TEST PUMPING OF GROUND WATER IN OKLAHOMA¹

EDWIN W. REED U. S. Geological Survey

The coefficients of transmissibility and storage are the fundamental hydraulic characteristics of aquifers, and under suitable geologic conditions they can be determined in the rocks in place by controlled pumping tests. From them the performance of an aquifer under protracted pumping may be predicted with reasonable accuracy. Procedures and formulas differ somewhat, depending on whether water table or artesian conditions are involved. Both conditions are found in Oklahoma, and pumping tests in both water table and artesian aquifers have been made by the Geological Survey in different parts of the state. In some tests the inability of the aquifer to

¹Published by permission of the Director of the United States Geologogical Survey and the Oklahoma Geological Survey.

produce the desired amount of water has been demonstrated, but in others the tests not only have shown that the water is available but have indicated the best areas for development and the proper spacing of wells.