

bearing portions of the Pleistocene deposits. These wells range from 10 to 20 feet in depth. A few reach to 30 feet, but in these the water probably comes from the sandy portions of the underlying Peedee beds.

Numerous small springs occur along the valley and scarp slopes, emerging from the base of the Pleistocene deposits. The principal sources of the deeper well waters of the county are the Cretaceous beds of the Peedee and Black Creek formations.

Wells concerning which information has been obtained are included in the tables of well data below. (See also Bull. U. S. Geol. Survey, No. 138, pp. 203-204.)

Kinston is situated on the Chowan terrace which borders Neuse River. The city owns its water system, the supply being derived from 3 wells each 310 feet deep. The water is raised by an air lift and overflows into a circular cement reservoir of 350,000 gallons capacity, sunk in the terrace close to the pumping station. Two of the wells are situated within the reservoir, while the third well is 40 feet off to one side. From the reservoir the water is raised by a McGowan steam pump to a standpipe of 150,000 gallons capacity situated on the higher land north of the city. In case of fire it is possible to pump directly into the city mains. The wells are situated three-fourths of a mile west of the city post-office and about 200 yards from Neuse River. The maximum capacity of each well is stated to be 150 gallons per minute. The three wells are usually pumped together at the rate of 300 gallons per minute. There are about 12 miles of water mains laid in Kinston and about one-fourth of the inhabitants are supplied, approximately 120,000 gallons being used daily. The system was established in 1905, the wells being completed that year. The water supplied by these three wells is probably derived from sandy layers in the Black Creek formation. A water-bearing stratum, between 88 and 104 feet below the surface, yielded by pumping 150 gallons per minute of extremely hard water. The water from this horizon did not overflow. At a depth of 212 to 220 feet another water-bearing horizon was encountered from which soft water, very similar to that obtained at 304 feet, could be pumped at the rate of 45 gallons per minute. This water would flow at the rate of 15 gallons per minute. A horizon which furnishes the main part of the supply was encountered at 304 feet; this flows at the rate of 15 gallons per minute. The water from this horizon will rise 24 feet above the surface. Pumping at the rate of 150 gallons per minute on one well lowers the water level to a point 150 feet below the surface.

Several wells in the vicinity of Kinston tap a horizon at 210 feet,