At the Ward Brick Yard a well was drilled to a depth of 326 feet, but after passing through the surface soil, nothing but blue clay was encountered to the bottom and no water was found.

In the western part of the county, near Parkville (P. O. Canaan), a 2-inch well was drilled in 1903 to a depth of 615 feet on the farm of Mr. T. G. Skinner. Water was found at depths of 14, 36, 60, and 260 feet. Below about 300 feet, however, only very salty water was encountered, which rose nearly to the surface.

Artesian Prospects.—Owing to the high content of lime in the Tertiary beds which make up the materials for several hundred feet beneath the surface, water from these horizons will in most cases be hard. It will also be sulphurous and ferruginous in many cases. At depths exceeding 300 or 350 feet the water will be too salty for ordinary uses. Overflows are possible only on lowlands less than 10 feet above sea level.

PENDER COUNTY.

Topography.—Owing to the lack of topographic maps, the surface features of the county are but imperfectly known. Railroad elevations, however, seem to indicate the presence, over the greater part of the county, of the Wicomico terrace plain of the Pleistocene at elevations of 50 to perhaps 70 feet above sea level. Cape Fear, Northeast Cape Fear, and Black rivers are bordered by the next lower or Chowan plain at elevations of 30 to 40 feet, and this plain may cover limited areas in the southeastern part of the county. The lowest or Pamlico plain is probably developed to a limited extent along the rivers mentioned, at elevations not exceeding 20 or 25 feet. A portion of Great Angola Bay or Pocoson (swamp) lies to the north of Holly Shelter Creek, while to the south of this creek a vast stretch of country is covered by Holly Shelter Swamp.

Geology.—The entire county is underlain by beds of Cretaceous age, consisting of marine sands, clays, and marls. In the extreme western part of the county these belong to the Black Creek formation. The beds dip to the southeastward and pass beneath the Peedee formation, also of Cretaceous age. Depressions or basins in the upper undulating Cretaceous surface, which are more or less disconnected, are filled with Eocene limestones. Over this Cretaceous-Eocene surface occur thin sheets of Miocene sands and clays, which, however, are not continuous, but whose extent is imperfectly known. All older formations are covered over and concealed, except very locally, by Pleistocene sands, loams, and clays of the Wicomico, Chowan, and Pamlico formations.

Assays of waters from this county are given in Table 1, pp. 500, 501, assays Nos. 153-155. These are discussed on page 490.