

folk Southern Railroad, the elevations not exceeding 20 or 25 feet above sea level. The second or Chowan plain covers the remainder of the county, with elevations of 30 to 40 feet. Core and Bogue sounds are long, narrow bodies of water separated from the ocean by a nearly continuous strip of land known as the banks, which extends along the ocean front of the county. The continuity of the banks is broken only at Beaufort, and at Bogue, Whalebone, and Ocracoke inlets. Many large sand dunes have been formed on the banks.

*Geology.*—The surface materials over the entire county consist of Pleistocene sands, sandy loams, and clays of the Chowan and Pamlico formations. These are underlain by sands, clays, and shell marls, in part of Pliocene and probably in part of Pleistocene age. The Pliocene beds are believed to rest upon Miocene sands, clays, and marls at some depth beneath the surface, and in the western part of the county the latter rest in turn upon Eocene limestones of the Trent formation. In the extreme west the Eocene limestones occur at shallow depths beneath the surface, but dip eastward and pass beneath the Miocene.

*Water Resources.*—Nearly all the villages and towns of this county are situated on the lowlands bordering the coast. The inhabitants obtain their water supplies from shallow open or driven wells 7 to 35 feet in depth. Cisterns are in use at several places. Only a very few small springs are known to occur within the county. The quality of the water in the shallow wells varies considerably, but is as a rule soft. The water is reported to become brackish at times in many of the wells. In some of the driven wells the waters are ferruginous. Water assays were made of shallow well waters taken at different parts of the county. (See Table 1, pp. 492-495.)

The U. S. Life-saving Station on the banks opposite Beaufort is supplied entirely by cistern water. Water of a poor quality is obtainable here within 2 or 3 feet of the surface. Beaufort has a public fire supply consisting of three groups of wells at three of the street corners on Broad Street. There are five wells in each group: one 4-inch well in the center and four 2-inch wells surrounding it, all connected with a pipe of the same size as the fire hose. The depths of the wells are from 25 to 30 feet. The heaviest pumping by hand engines shows no diminution of supply. At the time Beaufort was visited plans were being made for the installation of eight more groups of wells.

Morehead City has six dug wells used exclusively for fire protection. The dimensions of each well are 8 feet wide by 12 feet long by 10 feet deep. The water in them usually stands within about 5 feet of the surface. They furnish large supplies of water. At one fire two of them were pumped dry by a gasoline engine, but refilled in two hours.