

pally along the base of the sands and clays, their outcrops on the hill slopes being marked on the surface by great numbers of quartz pebbles and cobbles, the latter reaching a maximum diameter of 6 or 8 inches. A large percentage of the pebbles and cobbles are smoothly rounded. This locality is on the divide between Roanoke River and Fishing Creek, distant about 10 miles from the former and 14 miles from the latter. The elevation at Aurelian Springs, as determined roughly by aneroid readings, is about 300 feet above sea level. The hills between here and Littleton in the same county are capped by similar deposits. In many places the sedimentary materials are present as a very thin covering on the crystalline surface, and in such instances there is as a rule an intermixture of sharply angular quartz fragments in association with the more or less smoothly rounded pebbles and cobbles. A short distance northwest of Aurelian Springs the sands of the Lafayette contain in places enormous numbers of small arenaceous or argillaceous iron concretions.

Surficial deposits of the same general character and at comparable elevations were observed in the vicinity of Brinkleyville in this county.

Patches of Lafayette gravels, sands, and sandy clays are present capping the hills in the western part of Nash County, resting unconformably upon crystalline rocks at elevations ranging from 240 to 335 feet above sea level. These may be seen in the railroad cut at Springhope, and at various places along the road leading from Springhope to Rogers Crossroads by way of Gold Valley Crossroads, Samaria, Unionhope, and Dry Wells. (See Springhope Quadrangle.) Considerable accumulations of sand with basal gravel beds are present at more than 300 feet above sea level along the ridge on which Unionhope is situated.

Gravel beds are present in the northern part of Harnett County, resting unconformably upon the crystallines, but these have received but little study.

A number of good exposures of the formation are afforded by the cuts of the Seaboard Air Line Railway in Southeastern Moore County between the bridge over Crane Creek and Niagara station, a distance of about 7 miles. A short distance south of Crane Creek bridge at milepost 58 the Lafayette materials are seen to rest unconformably upon typical arkosic sands of the Patuxent formation. The latter is here present as a feather edge only, for, a few rods to the north, decayed crystallines appear above the level of the track. The relations of the formations are shown in the drawing, Fig. 16, and the character of the materials is described in the accompanying explanations.