

Tail-race. This tail-race, when in full working, will considerably add to the sales of water from the Kumara Race.

Deep Level Company.—Very little work has been done by this company during the year, more on account of want of funds than want of faith in the ultimate result of prospecting the deep levels of Kumara. It is a pity that more prospecting has not been done in the deep levels. The Government has liberally assisted by granting subsidies to construct a drainage-tunnel from which prospecting can be carried out, and but little prospecting has been done. The drainage-tunnel is now driven for a distance of 1,600 ft., and drains a large portion of the field to the main bottom, so that the overlying washes may be prospected by rises from the tunnel. With the exception of the prospecting done in constructing the tunnel, only a few rises have been put up, in some of which fair prospects were obtained; but the facilities afforded by the drainage-tunnel for thoroughly prospecting the ground passed through have not to any extent been taken advantage of. Several parties of miners are, however, engaged in driving into the deep levels from the face of the terrace fronting the Teremakau, fully 100 ft. below the bottom hitherto worked in Kumara, and have met with encouraging prospects. Some of the parties are making fair wages, and have found extensive layers of wash that, with proper facilities, would pay well. The probability is that the work now being done by these parties will lead to extensive mining operations in the deep levels of Kumara.

Wainihinihi Water-race.—The total length of this race when completed will be a little more than a mile and a half, or 126 chains. Of this, 92 chains have been constructed in open cutting. This portion of the work was let in thirty co-operative contracts. Water is now running from the little Wainihinihi Creek and several other small branches into the Kawhaka watershed, and the effect of even the small quantity now being carried into the Kawhaka and thence into the Waimea Race is being felt in Waimea. In dry weather about six sluice-heads are carried by this race, and with very slight rainfall there is twenty sluice-heads. Besides the 92 chains above referred to, one tunnel $3\frac{1}{2}$ chains in length has been completed, and three other tunnels have been started; 11 chains of the rock siding has been benched for ditching, which will make a much more permanent race than fluming, as was originally intended. Very little timber will be used in the construction of the race, except in some of the tunnels. The use of timber structures in races of this class should be avoided as much as possible, as in the course of a few years the maintenance and repair of such structures becomes a great source of expense, and the liability to accident is much greater than when the race is constructed in earth or rock.

The completion of this race will give the Waimea, Stafford, and Callaghan's districts a good and continuous supply of water, and will assist Kumara supply when required, which will be but seldom. The only thing that will interfere with a full supply for the whole field will be a hard and severe winter that would freeze all the water, as the sources are more than 1,000 ft. above sea-level.

I have, &c.,

ALEXANDER AITKEN, Manager, Water-races.

The Under-Secretary, Mines Department, Wellington.

No. 18.

Mr. R. MURRAY, Manager of the Mount Ida Water-race, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

I have the honour to submit the following report on the Mount Ida and Blackstone Hill Water-races, for the year ending the 31st March, 1899:—

MOUNT IDA WATER-RACE.

The total sales of water from this race during the year amounted to £1,496 9s., and the expenditure on maintenance and repairs for the same period, £1,231 4s. The total cash received was £1,541 8s. 7d. On account of payment in advance free water to the value of £37 was supplied. Free water to the value of £13 8s. 9d. was supplied to assist in opening up new claims, and free water for washing-up was also supplied to the value of £97 19s. 10d. The total value of water supplied from this race during the year was £1,644 17s. 7d. The average number of miners supplied with water was 49·42, a decrease of 11·5 over that of last year; this has been chiefly owing to the construction of the Eweburn Reservoir. The approximate quantity of gold obtained by parties using water from this race was 2,895 oz., valued at £11,145 5s. From the 1st April until the 19th July, when, on account of the frost, the water had to be turned off, the weather was very dry: only a daily average of four heads in the race for four months. I started to clean out the race on the 22nd August, and finished on the 19th September. From the 1st September to the end of March the season has been the best for water since the Government took charge of the race. The siphon crossing Wet Gully had to be repaired by putting in a new elbow. This work was done by the maintenance-men during the winter. Two sets of legs in the flume crossing Main Gully having sunk had to be raised and soleplates put under them. This flume will have to be strengthened by next season. On the 11th December a heavy thunder-cloud burst on the east side of Ten-chain Gully down the Pearce's Gorge, filling the race in many places with rough boulder-gravel. I cut through the race in several places and had it sluiced out. The water was off for eleven days while this was being done. On account of the demand for water from Coalpit Dam—the siphon, 22 in., in the supply-race where it crosses a deep tail-race, being unable to carry a sufficient supply—I had to put in a 17 in. one alongside of it. The race from Mullholland's Dam had to be widened and a deviation made in it to do away with several chains of fluming, and thus meeting the demand from there for elevating. There are nine elevating-claims supplied with water from the race, an increase of one over last