

TURBIDITY

TEST FOR TURBIDITY IN NATURAL AND TREATED WATERS

Photometer Method

AUTOMATIC WAVELENGTH SELECTION

5 – 400 Turbidity Units

Turbidity is an important parameter for characterising water quality. Turbidity is caused by the scattering of light by suspended matter such as clay, silt, finely divided organic and inorganic matter. A knowledge of turbidity facilitates estimation of the concentration of undissolved substances.

Method

The turbidity of the water is determined photoelectrically using the Palintest Photometer. In many samples both colour and turbidity will be present. In order to separate the effect of turbidity and colour, the sample is compared against a filtered portion of the same water.

The Palintest method has been calibrated against the widely recognised formazin turbidity solutions. Turbidity is expressed in terms of Formazin Turbidity Units (FTU). These units are broadly equivalent to Jackson Turbidity Units (JTU) and Nephelometric Turbidity Units (NTU).

Reagents and Equipment

Palintest Colour/Turbidity Set (PM 269)

Palintest Automatic Wavelength Selection Photometer

Test Procedure

- 1 Filter a portion of the sample through a GF/B filter paper.
- 2 Fill a test tube with filtered sample and retain for use as the BLANK tube.
- 3 Fill a test tube with unfiltered sample to the 10 ml mark.
- 4 Select Phot 48 on photometer.
- 5 Take photometer reading in usual manner (see photometer instructions) using the filtered sample as the blank.

Note

An optional light shield is available for use with the photometer. This shield fits over the test chamber and reduces stray light reaching the photocell. It is not necessary to use the light shield when carrying out this test indoors or under shaded outdoor light. The use of the light shield is however recommended when testing for turbidity under bright or variable lighting conditions.