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TOFINO NICKEL (RAINEY-PEARL)

LOCATION

The Tofino Nickel property is located opposite Similar Island on the west side of Deer Bay, in Tofino Inlet. The property is reached by boat 25 kilometres east-northeast from Tofino on the west coast of Vancouver Island.

REGIONAL GEOLOGY

The property, located on the western edge of the Insular Belt, is underlain by amphibolitic gneisses of the West Coast Crystalline complex (Muller, 1977). The gneisses are considered to have been derived from migmatization of Paleozoic eugeosynclinal rocks during a major Jurassic plutonic event. A U-Pb date obtained from well foliated quartz plagioclase biotite gneiss at Grice Bay, 15 kilometres southwest of the Tofino Nickel property gave a late Paleozoic age of 264 Ma (Muller, 1977).

LOCAL GEOLOGY

Amphibolite is exposed as lenses and dyke-like bodies (Mason, 1984) within a feldspar gneiss of the West Coast Complex. According to Stevenson (undated):

"The (gneissic) feldspar porphyry is the main rock in the stripping and also in the area extending for at least one-half mile easterly from it. The amphibolite occurs as remnant lenses that strike northwesterly and dip approximately 60 degrees southwestward, an attitude that is steeper but which roughly corresponds to the slope of the hillside, an important feature to be considered in prospecting the showing. The amphibolite appears to be a metamorphosed basic rock, probably originally basaltic to andesitic lava. The feldspar porphyry is a white rock, slightly gneissic in texture but otherwise lacking structure; the gneissosity strikes northwesterly. Replacement of the amphibolite by the feldspar porphyry is well shown at the lower end of the stripping."

OCCURRENCE AND DISTRIBUTION OF PLATINUM GROUP ELEMENTS

Pyrrhotite, chalcopyrite, pyrite and magnetite mineralization with nickel, platinum and palladium values is associated with the amphibolitic rocks. As described by Stevenson (undated):

"The pyrite occurs as scattered patches with ill defined borders to the amphibolite. The pyrrhotite occurs as patches and thin veinlets that form a lace-work in the amphibolite. The chalcopyrite occurs as small distinct lenses of nearly pure mineral, which range from one-half inch to 4 inches in width and from a few inches to 18 inches in length. The chalcopyrite lenses are well defined in the mineralized area and appear to be later than the other sulphides. The sulphides occur in two areas in the stripping, one, towards the upper end, measuring approximately 4 feet by 12 feet by 2 feet deep and the other towards the lower end, measuring 4 feet by 10 feet by 2 feet deep. Elsewhere the amphibolite is either relatively barren of minerals or may contain a little pyrite. The amphibolite, probably as lava, appears to have received the sulphide mineralization before the formation of the feldspar porphyry.

Samples of the sulphides and mineralized amphibolite taken by Stevenson returned values of up to 6.7 grams per tonne platinum and 9.8 grams per tonne palladium. Eastwood (1963), obtained 6.2 grams per tonne palladium and trace platinum from a grab sample of rock well mineralized with pyrite and chalcopyrite.

SELECTED BIBLIOGRAPHY

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- Carson, D. J. T. (1968): Metallogenic Study of Vancouver Island with emphasis on the Relationships of Mineral Deposits to Plutonic Rocks. unpublished Ph.D. Thesis - Carleton University, page 156.
- Eastwood, G. E. P. (1963): Tofino Nickel Group, Minister of Mines, British Columbia, Annual Report, 1963, page 116.
- Mason, I. M. (1984): Assessment Report Geology, Geochemistry and Geophysics of the Nickel 1, 2, 3 and Loren Mineral Claims, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 13121.
- Muller, J. E. (1977): Evolution of the Pacific Margin, Vancouver Island, and adjacent regions, <u>Canadian Journal of Earth Sciences</u>, Volume 14, Number 9, pages 2062-2065.

SELECTED BIBLIOGRAPHY (CONTINUED)

Muller, J. E. and Carson D. J. T. (1986): Geology and Mineral Deposits of Alberni Map-Area, <u>Geological Survey of Canada</u>, Paper 68-50, pages 36, 38, 40.

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Stevenson, J. S. (Undated): Preliminary Notes on the Rainy-Pearl Copper Prospect, Tofino Inlet, British Columbia Open File, 92F 14E.