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Item 1

Key West district

The Key West district is underlain by pre-Cambrian metamorphic rocks consisting of granite gneiss, hornblende gneiss, hornblendite dikes, and pegmatite dikes. Younger (post-ore) Paleozoic sedimentary rocks cover the pre-Cambrian outcrops to the north and south, and gravels overlie them to the west. The hornblende gneiss is superficially similar to the hornblendite dikes, but the two can be distinguished by careful examination. The chief differences are that the hornblende gneiss has a banded appearance and commonly contains some white feldspar; the dikes show no banding, contain no feldspar, but generally have small greenish crystals of olivine. Their distinction is important, because the nickel minerals are found only in the hornblendite dikes.

The nickel-bearing dikes are restricted to a rather narrow zone, and are, moreover, rather widely separated in this zone. They are also relatively small: their length ranges from 5 to 200 feet and averages less than 100 feet, and the width ranges from 3 to 20 feet and averages less than 10 feet. The dikes are not uniformly nickel-bearing and the nickel content is apparently proportional to the sporadically distributed sulphide minerals. Three of the larger dikes outside of the main Key West and Great Eastern workings contain, on the average, from 0.097 percent to 0.525 percent nickel.