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TERRITORY OF ALASKA

DEPARTMENT OF MINES

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PRELIMINARY REPORT OF BLUE FOX GROUP (SUPERIOR MINES, INC.), PIGOT BAY, PORT WELLS DISTRICT, ALASKA

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Location and Accessibility:

The Blue Fox group of five lode claims is located 2,000 feet inland from the head of Pigot Bay. A newly constructed caterpillar road leads from the head of the bay to the mill and camp site, elevation 370 feet. Pigot Bay is shallow and only small boats can navigate in the bay waters.

Owners:

G. W. Gilson and C. Peterson of Valdez, Alaska are the holders of this group.

History:

The first discovery on this group was made by Jack Irving and J. D. Hamilton in 1913. A few claims were staked and the prospect became known as the Hidden Treasure. C. Peterson discovered the extension of this vein to the north and staked the Homestake claim in 1914. B. F. Millard this same year optioned the Hidden Treasure for $100,000. Millard was then operator of the Granite mine. A crosscut tunnel was started and a vein was cut 40 feet from the portal. The following year another 40 feet of crosscut was driven and another parallel vein was cut. A shaft was sunk on the lowest showing. During the season of 1916 some drifting was done on the No. I vein, and the Homestake claim was optioned from Peterson. A 140-foot crosscut tunnel was driven on the Homestake claim, but fell short of the vein. In 1917 both properties were dropped and later abandoned by the owners. The present owners restaked both prospects in 1932 and only assessment work has been done up until this year, when the property was optioned to the Superior Mines, Inc. under the direction of Mr. Clarence Poy. This season a camp is under construction, a mill building has been completed and machinery is being installed.

Geology and Showings:

The geology of this section is well described in U. S. G. S. bulletin 592, "Mineral Resources of Alaska, 1913" under the title of "The Port Wells Gold-Lode District" by B. L. Johnson. For further information in regard to the granite intrusive mass that lies to the west of Pigot Bay, and from which the gold of these veins is believed to have originated, refer to U. S. G. S. bulletin 443, "Geology and Mineral Resources of Prince William Sound, Alaska"

by Grant & Higgins, pp. 38-39.

The formations noted in the vicinity of the claim group range from black crinkled phyllites to argillites, and impure slates, all of which are schistose and considerably altered. Several acid dike boulders were noted in the creek below the veins, but no dikes were noted in close proximity. The quartz veins are confined to the crinkled graphitic phyllite band on this group. Three veins have been found. One is a parallel vein and the other is possibly a continuation of the first.

No. 1 vein is the most pronounced vein and has been traced for 3,000 feet, beginning on the valley flat at an elevation of a few feet above sea level, at which point a 40-foot shaft has been sunk, and continuing along the hillside following the course of a small stream to the present workings at 700 feet elevation. Several old cuts expose the vein along its strike of N. 35° E. Three known quartz lenses were noted along its strike. The vein cuts the schistosity of the phyllites at a low angle both in strike and dip. The formation strikes N. 45° W. and has a steep variable dip to the north. The vein dip ranges from 50 to 60° N. At an elevation of 520 feet a 90-foot crosscut tunnel was driven which intersects No. 1 vein at the end. From this point a drift follows the vein northeast for a distance of 110 feet. This drift exposes a quartz lense 50 feet in length which also has a width from a few inches to 18 inches, averaging 12 inches. The walls are free with considerable gouge-filling on both walls. The quartz is banded, folded and curled, with graphitic bands containing the greater portion of the mineralization. The better values are contained in the widest portions. C. Peterson reported that an average of $43 in gold and silver per ton was obtained from this lense along the tunnel in channel sampling. On the surface above the tunnel this lense has a length of 90 feet, as shown in the cuts, and an average width of 18 inches. Gold values, some amounting to $100 per ton, were reported from these cuts.

No. 2 vein is a parallel vein to No. 1 and was discovered in the crosscut tunnel at a point 40 feet in from the portal. This vein is not exposed on the surface, but has the same strike as No. 1 and dips 65° N. No work has been done on this vein which is only exposed across the width of the tunnel, and its width varies from 6 to 8 inches. The quartz and mineralization is similar to No. 1 vein.

No. 3 vein was not seen by the writer, but was reported outcropping at an elevation of 1600 feet, and it is believed to be the continuation of No1 vein. It was reported exposed over a distance of 700 feet and the ore is in spots and kidneys, some of which are high grade. Its reported width was 6 to 10 inches. Average values of $100 per ton in gold were also reported. A crosscut tunnel was driven below the vein. This has a reported length of 140 feet and an additional 40 more feet is required to cut the vein.

A larger lense, possibly over 100 feet in length, is located on

No. 1 vein below the tunnel, approximately 400 feet. Several old rock cuts have been made across this lense and nearly two feet of good looking ore showing free gold was noted in one trench.

Mineralization:

The metallic minerals noted in the veins consisted of pyrite, galena, sphalerite, aresnopyrite and free gold. Most of the mineralization is contained along the bands and in seams in the quartz. It has an irregular distribution along the vein, most abundant in the widest quartz sections. The sulphides are extremely fine. The gangue minerals consist of white milky to hard bluish gray quartz, calcite, chlorite, sericite, graphite and numerous pieces of wall rock.

A specimen of quartz, T.D.M. 120, taken from the larger lenses of No. 1 vein 400 feet southwest of the tunnel, shows clearly two generations of quartz. The earlier quartz is the larger crystalline type of milky white color, with well formed crystals with distinct edges. The younger type is a grayish blue in color, and contains fine and indistinct crystal faces with an abundant amount of wall rock included as seams with an irregular and curled appearance. Free gold shows in the specimen in the younger quartz. A slide of the younger quartz shows under the microscope the mineralization confined to the crinkled irregular fractures in the quartz, showing it of a later age than the quartz. Calcite and chlorite also are associated with the extremely fine crystals of the sulphides. Mineralization as an original constituent of the quartz is lacking in this thin section.

Machinery:

Directly below the lower tunnel a distance of 400 feet and at an elevation of 370 feet the mill is under construction. A jig-back aerial tram extends from the mill to the tunnel. The mill building is 16 x 28 feet with an additional 40-ton ore bin on the upper end. The machinery consists of a Straub crusher, 3 x 4 foot Straub ball mill, 15-ton capacity, a hydraulic classifier, a Gibson amalgamator followed by plates, and a Wilfley table. Flotation cells are to be added later. The mill is to be powered by a 20 H.P. Fairbanks Morse diesel engine. An R. 40 Ingersoll-Rand 3-stage compressor run by a 40 H. P. Fairbanks Morse diesel is to be installed within the mill to furnish air for the mine. An American saw mill located near the beach furnishes the necessary timber from the abundant growth in the valley floor. New camp buildings are under construction at the mill site. The small creek near the camp is to be developed for water power which will be seasonal only. The mill is expected to be in operation by October.