

Mt. Baker Alaska Copper Property

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MT. BAKER COPPER PROPERTY

Location: The copper deposit described in this report is on the west coast of Chichagof Island, on^e of the large islands of southeastern Alaska. By air it is about 85 miles southwest of Juneau, and about $3\frac{1}{2}$ miles north of the head of Goulding Harbor. The deposit proper is located on the northern slope of Mt. Baker.

Claims and Ownership: The property consists of at least 7 claims staked and recorded by Mr. John Brockway of Juneau, Alaska. At the time field work was being conducted Mr. Brockway expressed his intent to stake 7 more claims on the property.

Accessability: Airplane service is maintained almost daily from Juneau to Sitka, and planes can be chartered for landing on Goulding Harbor, however to move heavy equipment a large boat or barge would probably have to be rented and the equipment transported to Baker Cove as the northern end of Goulding Harbor is so studded with small islands and reefs that it cannot be reached by large boats. From Baker Cove to the northern slope of Mt Baker, either a road would have to be constructed or the equipment lifted in by helicopter.

Power, Timber, and Water: Power would have to either be generated by diesel electric generator or a power plant constructed on the river $3\frac{1}{2}$ miles to the southeast.

Mining timber is available near the property but the timber is of low quality and would probably have to be replaced within several years.

The lack of water in the immediate vicinity may require some pipe to be laid and a pump set up at one of the nearby lakes, but the lack of

water on the property near the deposit does not appear to be a problem of any significance.

Climate: The deposit is in a region of high precipitation, much of which falls as rain. Rainfall and temperature are recorded at Kimsnam Cove by the U.S. Weather Bureau.

General Geology of the Area: The area immediately to the southeast was mapped in 1938 and 1939 by John C. Reed and Robert R. Coats of the U.S.G.S. In 1941 the work was published by the U.S.G.S. as bulletin 929, Geology and Ore Deposits of the Chichagof Mining District Alaska. As such the above served as a basis for the stratigraphy, nomenclature, and age of the units mapped in this area.

The oldest rocks in the area include massive greenstones, amygdaloidal greenstones, greywackie, and some calcareous sandstone. These rocks are in the northeastern part of the area and trend N. 40° W. The dip is almost vertical. The formation was designated greenstone by Reed and Coats, and assigned an age of Triassic?

Stratigraphically above the greenstone unit is a persistent band of limestone which forms the most easily traced formation in the area. The unit extends from the head of Goulding Harbor northwestward to the edge of the mapped area.

The width of outcrop in the mapped area is about 300 feet. The formation is light to dark grey in color and has been deeply etched by solution above and below the timber line. No fossils were found in the limestone by Reed and Coats and as no unconformity was known to exist between it and the overlying schist, the formation was doubtfully assigned to the Triassic.

One short traverse was made across a small part of the unit designated schist by Reed and Coats. In the area traversed by this writer the unit consisted mostly of greywacke which trends N. 40° W. and dips steeply to the

west. No intrusive rocks were noted in the mapped area.

Ore Deposit: Three "leads" were mapped on the Mt. Baker property. From northwest to northeast they are designated as follows:

1. Baker Peak Lead.
2. Angle Boy Lead.
3. Lucky Devil Lead.

Baker Peak Lead: The Baker Peak lead strikes E. W. and has an almost vertical dip. The lead can be traced continuously on the surface by a red brown gossien capping for about 600 feet. The lead has been opened by three pits, see Map 2, to a depth of about 5 feet. Where trenched the lead appears to be a shear seam about two feet wide with the rock in the seam brecciated and crushed. The fault appears to have served as a channelway for mineralizing solutions which have deposited disseminated pyrite and some chalcopyrite into the greenstone wallrock. Two samples were taken from this lead, both from pit 3. Sample E-1 was taken across the surface of the lead, and sample E-2 was taken down three feet in the pit across the face for a distance of about 4 feet.

Angle Boy Lead: The Angle Boy lead strikes N. 70° W. and has an almost vertical dip. The Angle Boy lead is the longest lead, being traced for about 1600 feet. In appearance and mineralization the Angle Boy is similar to the Baker Peak lead. Two cuts were made across this lead but no samples were taken from either cut. As shown on the map the Angle Boy intersects with the Lucky Devil lead to the southeast. To the northwest the fault cannot be traced.

Lucky Devil Lead: The Lucky Devil lead appears to be the main lead. The fault strikes N. 40° W. and dips 80° to the east. The deposit has been exposed by pitting for a distance of about 275 feet. Four deep pits, between 14 and 20 feet have been dug on the deposit as well as 5 or 6 shallow trenches.

To the southeast the fault disappears under a slide area but may outcrop on Mt. Baker about 700 feet from the last open pit. To the northwest the lead disappears ^{under} heavy overburden and talus slopes. In the fault the country rock has been brecciated and crushed almost to a powder. This crushed zone is the footwall of the deposit. No clearly defined hanging wall was seen. In the exposed pits the most highly mineralized area varies in width from 2 to 14 feet, with the mineralized area in pit 1 being 2 feet in width and the area in pit 4 being 14 feet wide. The country rock is light bluish grey in color, can be cut with a knife, but does not respond to tests for limestone. The mineralization occurs as streaks of chalcopyrite 2 to 4 inches wide and as finely disseminated chalcopyrite throughout the rock. Due to the time element no thin sections have been cut, but an attempt should be made to identify the rock.

A total of 14 samples were taken from the Lucky Devil lead, one from pit 2, two from pit 1, and 11 from pit 4. Locations of these samples are shown on Maps 3 and 4.

As shown on the map there ^{are} ~~is~~ three old adits which have been driven in ^{in an} either on the fault, or attempt to crosscut to the fault. None of these adits were entered due to their dangerous condition.

Conclusions and Recommendations: The Mt. Baker property is in my opinion a good prospect, however it will require further exploration and development before attempting to set up a mining program. There are at least three ways to continue exploration and development on this property.

A. Continue open pitting particularly on the Lucky Devil lead to the northwest.

These pits should be about 200 feet apart and deep enough to cut the mineralized grey blue rock.

B. Set up a diamond drilling program, spacing holes every 200 feet or so and attempting to intersect the deposit at a depth between 100 and 200 feet

Again this program should concentrate on the Lucky Devil lead in the beginning. (See Map 3 for proposed locations)

- C. Drift in on the old adit near the pits, or drop below and start another cross cut to the deposit. Once on the fault, explore and develop by drifting.

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LOCATION MAP

