

SAMPLING AND SHIPPING INSTRUCTIONS

Cryptosporidium & Giardia

Using Envirochek HV

Please read all the instructions before sampling.

Note: Please schedule sample collection to allow samples to be received at the laboratory Monday –Thursday. **DO NOT** ship to the laboratory for Friday receipt.

Before Sampling:

Check sampling kit for the following items. If any of the materials are missing, contact the laboratory immediately and **DO NOT** attempt collection:

- Filtration Apparatus
- Three pieces of tubing: pre-filter, post-filter, and outlet tubing
- Capsule Filter including two blue vinyl caps
- Clamps
- Latex Gloves
- Chain of Custody (COC)
- Plastic sample bags (ziploc)
- Bubble wrap bag
- Ice packs (place in freezer immediately as they **must be frozen** before returning samples to the laboratory).

Additional Items required:

- Water resistant permanent marker to record sampling information
- Turbidimeter

Sampling Steps

*Note: If collecting a raw and a finished sample, collect the **finished water** first.*

A picture of the complete sampling set-up is located at the end of this instruction packet.

1. Use a water resistant permanent marker to record sample turbidity, sampling location, date and the operator's name on the label provided on the filter.
2. Connect the filter to the pump. Use a clamp to secure the outlet tubing to the filtration apparatus. Use a second clamp to secure the post-filter tubing to the filtration apparatus when collecting from a pressurized water source. Filter must be between water source and pump with the flow arrow pointing toward the pump. (Note: Retain the blue vinyl caps for sample shipping.)
3. Place the pre-filter tubing in the source water. **Avoid collection of dirt, sand, sediment or debris with water sample** by placing inlet tube in the center of water source. Do not place the tubing in the sediment. Place outlet tubing in the calibrated carboy.

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- 4. Please note if the filtration unit contains a totalizer (pictured below) it does not work properly at low flow rates. **DO NOT USE** this totalizer to record the volume filtered.
- 6. Plug in the unit and turn the pump on using the button labeled "ON" on the yellow reset box. (pictured below).



- 5. A calibrated carboy (pictured below) has been provided. Place the outflow tubing into the calibrated carboy. Use the carboy to measure the total volume filtered.



- 7. To avoid trapping air inside the filter capsule place the filter vertical with the inlet end on the bottom. Keep the filter in this position until the filter capsule is full of water.



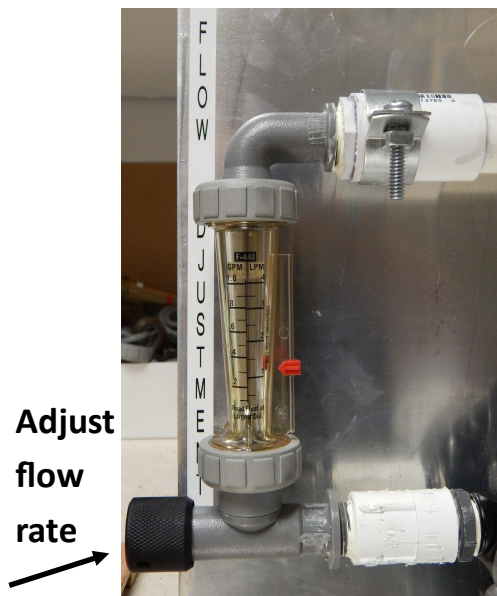
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8. If necessary, vent residual air using the bleed valve/vent port by turning it counterclockwise. Once the filter is full of water, quickly close the vent valve.



9. Adjust the flow rate to 2.0 L/min (0.5 G/min). Make sure the flow meter is vertical to achieve an accurate reading. (pictured below). Record the filtration start time.



10. Pass 10-50 L of surface water (minimum: 10 L and maximum: 50 L) or 100-1000 L of finished or groundwater (maximum: 1000 L). If filtering volumes larger than 10L while using the calibrated carboy turn off the pump to empty the carboy while leaving the filter in place. Replace the outlet tube in the carboy and turn the pump on to resume filtration.
11. If the flow rate decreases to 0.5 L/min., stop filtration by turning off pump. Note on the Chain of Custody that the filter clogged.
12. If a second filter must be used to collect the minimum volume of 10 L of surface water, repeat Steps 2 thru 10. Mark the filters clearly as filter #1 and filter #2. Note: The laboratory will provide an additional filter for collecting the minimum volume of 10 L surface water required by the LT2 Rule. Any unused filters must be returned to the lab or you will be billed accordingly.
13. At the end of filtration turn off the pump. Record volume filtered to the nearest ¼ L (taken from calibrated carboy) on the filter and on the Chain of Custody.
14. Carefully remove tubing from one end of the filter and replace the blue vinyl cap. Remove the tubing from the opposite end of the filter and replace the other blue vinyl cap. Use a water resistant marker to complete all information on the label on each filter. Place the filter in a ziploc bag.
15. Complete the Chain of Custody. All information **MUST BE COMPLETED**. Seal Chain of Custody in a separate ziploc bag.

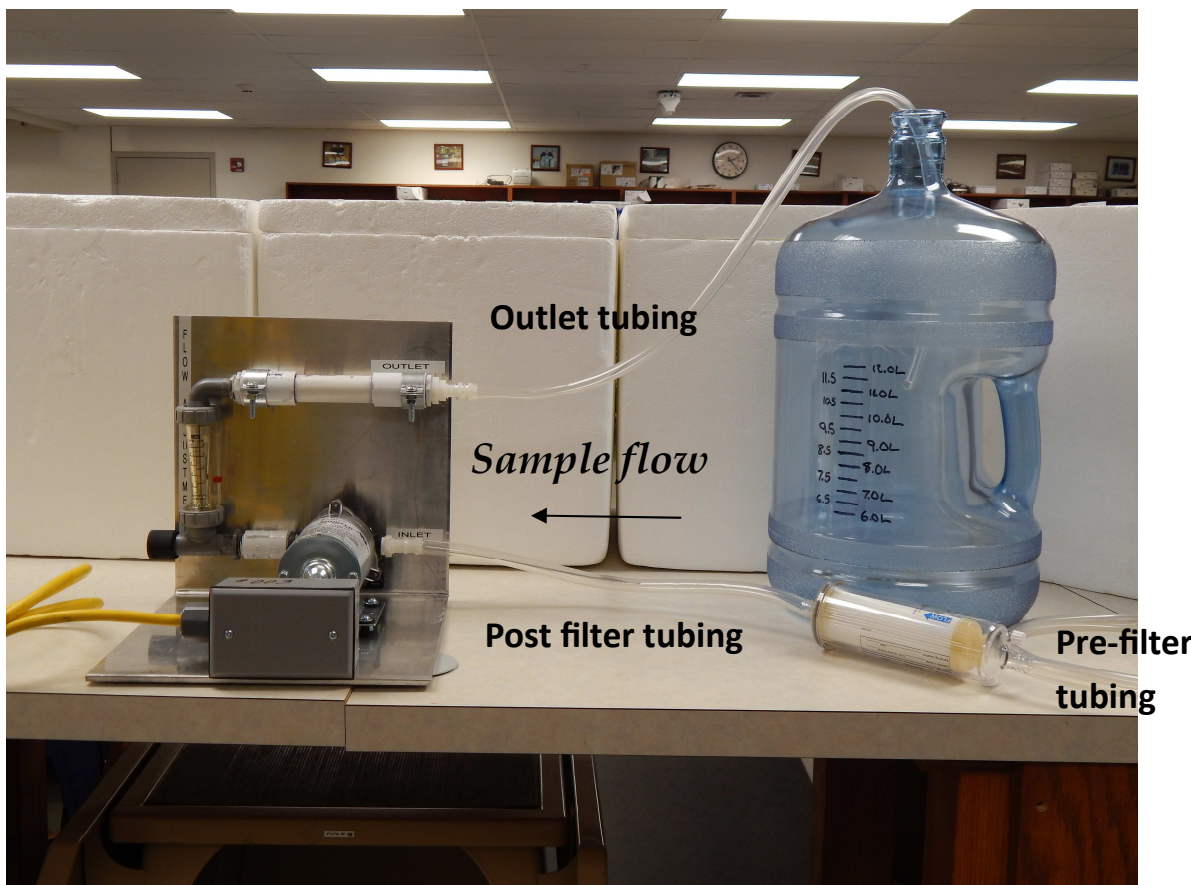
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Shipping Instructions

1. Use a ballpoint pen or permanent marker. Print all information neatly and clearly.
2. The laboratory **WILL NOT** be able to process your sample without all the required information on the Chain of Custody form. This includes:
 - Sample site (be as descriptive as possible)
 - Collection date and start time
 - Total volume filtered (recorded in Liters)
 - Field turbidity (if applicable)
3. Place the filter (sealed in a ziploc bag) in the bubble wrap bag. This will separate the ice from the filter to prevent the filter from freezing. The method specified acceptable temperature upon receipt is <20°C and not frozen.
4. Seal the sample shipping container and return by next day shipping.
5. Ship the sampling equipment back to the laboratory within **24 hours** by ground delivery unless other arrangements have been made.



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