

nized at numerous places. This escarpment leads down from hills whose elevations exceed 230 feet to a more or less dissected plain, here designated the Coharie terrace plain, whose maximum elevation above sea level at the foot of the escarpment is about 230 or 235 feet.

The formation probably extends into South Carolina, but its distribution in that State is imperfectly known.

The formation rests with unconformable relations in part upon the basement rocks of the Coastal Plain, and in part upon beds of the Patuxent formation of the Cretaceous. The former relations exist from Cape Fear River northeastward to the Virginia line, crystallines forming the underlying rocks. From the Cape Fear southwestward to the South Carolina line the Lafayette deposits rest for the most part upon the Patuxent formation, but along the northwestern border of the belt they lap over upon the basement rocks, including both ancient crystallines and those of the Newark group (Triassic).

The deposits were laid down upon an extremely irregular surface which was produced by pre-Lafayette stream erosion. They have suffered much from erosion during post-Lafayette times and now exist as discontinuous sheets or patches which mantle the slopes or tops of the hills at elevations of from 230 to 400 feet or more above sea level. Throughout the Lafayette area the present surface presents an uneven aspect, consisting in part of smoothly rolling hills and in part of hills of a more rugged, angular character, in this respect contrasting strongly with the nearly level surface of the lower-lying Pleistocene terraces. The main topographic outlines of the region are believed to have originated during the pre-Lafayette erosion interval to which reference has just been made. This view is supported by the fact that the Lafayette deposits do not rest at concordant levels on the hills, but to greater or less extent mantle down over the existing valley slopes. It is probable that they originally partially filled the pre-Lafayette valleys, having been subsequently largely removed from the bottoms and lower parts of the slopes.

With the exception of wind-blown sands which are probably in part of Pleistocene and Recent age and which are present as an extensive surface covering in the sand-hill region, no post-Lafayette deposits are certainly known to rest upon the Lafayette beds.

The materials of the formation consist of sandy loams, sandy clays, sands and gravels. The coarser phases predominate. In places the sands are arkosic, the included kaolin grains having been derived in part from underlying Patuxent beds and in part from underlying or adjacent crystalline rocks. Sorting has not been thoroughly accomplished except locally, the sands and gravels as a rule containing a