

Sampling Instructions for TTHM and/or HAA5

1. THE CLIENT IS RESPONSIBLE FOR COMPLETING ALL INFORMATION ABOVE THE LINE. Failure to complete all the information may result in rejection of the samples. Please print all information and make sure the information is legible.
2. The sample must be collected in the glass bottles supplied by this laboratory. Use the clear bottles for the TTHM samples and the amber for the HAA5s. THE SAMPLES MUST BE SHIPPED ON ICE and must be kept at 4.0 degrees Celsius. SAMPLES NOT PRESERVED BY "ICING" DURING SHIPMENT WILL NOT BE ANALYZED. There is a preservative in the bottles so do not rinse out the bottles.
3. Lift the foam packing with the bottles from the shipping container. Leave the small bottle with the black lid and the dropper in the foam. Remove the larger bottles from the foam packing by pushing up from the bottom with your finger.
4. You will note that there are up to five bottles. One of the bottles (Field Blank) is filled with water to check for contamination during shipment, and it should not be opened. The other bottles: THM, THM duplicate, (and if needed, HAA5, HAA5 duplicate #1, and HAA5 duplicate #2) are for your samples and should be removed from the foam. These bottles may contain some crystals of chemical preservative. Do not rinse this preservative out of the bottle before taking the sample.
5. Samples are to be taken from the point of "Maximum Chlorine Residence Time" in the system. This normally means a sampling point in the distribution system where the water would be expected to stay the longest. Generally, this would be at the end of the distribution system, furthest away from the well or water source, however, all water systems are different, and you should determine where the area of maximum residence in your distribution system is located.
6. Let the water run from the tap at almost full flow for at least five (5) minutes. The sample bottle lids consist of a white plastic cap containing a rubber septum with a Teflon facing. Carefully remove the lids from the empty sample and duplicate bottles, taking care not to let the septum fall out. Place these lids upside down on a clean surface. Should a septum fall out, rinse it well with the water to be sampled and place it back in the lid, taking care to see that the Teflon side will face the water when the lid is placed on the bottle. Adjust the water flow to a slow but steady stream and fill each bottle in turn as follows:

HAA5 Samples (amber bottles) if supplied: **DO NOT ADD ACID TO THE AMBER BOTTLES**

- a. Fill each of the three (3) amber bottles to slight overflowing, so that a "dome" of water is above the lip of the bottle.
- b. Carefully screw the lid with Teflon rubber seal on the bottle, invert the bottle and check for air bubbles. If none are found, the sample has been taken correctly. If air bubbles are present, remove the lid and repeat steps a and b until a sample is taken which contains no air bubbles. Shake the sample vigorously for one (1) minute.

THM Samples (clear bottles):

Remove the black lid from the small bottle, leaving the bottle in the foam for support. THIS BOTTLE CONTAINS A SMALL AMOUNT OF DILUTE HYDROCHLORIC ACID WHICH IS REQUIRED BY EPA TO PRESERVE THE THM SAMPLES ONLY. HYDROCHLORIC ACID IS HIGHLY CORROSIVE AND DANGEROUS AND SHOULD BE HANDLED IN A SAFE MANNER AT ALL TIMES. If you should get any on your skin or in your eyes, immediately flush for several minutes with water, and thereafter see a doctor if any redness, rash or burning develops. The plastic dropper is used to suck the acid from the bottle and add it dropwise to the sample bottles.

- a. Fill a bottle almost to the top with water, then quickly add **4 drops** of the Hydrochloric acid from the dropper.
- b. Continue filling the bottle to slight overflowing, so that a "dome" of water is above the lip of the bottle.
- c. Carefully screw the lid with Teflon rubber seal on the bottle, invert the bottle and check for air bubbles. If none are found, the sample has been taken correctly. If air bubbles are present, remove the lid and repeat steps b and c until a sample is taken which contains no air bubbles. Shake the sample vigorously for one (1) minute.

Recap the Hydrochloric acid bottle securely and push firmly into its slit in the foam. Rinse the plastic dropper by sucking and discharging water into it several times, then place it in the bottom of the shipping container.

7. Replace the bottles in the foam packing, place in the bottom of the cooler, pack well with finely crushed ice up to the top of the cooler. Place completed form back in the Ziploc bag and seal the bag. Place the bag on top of the ice, followed by the lid. Secure the lid with tap and ship to the laboratory immediately.

8. After the samples are analyzed, regulations require that the laboratory mail the results of all compliance samples to the Public Water Supply Section (Attn: Data Entry), 1634 Mail Service Center, Raleigh, NC 27699-1634. A copy will be sent to the client, and the client shall retain the copy for at least ten (10) years.

9. If the form should be returned to the client marked "**Sample Unsatisfactory**," this means another sample will have to be collected. The COMMENTS section on the front of the form will give the reason.

TYPES OF SAMPLES

Maximum Chlorine Residence: A sample collected from a point in the distribution system that represents the maximum chlorine residence conditions for compliance monitoring.

Average Residence Time: A sample collected from a point in the distribution system that represents average conditions for compliance monitoring.

Special/Non-compliance: A sample collected for special purposes only and is not for compliance monitoring.