

WAIMEA WATER-RACE.

Month.	Sales of Water.	Cash received for Sales of Water.	Expenditure.	Outstanding Moneys at the End of each Month.	Number of Men employed.	Approximate Quantity of Gold obtained.	Value of Gold.
1892.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		Oz.	£ s. d.
April	100 9 3	76 2 7	53 3 5	57 15 5	73	249	971 2 0
May	102 0 4	109 3 3	51 8 5	59 10 5	70	255	994 10 0
June	109 19 6	111 14 11	53 4 5	60 2 11	66	275	1,072 10 0
July	83 14 9	93 1 5	64 8 7	60 2 11	66	225	877 10 0
August	82 16 10	83 16 10	64 8 2	59 19 2	69	195	760 10 0
September	98 8 3	107 14 11	61 10 4	58 19 2	66	230	897 0 0
October	81 5 11	85 1 2	59 9 10	57 19 2	69	200	780 0 0
November	88 2 11	72 17 6	70 17 4	57 9 2	64	210	819 0 0
December.. ..	71 5 0	45 2 6	132 5 11	57 17 11	65	170	663 0 0
1893.							
January	46 15 0	80 17 4	112 18 7	56 19 2	67	120	468 0 0
February	65 3 11	68 6 1	62 16 6	56 19 2	66	160	624 0 0
March	85 10 7	71 17 6	71 8 10	56 15 5	59	210	819 0 0
Totals	1,015 12 3	1,005 16 0	858 0 4	..	66	2,499	9,746 2 0

The above statement shows that the sales of water for the year were £1,015 12s. 3d., as against £1,121 16s. 2d. for the year previous; and the expenditure, £858 0s. 4d., as against £784 13s. 10d. for the former year; which shows a decrease in the sales of water last year of £105 3s. 11d., and an increase of expenditure of £73 6s. 6d. The actual profit on the working of the race last year being £157 11s. 11d., whereas for the year previous it was £337 2s. 4d. The value of free water given to the miners as assistance last year in opening out ground, was £14 13s. 1d., and the approximate quantity of gold obtained by those whose claims were worked with water from the race was 2,499oz., representing a value of £9,746 2s. Deducting the value of the sales of water from the value of the gold obtained, it leaves £8,730 9s. 9d. as the earnings of 66 miners for the year, which is equal to £132 5s. 7d. a man per annum, or £2 10s. 10d. per week. Taking the profits last year, they only gave about $\frac{1}{3}$ per cent. on the total cost of construction, which amounts to £120,558 12s. 3d.

KUMARA WATER-RACE.

The portion between the small dam and the mouth of the tunnel has been timbered and lined, and the timber in the floor of the tunnel which was bulged up in centre has been taken up and relaid. In the open ditching on the Kumara end of the tunnel new gauge-boxes have been placed in the race, so that the quantity of water could be gauged that is sent down each branch. The largest quantity of water is supplied on the field from the Kapitea Hill branch. This race has been considerably improved during the year, and about one chain of new fluming had to be constructed, owing to the large quantity of water that this branch race has to convey—namely, about eighty sluice-heads. The extension of this race for about another 40 chains to command the ground further down the flat is in progress.

The low-level race, which supplies water to the claims at the Break, Nardoo Flat, and the Tramway Terrace, has been considerably enlarged, and will now carry thirty sluice-heads to Dillmanstown, and twenty sluice-heads below this point to Nardoo Flat and Kumara. A branch of this race has been constructed to supply claims on the Shallow Lead.

Two deviations have been made on the Ross Terrace branch, and the whole of the fluming on Ross Terrace has been done away with, and siphons substituted in lieu thereof. This deviation has allowed a considerable area of ground to be worked that could not be done so long as the flume was in existence, the ground at this place being about 80ft. deep. It is possible that another deviation of the upper end of this branch will yet have to be made if it is found that the gold goes under the terrace; but it will be a considerable time before this is required. When there is plenty of water—say in wet weather—there is about 130 sluice-heads sent through the tunnel and distributed in the different branches; but when the dams are not running over the quantity sent through is only sufficient to meet the requirements, as in dry weather the water has to be carefully conserved.

The work done in deepening and enlarging Kawhaka Supply Branch has increased the supply into the Loopline Dam considerably. It now fills in about one-half the time that it did previously. Some new fluming had to be put in this race during the year, owing to the bank being carried away by falling timber.

The by-wash at the Loopline had to be re-puddled, and the whole of the by-wash re-lined with boarding an inch in thickness. A new screw has been put on for lifting and lowering the gate, which answers admirably.

The tailings channels are working satisfactorily, but the miners on my visit complained of the cost of the maintenance. The No. 2 Channel is being carried out on the tail-end on a gradient of 4in. to 12ft., and the No. 3 Channel is being carried out on a gradient of 3 $\frac{1}{2}$ in. to the 12ft., both of which work very well, and never block on the outside of the tunnel. The only place where the No. 3 Channel ever blocks is inside the tunnel, near the place where the tail-races from the claims joins it. This blocking could all be done away with if the miners took sufficient care to bring their sluices into the channel with a proper curve, and let them into the side near the bottom. Wherever the material comes into it at a sharp angle, or has a fall into the channel, it retards the velocity of the water, and is bound to cause a block to take place, especially where the miners are sluicing large quantities of bottom-stuff, or fine material. The tail-boxes of No. 3 Channel are