Procedure:

1.) Select filter and weigh on an analytical balance.
2.) Record filter weights.
3.) Connect to filtration apparatus and begin suction.
4.) Wet the filter with a small volume of reagent-grade water to seat it.
5.) Stir sample thoroughly, remove the appropriate volume into a graduated cylinder and filter.
6.) The appropriate volume would be that which would yield between 2.5 and 200mg or residue.
7.) If filtration time exceeds 10 minutes, decrease the sample volume or use a larger filter to ensure a representative sample can be filtered.
8.) Rinse with three successive 10-ml volumes of reagent-grade water, allowing complete drainage between washings and continue suction for about 2 minutes after filtration is complete.
9.) Remove the filter from the filtration apparatus, transfer to the drying oven for at least 1 hour at 103 to 105^{0}C.
10.) After drying is complete, transfer to the desiccator and allow to cool to room temperature.
11.) Select filter and re-weigh 3 times on an analytical balance.
12.) Record filter weights.

Calculation:

$$\text{mg total suspended solids/L} = \frac{(A - B) \times 1000}{\text{sample vol., ml}}$$

where:

A = weight of dish/filter + dried residue, mg, and
B = weight of dish/filter, mg.

Each sample will be analyzed with two crucibles with equivalent volumes. The average of the two results will be reported.

QA/QC:
Duplicate analysis every 10th analysis and recorded.
A reference weight in the range of the weight of the samples and filters is weighed on the analytical balance prior to running samples to check for precision and accuracy once per month and recorded on bench sheet.
Blank (DI water) ran once per month and recorded.

Refer to the Quality Manual
The laboratory must keep a calibration certificate demonstrating the traceability to NIST standards. The weights must be ASTM type 1, 2, or 3 (Class S or S-1). Reference weights must be recertified every 5 years and documented.