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*Mr. Sargent did not
insert this report sent
over to Victoria.*

Quatsino King Group

The claims of this group, Quatsino King, L. 676; Eros, L. 676 A; Paramount, L. 677; Hillside, L. 678; and Alexander, L. 679, in the Quatsino Mining Division, were originally Crown-granted in 1914 and 1917. All reverted to the Crown; the Paramount and Hillside, of which Arthur Hansen and Frederick Lind are now the registered owners, were again Crown-granted in 1930. The other claims were held on lease from the Crown in 1939. A partnership including Messrs. Becher, Hansen, Lind, Nelson, Nordstrom, Peake, Perrie and Tipping, undertook work on the property in 1939.

The original discovery is understood to have been made in 1898. References to the property appear in the Annual Report, Minister of Mines, British Columbia, from 1904 to 1931 under the names Quatsino King, White Quartz, Teta River Gold Mining Company and Teeta River Mining Company. In Summary Report 1929, Part A, Geological Survey, Canada, the property is described under the name Quatsino King. Underground work was undertaken in the early years and 4 adits have been driven. The property was at one time bonded to the Granby Consolidated Mining, Smelting and Power Company Limited. The company did some diamond drilling before the bond was cancelled in 1918. In 1938 and 1939 under the present holders, the old workings were cleaned out, crosscuts on No. 3 level were advanced south-westerly, and some surface work was done.

1940?

The claims are situated on the western side of Neroutsos Inlet, the south-east arm of Quatsino Sound, Between Teeta Creek and Cayuse Creek, westerly from Port Alice. A trail running south-westerly from the shore south of Teeta Creek climbs to the camp, a log cabin at 1050 feet elevation, in a little more than a mile. The camp and the workings are on the western side of a small northerly-flowing creek. Drift with a heavy growth of brush and conifers covers most of the bed-rock, there are few outcrops close to the workings.

The rocks exposed in the workings are bleached and altered, almost all specimens react with strong acid. Coarse sandstone, quartz-diorite, and dykes of porphyritic andesite are recognized at different points, but the alteration has been so complete that much of the material cannot be identified with certainty. It is probable that other sediments and possibly feldspar porphyry are present in addition to the rocks mentioned. Quartz, calcite, chalcopyrite, pyrite and some sphalerite occur in veins from a few inches to 2 feet wide. The sulphides with calcite and quartz are developed irregularly in the altered rocks in widths of 15 or 20 feet and possibly in greater widths. Some wide sections consist almost entirely of quartz and carbonate which have replaced the original rock minerals.

In the veins and in the mineralized rock the sulphide content ranges from less than 1 per cent to perhaps 7 or 8 per cent. Three samples of the best mineralized material averaged about 5 per cent combined sulphides, the average assays are: Gold, 0.16 oz. per ton; silver, 0.4 oz. per ton; copper, 1.2 per cent. This material ranged in width from 15 inches to 3 feet. Several samples of mineralized rock were estimated to contain about 2 per cent sulphides. The average assays of these samples are: Gold, 0.04 oz. per ton; silver, 0.2 oz. per ton; copper, 0.2 per cent.

The mineralization exposed in the principal workings is in a zone which includes a few feet at the eastern side of a mass of quartz-diorite and extends for 15 or 20 feet and perhaps farther into altered rocks lying immediately east of the quartz-diorite. The contact, an irregular faulted one, appears to strike west of north and to dip north-eastward. The quartz-diorite is altered near the contact but appears fresh a few feet to the west. Carbonate and sulphide minerals are developed in the quartz-diorite near the contact. Dykes of porphyritic andesite are less altered than other rocks found east of the contact. The relationship of the dykes to the quartz-diorite and to the mineralization is not clearly indicated. Mineralization was not observed in the dyke-rock, but at one point there is a concentration of mineralization near a dyke. The andesite dykes were not seen in contact with quartz-diorite.

In the mineralized zone there are many fractures striking north-easterly and dipping from 75 degrees north-westward to 45 degrees south-eastward. The andesite dykes observed have the same attitudes. Fractures of another group strike north-westerly and dip from 40 to 75 degrees north-eastward. This is the general attitude of the contact and at some points a slip of the same attitude appears to form the hanging-wall of mineralization. A third group of fractures striking easterly includes members dipping steeply northward and southward, and members of low dip northward. Some of the ground is cut by a great many fractures and has been faulted along some of them. Some of the fractures are filled with gouge and some of all groups contain vein mineralization. The most abundant sulphide mineralization observed is along fractures of low dip northward. If the best mineralization is concentrated along fractures of low dip the existing workings may not have exposed the deposit adequately, since, within the vertical range of the individual workings, encountering such fractures is fortuitous. Raising or drilling long holes upward from the principal adit would throw light on this matter.

The highest exposure is at approximately 1360 feet elevation, just west of the creek. A mass consisting largely of quartz, sparingly mineralized with sulphides, is exposed for 16 feet from east to west in a trench and for 35 feet from north to south by the side of the creek gully. Roughly 450 feet north 35 degrees west from the trench, a cut at 1180 feet elevation exposes rock which for 10 feet from east to west contains mineralization. At the western end several parallel joints strike north 30 degrees east and dip about 90 degrees. In the 2 feet immediately to the south-east there is more sulphide mineralization than in the rest of the exposure. The portal of No. 1 adit, at 1150 feet elevation, is about 60 feet northerly from this surface cut. The adit was driven 40 feet south 8 degrees west thence 30 feet curving south-easterly to the face. At 25 feet from the portal, No. 1 adit crosscut an 8 inch vein well-mineralized with sulphides. The vein strikes north 75 degrees east and dips 60 degrees northward. At the bend in the adit a curving fracture strikes north-westerly and dips 50 degrees north-eastward. It contains quartz 1 to 2 feet thick. Some sulphide mineralization occurs at the hanging-wall. Beyond the bend the adit passes through a dyke of porphyritic andesite, about 10 feet wide, which strikes north 15 degrees east and dips 60 degrees eastward. At the face of the adit there is some quartz and some sulphide mineralization.

The portal of No. 2 adit, at approximately 1125 feet elevation, lies 115 feet due east from No. 1 portal. No. 2 adit was driven for about 80 feet south-westerly from the portal thence for 25 feet easterly. The altered wall-rock is cut by several shears. At 67 feet from the portal the working crossed a shear which strikes north 30 degrees west and dips from 90 degrees to 70 degrees north-eastward. What appears to be the same shear is crossed again near the end of the working about 20 feet from the bend. Here quartz and sulphides occur along the shear and from the shear to the face there is some sulphide mineralization.

No. 3 adit is the most extensive, the portal at 1080 feet elevation is about 100 feet north 15 degrees west from No. 1 portal. The main working follows an irregular course south-easterly to a point about 200 feet from the portal. Crosscuts run south-westerly from the main working at approximately 98, 145, 180 and 195 feet. The adit starts in altered quartz-diorite, then passes into rock so altered that identification is doubtful. The crosscuts beginning at 98 and 195 feet from the portal extend south-westerly into fresh looking quartz-diorite. Copper stain shows on the wall-rock outside and just inside timber which extends to 22 feet from the portal.

From 81 to 84 feet from the portal, between slips which strike north 30 degrees east and dip 75 degrees south-eastward, the rock is banded horizontally and is fairly well mineralized with sulphides. A composite sample, consisting of several vertical channels over a vertical range of 5 feet on the north-eastern wall of the adit, assayed: Gold, 0.08 oz. per ton; silver, 0.4 oz. per ton; copper 1.5 per cent. The crosscut 98 feet from the portal runs 25 feet south-westerly, extending about 10 feet into quartz-diorite. Crossing the roof of the main workings and extending for 12 feet into the crosscut, along the top of the north-western wall, banded material, containing quartz, calcite and sulphides, is developed along fracturing of low dip to the north. Several samples across the full width of the banded material, 16 to 18 inches, contained 4 to 5 per cent sulphides and averaged: Gold, 0.20 oz. per ton; silver, 0.4 oz. per ton; copper, 0.9 per cent. This mineralization does not appear in the south-eastern wall of the crosscut and may be above the roof. On this wall and below the banded material on the other wall sulphide mineralization disseminated through the rock forms about 2 per cent of the whole. The average of samples taken from both walls is: Gold, 0.03 oz. per ton; silver, 0.3 oz. per ton; copper, 0.3 per cent. Continuing to the south-east disseminated mineralization of the same character is exposed in the walls of the adit.

From a point 145 feet from the portal a crosscut runs south 20 degrees west for 10 feet along the western side of a $5\frac{1}{2}$ foot dyke of porphyritic andesite. On the eastern side of the dyke there is much quartz, calcite and sulphide mineralization, and similar mineralization is exposed for a width of 12 feet in a crosscut which extends south-westerly from a point 180 feet from the portal. This is in a section cut by several shears and the ground beyond is much broken. From a point 15 feet beyond this crosscut the working continues south-westerly as a crosscut for about 50 feet and near the end enters quartz-diorite. Quartz and some sulphide mineralization are developed near the contact over a width of 4 feet.

No. 4 adit is ^acrosscut driven 27 feet south 80 degrees west from a point at 975 feet elevation, 240 feet northerly from the portal of No. 3 adit. It exposes altered material containing some sulphides. Similar material exposed 20 feet northerly from the portal assayed: Gold, 0.04 oz. per ton; silver, 0.2 oz. per ton; copper, trace, across a width of $3\frac{1}{2}$ feet. No. 4 adit is 125 feet easterly from the cabin. Mineralization in narrow fractures is exposed in surface cuts near a small creek 250 feet south-westerly from the cabin. Other cuts a little less than half a mile northerly from the cabin expose mineralization in narrow fractures.