

WESTERN COPPER GOLD MINING PROPERTY

PROPERTY HISTORY

by

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Written approx. 1910 - 1914

UNDER OPTION FROM MILTON MELDRUM AND ROBERT MELDRUM

to

FREEMONT GOLD CORPORATION	50% Interest
ALCOVE GOLD CORPORATION	25% Interest
MARUM RESOURCES INC.	25% Interest

NOTE: Ore values in this report were given in dollars per ton, when gold was \$19.00 an ounce. They are given at today's prices [Canadian \$] in brackets.

A RICH MINING PROPERTY

THE WESTERN COPPER GROUP OF MINES is situated on the Khutze River in the Skeena Mining Division, Range Four, Coast District, about four miles east from the head of the Khutze Inlet.

Khutze Inlet is a fine body of water five miles long where the largest ships can navigate and anchor safely at any time of the year. This Inlet opens into Graham Reach. Graham Reach is a body of land locked water between princess Royal Island and the mainland. Five miles south from the mouth of Khutze Inlet is Swanson Bay, where there is a large pulp mill and saw mill now being operated. This channel is navigated by all the Alaska boats as well as the boats to Northern British Columbia. Almost every hour of the day there are boats passing the mouth of this Inlet. Khutze Inlet is situated about three hundred and fifty miles north of Vancouver, and one hundred miles from Prince Rupert.

This group contains forty-eight (48) mineral claims, which have all been surveyed and a large number of them Crown Granted. A large amount of money has been expended on the development of these claims with good results.

There is quite a history connected with this mine. About eight years ago, an old Indian who used to trap on the Khutze River and was probably the only one acquainted with the Valley, in going up the river one fall to set up his traps discovered a large block of ore that had been broken off the ledge and carried down the canyon by a slide to the banks of the Khutze River. This piece of ore would weigh several tons.

The ore is composed of white quartz, copper pyrites and iron sulphites, and contains high values in gold and copper. The Indian brought a piece of this ore to Vancouver and on account of its yellow appearance he thought it was solid gold. He showed it to a prospector, who had it assayed, and found that it carried high values, and paid the Indian one hundred and fifty (\$150.00) dollars to show him where he got it. The next spring two prospectors, Mr. A. McLeod and Mr. Meldrum, started out to find the hidden treasure. They found what the Indian had told them of without any difficulty, and after searching about a month, they came on the ledge about 1,700 feet above the river in the mouth of the great canyon. They at once started to prospect the mountain, did an amount of work on the vein and located a large number of mineral claims. A year afterward, they offered the property for sale and Messrs. Martin, Shannon & Mathers, well known businessmen of Vancouver City, sent Mr. William Shannon of Vancouver, who is a mining expert of over forty years standing in British Columbia, to inspect the property. After receiving his report, they were so well satisfied that they closed on the property at once. Messrs. Martin, Shannon & Mathers are the sole owners of the property. They are men of means and able to carry on mining operations without any assistance from others. These parties started five years ago to prospect and develop the mine in a systematic manner, and have spent large sums of money in development work, but they proceeded so quietly that there has never been a newspaper write-up on this locality, as the parties interested did not wish to raise any excitement until they had secured their titles to all the mineral claims.

In addition to the mineral claims, they have purchased from the Government over three hundred acres of land, some of which is situated at the mouth of the Khutze River at the head of the Inlet, where there is a quantity of delta land, which, by reclaiming from the tide by diking, would make the very best of agricultural land. A part of this purchased land is along side the mineral claims, and they now have it under cultivation, producing all the vegetables used in the mining camp, and can increase the output according to the demand for them. These parties have also obtained from the Government a charter for a road to be built into their mine, which they intend constructing in the near future.

THERE ARE THREE DISTINCT VEINS OF ORE RUNNING
THROUGH THIS GROUP OF MINERAL CLAIMS.

NUMBER ONE

The first is situated near the base of the mountain, just above the Khutze River and is about six hundred feet above sea level. It is a well defined vein as far as it has been proved, consisting of white milky quartz and copper pyrites. There has not been much done on this vein, only two small tunnels have been constructed about 18 feet deep each. The walls are well defined. The ledge is about six and a half feet wide, but the values so far are very low, although from the appearance of the ledge, with development work, it may prove to be of commercial value.

NUMBER TWO

The second vein is situated at a height of from 1,800 to 2,700 feet above sea level. This is a true fissure vein and has been traced for over two and a half miles along the mountain.

NUMBER THREE

Number three is situated higher up on the mountain, being about 4,000 feet above sea level, but very little work has been done on this vein, just enough to prove that it is heavily mineralized. A fairly good assay has been taken from this ore. The ore consists of chutes of iron pyrites and copper pyrites. The walls of the ledge have not been proven; this remains to be done in the future. This vein is visible in several places along the side of the mountain.

The group of mineral claims is divided in the centre by what is known as the North Star Canyon. This canyon is cut to a great depth, coming from the top of the mountain. The mountain at the head of the canyon is over 7,000 feet above sea level. The work that nature has done in this canyon has aided greatly in the development of the ore as it is cut to a depth of over twelve hundred feet.

Vein number two, which we are now describing, is where almost the whole of the development work has been done. In the bottom of the North Star Canyon, there has been a tunnel constructed which cross-cuts the vein 185 feet below the surface. The mountain rises very steeply above the mouth of the tunnel.

The vein at the end of the tunnel is five feet wide and has a dip into the mountain of 37 degrees, and consists of iron sulphites, copper and iron pyrites, with a quartz gangue, and six inches of copper glance on the foot wall. The assays show very high values in gold and copper with a small amount of silver.

This canyon cut the ledge to a great depth and exposed the ore. The vein at the bottom of the canyon, and on both sides, is from six to six and a half feet wide. The vein is a strong fissure and in every case dips into the mountain, cross-cutting the formation, which is granite, and shows copper glance, cuprite, melachite, bornite, copper and iron pyrites with a quartz gangue. Nature has done most of the mining in this canyon, and the ore is opened hundres of feet deeper than in any other part of the mountain. Here is where the richest ore is found, proving that with depth the value increases. Some of the assays from here have gone over three hundred (\$300.00) [\$9,473.00] dollars in gold alone. On the west side of this canyon the walls are almost perpendicular but on the east side it is more gradual. The ore is visible on both sides of the canyon.

In describing the work on the west side of this enormous canyon twelve hundred feet above the tunnel the vein here in one place is twelve feet wide. From the big canyon westward the ledge has been opened for over three quarters of a mile. A number of tunnels have been constructed which cross-cut the vein and in one of these tunnels there is forty two inches of the richest ore in sight. The ore has been uncovered for hundreds of feet at this particular point, and shows the ledge to be over five feet wide, and being composed of quartz, iron sulphites and copper pyrites, which carry good values. The mountain is very steep and precipitous.

A trail has been constructed along the mountain on the ledge, and the rock blasted to make the trail broke on the ledge, which assisted considerably in making the trail also in the development of the ore.

At different places on the development work there are deep canyons coming out of the mountain, which is a great assistance in developing the ledge, as most of these canyons cut the ledge at a great depth, and in every case the ore is richer than on the surface.

At the west side of the development work, still going towards the salt water, in the indications in the formation for mineral is very favorable, and the ledge may be discovered later to the west of where this work terminates, or other ore chutes may come in to take its place. Be that as it may, there is strong evidence that the country is richly mineralized.

East of the big North Star Canyon, the ledge has been opened up for a distance of over three quarters of a mile. The country to the east of the canyon is not so precipitous as it is to the west, and the trail on the ledge running eastwards starts at the bottom of the canyon. A great deal of development work has been done in this part. A number of tunnels have been driven and cross-cut the ledge. Just east of the canyon the ledge has been bared at one place for 427 feet and the ore is visible the whole of the way, and of high value. The dip of the ledge into the mountain is from 31 to 40 degrees, 31 being the flattest, which gives it a greater bearing depth by far than the vertical. In many places the ore vein has been thrown on the outside, but in

no place does it remain so only for a few feet, for all the tunnels that have been put in have proved that in a very short distance the ledge is found undisturbed, maintaining its natural dip, and the walls are well defined.

The width of the ledge here is much the same as on the west side of the canyon being from four to seven feet, and the values remain much the same, and the formation of the ledge and the country rock are similar. At the very east end of this development work, the last tunnel constructed from a sample taken across the face of the ledge, the values were twenty-nine dollars and twenty-five cents (\$29.25) [\$926.00], principally gold. This work goes eastward to a big canyon similar to the North Star Canyon, beyond which no work has been done, but the ledge has been traced along the mountain beyond this point for a great distance, and seems to be about the same size and same materials as part of the vein which we have just described, but the hematite of iron predominates in the formation of the ledge. Following to the east of this point the mountains are grey granite towering to a height of 9,000 feet above sea level with enormous intrusions of hematite of iron, in connection with the mineral zones are found with the mica schists.

The strike of this vein is north-east with a dip into the mountain averaging 35 degrees to the south.

We here give an example of 37 samples taken at different places on the ledge by well known mining and metallurgical engineer, Mr. Ronald C. Campbell-Johnston, which average fifty-four dollars and seventy five cents (\$54.75) [\$1,730.00]. There has also been about five tons of ore, without being sorted, shipped to the Tyee Smelter and went thirty-four dollars and nine cents (\$34.09) [\$1,075.00] to the ton.

There are unlimited water powers in the vicinity of the mine. The parties interested have secured one which we have inspected, about a mile from the mine. This water power has a capacity at a moderate stage of water of about 10,000 H.P. This water power could very easily be installed as nature has made the dam, and all that is necessary is to install the machinery to generate any power that may be required to work the mine, run the cars or furnish light.

The construction of a road from the saltwater to the mine would not be expensive. The country is level and no engineering difficulties in the way. A railway could be constructed and run by electric power. This road would come within 2,500 feet of the ore, and from there up the mountain to the ore there would have to be an aerial tramway installed, or an aerial tramway might be constructed the whole way to the salt water and run by gravity by keeping on the sides of the mountain. This is a matter to be decided by a competent engineer. In Khutze Valley, there is an abundance of timber for all mining purposes. On some of the mineral claims, there is the finest timber in the country, and the owners of the mine own it for mining purposes.

The climate here is very favorable for mining, some seasons are wet and the rainfall there is considerable, but when the mine is opened and the men are working under cover, this will not be a hindrance. Some winters the snowfall is heavy on the mountains, but as a rule in the valley, the snowfall is light, as the valley is on a level with the salt water.

The means of transportation will be by water, which is the cheapest and most efficient. When the mine is worked, the parties interested will not have to pay the high rates which the railways demand.

There is no mining locality on the Pacific Coast which has such a large body of high grade ore in sight, and there is no doubt that with future development this mine will prove to be a great dividend payer.

Wm. Shannon

SUPPLEMENT TO SHANNON REPORT ON KHUTZE INLET

Referring to my report on the Western Copper Group of mines, I will try to supplement by giving a little more information regarding how the development work has been done, and where the ore occurs and the size of the vein in different places.

I have superintended this work and I am more familiar with it than anyone else.

As I mentioned in my report the North Star canyon divided our property in two. On the west side of this immense canyon the walls are perpendicular, and we have no communication from one side to the other. This I have explained in my report, but on the east side of the canyon the walls are not so abrupt and our work starts from the bottom of the canyon following the vein eastward for about three quarters of a mile.

In the bottom of the canyon along the east side of the wall the ore is 6 feet wide for about 25 feet. The ore is very rich. Here is where the smelter test was taken and also several assays which are shown on the assay sheet. The gold values here in places were over three hundred dollars (\$300.00 US) [\$9,475.00] to the ton.

Following eastward across the floor of the canyon the vein narrows down to about 18 inches. From here going eastward for about 250 feet the vein has been decomposed, and seems to have been leached, the only values to be found here are contained in an iron formation, which is solid and assays over one hundred (\$100.00) [\$3,158.00]. The vein is composed of quartz and ore occurs at intervals.

Beyond this, going eastward, there is about 40 feet of rich ore cropping out, being from 18 inches to 3 feet wide. Then beyond from this point still going eastward, a horse occurs, which splits the vein into three parts. The widest of this vein is about 15 inches of rich ore which assays over ninety dollars [\$2,842.00]. It comes together again and forms a vein of about 4 1/2 feet wide and about 2 feet of pay ore, which assays over seventy dollars [\$2,210.00].

Continuing from this point eastward the vein has been opened for a distance of about 420 feet. The face of the vein has been cut down to the foot wall and four or five small tunnels have been driven on the vein which shows from 18 inches to 2 1/2 feet of ore; the balance of the vein is of quartz, gangue and does not carry much value.

From the end of this point, still going eastward, we came to a bench that is flat and very heavily timbered; there has been no work done on this flat for about 350 feet. The vein is very strong and is opened to the beginning of this flat, and also opened to the east side of it, were the vein on the outside is about 7 feet wide and carries fairly good values across the whole vein. Here the vein is somewhat misplaced or broken. A tunnel has been driven here about 40 feet and shows the vein to be about 4 1/2 feet wide with the natural dip into the mountain of about 35 degrees.

From this point eastward for about 250 feet, we cross a steep canyon where the vein is visible on the surface and has been opened by constructing a trail on the vein across this canyon. The vein here is very narrow being from about 8 inches to a foot wide. Beyond this, still going eastward the vein increases in size in places being about 5 feet of white quartz. Here there has been two small tunnels driven into the mountain on the vein. The walls of the vein are well defined and it has the natural dip of 31 degrees into the mountain but the ore does not increase in size at this point.

Beyond this point, going eastward for about 250 feet, the vein is composed of quartz and crystallized lime with small streaks of pay ore through the vein from one to three inches each. For about 350 feet eastward from this point, the vein is only barely exposed, and there has not been very much work done, but at the end of this point, there is a tunnel 49 feet long which follows the vein into the mountain, but at this point being on the edge of a but canyon, the vein has been misplaced and is dipping towards the canyon; at the end of the work in this tunnel the vein again has its natural dip into the mountain. The ore at this point is rich but considerably broken and not very wide in any place.

From this point eastward for about 250 feet, there is a trail constructed over this big canyon; the vein crops out in different places and some parts of it show good ore. At the side of this canyon stands one of our camps where the men lived when doing the work. From the showing of the work done, the vein seems to go under the camp and across a bench where there is some heavy timber, to the bank of another canyon. Here the vein crops out again. There has been one large cut made at the edge of this canyon, but we did not come on any rock on place. The vein matter which is in evidence has, doubtless, slid off the true vein from the east side of this big canyon. The vein has been traced about half a mile, but no work has been done on it. We have however, got some rich ore from it. On places, the ore is from 15 inches to 18 inches wide, but it is only in a few places that the vein is visible. The rest is covered over with country rock.

From this point eastward towards the big Hvas Mountain, the country is very steep and very difficult to prospect as the mountain rises abruptly. The formation here is softer and all stained with hematite of iron. We have found quite a number of ore chutes; one, on the Jane Claim, the last on our group, is 8 feet wide in a white iron and assayed \$8.40 [\$265.00].

To the east of this point, there is a vein of graphite, which is from 2 to 3 feet wide and has been traced for over a mile long; This occurs in the schist formation. Lying parallel to this graphite vein is a vein of white quartz containing both copper and gold. The country here is most interesting, showing every indication of being highly mineralized, but there has been but very little prospecting done in this part.

Coming back to the big canyon, we have to describe it as the work was done. As we said in the commencement, the wall of the canyon to the west side, is perpendicular for about eight or nine hundred feet. We constructed a trail on the west side of the canyon and had our camp at the head of this prospect and here is where we did some of our most effective development. The vein can be seen from the bottom of the canyon running up the wall to the top of the canyon. Some places, it is wide - in one place it is over 2 feet wide,

seemingly to be of good ore. Right above this wide place, we have done quite a lot of work and the vein where we did the work in one place is 5 feet wide. This runs about 150 feet. We have put in a small tunnel at the upper end of this ore and we have a showing of 42 inches of solid ore, which assays over one hundred and five dollars [\$3,315.00]. Here a horse occurs which runs about 150 feet. The formation here is softer than on the east side of the canyon, being a decayed or greenish granite. The horse we have mentioned, has three veins of ore, one of them about a foot wide and the other two are smaller. They come together in a rich body of ore. This runs for a distance of about 150 feet and then narrows down to about 18 inches of good ore. The vein of course is much wider. The assays here sum from \$70.00 [\$2,210.00] to \$130.00 [\$4,105.00] in gold and copper. By referring to my report, which should be read with this supplement, that our longest tunnel is situated in the big canyon, this is about 185 feet long and cross-cuts the vein at the deepest point on the mountain.

Beyond this point for about 300 feet, there has been several small tunnels put in and an open cut about 200 feet long which exposes the ore. The ore is very rich where exposed and about 4 1/2 feet wide in pay ore. Here there is evidence of a cross vein coming in and in fact in different places in our work, the vein gives evidence of other cross veins, but so far we have not done much work to test this matter.

Beyond this point, still going westward for about 400 feet, we have opened the ore at several points from 20 to 40 feet in length and put in four or five small tunnels and cross cut the vein. The vein has the natural dip into the mountain. The walls are well defined but the pay ore is very narrow, not over 6 inches at this point, but there are some smaller streaks of ore in different places through the vein.

Beyond this, we go to a big canyon. Here the ore crops out in a bluff and also in the bottom of this canyon, and is rich and appears to be a large body. Here we think we have evidence of a cross vein coming in again. From this point, we think would be the best to attack the ore in the canyon. This point would be about 1,500 feet west of the big canyon. Of course, previous to putting in a working tunnel deeper work would have to be done on the vein, but by going down on the vein a couple of hundred feet and if the ore at that point is found to be satisfactory, than a working tunnel might be driven from a level down the mountain, which is almost perpendicular, and run under the vein and make an upraise and we might commence shipping from this point and still following the ore, keep on eastward to the big canyon.

Beyond this point, still going on westward, we have numerous open cuts and tunnels. Some of them show good ore, while others do not show much value, although the vein looks well and has the natural dip, and the walls are well defined and it is all in a quartz gangue.

Beyond this point, for about 500 feet, we have put in a number of small tunnels and open cuts. In one place, we found good ore about 18 inches wide and about 60 feet long. It occurs in a vein about four feet wide. A short distance from this, we have a cut in about 40 feet long which shows very good ore about 12 inches wide. There are some small ore chutes through the vein in other places but not enough to make it of any commercial value. We have done quite a lot of open work beyond this, but have not determined whether we are

on the vein or not. We have opened up several ore chutes where we have got good ore, but have not proved that it is the same vein we are now working on. The main fissure vein that we have here been describing, we have opened and proved for about a mile and a half. To the west of this, we have found ore in different places, but have not proved whether it is the same vein we have been working on or some other chutes.

I have tried to describe our workings but it is a very difficult matter to describe so that anybody would really understand it. The only way that anyone can understand our working is to make examination. We have very little deep work done on our ore. Of course the big canyon has assisted us a good deal but a preliminary examination of a few days would give a man a pretty good insight into what we have on the surface.

On the mineral claims there is over twenty million feet of good timber consisting of spruce, red and yellow cedar, alaska pine and hemlock. It would be sufficient for all mining purposes for all time to come and according to our mining laws, the timber goes with the mine.

The Granby smelter is situated less than 200 miles from the Western Copper Mines. All this distance will be inland waters, where a barge can carry ore safely at any time of the year. The Granby smelter will be finished and ready to treat ore by next may. They will have a capacity of 2,000 tons per day. This will be a great advantage to parties mining in the locality of Klutze Inlet.

Wm. Shannon.