

Temperature, pH and salinity measurements

1. Rinse the bottles and lids in the water body three (3) times.
2. Invert the bottle and lower it into the water body to elbow depth.
3. Fill the bottle by pointing its mouth upstream.
4. Bring the bottle up and immediately run the tests.

pH and Temperature measurements

(2 measurements within ± 0.01 and 1°C)

5. Turn the Testr on and dip into the water sample.
6. After 2-3 minutes of stabilization record the reading.
7. Repeat.

Salinity measurements (2 measurements within ± 1 ppt)

8. Calibrate within 24 hours using distilled water.
9. Place water sample onto lens.
10. Look into eye piece and read at the line in ppt.
11. Rinse with freshwater, dry, repeat.

Sampling for nutrients

1. Use a waterproof marker to fill in the label of each sample bottle
 - **Station name**
 - **Date**
 - **Sample #**
2. Without touching the inside of the bottle and lid, rinse them in the water three (3) times.
3. Grasp the bottle at its base, turn it upside down and lower it mouth downward, into the water body to elbow depth.
4. Fill the bottle by turning it to a horizontal position and pointing its mouth upstream.
5. Bring the bottle up and pour enough water out to leave a 1-inch space for the freezing water to expand.
6. Cap the bottle tightly and put it in a shaded place or cooler.
7. Repeat.

Dissolved Oxygen measurements

(2 measurements within ± 0.6 ppm)

1. Rinse the bottles and lids in the water body three (3) times.
2. Lower the body into the water to elbow depth and fill by pointing its mouth downstream.
3. Add 8 drops of *Manganous Sulfate Solution.
4. Add 8 drops of *Alkaline Potassium Iodide Azide.
5. Cap and mix.
6. Add 8 drops of *Sulfuric Acid.
7. Cap and mix until reagent and precipitate dissolve.
8. Fill test tube to the 20 mL line.
9. Fill titrator with *Sodium Thiosulfate.
10. Titrate until sample color is pale yellow, do not disturb titrator.
11. Add 8 drops of Starch Indicator.
12. Continue titration until blue color disappears and solution is colorless.
13. Read result in ppm.
14. Repeat.

Sampling for chlorophyll

1. Rinse the bottles and lids in the water body three (3) times.
2. Invert the bottle and lower it into the water body to elbow depth.
3. Fill the bottle by pointing its mouth upstream.
4. Bring the bottle up and cap it.
5. Repeat.



Filtering Procedure

1. Assemble the filtering apparatus by inserting the filter base into the flask.
2. Using forceps, center a small filter, rough side up, on the cup base.
3. Using tap water, rinse the filter cup and screw it on the base.
4. Shake the jug of water and use some of it to rinse the graduated cylinder. Repeat this rinse for each bottle as you prepare to filter from it.
5. Measure water from the bottle into the graduated cylinder.
6. Pour measured water from the graduated cylinder into the filter cup and pump it through the filter paper until a noticeable color appears on the filter or it starts to clog.
7. After pumping the cup try, unscrew the cup off the base.
8. Using the forceps to grip the white part of the filter paper, lift it off the cup base.
9. Being careful not to touch the algae, fold the filter in half, **algae side in** to enclose the algae. Blot the small filter thoroughly on a paper towel.
10. Using a pencil, label a large filter paper with:
 - **Station name**
 - **Date**
 - **Amount of water filtered (mL)**
11. Fold the large paper filter in half, tuck the small filter inside and fasten with a plastic-coated paper clip.
12. Put filters into the bottle of desiccant. Store in freezer.
13. Repeat.
14. Rinse equipment with tap water, let air dry and check to see if there are enough supplies for next month.

If you have any questions or need more detail refer to the Biscayne Bay Water Watch manual or call 305-421-4017

