

# San Gregorio Environmental Resource Center

## Turbidity Measurement Instructions

This test is performed by comparing the turbidity of a measured amount of the sample with an identical amount of turbidity-free water containing a measured amount of standardized turbidity reagent.

- 1) Fill one of the turbidity columns to the 50 ml line with the sample water. If the black dot on the bottom of the tube is not visible when looking down through the column of liquid, pour out a sufficient amount of the test sample so that the tube is filled to the 25 ml line.
- 2) Fill the second turbidity column with an amount of turbidity-free (distilled) water that is equal to the amount of sample being measured. Distilled water is preferred; however, clear tap water may be used. This is the “clear water” tube.
- 3) Place the two tubes side by side and note the difference in clarity. If the black dot is equally clear in both tubes, the turbidity is “0”. If the black dot in the sample tube is less clear, proceed to step 4.
- 4) Shake Standard Turbidity Reagent (7520) vigorously. Add 0.5 ml to the “clear water” tube. Use the stirring rod to stir contents of both tubes to equally distribute turbid particles. Wipe off stirring rod before using when moving between tubes. Check for the amount of turbidity by looking down through the solution at the black dot. If the turbidity of the sample is greater than that of the “clear water”, continue to add Standard Turbidity Reagent in 0.5 ml increments to the “clear water” tube, mixing after each addition, until the turbidity equals that of the sample.
- 5) Each 0.5 ml addition to the 50 ml size sample is equal to 5 Jackson Turbidity Units (JTU’s). If a 25 ml sample is used, each 0.5 ml addition if the Standard Turbidity Reagent is equal to 10 Jackson Turbidity Units. See table below.
- 6) Record turbidity in JTU’s on your data sheet.
- 7) Discard water into the waste bucket. Rinse both tubes carefully after each determination.

### TURBIDITY TEST RESULTS

Number of Measured Additions	Amount in ml	50 ml Graduation	25 ml Graduation
1	0.5	5 JTU	10 JTU
2	1.0	10 JTU	20 JTU
3	1.5	15 JTU	30 JTU
4	2.0	20 JTU	40 JTU
5	2.5	25 JTU	50 JTU
6	3.0	30 JTU	60 JTU
7	3.5	35 JTU	70 JTU
8	4.0	40 JTU	80 JTU
9	4.5	45 JTU	90 JTU
10	5.0	50 JTU	100 JTU
15	7.5	75 JTU	150 JTU
20	10.0	100 JTU	200 JTU