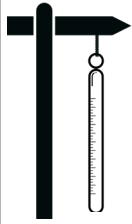


SC AAS Tidal Salt Water Field Procedures

1 Air temperature



Hang the thermometer from a secure spot out of direct sunlight.

2 Collect Sample



Use the bucket to collect water. Rinse the bucket 3 times before collecting the sample. *You do not need to fill the bucket all the way.*

3 Fill 2 DO Bottles



Be sure to fill the two DO bottles all the way to overflowing and cap underwater if possible.

Check for air bubbles.

4 FIX DO SAMPLE

Cap the bottle and mix by inverting several times.

Place bottles in a secure, shaded area.

8
Chemical 1
Manganous Sulfate Solution

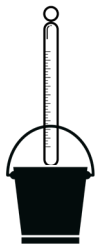
8
Chemical 2
Alkaline Potassium Iodide Azide

A white to brownish orange floc will form.

Wait for floc to settle below the shoulder.

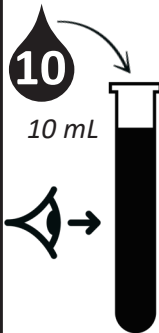
Meanwhile move on to step 5

5 Water temperature



Record the air temperature °C, then move the thermometer to the sample bucket or hang directly in water from a secure place. Record temperature when reading has stabilized.

6 pH



Rinse the two pH sample vials twice then fill to the 10mL line with water from the bucket.

Examine the water color and clarity and record information on the data sheet under 'observations'.

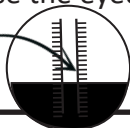
Add 10 drops of indicator solution to each vial. Insert the vial into the viewer and match the color to the bar to 0.25 (place the viewer against a white background). Record the pH.

Check DO bottles for floc.
Record water temperature

7 Salinity



Place a few drops of DI water on the prism of the refractometer and close the cover plate. *Point the refractometer toward light* and read the right hand scale. *Make sure it reads 0.* Wipe off and use the eyedropper to add a few drops of sample. Read salinity once.



8 Transparency

Transparency tube



Fill the tube with sample water. Push down to slowly discharge sample from the bottom release valve. Stop when quadrants can just be discerned.

or
Secchi disk



Slowly lower the Secchi disk until it is no longer visible. Record depth. Slowly raise the disk until it just reappears. Record depth.



Remove sunglasses & hats and take readings in the shade.

9 Finish fixing DO

When floc has settled to the bottom

8
Chemical 3
Sulfuric acid
**use caution*



Cap and gently invert bottle to mix until precipitate has dissolved.

The sample is 'fixed' and may be held at this point and titrated later.