

VERMONT DEPARTMENT OF HEALTH LABORATORY

Physical: 359 South Park Dr, Colchester, VT 05446

Mailing: PO Box 1125, Burlington, VT 05402-1125

1-800-660-9997 (VT only) or 1-802-338-4724

VOLATILE ORGANIC COMPOUNDS SAMPLING INSTRUCTIONS

For KIT OA/OB - EPA METHOD 524

Please read prior to collection of sample. If these instructions are not followed closely it may result in the analysis being delayed or the sample being rejected. Ice pack must be frozen prior to sampling.

CAUTION: Hydrochloric acid (HCl) is dangerous, handle with care. If HCl comes in contact with skin, flush with generous amount of water.

What you will need to collect sample:

- Three pre-cleaned 40ml capacity glass bottles with 25 mg Ascorbic Acid
- 3 ampoules containing 0.5 ml HCl
- VDHL Water Sample Collection Information form, (Chem 202)
- A Laboratory TRIP BLANK is included. DO NOT OPEN. This container must be returned with samples.
- Cooler/mailer with ice packs (two in summer months, one during the winter)

****WE RECOMMEND THAT YOU WEAR SAFETY GLASSES AND PROTECTIVE GLOVES WHILE COLLECTING THE SAMPLE. FREEZE THE ICE PACKS BEFORE SAMPLING.**

Where to take sample:

Regulated Water Systems

Samples for kit OA must be taken at the point of entry to the distribution system, for kit OB refer to the sampling plan for the WSID. Fill all 3 bottles at the same location:

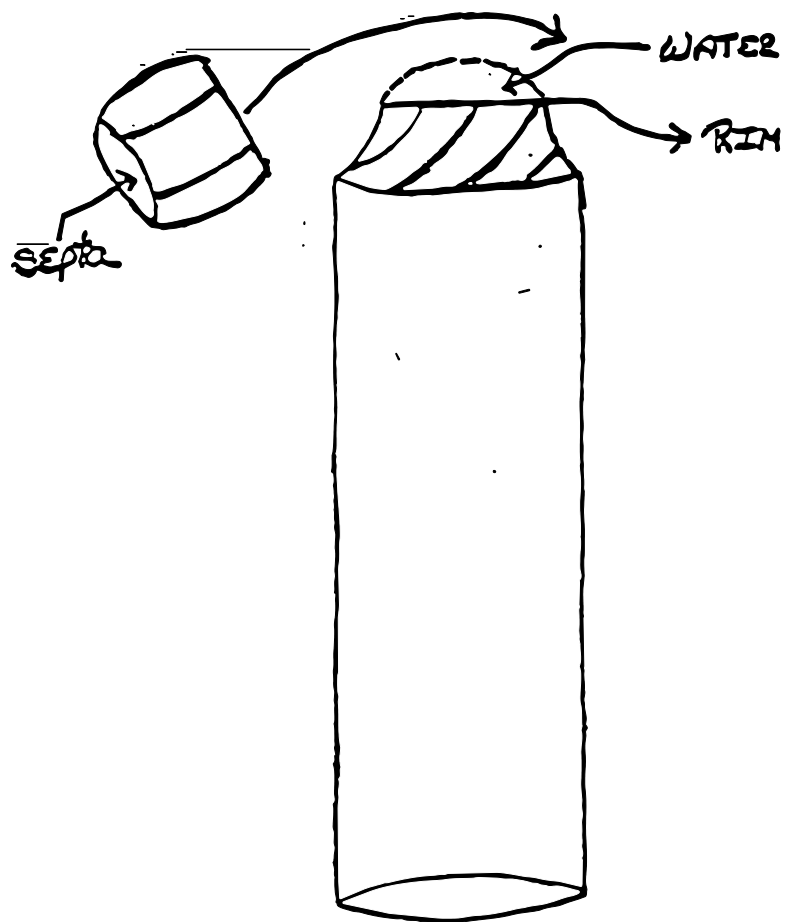
- a) If the system is served by surface water the sample must be taken after any application of treatment.
- b) If the system is served by ground water the sample must be taken at a location representative of each source after any application of treatment.

Homeowner: Collect the sample where you usually take your drinking water.

SAMPLING INSTRUCTIONS

1. **WASH YOUR HANDS;** DO NOT pump gas or handle any volatile chemicals on the day of sampling. This test is SENSITIVE to these types of activities.
2. Remove strainer unit from faucet.
3. Run **cold** water for 4-5 minutes, reduce flow to about a 1/8 inch stream to eliminate splashing and air bubbles. Put on safety glasses and neoprene gloves.
4. Carefully remove cap and slowly fill the vial while holding the vial at an angle. **Do not over-fill or rinse bottle since the preservative will be lost.** Do not allow inside of cap or bottle to be touched by any object.
5. Add water until it actually is above the rim of the bottle. This will eliminate an air pocket. Gently tap bottle to dislodge any air bubbles. **Snap the top off one of the ampoules containing HCl (see back page) and gently touch it to the water surface (touch for 15-30 sec), enough acid will be drawn in to preserve the sample. If air bubbles are present the sample can not be tested.**
6. Carefully hook cap over the top of bottle trying to match threads as shown in the diagram on the back of this page and screw cap on securely. Repeat steps 4-6 for the remaining two vials.
7. Place the cap on securely. Check for air bubbles by turning vial over and tap the cap; double-check by looking through the bottom. If there are air bubbles, re-open the vial and add a few more drops of water; **Do not empty the vial. Do not over-fill bottle since the preservative will be lost. Label the samples so they can be identified from others.**
8. Complete the Water Sample Collection Information form and return it with sample containers to the Laboratory. **If proper identification (date and time of sampling) is not submitted, the sample can not be tested.**
9. **If possible cool the sample vials in a refrigerator prior to shipping.**
10. Keep all samples together, package samples in cooler/mailer provided to prevent breakage (Use the frozen ice packs (or ice) to keep cool, at least 4°C, and keep out of sunlight). Mail or deliver **promptly** to the laboratory after collection.
11. Place acid ampoules and tops back into the plastic bag and dispose in the trash.

KEEP SAMPLE COOL. MAIL OR DELIVER PROMPTLY! THE SAMPLE SHOULD BE RECEIVED DURING BUSINESS HOURS AND WITHIN 48 HOURS OF SAMPLING. If you have questions or suggestions regarding these instructions, please call or write to us. Thank you.



The proper way to hold ampoule for cracking. It's recommended that the main body of the vial be wrapped with paper towel.



For a video on how to open an ampoule that does not show the use of gloves, paper towel, safety glasses, or vial cracker, search in YouTube for "How to open OPC Ampoules the right way".