

RE PORTO RICO

Extracts from letters of Samuel L. Long, the
Company's Manager prior to the closing down of the
property

October 20th, 1899.

John Morrish, Esqu.
Worcester House Walbrook,
London, E.C.

Dear Sir:

I said in mine of the 10th inst that I would write in a few days re the No. 6 level, but I have been very ill from a chill I got on my last trip to town with the bullion. I now enclose a plan showing the position of the No. 6 tunnel, and also the existence of a dyke which we encountered while prospecting at the No. 4 level, this dyke intersects the vein and dips as shown on plan, thus the ore chute which on the No. 3 level is 450 feet long gets longer and longer as she goes down the intersecting dykes at each end of the chute dipping from one another. I have made a careful survey of the strikes of the dyke and our lode and calculating the position of the intersection at the No. 6 level, I have started the tunnel to intersect the vein a little on the inside of the intersection, on my calculation the tunnel will intersect the lode at about ⁴³⁰~~4230~~ feet, I started the tunnel some distance off the strike of the lode, so as to act as a crosscut, as there may be a chance of crosscutting the continuation of the lode, on the near side of the dyke. The length of the ore chute on the No. 6 level would be 950 feet as near as one can calculate which would mean a block of ore 700 feet x 310 feet and taking the average at 18 in, thick would represent 25,000 tons, the thickness

32,500
43,400

24 in. would I am sure be an under estimate as the vein up to the present has widened with depth. There seems to be no doubt about the quality of the ore holding good, as the ore we encountered on the No. 4 level is as good looking as any we have ever had. You can see from this the considering this ore chute alone, that there is quite a mine here, and then considering the possible developments of the lode showing on the apex there are exceedingly good prospects for the property, if the necessary funds can be set apart for development. In my letter of the 2nd Sept. I stated that there were 5700 tons or ore in sight which would average in value to what we have been running on: of course the estimate of the value of this ore was based upon the way the ore has been keeping up its values all along, but there is always the possibility that the ore may become poor at any time, and as we now have no other reserves to fall back on, stoping being now practically confined to the no. 3 level, there may be months when we would run behind. Now in the event of such happening, I want to understand definitely, whether the Company would provide the funds necessary to carry on the development, or would they close down the property? My reasons for asking this question are as follows:- it will take from four and a half to five months to reach the ore chute, with the No. 6 tunnel, and then we have only proved that we have a find body of ore to work on. But to use this ore, we must drive our tunnel ahead on the lode, say 200 feet before commencing to stope, as the mining and development would interfere with one another. We may also (if we can pay the expense of it) have opened the lode showing the apex in the No. 3 level. Then by some unforeseen reason the ore which we have at present in sight become narrow or loses its values and we cannot pay expenses, now by this time we would have reached a point, when by the expenditure of a comparatively small amount of money, we could change the property from a good prospect to a good mine, then if the necessary funds were not available, and the mine had to be closed down, you will see the position, - the

reserve of ore will all have been worked out, and we will be on the point of opening up large new reserves; and are we going to throw her up then, for lack of a small expenditure, compared to the profits to be derived by going ahead? Since I came on the property I have devoted my whole time and kind to it combining the offices of manager, assayer, surveyor and book-keeper and I will say that I don't believe that there is a mine operating in B.C. which has been run more economically than it has, since I came here, and I would naturally like to know, what hopes we had of being able to make a good mine of her but I don't want to see her abandoned, when we have bright prospects, and let another reap the benefit.

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It is a great disappointment to have to shut the mine down now that everything is in such good shape for continuing the development; everything is in first class order for the coming winter, and a wood supply on hand which will last till the end of June. The No. 6 tunnel has been driven a distance of 100 feet, having a further distance of about 330 feet to drive before reaching the ore body, to use this ore body, it would be necessary to drive it some 300 feet and then make a raise of 310 ft. to the No. 3 level for ventilation, making 940 ft more or less of work before stoping. By putting two machine drills at this work, it would be completed at the rate of 160 feet per month, or in about 6 months, at a cost of say \$25,000.00. This expenditure would also cover developments in No. 3 tunnel, to prove the existence of the continuation of the lode beyond, showing on the apex. The expenditure of this sum would make a mine of your property, and would increase its value to an extent beyond all proportion to the sum necessary to bring it to this state, while leaving her in the present state with practically no ore in sight, she is of no great value. I would implore of the Directors for their own sake and that of the shareholders to get the money together by some means, and continue the

development to the above extent at least. You understand that if we close down the mine next month and cease hauling freight over the road for a few days, the road will get blocked with snow and the mine cannot again be reached till the snow goes in June. It also always costs considerably to start things going again after being shut down, machinery etc. get out of order, and everything is in such good running order now, a splendid wood supply on hand, comfortable quarters for the men and everything in shape so that expenses for the winter would be at a minimum, and it would be a great shame for want of 5000 pounds to shut down. I wish I had it myself to help things along as I am absolutely certain of a bright future for the property, ^{if} of the development can be done. We have as long a pay-ore chute as one could wish to see without a break, and the strong dolo showing on the apex which is as promising or more so than the present lode is as yet undeveloped. When this latter were struck in the continuation of the No.3 Tunnel the would be a much longer length of drive on it than we have had on the present lode. I have written the above to justify my policy of getting everything in shape for this winter work, never imaginign, ^{1005 10105} that for the want of a comparatively small outlay at a time of vital importance such as the present, the Company would not render some assistance.

At the end of this month I will have done since I came here about \$3500.00 worth of development, made necessary improvements in men's ^{quarters} ^{other} dquartyers, and toher buildings, ^{new} now blacksmith shop at No. 3 and other improvements - \$2000.00, ^{cash} and will have on hand wood to the value of \$7200.00.

If the Directors can see their way to keep the development going, the mill could be run until the ore was exhausted, which would provide \$4000.00 or perhaps \$5000.00 to help, but unless they so decide, and ^{cable} cabel me to that effect, I will close down the mill towards the end of December, as I do not want to reported that the ^{picked} eyes have been pick out of the mine.

I hope sincerely that the necessary funds can be got together, and that we can continue development without closing down everything as once closed for a few days, there would be no access over the road till next June.

I make this last appeal to the Directors, knowing as I do the prospect and being assured of a bright future for the property. Any letter I can write later on will be too late, and I will ask you to lay this letter before them immediately for their ^{decision} ----- cable me immediately when they arrive at a determination. I have written this letter and my advise entirely in the interest of the property, as you doubtless know personal interest cannot come in, as one's lines are not laid in pleasant places on this snow-bound mountain, where one sees a stranger once a month and nothing to interest one but one's work.

I will write report for the year ending Sept. 30th as desired and send it to you in a few days.

I have not yet written out my October accounts, pending hearing from you as desired in your of Oct. 18th.

Yours faithfully

"Saml. L. Lond".

November 27, 1899

The Secretary, Canadian Pacific Exploration Ltd.,
Worcester Co.

Walbrook, London, E.C.

Dear Sir:-

In this report for the year ending Sept. 30th, 1899, there is no necessity of my making a general ^{report} reprot on your Porto Rico proprty, as you have had several, on which I would not enlarge. So I will confine myself to setting out the development work done, improvements added, tons or ore crushed with the values obtained and the prospects for the fcuture.

WORK DONE: -- In No. 1 tunnel no further work has been done. This

tunnel is at a depth of about 210 ft from the apex of the mountain No. 2 tunnel at a depth of ¹³⁰ 230 ft below No. 1, has been continued a distance of 110 ft. to a total length of 360 ft. This tunnel followed on the reef to a distance of 285 ft, when the rock disappeared and being continued at 296 ft a cross course was encountered, running No. 10°W (Mag). Having driven through this, and about 6 ft further in a clean wall was encountered, running S 70°W, with a dip of 76°W this being the foot-wall of a dyke or cross lode, having against the foot-wall about 6" of calcite and red oxide ^{of} or iron. On following this wall a distance of 33 ft it was intersected by another well defined lode, running N. 83°W and standing almost vertical, the wall of which was clean, and its porosity is shown by the amount of water coming from it, against the wall it contained about 9" of iron stained quartz and pyrites. This lode at the foot of the tunnel is very promising indeed, being mineralized all ^{across} across the quartz and iron pyrites, a conservative average sample from this ^{face} fact gave \$4.80 in gold. By continuing this tunnel there is every reason to expect good ore ahead, as the indications are very favourable indeed. If on the continuation for a reasonable distance, no improvement was shown a crosscut should run from the 300 ft. point in a S.W. direction when at a distance of 80 ft or so the lode showing on the apex ought to be encountered. The finding of this lode in this level, would more than double the value of your property as there would be much longer length of drive (giving a greater amount of stoping ground in proportion to depth) on it, than there has been on the present lode.

No. 3 tunnel at a depth of 120 ft. below No. 2 has been extended 56 ft. At 500 ft. a dyke was encountered running southward at an angle of about 35° off the course of the lode, with well defined walls dipping about 50° to the East, this lode was followed ~~56~~ ^{face} ft to the fact. This lode should be followed some 30 or 40 ft further, and then a cross cut driven, to the north which ought to

Cut the continuation of the lode.

In order to determine on an advantageous position to start a tunnel on a lower level, several open surface cuts were made below. Referring to my knowledge of the financial position of the Company in your of May 17th you told me the position was "rather weak", I must say that I did not take this to mean that there was absolutely no help to be relied upon. Especially as in a letter dated May 15th from Mr. Gorbould, he told me that if I could show a profit from the ore in sight, and that there was a good future for the mine that there would be no trouble in getting the money, for the increased plant. You also said in your of the 17th, "McMullan is of the opinion that the ore in sight would leave a profit". and we have shown that it has. From your letter of Aug. 25th I naturally inferred (and if you look it up, I think you will find that I am right) that the Company could not make any large outlay on the development, but if the returns from the mine could help materially, they could put up the balance.

Your next letter bearing on the subject of Sept. 2nd, confirmed me in my inference as it told me to commence No. 6 immediately, and said that in case of urgent necessity, you could render financial assistance from your end, though hoping that the mine could provide the necessary funds, and also that if the results and prospects were good the necessary funds for the increased plant "could easily be obtained". Then your next two letters of Sept. 15th and 21st arrived in October, saying definitely that the mine had to be self-supporting as no aid could be got from home. By that time I had completed arrangements for the winter, most of the wood had been cut, and the contract had to be continued, and if I had waited any later than the 1st of Sept. of let the contract, I should not have got the supply at all, as the snow would have stopped all outside work.

No. 3 level, in the direction of the underlie of the reef, in each of those on reaching solid formation, a lode outcrop was exposed which contained some quartz, which from ^{it's} tis direct correspond-

ing almost to that of the reef, led one to suppose at one time that it was the continuation of the main lode, but on account of the greater part being a soft ^{porphyry} porphyry which never had accompanied the lode, it was thought advisable to run a cross-cut to explore it thoroughly. Consequently a tunnel was started at a point marked No. 4 on you plan, and run in a distance of 45 ft. cross-cutting this lode at 30 ft. which then proved to be an intersecting dyke. This dyke is composed of a fine grained porphyry impregnated with iron and containing some quartz on the foot-wall, its direction is No. 18° W (Mag) and dips about 60° East intersecting the lode at an angle of 52° . As it was necessary to have full knowledge of this dyke, it was followed to the south (between well defined walls 4-1/2 ft apart) a distance of 80ft. having kept its direction in a straight line. This point of intersecting of this dyke and our lode on the No. 6 level, was then found by calculation, and the No. 6 tunnel was then started ^{from} for this point, its portal being in such a position so as to make it act as a cross-cut tunnel, in hopes of picking up the continuation of the lode on the east of the intersecting dyke. On continuing the cross-cut at the No. 4 level a few feet, the lode was exposed strongly, carrying about 60% iron and of the good dull grey description, which has proved conclusively the the iron does not tend to leave the ore as depth is gained.

CRUSHINGS: -- During the year ending Sept. 30th, there were as near as could be estimated 3280 tons of ore crushed, yielding in bullion 3178.06 ozs. value as per bullion certificates \$53,227.91 and ^{140.69} 140.679 tons ^{of} concentrates, value, \$3282.59, making a total of \$56,511.50, or an average of \$17.21 per ton of ore crushed. Of the above 1317 tons of ore yielding \$20,757.36 was taken altogether from the stopes above No. 2 level, and the balance 1965 tons yielding \$35,754.14 was taken from the stoped between No. 2 and No. 3 levels so that the grade of the ore has improved with depth. On Sept. 30th there existed ore in sight in the stopes sufficient

for five months mill run.

MACHINERY: -- All the machinery, mill, tramway, compressor, etc., are in first class order, and have run continuously and well, doing their work to perfection.

IMPROVEMENTS: -- The old bunk house at the mine, a long building became quite dirty and unsanitary and as it was impossible to get good miners to stay a new story was added, constructed of rough boarding, and partitioned up ^{stairs} into six rooms, accommodating eight men to a room, or 48 to the house, and the old quarters underneath, three rooms are used for laundry, change and drying-room and sitting room. This gives excellent accommodation and was a much needed cheap improvement. A new blacksmith shop has been constructed at the mouth of No. 6 tunnel. A road has been graded from the wagon to the door of the vanner room at the mill, to remove the concentrates. And several other small necessary improvements.

PROSPECTS: -- The Prospects of your mine are very bright indeed, and it is in such a position now, that a comparatively small amount of development would enhance its value to an enormous extent, more ore reserves must be opened. As I mentioned before the finding of the apex lode in the No. 3 level would prove the existence above the level of twice the amount of ore we had had in sight, and the No. 6 level when run in, will have above it and below No. 3 a block of ore on the present lode 700 x 311 feet and at a low estimate 18" thick, representing 25000 tons of clean ore, and putting its value for safety at \$30. would represent \$750,000. This would transform your property immediately to a mine of good extent, when this ore was available the mill should be increased in capacity, and extra power provide for machine drills. The excellent water supply going to waste 1-1/4 miles from the mill is ample to supply the necessary power for a 30 stamp mill and 10 drill compressor, and it will have to be utilized in the near future, as the increasing cost of wood will prohibit its use.

In conclusion I would say that in my opinion you have a permanent mine in the Porto Rico, and one that will amply repay any money spend on her development at the present stage, and I must say she need development. Everything tends to prove that the lode is permanent as depth is gained, and the expenditure of comparatively small sum on her development at present, can be considered as an excellent investment.

Yours faithfully.