**WHOI Nutrient Facility Nutrient Sampling Protocol**

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**Supplies:**

Nitrile gloves – wear gloves when sampling

Acid-washed scintillation vials for samples

AcroPak 200 Capsule with Super Membrane – want 0.2um, Part#: 12941 – 08/0.2 um, gamma-irradiated, with filling bell – 3/pkg, order with barb for tubing to attach to rosette

\*Filters can do up to 20L\*

**Sampling protocol:**

1. Take 2 nutrient samples for each water sample. Pre-label the cap of the nutrient vial with nutrient number. Label the side of the vial with NL\_#### (#### is nutrient number), cruise #, cast #, niksin #, and ?date?. Example:

NL\_100

AR22 – C4N1

1. Connect filter barb to tubing for sampling
2. Connect filter to niskin and fill with water
   1. Wearing gloves, connect filter to niskin spigot. Start nicking flow and open air valve on side of filter to control water flow through filter. Hold valve up so that filter fills with water. Once most of air is out of filter, tighten/close valve and water should start to flow out of the tip at the bottom of the filter.
3. Rinse filter between samples with next sample water
   1. Rinse/flush filter with 3 times the volume of the filter. Can time first filling of volume then do by total time for 3 rinse sample bottles and cap 3 times from filtered niskin water.
4. Triple rinse sample vials and take 2 samples:
   1. Without touching filter to sample vial, rinse vial and cap 3 times, then fill vial most of the way. Leave space for expansion of water during freezing so that vial will not crack.
5. Store samples in standard -20 freezer until submission for analysis
6. Clean filter for using on next cast: Filter is rated for efficient processing of up to 20L. If saving filter for the next cast, flush filter with milli-Q water and dry air – store in clean ziplock until next cast. Alternately flush with milliQ, keep filled with milliQ, and store in fridge until next use.