

feldspathic element of the essexite. It is thus in mineralogical composition intermediate between these two rocks, although, as above mentioned, being rich in the dark-colored constituents, it more closely resembles the latter.

The large feldspars have frequently a peculiar crystalline form giving to the mineral, when broken across, a perfect hexagonal outline. The six faces represented in this form are apparently T, L, and M. The crystals hold many little inclusions of pyroxene, biotite, hornblende, magnetite, sphene, and nepheline, often regularly arranged so as to give a zonal structure to the feldspar individual. The specific gravity of twelve small fragments of the feldspar of these large crystals, collected from a locality on the southern side of the mountain and as free as possible from all inclusions, was determined. The specific gravity of nine of these lay between 2.59 and 2.607, while that of the other three was between 2.625 and 2.628. This shows the feldspar in the former case to be identical with that of the pulaskite, while in the latter three the specific gravity lies between that of albite and oligoclase. The somewhat greater specific gravity in this case may be due in part to inclusions of other minerals. A separation of the constituents of the rock shows, however, that, as above mentioned, a considerable amount of oligoclase is really present. The feldspar individuals, both great and small, usually show in thin sections the mottled character due to the intergrowth of different species, described in the pulaskite. A partial analysis of a specimen of this intermediate rock, from the south side of the mountain, is given in the accompanying table of analyses (No. VI), on page 265. As will be seen, in chemical composition as well as in mineralogical character, it occupies a position intermediate between the essexite and the pulaskite, occurring on either side of it, thus representing an intermediate zone in which the differentiation was not quite completed. It is, however, much more nearly allied to the essexite, being alkali-calcic and dosodic, and although in the absence of a complete analysis or detailed measurements its position in the new classification cannot be determined with absolute certainty, there is very little doubt that it also, like the essexite adjacent to it, is an andose.