PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)
Sampling Guidance for Public Water Supplies

ATTENTION! Please read the entire document BEFORE taking your samples!

1. Pre-sampling Preparation and Considerations

For the purposes of this document, sampling materials and other items that have the potential for PFAS cross contamination have been divided into two major categories:

Clothing

Determine whether the clothing you intend to wear during sampling has been advertised as waterproof, water-repellant, or dirt and/or stain resistant. These types of clothes are most likely to have had PFAS used in their creation.

- If the laboratory did not provide gloves, DO NOT use latex or vinyl gloves.
- DO NOT wear anything made of Gore-Tex™, other water-resistant synthetics, or coated Tyvek® clothing. Additionally, avoid clothing that contains Teflon®.
- DO NOT wear clothing that has recently been dry-cleaned.
- Wear well laundered clothing **not** recently washed with fabric softeners.
- Use only powderless nitrile gloves or gloves provided by the laboratory.

Personal Hygiene and Personal Care Products

PFAS are known to have been used in personal hygiene and personal care products (PCP) such as cosmetics, shampoo and other hair products, dental floss, etc., and are also used in some sunscreens and insect repellents. However, if the current Sampling Guidance is followed, these items should not come into contact with the sample bottles, or the actual water sample being collected.

- DO NOT handle or apply any PCPs such as lotion, perfume, deodorant/anti-perspirant, sunscreen, insect repellant, etc. that have not been determined to be PFAS-free for several hours before sampling.

Food Packaging

PFAS have been used by the paper and packaging industry as a special protective coating against grease, oil, and water for paper and cardboard in food packaging. Therefore, it is important to minimize interaction with these products before and especially during sampling.

- DO NOT touch, eat, or otherwise interact with pre-wrapped food or snacks, carry-out food, fast food, or other food items right before or during sampling.
- Wash hands thoroughly after contact with any of these products and before sampling.

Items Required for Sampling

The laboratory you choose will provide the appropriate sampling materials. It is important to use only these items for sample collection. PFAS-free nitrile gloves, bar soap, large Ziploc® bags, and ballpoint pens, or Fine or Ultra-Fine Point Sharpie® markers. Ensure you have a clean level surface to work from to collect your samples.

2. Step-by-Step Sample Collection

Before you begin sampling, please make sure you have read the entire guidance document and understand the risks and adverse outcomes associated with possible cross-contamination. Follow this step-by-step guide when taking your sample(s). Note that Steps 1 - 2 will be done days or weeks before Steps 3 - 8.

Steps 1 – 3: Find a Laboratory and Gather Sampling Materials

Step 1: Locate a Montana certified laboratory that analyzes PFAS in drinking water using EPA Methods 533 or 537.1 (version 2). The following labs are certified by Montana DPHHS:

1. Eurofins Analytical (Lancaster, PA) (717) 656-2300
2. Eurofins Analytical (Denver, CO) (303) 736-0100
3. Pace Analytical Services (Minneapolis, MN) (612) 607-1700
4. Energy Laboratories (Billings, MT) (406) 252-6325

Step 2: Contact the laboratory to get details about working with them such as costs for materials, shipping, and analysis. The laboratory should provide you with:

- The appropriate PFAS-free sample bottle(s) for you to collect your sample(s).
- PFAS test request form (sometimes referred to as a Chain of Custody form).
- Sample collection instructions.
- Ice packs that have been verified to be PFAS-free or PFAS-free storage bags for ice. If no blue ice packs are provided by the lab, use polyethylene plastic bags (such as Ziploc®) filled with ice.
- A cooler for return shipment.
- Some labs provide powder free nitrile gloves for you to use while collecting your sample.
- An estimation of how long it will take to get your results.

Step 3: If provided by the lab, freeze ice packs for at least 24 hours prior to sample collection.

Steps 4 – 5: On the Day of Sampling – Prepare for Sampling

Step 4: Unless otherwise specified, public water supply compliance samples should be taken from the entry point to the distribution system. This is the same location a public water supply would collect compliance samples for routine metals, cyanide, volatile and synthetic organic compounds.

Step 5: Choose a spot away from the sample location to fill out your sample analysis request form. Note that the sample bottle(s) from the laboratory may come pre-labeled.

Fill out all documentation and labels, ensuring that you fill in the water supply name, collection date, collection time, PWS ID#, sample location, source/well ID, and site code. Missing information can lead to potential noncompliance and/or extra resampling cost for the PWS.

- **Reminder!** Use ballpoint pens, or Fine or Ultra-Fine Point Sharpie® markers only.

Steps 6 – 8: Collecting Your Sample

Step 6: Flush the sample tap for an extended period (5 - 10 minutes), just as you would with other entry point samples. If using a tap that does not have a drain, have a bucket ready to catch water from the flushing process.

During this time, go to another faucet to wash and dry your hands. Thoroughly wash your hands with soap and water. Allow them to air dry or use a plain cotton cloth or untreated, non-recycled paper towel. Remove any jewelry that might tear the gloves. After flushing the sample tap, decrease the water flow to the thickness of a pencil.

Step 7: *Put on your new nitrile gloves.* Open your laboratory-provided sample bottle, taking care not to set the cap down or let anything touch the inside of the cap or bottle.

There should be a preservative in the bottle in a powder form. DO NOT FLUSH OR REMOVE ANY PRESERVATIVE FROM THE BOTTLE(S).

Fill the sample bottle to the point indicated in the laboratory's sampling instructions. Do not allow the bottle to overflow. Do not dump any water out of the bottle. Replace the cap, being careful to avoid contact with the inside of the lid. Gently flip the bottle upside down a couple times to mix in the preservative.

If the laboratory provided an additional bottle(s) to collect a duplicate sample(s), repeat **Step 7**.

Step 8: The laboratory may have provided you with a control sample called a field reagent blank (FRB). Control samples help the laboratory determine if a sample has been contaminated during the sampling process.

A control sample typically consists of two bottles – one bottle filled with PFAS-free laboratory water and one empty bottle. If you received a control sample, transfer the contents of the pre-filled bottle to the empty bottle, seal, and place with the sample bottle(s) filled in Step 6**.** Read the laboratory's sampling instructions for further information.

Step 9: After Sampling - Shipping Your Sample

Step 9: Place the sample bottle(s) into the cooler provided by the laboratory, taking care to surround the sample(s) with the provided ice packs or the bags that you have filled with ice.

The PFAS test request form (sometimes referred to as a Chain of Custody form) provided by the laboratory should be placed in a polyethylene plastic bag (such as Ziploc®) inside the cooler itself. Close and secure the cooler and ship to the laboratory using an overnight or next day courier. Alternatively, some laboratories allow sample drop-off. Please refer to the laboratory's sampling instructions.

Reporting Your Test Results

Laboratory results must be reported to the Montana Department of Environmental Quality for compliance. Results are due within ten days following the end of monitoring period.

DEQ Support and Assistance

We are here to support you and should you have any questions, need clarification, or require assistance, please do not hesitate to contact the Montana PFAS Rule Manager at (406) 444-4400.

PFAS Sampling Quick Reference Guide – Reducing Sample Contamination[1]

Personal Care Products[2] (PCP) – On the day of sample collection

Avoid	Allowable
• Any personal care products, sunscreens, insect repellents applied or handled in the sampling area.	• Personal care products, sunscreens, and insect repellents applied away from the sampling area, and away from sampling materials, followed by thoroughly washing hands and putting on a fresh pair of powderless nitrile gloves. • Sunscreens and insect repellents listed in the EGLE **General PFAS Sampling Guidance**

Clothing and Protective Clothing

Avoid	Allowable
• Anything made with Gore-Tex™ or other water-resistant synthetics • Anything applied with or recently washed with: ○ Fabric softeners ○ Fabric protectors, including UV protection ○ Insect resistant chemicals ○ Water, dirt, and/or stain resistant chemicals • Latex gloves	• Well-washed clothing, with most recent washings not using fabric softeners, made of or with: ○ Cotton ○ Polyurethane ○ Polyvinyl chloride (PVC) ○ Rubber ○ Neoprene • Powderless nitrile gloves

Sampling Items and Materials

Avoid	Allowable
• Sample bottles that have NOT been provided by the laboratory • Chemical or blue ice packs not provided by the laboratory • Recycled or chemically treated paper towels	• Laboratory-provided PFAS-free bottles • Regular ice, double bagged • Laboratory-provided ice packs • Low-density polyethylene (LDPE) (e.g., Ziploc®) bags • Untreated paper towels or cotton cloths

Food and Beverages

Avoid	Allowable
• No food should be eaten in the staging or sampling areas, including pre-packaged food or snacks. ✓ If eating food on-site becomes necessary, move to the staging area and remove personal protective equipment (PPE). After eating, wash hands thoroughly and put on new PPE.	• Brought and consumed only outside the sampling area: ○ Bottled water ○ Hydration drinks (i.e., Gatorade®, Powerade®)

[1] This table is not considered to be a complete listing of allowable materials or items to avoid.

[2] The avoidance of PCPs is precautionary because none have been documented as having cross-contaminated samples due to their use. However, if used, application of PCPs must be away from sample bottles and hands must be thoroughly washed after the use of any PCPs before sampling.