

November 14th, 1936

In regard to the Porto Rico, personally I maintain that the Porto Rico has excellent possibilities of developing into at least a mine capable of supplying a hundred ton mill. Galloway says in his report on lode gold deposits in British Columbia, that, "This at present inactive property merits close investigation."

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Re Spotted Horse

I would not have the least hesitation in recommending the Spotted Horse is 3000 feet from the Porto Rico vein and is evidently a definite continuation of the main break, that the mineralization is different has no bearing on the matter. You must remember that the massive mineralization in the Porto Rico shows great variation in values and the persistent shoots of good ore are dependent on a porphyrite dyke that is intrusive into the augite-diorite, this dyke evidently deposited its solutions in which the gold was free, along the same fracturing as that occupied by the older massive mineralization, that in all probability owes its origin to the augite-diorite stock.

The same dyke persistently follows the shearing on the Spotted Horse, is intruded by lamprophyre dykes and is evidently responsible for the gold deposition.

We are now sinking and the intensely sheared condition of the rocks on the hanging wall side of the veins is altering more to the solid as we hoped it would for as the shearing becomes less broken and brecciated the chances become greater for the values to concentrate along a definite line instead of being frittered and disseminated over too great a width, there is no evidence yet of the exact width over which we can expect values. The walls are commercial rather than geological as is the case with most deposits of the replacement type and a crosscut across the whole shearing is really the only way to limit your ore body. However proving the Spotted Horse up at a depth of say 2000 feet below the Porto Rico is the finest way in the world to also prove continuations of ore at depth on the Porto Rico.

Along with this letter we are forwarding three samples taken from across the bottom of the shaft at our present depth about 10 or 11 feet.

We haven't succeeded in locating the float vein owing to the presence of snow on the higher levels, we have found addition float that carried in slides above the road and also ore in place that pans good besides several dykes any of which could be the vein dyke.

The samples above referred to are as follows in oz. of gold;

Sample No. 1 - south side of shaft - 16.40 oz.,

Sample No. 2 - comes from just north of Sample No. 1, true width of two samples,
3 feet - 2.44 oz.

Sample No. 3 - comes from opposite end of shaft on foot wall of dyke,
width 10 inches - 6.63 oz.

December 11th, 1936.

Re: Spotted Horse

As I told you this fall prior to taking up this lease, I am convinced that the Spotted Horse has possibilities that it seems nobody has recognized as yet.

I was at a loss at first as to whether the ore body was caused by ascending or descending solutions, this is an important point from a geological viewpoint as ore bodies formed by solutions from below have a habit of terminating and branching upward, and the values from such solutions are generally to be found concentrated on the underside of the dykes they are genetically related to.

I came to the conclusion that the solutions were ascending solutions by the aid of the augite porphyrite dyke that is visible in the workings above the bridge. If the solutions had been descending solutions more or less heavily charged with carbon dioxide the silicates would have been the first replaced - instead the augite porphyrite has had its porphyrite ground mass replaced by silica but the augite phenocrysts have not been replaced.
