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**SOME RESULTS OF RESISTIVITY SURVEY FOR
HYDROGEOLOGICAL INVESTIGATION OF PERLIS**

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An extensive resistivity survey was carried out for hydrogeological investigation of Perlis. Electrical measurements were made at a network of 200 sounding points spread over the region north of Kangar. This paper emphasizes on (i) interpretation of some of the sounding curves of the Chuping Sugarcane Plantation area and (ii) a discussion of some of the results of the resistivity survey of Perlis.

The interpretation of the vertical electrical sounding curves (VES) from the Chuping Plantation area shows some interesting results. Our quantitative interpretation strongly suggests that the groundwater in the vicinity of the Sugarcane Factory has low (less than 10 ohm-m) resistivity. This means that the groundwater could be either brackish to saline or contaminated. The first possibility is very unlikely as the sea is quite far from the area. The danger of groundwater contamination from indiscriminate use of fertilizers and other chemicals (especially insecticides) is highly probable although the level of contamination is perhaps not serious.

A fence diagram, longitudinal conductance and water-table maps are prepared by utilizing the results of the interpretation of resistivity sounding data and the borehole data. The fence diagram gives an overall three dimensional view of the geology of Perlis. It shows approximate locations of the contacts between different formations and the number of layers. The longitudinal conductance map is an important tool to a hydrogeologist. It shows areas of pervious and impervious materials. A high longitudinal conductance map is an important tool to a hydrogeologist. It shows areas of pervious and impervious materials. A high longitudinal conductance could be either due to large thickness or low resistivity or both of an aquifer, and vice-versa.

The watertable map prepared from the resistivity results is important in determining the flow of groundwater. The cost of preparing such a map from the geophysical results is low compared to that obtained from the well-data.