



GEOLOGIC MAP OF THE PUNTA GUAYANÉS QUADRANGLE, SOUTHEASTERN PUERTO RICO By Cleaves L. Rogers 1977

Geochronology of the plutonic complex of Punta Guayanés... Diorite (UPPER CRETACEOUS) - Medium- to dark-gray, porphyritic medium-grained rock having hypidiomorphic-granular texture. Largely unfoliated, but characterized locally by weakly developed foliation...

Geomorphology - Lobeck (1922), Fetteke (1924), and Meyerhoff (1933) believed the principal features of the southeast coast, large headlands separated by wide alluvial valleys, resulted from subsidence during Pleistocene time...

Structural Geology - Numerous plutonic rocks in the Punta Guayanés quadrangle are characterized by joints that are particularly conspicuous in the sea cliffs, where they have been accentuated by weathering and wave action...

Economic Geology - Small amounts of magnetite are associated with some hornblende, and magnetite is concentrated locally in small amounts in the beach sands within the quadrangle, particularly along the south side of the Cuchilla de Panduras...

Introduction - The earliest references to the geology of southeastern Puerto Rico are by Lobeck (1922), Fetteke (1924), and Meyerhoff (1933). Fetteke's report was the first to describe the geology of the region...

Rocks of the San Lorenzo Batholith - The Punta Guayanés quadrangle lies almost wholly within the composite San Lorenzo and Punta Guayanés rocks. The batholith is composed of gabbro, diorite, tonalite, granodiorite, and quartz diorite...

Engineering Geology - Most of the bedrock in the quadrangle consists of diorite, tonalite, and granodiorite, which have similar engineering characteristics. All the rocks are granular in texture, predominantly medium grained, and, except where highly fractured, are massive and have low porosity...

References - Broedel, C. H., 1961, Preliminary geologic map showing iron and copper prospects in the Juncos quadrangle, Puerto Rico. U.S. Geol. Survey Misc. Geol. Inv. Map I-236.

Table with 5 columns: Lat. no., Field no., Plutonic unit, Age (m.y.), Analyzed mineral, Locality. It lists sample localities such as D2332I, D2333H, D2328H, D2338B, D2000H, D2000B, D2334H, and D2334B.

Geochronology of the plutonic complex of Punta Guayanés (continued) - Diorite - Diorite is the oldest and most heterogeneous plutonic rock in the quadrangle and is exposed largely in its southwest part, where it is intruded by San Lorenzo and Punta Guayanés rocks...

Granodiorite of San Lorenzo (UPPER CRETACEOUS) - Light to very light gray, predominantly medium-grained, unfoliated to weakly foliated, hypidiomorphic-granular to oligoclase-granular texture. Largely unfoliated, but locally showing faint suggestion of foliation locally by near diorite contacts...

Mixed rock (granodiorite of San Lorenzo and diorite) (UPPER CRETACEOUS) - Intimate mixture of granodiorite and diorite. The contact zone is a narrow, irregularly shaped zone of mixed rock...

Tonalite facies of granodiorite of San Lorenzo (UPPER CRETACEOUS) - Light to medium-dark gray, predominantly medium-grained rock having hypidiomorphic-granular texture. Largely unfoliated, but faint suggestion of foliation locally by near diorite contacts...

Mixed rock (granodiorite of San Lorenzo and diorite) (UPPER CRETACEOUS) - Intimate mixture of granodiorite and diorite. The contact zone is a narrow, irregularly shaped zone of mixed rock...

Mixed rock (tonalite facies of granodiorite of San Lorenzo and diorite) (UPPER CRETACEOUS) - Largely an intimate mixture of tonalite and diorite, with some hybrid rock.

