

GOLD IN

Old Tertiary Mine To Be Re-opened Shortly

English Capital to Finance the Re-Opening Programme

EXPECTED TO START IN JULY

Operations Will Be on Small Scale At Commencement

Word has been received that London interests, represented by Commander L. C. Bernacchi, who visited this section this spring, have become interested in the Tertiary Mine, and final arrangements for financing the re-opening of the mine are now being made. The management does not plan a large operation at this time, but under the direction of D. D. Fraser, a small scale operation will be started at the old workings shortly, with a view to increasing the scale of operations as conditions permit. The mine has an interesting history and great possibilities, which are given in condensed form below.

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Tertiary Mines is located in the Cottonwood Canyon of the Fraser River, about 15 miles northerly from Quesnel. The property may be reached by crossing the Fraser at Quesnel and following the Blackwater road and thence to the canyon, a distance of 15 miles. It is necessary to cross the Fraser by boat. The property may also be reached by taking the old tote road south from Cinema, 22 miles north of Quesnel on the Cariboo Highway, along the west side of the Cottonwood River. The mine is 11 miles from Cinema.

Description

The Tertiary Mine is located on the early Tertiary Channel of the Fraser River, and the old channel roughly parallels the present course of the river from Hixon Creek south to the Cottonwood Canyon, where the present river cuts across the course of the old channel and exposes a cross section of the channel along the left limit of the river.

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The cross section exposed in the Cottonwood Canyon shows a channel some 900 feet wide. The schist bedrock is covered by coarse gravel, six inches to six feet thick, which carries the main gold values. Above that stratum are various layers of gravel, sand and silt, of a total height of some 350 to 400 feet above the bedrock, which carry small gold values. Above this height is a heavy covering of glacial debris. The boulders and sand in the channel filling are derived from the local rocks comprising granodiorite, quartz and rocks from the schist series, all of which are cemented by calcareous cement. There is a preponderance of granodiorite through the deposit, which gives a bluish tinge to the gravels.

Within the river valley the cemented gravels have been, in great part, eroded by the river, leaving a comparatively thin covering over the bedrock. Back of the river benches the cement gravels can be seen to over 300 feet above the river.

In the cross section of the channel exposed in the Cottonwood Canyon, the west or right limit of the channel lies some 60 feet above the river level, and the bedrock slopes down irregularly for 800 feet to the gutter of the channel, 100 feet wide which

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OLD TERTIARY MINE TO BE RE-OPENED SHORTLY

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covery this company installed crushing and grinding equipment and mined the gravels on a moderate scale. It was found that the additional treatment was not economical. Due to this error and lack of experience in placer mining, this company failed to make a success of their venture.

In 1922 the present owners took over the property and put in a new crosscut tunnel, built new sluices and a powerhouse. From 1924 to 1926, they carried on mining operations through this new tunnel and with their primitive equipment, recovered \$27,200. This work was successfully carried on until the cemented gravels, which had been eroded by the river, became too thin to allow the work to continue on in the gravels. As it became apparent that it would be necessary to drive a tunnel ahead in the rim rock for 300 feet to get past the thin layer of cemented gravels, the owners had to suspend work for lack of capital.

One of the owners has recently been working near the head of the workings, using a "long tom" to recover the gold. This work was done entirely by hand and the miner made \$17.00 a day, recovering over \$600 in three months.

Values

The gold is coarse but does not average large. Nuggets of 25 and 50 cents, and \$1.00 are common, with an occasional one up to \$10.00, and one recovered was valued at \$46.25.

The gravel mined from the pay-streak averaged \$3.85 a ton, and at times ran as high as \$9.00 a ton. The bedrock gravels across the full 900 feet of channel at the Cottonwood Canyon, run \$340 to the lineal foot of channel.

By using the selective system of mining, the average value of the gravels will be increased some 30% and the average value of \$3.85 a ton will be increased to over \$5.00 a ton.

Future Possibilities of the Property

The large yardage of the channel gravels within the property limits and the values found in the old workings indicate great possibilities for the mining of the deposit.

The indicate source of the gold found in the old workings is some distance up stream and this conclusion is strengthened by the comparative even size of the gold recovered, which would indicate sorting by stream action. It may therefore be reasonably expected that the average tenor of the gravels upstream will increase and the gold become heavier.

The shape of the channel cross section will be continually changing but it may be safely taken, that the most of the changes encountered, as the work advances, will result in an increasing percentage of the total bedrock gold so concentrated as to be mineable. The rock formation indicates that the channel ahead crosses some distance of very hard schist, where the channel will contract. Upstream again, it will traverse some distance through granodiorite, where the width of the channel will be somewhat greater than in the hard schist. These two rock formations continue through the length of the property and, as both these formations are of fairly even hardness through the limits of each exposure, they give promise of a uniform erosion by the channel, with a bedrock contour an-

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