

Messrs. Firth and Clarke (the Battery Company, at Waiorongomai) have during the past year taken steps to become acquainted with the best methods of ore-treatment. Mr. J. C. Firth and the battery-manager, Mr. H. H. Adams, visited the principal mining centres in California, Nevada, and other States on the Pacific slope of the United States; and the outcome of their observations has been that the most economical and practical method of treating ore such as they have been crushing at Waiorongomai is the adoption of the calcining-furnace to roast the ores after being crushed in the battery, and then grinding the roasted ore (chemically treated) in pans for the purpose of amalgamation. A much greater percentage of the assay-value of the ore is thus saved, and this will more than recoup the extra cost of treatment. The Battery Company has erected a small furnace at Waiorongomai capable of roasting 15cwt. of crushed ore at one charge, and the samples already operated on have given such satisfactory results that the Battery Company intend to erect extensive furnaces capable of treating ores in large quantities. The Battery Company have made application for a special claim of 110 acres, which will comprise the whole of the line of the main reef, from Waiorongomai Township to the New Find Mine, and there is every prospect of their being successful in floating a company in England to work the ground in a systematic manner. It is intended to drive two tunnels, one on each side of the reef, from the level of the battery northward to the New Find Mine. The reef will be cut through at stated distances, and this method will test its value, and be the means of thorough ventilation. The scheme is certainly one to recommend itself as being a thoroughly practical way of prospecting a large extent of known gold-bearing reef; and, although at the commencement of the tunnels there is not much of the reef overhead, still, when it has been driven a mile and a half there will be at least 2,000ft. of backs on the reef, and if any runs of gold are found there are vast quantities of quartz to be obtained between the tunnel and the surface. It is also intended to lay a tramway from the entrance of the tunnel to the platform at the battery, and the water-power at the battery will be employed in compressing air to work rock-drills, to be used in driving the tunnel. The Battery Company are in treaty for the purchase of the New Find, Canadian, and Colonist Mines, and they will be able to work low-grade quartz in the reefs, which the companies now holding the ground cannot do on account of the cost of crushing. They also intend to lease the tramway from the Piako County Council, and will be able to reduce expenditure in this way by working it with men in their own employment. Work will be continued from those portions of the mines at present opened during the time the tunnel is being driven along the reef.

Mr. Peter Ferguson has also marked out a special claim of extended area lying to the eastward and northward of the Battery Company's ground and the New Find Mine. Mr. Ferguson states that this claim will be worked by a company to be formed, which will also own the splendid reducing-battery erected by his party. There are numerous reefs running through this ground, and also a portion of the main reef lying to the northward of the Colonist Mine; so there is every prospect of payable quartz being obtained if the reefs are prospected in a systematic manner; and, as the reefs are chiefly at a great height above the battery, tunnelling only will be required to work them.

The excellent returns from the quartz sent to England by the owners of the Champion Lode Mine at the Tui Creek should cause them to make provision for working the mine and treating the ores locally. They also are in treaty with English capitalists to form a company with a large capital to work the mine and erect machinery.

The nature of the reefs at Tui Creek is so different from that of any previously worked in this district that gold, silver, and other metals must have special treatment for their extraction, requiring large capital. Combination of interests and extended area of claims would appear to be necessary to cause capital to be invested. The extension of area of claims will also apply to all the land previously occupied at Waiorongomai, as individual miners or small companies cannot hope to hold and work small claims to advantage.

The extension of the track from Waiorongomai towards Tui Creek, and of the track from Karangahake towards Te Aroha (for which a grant has been made by the Mines Department to the Ohinemuri County Council), will open a large extent of country for the miners, and enable prospectors to test the main Waiorongomai reefs, and also those reefs extending from the Champion Lode Mine at Tui Creek, in places which are at present inaccessible.

A deposit of gold-bearing rock has been found on the farm of Mr. J. B. Smith, at Waihou, in the Thames Valley, about six miles from Te Aroha Township. Several samples tested by Mr. J. A. Pond, of Auckland; Mr. H. H. Adams, of Waiorongomai; and Mr. Montgomery, of the Thames School of Mines, have given various results; and a parcel of 3cwt. treated at Mr. G. Fraser's works, in Auckland, yielded at the rate of £1 13s. per ton. This deposit is a most unusual rock for gold to be found in, as it is in large boulders of a kind of cement named by Mr. Montgomery a "rhyolitic breccia," and has the appearance of pumiceous drift cemented, and containing small crystals of quartz. Mr. Smith's land is outside the mining district. He is at present engaged in prospecting around where the boulders are found, and hopes to meet with valuable ore.

The population of Te Aroha District is about the same as last year—1,150. The Township of Te Aroha still continues to increase, the hot springs and baths maintaining their popularity; and many people visit Te Aroha for the purpose of rest and health.

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GEO. WILSON, Inspector of Mines.