thirteen kilns, from 50 to 150 tons capacity; twenty-four vats, 30 tons capacity; mill driven for the most part by water; auxiliary steam-power; one (Gates and Thom) 350-horse-power engine; one (Golden State) engine, 120-horse power; one Tangye "colonial," 20-horse power; two Babcock and Wilcox's boilers, one multitubular, and one semi-portable (Fowler and Co.) boiler. The mill worked 354 days during the year, the average number of stamps employed daily being eighty-two, and the average quantity of quartz per stamp daily was 1·195 tons. The quantity treated was 34,410 tons; value per ton (actual), £3 16s. 8·6d. Bullion recovered — 29,722·53 oz. gold, 63,885·37 oz. silver. Total product, £132,021 14s. 2d. from mill; £3,069 10s. 10d. from tailings, 2,522 tons treated; £109 11s. 6d. from concentrates sold: total, £135,200 16s. 6d. (silver valued at 2s. 3d. per ounce). The whole of the above bullion was recovered by cyanide process. The average number of men employed at the mine was about 350 (irrespective of new works), of which probably two-thirds were employed on wages and the balance on contract work. The company is erecting a new mill at Waikino, Owharoa, a description of which is given in the following extract from Mr. H. P. Barry's general report:—

Owing to some little trouble in getting the road-bridge across the Ohinemuri River completed, work on the new reduction plant was somewhat retarded; but since the bridge has been finished and open for traffic the various works have been steadily pushed on. This bridge is a strong piece of work, 155 ft. in length, the main truss on trestles built on two concrete piers, the decking of the bridge being 30 ft. above normal level of water, which I think will insure its not being carried away by any flood which we are likely to experience. Wherever it was to the company's advantage, all the new works have been let by contract. In this connection seventy-four contracts have been let, nearly the whole of which have been completed. After getting quotations from several firms in different parts of the world, the contract for the supply of the one hundred head of stamps was let to A. and G. Price, of the Thames, New Zealand, who have already delivered a considerable portion of the machinery. The main shafting for the mill and the pulleys has been delivered, as also the two turbines and the two Gate's stone-crushers. The whole of the heavy timber for the mill is on the ground, including the twenty bed-logs, 4 ft. 8 in. by 2 ft. 6 in. by 18 ft. in length, of good heart of kauri, which were sawn in our own kauri bush. The necessary excavations for these bed-logs, plates, and sills have been completed, and the masons have commenced the erection of the stone wall which is to carry the ore-bins. A considerable amount of work has been done on the tail-race, which has been taken out in a large open cut, but it is proposed to tunnel the rest of the distance. The following buildings were either completed or nearly finished at the close of the year: Store, 60 ft. by 25 ft.; sawmill, 80 ft. by 23 ft.; carpenter's shop, 60 ft. by 23 ft.; blacksmith's shop, 50 ft. by 25 ft.; machine and fitting shop, 60 ft. by 25 ft.; office, 35 ft. by 29 ft.; locomotive-shed; store and dwelling house.

New water-races: The necessary motive-power will be obtained from a high-pressure system of races, having a fall of 198 ft., and a low-pressure system, having a fall of 54 ft. The high-pressure system consists of three races—the Mangakara Race and the Stony Creek Race, both tributaries of and falling to the Waitekauri Race. The Waitekauri Race, 6 ft. by 2 ft. 6 in. deep, and below the junction of its tributaries 7 ft. by 2 ft. 6 in., is upwards of four miles and three-quarters long, and commences at a dam a few hundred yards below the Waitekauri Gold-mining Company's mill. This race passes under the old kauri bush, through a tunnel 1,530 ft. long, a portion of which has been securely cribbed where it passes through slidy ground. The Waitekauri dam is a substantial wooden structure, 16 ft. high, with a spill of 68 ft., the total length being about 170 ft., with the two wings built of heart of kauri throughout. I do not anticipate that we shall have any trouble with this dam for many years to come, as it was subjected to a very severe test soon after completion, when we experienced very severe floods, and it stood the test well. The dam on the Mangakara is a permanent piece of stonework, upwards of 30 ft. in length, and running from 2 ft. to 8 ft. in height. The Mangakara Race, 5 ft. by 18 in., is upwards of 22 chains long, passing through a tunnel 268 ft. in length. The dam on the Stony Creek will be a wooden structure upwards of 45 ft. in length. The Stony Creek Race is nearly half a mile long, 3 ft. wide by 18 in. deep. The pipe-line for conveying the water from these races to the mill is of wrought-iron, 2 ft. 4 in. in diameter, and upwards of 1,200 ft. long. The low-pressure system consists of the Ohinemuri Water-race, four miles and an eighth long, 12 ft. by 4½ ft. deep, running for the most part on the south bank of the river, but will cross at one place to the north bank by a high trestle flume, and recross again to the south bank after a distance of about a quarter of a mile. These crossings, although expensive, were unavoidable, owing to the nature of the ground. With the exception of these flumes just referred to and a wrought-iron syphon-pipe 5 ft. in diameter and about 475 ft. long, the whole of the race has been carried through a ground-channel, so as to obviate the constant repairs that would inevitably be necessary after the elapse of a few years where fluming to any extent on a water-race obtains. The dam on the Ohinemuri, at the intake of this race, will be a strong and solid structure of masonry. It was considered advisable to do this rather than to construct it of wood, so as to prevent any possible danger in the future through the wood rotting and serious damage being done to dams, bridges, flumes, &c., further down the river. The extra cost will not be very great. The water from this race, which has a fall of 1 ft. in 2,000 ft., will be conducted to two 200-horse-power vortex turbines by a pipe-line 4 ft. 6 in. in diameter, branching off into two pipes of 3 ft. 6 in. in diameter, fitted with equilibrium-valves for each turbine.

The length of the tramway from mine to Owharoa Mills is, approximately, five miles and three-quarters. It has been constructed of a gauge of 2 ft. 9 in., the smallest curve having a 6-chain radius. It has been well graded throughout, being, with only one exception (which has an up-grade of 1 ft. in 90 ft.), all down-hill with a load, the steepest grade being 1 ft. in 40 ft. The line crosses from the north to the south bank of the Ohinemuri River, at a distance of two miles and three-quarters from the mine, by means of a strong truss bridge, upwards of 185 ft. in length, and 30 ft. 6 in. high from