

and 198 feet deep, respectively. This is probably, though not certainly, an Eocene horizon.

At Castle Hayne a hard, ferruginous, and unsatisfactory water was obtained from a Peedee horizon at a depth of 70 feet.

Detailed information concerning a number of the above-mentioned wells is given below in the table of well data.

Assays and analyses of waters from this county are given elsewhere in this report, as follows: Table 1, pp. 498-501, assays Nos. 119-137; Table 2, pp. 506, 507, analyses Nos. 40, 41. These are discussed on page 489.

Artesian Prospects.—The principal horizons of potable artesian waters within the limits of New Hanover County occur in beds of the Peedee formation, and in a belt several miles wide bordering the coast in overlying Eocene beds. The lower limit of potable waters is indicated approximately in the sections (pp. 438, 439) by dotted lines. At greater depths than that indicated highly saline waters may be expected in all parts of the county. At lesser depths, usually not exceeding 200 feet, potable and in many places excellent waters may be obtained. There are certain exceptions, however, for at a few places the waters obtained have been unsatisfactory owing to their high content of calcium or iron, or both, as in the well of W. H. Shearrin at Castle Hayne. The conditions which give rise to these exceptions are of local extent, and their place of occurrence can only be determined by drilling. But where an unsatisfactory water is obtained from one horizon, a better water may sometimes be secured by casing this off and sinking the well to other deeper horizons. In the belt along the coast where the Eocene beds become important as water-bearers there seems to be little difference between the water obtained from them and that obtained from underlying Peedee horizons, and therefore from an economic standpoint there is no need of discussing them separately.

COUNTY.

Yield per minute.		How obtained at surface.	Use.	Geologic horizon and character of water-beds.	Remarks.
Flow—gallons.	Pump—gallons.				
strong flow.	-----	flows.	-----	Peedee and Black Creek formations.	{ Nonflowing horizons at 30 and 90 ft., and flowing horizons at 379, 496, 518, 574, 989, 992, 1011 and 1019 ft. Lengths and sizes of casing: 600'—12"; 720'—10"; 1020'—8"; 1109'—6". Granite struck at 1109. See sec., p. 163. See analysis No. 40, table 2, pp. 506, 507.
-----	-----	hand force pump.	domestic.	Peedee formation; sand layers in rock.	