

In conclusion, the writer may say that while this district is new and but little work has been done it should come into prominence rapidly as development is pushed, transportation being so easily available. The cost of mining will, of course, vary with the rock, but sinking a 9 feet by 5 feet shaft costs £3 in dolomite, £4 in porphyries and gabbros, and £7 in basalts and the harder granites. Drifting costs per foot in dolomite, 16s.; in porphyries and gabbros, £1; in basalts and granites, £2. Treatment calls for an expenditure of £2 10s. per ton, including freight, in the case of copper ores which have to be shipped 400 miles, and the copper is paid for at three-fifths the market price. Cinnabar ore should be treated for 4s. per ton so that one-tenth of 1 per cent. should pay for treatment at present prices.

CONGLOMERATES AND PLACERS.

In addition to deposits of metallic minerals in veins, gold is found within this area in conglomerates of Tertiary age, and also in gravel which in part dates from the glacial epoch, but is for the most part more modern and caps the river terraces. The conglomerates have been but little tested, but would probably be well worth investigating as they have been found to carry gold at several points and could be quarried for milling at a very slight expenditure. The gold would be free, so that the ore should not cost more than 2s. per ton to mill. It must, however, be pointed out that much prospecting and testing would be necessary before proceeding to deal with them. Some of the conglomerates have been much altered by the heat of the volcanic in-

trusions which have broken into them, and the writer would suppose that would be the best to test, as the gold might be collected into pay-streaks. The conglomerates attain an enormous width at certain points. Placer gold has been found on the Tranquille river, which is believed to have yielded a very considerable sum on Criss creek, where the conglomerates are supposed to have been its source (as to this the writer has great doubts), on Jamieson creek, and on the Thompson river below Kamloops lake. In all these cases it is confined to their pay-streaks, rarely exceeding 6 inches in thickness, and is not likely to furnish a large output in the future. Many other streams will yield a prospect, but not sufficient to pay interest on the capital expended in purchasing a pan, and man does well if he can make 6s. a day in the season of low water.

When the mines are more developed, which will be in about a year's time, the writer will endeavour to show the results of the work in a paper supplementary to this. Work is the only thing that will make mines. Accompanying the paper are a tracing of the Geological Survey Map, an enlargement by the author of the district immediately contiguous to Kamloops lake, and other plans and sections.

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