaving no empty spaces inside the cooler (do not use blue ice) and return to the laboratory via overnight delivery service.
7. Samples must be kept at $\leq 6^{\circ}\text{C}$ but not frozen, and must arrive at the laboratory 48 hours of collection.

Field Reagent Blank Instructions

A Field Reagent Blank (FRB) will be included with the sampling kit.

1. An FRB must be handled along with each sample set. A sample set is defined as samples collected from the same site and at the same time. Note that an FRB as defined in Method 537.1 and 533 in essence serves as both a “trip blank” and “field blank,” but should be called an FRB.
2. Locate the FRB Water (aka Reagent Water or PFAS-free water) container from the bottle order. It contains PFAS-free water and a label or sticker indicating its contents.
3. Locate an empty container labeled FRB. If containers are not pre-labeled, simply choose one empty (preserved) container.
 - a. If sampling for both 537.1 and 533 test methods at a site, an FRB is needed for each method and each sample should be labeled to indicate which FRB is for what test method.
4. Open both container(s) near the sampling point and carefully transfer contents of the FRB Water into the empty FRB container. Cap the filled container and shake for 15 seconds. This is now your FRB sample.
5. Include FRB(s) on the Chain-of-Custody (COC) as a separate sample, “FRB” and note which test method is required, 537.1 or 533. Include date/time of collection on COC.



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Exhibit 1 – Containers and Preservation

Sample Type	Container Count	Preservative	Container Type
Drinking Water Sample (537.1)	2 ¹	Trizma (537.1)	250 mL (HDPE or PP)
Drinking Water Sample (533)	3 ¹	Ammonium Acetate (533)	
FRB Sample Set (one container of reagent water transferred into one preserved sample container)	1 ²	1 x 250 mL (reagent water) 1 x 250 mL (preserved) • Trizma (537.1) • Ammonium Acetate (533)	

- (1) If collecting samples for compliance purposes, or if your project requires, designate an MS/MSD (1 per 20) on the COC and fill 4 containers for that sample.
- (2) In situations where you are sampling for both Method 537.1 and Method 533, please make sure to collect FRB Sample Set for each (FRB for 537.1 preserved with Trizma and FRB for 533 preserved with ammonium acetate).

IMPORTANT US EPA REQUIREMENTS

US EPA makes the following requirements mandatory for water systems and PFAS laboratories. Samples and Field Reagent Blanks that do not meet these requirements are not valid for compliance or UCMR 5 programs:

- Sample temperature must be below 10°C but not frozen when received by the lab.
- Samples must be received within 48 hours from collection (for Method 533).
- Sample pH must be 6 to 8 when received by the lab.
- No free chlorine must be detected when received by the lab. THIS IS NOT AN UNCOMMON ISSUE AND WATER SYSTEMS SHOULD TAKE MEASURES TO ENSURE THAT WATER SAMPLES ARE NOT EXCESSIVELY CHLORINATED DURING SAMPLING. WATER SYSTEMS THAT USE OTHER FORMS OF DISINFECTION, SUCH AS CHLORAMINE, SHOULD CHECK WITH THEIR LAB PROJECT MANAGER FOR GUIDANCE.
- Labs that receive samples that do not meet these criteria are required to invalidate and direct recollection of applicable Field Reagent Blanks and Field Samples.