

01-94
8



*Press release only
circulate 2/8/54
for Rpt 6/28/54*

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

DEPARTMENT OF MINES

RECEIVED

AUG 6 1954

AUG 6 1954

GEOLOGICAL SURVEY

WILLIAM H. OLDSWORTH

Commissioner of Mines

JUNEAU, ALASKA

For Release to PM's, AUGUST 6, 1954

GEOLOGIC MAP OF DUKE ISLAND, SOUTHEASTERN ALASKA

-1954

Release to open file of a generalized geologic map of Duke Island, southeastern Alaska, was announced today by Acting Secretary of the Interior Ralph A. Tudor.

Compiled by A. H. Koschmann, the map is based on 15 days of field work carried out in 1934 as a byproduct of an investigation of mineral deposits on Annette Island. The map is being placed on open file because of the current interest in ferrous and base metal deposits that may be associated with basic and ultrabasic rocks such as those exposed on Duke Island.

About 57 square miles in area, Duke Island is approximately 30 miles southeast of Ketchikan. It is underlain principally by plutonic igneous rocks and preigneous gneisses, the latter being tentatively considered to be of early or middle Paleozoic age.

Ultrabasic rocks containing large amounts of iron and magnesium and including hornblendite, peridotite and locally serpentine form the Percy Islands and a wide band that crosses Duke Island parallel to the strike of the regional structure. Hornblendite is the most abundant ultrabasic rock and is found at the margins of peridotite intrusions in contact with other igneous rocks. It also occurs as small dikes up to an inch wide and very probably is one of the youngest igneous rocks to be emplaced in the district. The gabbro which occurs as an elongated mass, probably sill-like in form, along the east side of Duke Island is typically fine to medium grained, but locally it is coarse grained. It is clearly younger than the gneiss and older than the hornblendite, but its age relation to the other rocks is obscured by the presence of hornblendite at the contacts. Granite, quantitatively the most important rock in the area to the north, forms only a small exposure at the northeast end of Duke Island. The rock is considered to be the youngest of the intrusive rocks and on the basis of field evidence obtained outside of the map area it is concluded that the granite is probably not older than early Mesozoic. It may be of upper Jurassic or of lower Cretaceous age.

This study of the geology of Duke Island revealed no mineral deposits of apparent economic importance; but as the brief field study was limited to an examination of shoreline exposures, the possibility of finding mineral deposits of commercial interest was not eliminated. The interior of Duke Island may thus be of interest to prospectors in view of the widespread distribution of basic and ultrabasic rocks.

The map has been placed on file in Geological Survey offices in Room 1033 (Library) General Services Administration Building, Washington, D. C.; Brooks Memorial Mines Building, University of Alaska, College, Alaska; Federal Building, Juneau, Alaska; 210 E. F. Glover Building, Anchorage, Alaska; and at 724 Appraisers Building, San Francisco, California.

x x x

PROPERTY OF DGGG LIBRARY