SAMPLE COLLECTION INSTRUCTIONS FOR ANALYSIS OF PFAS IN DRINKING WATER

(EPA METHOD 537.1)

1. The MSU PFAS Analytical Lab is sending you a cold-storage box containing bar-coded bottles for sample collection, cold gel packs, shipping and sample collection instructions (i.e. this document), a Chain of Custody form, nitrile gloves, and a FedEx mailer with the Lab’s account for shipment of samples to the Lab. ***Upon receipt, remove the shipping label from the outer box, but save the boxes for return of samples to the Lab. The gel packs should be stored in a freezer (-20˚C, -4˚ F) for at least 16 hours just before shipping to the Lab.***
2. Please wash your hands with warm water and detergent before sampling, and avoid use of PFAS-containing products to the extent that is practical. Wear nitrile gloves (provided in this kit) while filling and sealing the sample bottles to minimize sample contamination. Replace the gloves if they come in contact with PTFE (Teflon), carpeting, or consumer products known to contain PFAS (cosmetics/make-up, defogging sprays, Sharpie markers).
3. For tap or well water: open the tap and allow the system to flush until the water temperature has stabilized (as judged by touch if a thermometer is not available). Adjust the flow so that the container can be filled without difficulty (e.g. without splashing). This usually requires about 3-5 minutes. Collect samples (Step 4, below) while the water continues to flow.
4. Add tap water to the sample bottle(s) (containing preservative, which has been preloaded into the bottles), and record sample ID and your description of the sampling site. It is recommended that water be added until the top of the water is slightly below the bottom of the cap (see image for approximate fill line; this will provide approximately 200 milliliters of water). Bottles should be prepared so that they are not filled to the brim, leaving some air above the liquid).
   1. Cap the bottle and tighten the cap to avoid spillage during transport.
   2. Agitate the bottle by hand until the preservative is observed to have completely dissolved.
5. To assess potential contamination by the sampling process, it is recommended that one sample with each batch of samples be a Field Reagent Blank (FRB). This includes a bottle of reagent water and the bottle to contain the FRB, both of which are shipped with the bottles for water sample collection.
   1. At the sampling site, open the reagent water bottle and pour all the water from the reagent water bottle into the bottle labeled FRB (which contains preservative).
   2. As was the case with the water samples (Step 4, above), agitate the bottle by hand until the preservative is observed to have completely dissolved.
6. All samples should be chilled, but not frozen, during transport and shipment to temperature between 0-10˚C using ice packs (but not dry ice).
7. Samples should be promptly transferred to the PFAS Analytical Laboratory, with basic contact, project, and sample information listed on the Chain of Custody form (instructions for filling out the Chain of Custody form are in a separate document). If immediate shipment or transport is not possible, it is recommended that they be temporarily stored in a refrigerator (4˚C/39˚F) until shipment.