

**O 92. INVESTIGATION OF OPERATOR EFFECT ON DETERMINATION OF PLASTIC
LIMIT**

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ABSTRACT: Water has a significant impact on the soil. Changes in the water content of soils are mostly seasonal changes. During the rainy seasons, the water content of the soils increases as water infiltrate underground. Water content decreases due to evaporation in hot season. As a result of this change in water content, especially in fine-grained soils, swelling - shrinkage, sitting and strain increase occur. Therefore, it is important to accurately determine consistency limits. The main method used to measure Plastic limit across the globe is developed by Casagrande. The standard manual rounding method can often give inconsistent or unreliable results, as the tester is dependent on the experience of the operator, the rate of rounding, being dry and wet of surface. In this study, using different clays with three different plasticity and different water contents to determine plastic and liquid limits were made standard manual rounding method and cone penetration test. The using cone tool have standart measure 80 g weight and angle of 30 °. To determine that the plastic limit depends on the operator, 12 geotechnical experts and 8 beginner students has been made with same soil. The results were compared. Thus, the consistency limits of the operator were determined.

Keywords: Cone penetrometer, Liquid limit, Plastic limit.