

drift has been put in 25 feet to the north-east. While this work has been performed mainly in the thoroughly leached soft talcy material and quartz which forms the vein filling at the surface, and which carries only small values in copper and silver, a considerable quantity of high grade ore in the form of seams and bunches was met with during its progress, notably at depths of 35, 60 and from 80 to 90 feet. A little native copper was found at 35 feet and nearer the surface, but below this the ore assumed the form of massive hornite and copper glance imbedded in the talcy matrix. From 80 to 90 feet down the shaft was entirely in this material, which appeared to be dipping towards the south wall at an angle of 20 degrees, and would average about 7 per cent copper. As depth is attained the amount of quartz in the gangue appears to greatly increase, and in the bottom (where the values are again low) it forms the greater part of the vein-filling. The result of assays of selected samples of the ore from this shaft is given below:

1.—Quartz and native copper, 30 to 35 feet down, gold, trace silver, ounces per ton, 1.60; copper, per cent, 19.3.



Ten Mile Creek Camp, Nicola.

2.—Bornite, copper glance, etc., 85 feet down, gold, trace; silver, ounces per ton, 5.00; copper, per cent., 37.1.

Only surface water has yet been met with in this work, but from the general appearance of the ore now being encountered and from the contour of the surface, I should not expect the permanent water level to be at very great depth. The depth of this permanent water level is a most important factor as regards the future of the property, as until it is reached by the workings, the value of the claim one way or another cannot be said to be definitely proved. The vein filling as seen in the existing workings bears every evidence of having been extensively leached of its copper values, which will probably be met with as a secondary enrichment and in a concentrated form at or near the water level. The bunches and stringers of high grade bornite and copper glance, and particularly the very large one encountered between 80 and 90 feet down, are of most encouraging promise as to what may be expected when greater depth is attained.

It will be seen from the above that this is a property of very great possibilities but with its true value as yet wholly unproved. The parallelism of conditions with those of Butte, Montana, is remarkable. There is a similar series of parallel east and west fissures in granite, a similar shattered granite and quartz vein filling, and the same minerals making their appearance with depth. While the vein filling as yet (with the exception previously mentioned) is low grade in character and has been extensively leached of its copper values, its whole appearance as seen in the various workings and particularly in the last thirty feet of the shaft, is of a most lively and promising description. Taking everything into consideration, I believe there is here one of the best possible mining chances and that the I. X. L. is a prospect which with further development at depth, has great promise of making a very valuable mine."

In taking into consideration this camp, a most important point to be considered is the existence of a good coking coal within a distance of twelve miles and surrounded by such natural conditions as would make the establishment of a local smelting industry

a very simple matter; in fact, given adequate transportation facilities there is every reason to believe the natural conditions in this camp to be such as will in the future render possible the treatment of as low grade copper ores as are handled at any other point in Western America.

About 18 miles north-west and in the same extensive belt of granite lies the Highland Valley Camp. This mineral belt is about five miles in length and two in width. The elevation here is from 5,000 to 7,000 feet above sea level. Amongst the numerous locations in this camp the Transvaal group has probably the largest surface showing.

The lode on this property appears to be very wide, and is exposed by numerous open cuts along its strike. From three exposures showing, as they do, a good deal of ore on the surface, one cannot fail to be impressed with the possibilities of the claim.

The general characteristics are much the same as in the preceding descriptions as to occurrence of ore, with the exception of the minerals, which are more