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VIK

DEPARTMENT OF MINES VICTORIA B.C.

Spicial Report pril 9, 1938.

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20th. 1931. by Ed Johnston of

and is at present owned by him

It may be reached by the Victoria Lumber and Milling Company grade that leads from near the village of Cowichan Lake to Camp 10, for some 5 miles from Cowichan lake to near a previous site of Camp 10. From the grade a steep foot-trail leads to the showings some 1270 feet above, at an elevation of approximately 2000 feet (barometric) at the camp cabin.

The camp and workings are on the top of a knoll that slopes steeply in a series of greenstone bluffs to the logging grade and valley of Robertson river. The hillside is quite free from underbrush but carries an open growth of timber comprising trees up to 2 feet in diameter.

The cuts are nearly all in an andesitic greenstone in which nests of rayed actinolite needles and patches and veinlets of epidote are common; such mineral developments are probably remote manifestations of contact metamorphism found developed to a higher degree some 2 miles south-eastward. In a section extending from the camp cabin south-eastward towards the cuts, the greenstone has been intruded by a very irregularly-shaped band of feldspar

## VIKING

The <u>Viking</u> mineral claim was located on April 20th, 1931, by Ed Johnston of Cowichan Lake Post Office, and is at present owned by him.

This claim covers a steep hillside on the east side of the Robertson river about  $2\frac{1}{2}$  miles due south from Cowichan lake.

It may be reached by the Victoria Lumber and Milling Company grade that leads from near the village of Cowichan Lake to Camp 10, for some 5 miles from Cowichan lake to near a previous site of Camp 10. From the grade a steep foot-trail leads to the showings some <u>1270</u> feet above, at an elevation of approximately 2000 feet (barometric) at the camp cabin.

The camp and workings are on the top of a knoll that slopes steeply in a series of greenstone bluffs to the logging grade and valley of Robertson river. The hillside is quite free from underbrush but carries an open growth of timber comprising trees up to 2 feet in diameter.

The cuts are nearly all in an andesitic greenstone in which nests of rayed actinolite needles and patches and veinlets of epidote are common; such mineral developments are probably remote manifestations of contact metamorphism found developed to a high er degree some 2 miles south-eastward. In a section extending from the camp cabin south-eastward towards the cuts, the greenstone has been intruded by a very irregularly-shaped band of feldspar porphyry which has an average north-westerly strike and an average width of some 40 feet. This body or dyke is probably not directly responsible for either the development of epidote and actinolite or the mineralization of the shears inasmuch as (1) it is widely cut by veinlets of epidote, trending, significantly, across the dyke and in the same general direction as the main shears, i.e., north-easterly and as (2) the shears from a couple of the cuts strike out from the greenstone and into the porphyry.

The main workings consist of 3 cuts; the most westerly of which, is some 60 feet higher in elevation and 450 feet in a direction south 63 degrees east from the camp cabin. This cut has been driven in a direction north 32 degrees east for 16 feet into the steep hillside to give a face some 20 feet high. The floor and face of this cut expose a slightly shattered zone 12 inches wide containing disseminated chalcopyrite and a 3-inch vein of quartz; the structure strikes north 32 degrees east and dips 80 degrees south-east. A 12-inch sample taken across the full width of sheared rock and quartz vein assayed traces only in gold and silver and 3.0 per cent. copper. The mock formation in this cut is andesitic greenstone.

A second cut, 31 feet in a direction south 42 degrees east from the first, has been driven north-easterly into the hill for 8 feet. The walls of this cut show an 18-inch zone of shattered greenstone striking north 17 degrees east and dipping 30

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degrees south-east. Towards the face of the cut this zone carries 4 one-quarter inch chalcopyrite veinlets, however, towards the portal, these coalesce, both towards the foot and hanging-walls and pass outwards from the andesitic greenstone of the face across and into a north-westerly trending band of feldspar porphyry close to the portal. A sample taken across the full 18-inch width of the shear zone assayed: Gold, trace; Silver, 1.0 ounces per ton; Copper, 1.0 per cent.

A third cut, 40 feet in a direction south 10 degrees east from the second, has been driven 10 feet easterly into the hill. This has been driven diagonally across a 2-foot shear zone striking north 40 degrees east and dipping 35 degrees southeast, that contains 2 irregular quartz lenses up to 6 inches in thickness towards the footwall and 3 1-inch stringers of quartz towards the hanging-wall. A sample taken across the full width of the shear assayed: Gold, trace; Silver, .6 ounces per ton; Copper, 0.2 per cent. The cut is in greenstone, although the south-easterly extension of the porphyry band mentioned above lies about 8 feet to the south-west.

A small fourth cut has been made some 28 feet above in a direction north 34 degrees east from the last, and approximately on the same shear zone. The south-easterly wall of this cut shows a 5-foot width of banded mineralization and silicification apparently replacing, in part, the material of a former shear zone. The following samples were taken across the south-

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- (1) Across 12 inches of foot-wall greenstone, containing disseminated grains and hair-like stringers of chalcopyrite, which assayed: Gold, trace; Silver, 0.4 ounces per ton; Copper, 1.4 per cent.
- (2) Across a lens of heavy chalcopyrite, 10 inches thick but lensing out up the dip to mere stringers 4 feet up; the 10-inch sample assayed: Gold, trace; Silver, 1.0 ounces per ton; Copper, 5.96 per cent.
- Across a 10-inch chalcopyrite-quartz lens, which assayed: Gold, trace; Silver, trace; Copper, 0.9 per cent.
- (4) Across the 8-inch hanging-wall section of quartz, rich in greenstone inclusions which have been largely replaced by chalcopyrite which assayed: Gold, trace; Silver, 0.4 ounces per ton; Copper, 4.7 per cent. This zone, in spite of its width in this cut, appears

to die out just north-eastward up the hill.

In a few places at the bottom of low bluffs on the steep hillside below the above-described cuts, pop-holes have been blasted on miscellaneous tight shear zones in the greenstone; the greenstone in these shears is frequently epidotized and replaced by patchy stringers of chalcopyrite. In one

shear a splash of magnetite was seen; it is probably of contact metamorphic origin; inasmuch as most material has been found associated with similar rocks in the same general area.

It is to be noted that the continuation of shears, as well developed and mineralized as they are in the four main cuts described, has not been found in scratching the ground either above or below the main cuts, although it is probable that the breaks do continue, but greatly reduced in width and mineral content.

Respectfully submitted,

Associate Mining Engineer.

April 9th, 1938.