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Pat No. 2; Pat No. 4; Freaque No. 1; and Freaque No. 2.

It is understood the claims have been surveyed and a map prepared, but that Crown Grants have not been secured, although sufficient work has been done on the property to obtain these grants.

GENERAL ECONOMIC CONDITIONS:

In general the economic conditions prevailing at the property are quite favorable. As previously mentioned, the surface showings occur at an elevation of only 2600 feet. The principal development would be done at lower levels and work could be conducted throughout the year.

Timber is readily available for mine and domestic needs. The stand on the claims is unusually suitable and consists of fir, spruce, hemlock and cedar. A small saw-mill, with a planer, is in operation at Zeballos.

Sufficient water for mining, milling and domestic uses may be taken from a creek closely adjacent to the camp and workings, although if mining were conducted at the elevation of the open cuts, it would be necessary to pump the water some 150 feet in elevation.

Power for mining and milling will have to be generated by oil motive power. Diesel engines are in general use at other mines in the area and fuel may be obtained from the Standard Oil Company's Depot at Zeballos.

Buildings at the camp site consist of two small bunkhouses, a cookhouse and blacksmith shop, all being of cedar shake construction; providing accommodation for six or eight men.

At tidewater, a garage for the tractor, a storage shed and loading ramp have recently been constructed. A cookhouse and bunkhouse on skids, used while building the road, could augment the living accommodation at the camp. Equipment, said to be conservatively valued at \$25,000.00, is owned by the Company. This consists mainly of a "40" International Caterpillar Tractor, two compressors (one being portable); three rock drills with steel; two mine cars and rail; a 3000-foot aerial tram-line, equipped with two buckets; a hoist for operating, a bull-wheel and blocks. There is also a scow and outboard motor launch, and miscellaneous hand tools, such as picks, shovels and hand-steel.

The building of the road and installation of the aerial tram-line and hoist, has been done in a "workmanlike" manner. The construction was carried on during the difficult years of the war, when experienced labor was hard to obtain and was the only operation in the Zeballos District during that time.

GEOLOGY:

Surface stripping and a minor amount of benching has exposed two outcrops of an altered, basic rock, originally probably a gabbro, which has been irregularly mineralized, chiefly by massive pyrrhotite. The work done has not been sufficient to determine the occurrence or attitude of the deposit. It may represent a segregation by some form of magnetic differentiation.

The lens exposed in the lower cut shows heavy pyrrhotization across a zone 16 feet wide, with minor amounts of mineralization extending for 6 or 8 feet on either side of this

section. It appears to strike N 10° W and dips at 50 degrees easterly into the canyon.

In the upper cut, about 20 feet higher in elevation, the gabbro has been crosscutted to the hanging wall, which is a granitic phase. Here the lens appears "dyke-like", strikes North and dips 70 degrees to the East. Mineralization is more sparse and the zone is narrower.

Sufficient stripping has not been done to determine if the two lenses are connected.

The zone dips into the canyon, where, it is understood, other mineralized outcrops are exposed. This could not be verified, however, as the ladders, the only access down into the canyon, had fall away.

Associated with the pyrrhotite are important values in gold. The cuts have been sampled by numerous reputable engineers and in all instances high gold values were obtained. Assays taken by the Provincial Government Mining Engineer, Mr. R. J. Maconachie, and Mr. G. E. Crowe "M.E.", are appended.

A sample taken by the author, across 9 feet of the heavily mineralized section in the lower cut assayed 4.52 ounces of gold per ton.

CONCLUSIONS:

Although very little work has been performed on the surface exposures the high gold values obtained across extraordinary widths give this property decided merit and warrant further exploration.

However, until more information is obtained regarding the occurrence and attitude of the deposit one should not be too sanguine about horizontal and vertical extensions of the mineralization. It is extremely probable that other lenses may occur, or that the known lenses will be continuous, but development should proceed with caution. ^{Respectfully submitted,} Relative to this point I offer the following recommendations:

RECOMMENDATIONS:

1. Make a shipment of "about 200 tons" to the Tacoma Smelter. Such a shipment would give (a) a closer valuation of the gold content than by channel sampling, (b) the percentage recovery obtainable, and (c) a chance to obtain mining, transportation and treatment costs.

If a profit is available from these shipments they could be continued, thus providing some capital for further exploration and as the surface exposure is mined more information regarding its occurrence would be obtained.

Mining would be with hand-steel. The tram-line and road are ready for use and a loading platform at tidewater is constructed except for decking.

The only construction necessary would be a small ore bin (10 to 15 tons) at the upper terminus of the aerial tram and a plank chute about 100 feet in length from the outcrop to the ore bin.

It seems reasonable to suggest that a crew of 3 or 4 men should begin shipping within a month's time.

2. Contingent upon the results of the initial programme, further exploration by diamond drilling, from within the canyon, is suggested as the most advantageous method of ore search.

Respectfully submitted,

W. A. Lammers, P.Eng.

Zeballos, B.C.,
July 4, 1946.
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C O P Y