

Dissolved Oxygen

1. Fill Water Sampling Bottle by uncapping it, placing it underwater, letting ALL air bubbles out, and re-capping while underwater. Make sure ALL the air bubbles are out because you are measuring the amount of oxygen in the water, so your numbers will be messed up if you have oxygen from air in it!
2. Remove cap and add 8 drops of Manganous Sulfate solution. Water will start to overflow a little from the sampling bottle, which is perfectly okay.
3. Add 8 drops of Alkaline Potassium Iodide Azide.
4. Cap and mix.
5. Allow precipitate to settle down past the neck of bottle.
6. Add 8 drops Sulfuric Acid.
7. Cap and mix until reagent and precipitate dissolve.
8. Fill test tube to 20 mL line.
9. Fill titrator (thin plunger) to 0 line with Sodium Thiosulfate.
10. Titrate drop by drop until sample color is pale yellow.
11. Add 8 drops of Starch Indicator.
12. Continue titration drop by drop until blue color just disappears and solution is colorless. If you run out of water, re-fill it to the 0 line and be sure to add the original 10 to your final number.
13. Record ppm reading on side of titrator.

pH

1. Fill test tube to 5 mL line with sample water.
2. While holding dropper bottle vertically, add 8 drops of indicator solution.
3. Cap and mix.

4. Insert test tube into Octet comparator. Match sample color to a color standard.
5. Record as pH.

Bacteria

1. Thaw EasyGel agar medium in its bottle.
2. Add 5 mL of sample water directly into bottle. (Use 3 mL if high levels of sewage expected.)
3. Label location (way for you to recognize which bottles you used) and number of mLs sampled on bottle.
4. Keep bottle cool until you can pour it into the treated petri dish.
5. Pour into the smaller side of the petri dish and let solidify (up to a few hours).
6. Flip the petri dish and let incubate for 24-48 hours.
7. Count bacteria colonies after 24 hours and again after 48 hours.
8. When you are done with the petri dish, add a little bleach to the contaminated part and then throw away.

Turbidity

1. Fill tube to the very top with water, making sure to take the water from upstream of where you might have disturbed the stream.
2. Check and see if you can see the Secchi disk at the bottom of the tube.
3. Let water out a little at a time with the clamp at the bottom until you can see the black and white disk from the top of the tube.
4. Record the measurement on the side of the tube.