

more or less regularly disseminated clay content. At some places a large percentage of the pebbles and cobbles in the gravel beds are smoothly rounded, and this is especially true wherever there are considerable accumulations of gravel. Where very thin coverings of the deposits occur, however, resting directly upon the crystalline rocks a considerable percentage of angular or slightly worn quartz is, as a rule, intermixed with the well-worn material.

The materials of the Lafayette formation in most places present a dull or soft yellowish or reddish appearance, due to the presence of thin films of iron oxide coating the sand and clay particles. They differ in this respect from the unweathered sands and clays of the Patuxent formation which, as before stated, form the underlying strata over a part of the area, the latter being as a rule light in color, light drabs and grays prevailing. The Lafayette materials, however, are in some places light gray or mottled, and on the other hand the Patuxent materials where they have been subjected to long-continued surface weathering present iron oxide colorings, thus rendering it difficult at times to distinguish between the two formations.

The Lafayette formation where present forms a relatively thin surface covering, as a rule not exceeding 20 or 25 feet in thickness. The thickness varies, however, being much less in places and in places perhaps amounting to or exceeding 35 or 40 feet.

*Detailed Sections.*—Under this heading will be included descriptions of sections presenting materials regarded as typical examples of the Lafayette formation.

One of the best exposures of the formation in the State is afforded by a cut of the Seaboard Air Line Railway 1 mile west of Thelma in Halifax County. The position of the beds with relation to underlying crystalline rocks is shown in Fig. 15, p. 263.

The following features regarding the character and relations of the Lafayette materials in the above described exposure are deserving of especial emphasis: the irregularity of the surface of the crystallines on which they rest; the coarseness of texture; the smoothly rounded character of a large percentage of the pebbles and cobbles; the irregularity of the bedding; and the approximate conformity of the lines of stratification to the surface of the underlying crystallines.

The hills in the vicinity of Aurelian Springs in the same county are capped with yellowish and gray argillaceous sands, sandy clays, and gravels having an observed maximum thickness of about 30 feet, which rest directly upon decayed crystalline rocks. The gravels occur princi-