

# COLLECTING WATER SAMPLES WITH THE WATER CHEMISTRY KIT

*The Water Chemistry Sampling Kit comes with two 250 mL bottles (1 pre-loaded with nitric acid, the other empty), one 0.45 micron filter, and a 1 foot length of fill tubing.*

1. Connect the tubing to the filter as shown in the picture. Note the direction of flow indicated on the filter body.
2. Purge the well or sampling source. Allow produced water to flow for several seconds (or open the spigot on groundwater sources) until a field probe reads stable values of temperature, pH, and conductivity. If you do not have a field probe, allow enough water to flow such that stagnant water has been removed from the well.
3. Connect the open end of the tubing to the water source and allow water to flow through the tubing and filter for several seconds until the filter is saturated. Make sure the flow rate is low enough that water only flows through the filter outlet, and does not spray out of any of the connections.
4. Position the outlet of the filter above the unacidified bottle for filling as shown in the picture. Fill the bottle up to the neck and securely cap it.
5. Repeat the filling procedure for the acidified bottle, taking care not to overflow the bottle so the nitric acid preservative is not lost.
6. Dry the outside of the bottle and label it with the date, time, sample ID, and other relevant information. (Write "ACIDIFIED" or "CATION" on the acidified bottle). Also record this information on a chain-of-custody form – Isotech provides a paper COC with Water Chemistry kits, and a printable and fillable version can be found at [isotechlabs.com](http://isotechlabs.com).
7. Use a NEW Water Chemistry Kit at each sampling point (do not reuse tubing or filters for more than one sampling point to avoid cross-contamination).
8. Store bottles in a refrigerator after collection. Make sure to ship samples overnight and on ice to the laboratory. Please do not ship on a Friday, as we only receive samples on weekdays.

