Appendix B

Quatsino Mining & Reduction Co has received the following letter from the Geologist, Mr W J Sutton, Maine: [*Colonist*, 25.11.1900]

Sirs: In reply to your request for a statement of my opinion regarding the mining property of the Quatsino Mining & Reduction Co Ltd, at Quatsino Sound, I beg to submit the following:

During the month of May last I made an examination of the ore deposits on the New Comstock claim, situated on the north side of Canyon Creek, on the Southeast arm of Quatsino Sound, which I understand has been purchased, together with the surrounding properties, by your company. As my visit was prompted solely by a personal desire to see the property, my examination of the same was not exhaustive: consequently I cannot prepare a full report without another visit.

At that time a number of open cuts and short drifts had been made in the face of the hill, exposing considerable bodies of sulphurets of copper and iron. At one place in particular on the New Comstock claim there was a face of ore extending along a drift for about 20', carrying a good % of copper.

Several smaller cuts had been made within a few hundred feet of each other, all disclosing more or less copper ore.

From the small amount of development work, it would be difficult to make an accurate estimate. Judging from what was in sight, I am of the opinion that several thousand tons might be taken out at small expense, which run from 5 to 10% in copper. Not having made a careful sampling, I could not give an estimate of its gold and silver contents.

The ore consists of chalcopyrite, pyrite and pyrrhotite, with gangue of massive garnet.
The hillside in which the ore bodies occur appears to be the periphery of a large granitic intrusion in a belt of limestone. At the foot of the hill and along the shore for several miles to the North there are good exposures of cherty limestone (likely carboniferous), which is cut by numerous porphyry dykes: no doubt tongues from the central granite area, which extends to the South of Canyon Creek. The country rock in immediate contact with the ore is a light-colored compact felsite.

The ore deposition appears to have taken place through the agency of ascending aqueous solutions, and has the character of what is termed replacement deposits.

It is possible that the ore bodies may have been formed along the contact of the eruptive rock and the limestone, and become exposed in their present position through the erosion of the limestone, as there is evidence of very extensive erosion over that portion of Vancouver Island.

A notable feature of the surface outcroppings is the absence of oxidized material or gossan, which may be accounted for on the basis of very rapid erosion.

The locality has undergone several very pronounced volcanic disturbances, rendering favourable conditions for the deposition of ore bodies. The granitic intrusion before mentioned most likely took place before the coal measures of that region were laid down. The coal measures are regarded as belonging to the cretaceous period and contemporaneous with those of Nanaimo. After the deposition of the coal measures, and probably during late tertiary times, another great disturbance took place, as the coal measures have been cut by numerous trachytic dykes, with the effusion of several large bodies of trachyte, notably Haddington I and Mt Dick (a hill about 5 miles to the West.)
Your property is beautifully situated for economical working - in fact an ideal location in that respect. The hill is very steep, necessitating very short tunnels. I should recommend an aerial tramway for conveying the ore down the hill to the shore, where there is deep water for any vessel. The distance would be about a mile, with a fall of about 1,000'.

Canyon Creek was quite a large creek at the time of my visit, and I understand that it maintains its strength well during the summer season. It has a number of large falls and may be utilized for power.

The most economical way of handling ore of this character would be to convert it into copper matte on the ground, as is now being done on Texada I. The Quatsino ore deposits are in many respects like those of Texada I, which are intimately associated with dykes of felsite, and close to the contact of a large intrusion of granite in limestone. The mineral bornite is found there in addition to those occurring at Quatsino, but this is generally regarded as a secondary mineral, due to alteration from surface waters.

The copper deposits of Butte, Montana, are of a somewhat similar character, namely, replacement deposits in a highly siliceous eruptive.

At Quatsino there is evidence of metamorphism on a large scale, and so far as could be judged from surface indications, I feel assured that you have a property worthy of extensive exploitation, and one which I can commend to the attention of the mining investor. Yours truly, William JSutton.