

## **Measurement of Turbidity of Chrome Sand**

### **Equipment:**

500 ml Pyrex Erlenmeyer Flask

Hach 2100N laboratory Turbidity Meter, calibrated with Hach Stab Cal standard solutions of 0, 20, 200, 1000 and 4000 NTU as per manufacturers instructions. Instrument should be recalibrated quarterly.

Burrell – Wrist Action Shaker (amplitude lever set to 10 )

Turbidity Free water (Distilled/ De-ionized Water)

Drying oven

Scale- Capable of accurately measuring at least 250 grams

1. Dry a sufficient amount of chrome sand to a constant weight in a drying oven (110 C)
2. Weigh 100g dry chrome sand in a weigh boat and add to 500 ml Flask
- 3 .Weigh 250 grams distilled water into a beaker and add to 500 ml Flask
- 4 Place Flask into Grip of Wrist Action Shaker and tighten until secure (do not over tighten or risk cracking the neck of the flask) and shake for 1 minute on maximum amplitude (separate lever on side on shaker, set to “10”).
- 5 After shaking 1 minute, allow fleaker to stand for 30 seconds, after settling seconds pour off turbid water into beaker.
- 6 Carefully pour water from beaker into clean, dry 30 ml Hach sample vial, secure cap
- 7 wipe vial with cloth, apply silicone oil to vials as necessary, and insert into Hach
- 8 Make sure ratio and signal averaging modes are active (lights will be green on these keys), and make sure the units are NTU
- 9 Record first value displayed by Hach, as the numbers fluctuate due to settling while in instrument