



iGEM IISER Pune Team 2019

Water Collection Instruction Sheet



Here are the instructions for collecting water samples as required by our team:

1. Identify a nearby, permanent body of water that you think might have some problems with pollution in the form of sewage, heavy metal contamination, plastic etc.
2. Identify the sources that might be flowing into this body near the point of collection such as streams, sewage from nearby settlements or effluent from industries.
3. Identify a few organisms that might reside in the water body - Animals/Microorganisms/Algae/Plants growing in and around the water. In case you cannot identify them, send us a picture and we might be able to identify them for you.
4. Note the weather condition when you collect the water- Is it sunny? When was the last time it rained? What is the average temperature during the time of collection? etc.
5. Collect 200mL of water from the water body and note the time and the location of the collection. Click a picture of the spot around which you have collected the sample. You can use Geotags (Present in most Camera Apps) - this helps us map the locations for further use.
6. Filter the water sample with **Whatman filter paper grade 1** (cellulose fibre mesh) (particle retention = 11 micrometres) to remove all macroscopic debris and organic matter that might be present in the sample. (*Discoloured water is not an issue*)
7. Store the filtered sample in a washed, clean, leakproof bottle (*preferably autoclaved though it is not a necessity*). Please ensure that the bottle has no

traces of soap/detergent/ethanol/any cleaning solution that could have been used and is completely dried before filling with the water sample.

8. Seal the bottle and label it with the Volume collected, Name of the person collecting the water, Name of your iGEM Team and the Date and Time of collection.
9. Bring the sample to All India iGEM Meetup 2019 in IISER Bhopal and we will collect the samples from you.
10. In an email, write the details of the location, sources, organisms and weather conditions including the Geotag (which is basically the coordinates of the location) and attach all the photos (Please label the photos as **Team-Name_Detail_Date.jpeg**).

Send them to our email ID: igem@sac.iiserpune.ac.in

We hope to gather insight into the heavy metal concentrations across the country from this exercise.

We would be happy to pen you down as our collaborators and mention it on our wiki.