

now in excellent working-order, and, judging by present indications, this party should in the next year or two be highly recompensed for the large amount of capital expended in developing their property.

Owing to the want of fall in his original tail-race, Mr. Manzoni did not purchase water during the year ; but contractors have been at work during the last fifteen months in driving a tunnel tail-race at a lower level from Manukau Creek, to open up and thoroughly develop this valuable property. The tail-race is about 1,000 ft. in length, and for the first 500 ft. or 600 ft. passes through a conglomerate rock of marine formation, which is extremely hard and difficult to work. This greatly increased the cost of construction, and Mr. Manzoni is to be congratulated on carrying out to a successful issue such a big undertaking ; and it is to be hoped that he will be richly rewarded in the near future. The tail-race is now nearing completion, and Mr. Manzoni will soon be ready to open out his claim, and the sales of water from the Callaghan's race should show a still greater increase during the ensuing year.

The following is a summary of the revenue and expenditure of the Callaghan's Water-race for the year ended the 31st March, 1912 : Sales of water, £434 ls. 8d. ; cash received, £443 9s. 10d. ; expenditure, £485 11s. 2d. ; approximate value of gold obtained, £4,644 18s. ; average number of men employed, 15-66.

KUMARA RACE.

The cash received for sales of water from this race for the year ended the 31st March, 1912, was £93 5s. 5d. ; and the expenditure on gauging, maintenance, and repairs was £433 18s., showing a debit balance of £340 12s. 7d. on the year's transactions.

The average number of miners supplied with water was 8-16, an increase of 0-16 on the previous year ; and the approximate quantity of gold obtained by them was 339 oz., of the value of £1,322 2s.

The sales of water for the year amounted to £153 17s. 3d., a decrease of £176 5s. 7d. on the previous year ; and the cash received shows a decrease of £258 2s. 6d.

The approximate quantity of gold obtained was 302 oz. less than the previous year, representing a decrease in value of £1,177 16s.

The expenditure on gauging, maintenance, and repairs was £70 14s. 6d. greater than during the previous year. This increased expenditure was caused by a break in the Kapitea Hill Race, and the No. 1 Kapitea Dam, and the construction of a new by-wash at the head of the Dillmanstown-Kumara siphon. The break in the No. 1 Kapitea Dam was a very serious one, a large quantity of water broke through the top of the embankment, and came out in the creek under the timber foundation. The dam was running over at the time, and, although the gauge-box was opened up to its full carrying-capacity, it took several hours before the water was reduced below the cavity in the embankment ; and for some time it appeared impossible to save the structure. As soon as the water was sufficiently reduced, horses and drays were procured, and a large number of men were put on, and the repairs were carried out day and night. The embankment was dug out for over 60 ft. in length, and from 18 ft. to 20 ft. deep ; refilled with good material, puddled, and faced with stone paving. Had a flood occurred during the progress of the work the probability is that the whole structure would have carried away, and a new distributing-dam would have to be constructed to supply the miners on the north bank of the Taramakau River.

The sales of water for the year from this race were the lowest ever recorded, or likely to be recorded for many years to come, and showed a falling-off of £176 5s. 7d. as compared with the previous year. This falling-off was entirely due to a break that took place in the No. 3 channel on the 28th October, 1911, which prevented the Long Tunnel Company from sluicing during the last five months of the year, and the value of water purchased by this party was £191 0s. 4d. less than during the year ended the 31st March, 1911.

Although the cash received was £60 11s. 10d. less than the sales of water for the year, the whole of this outstanding amount is recoverable.

A large amount of work was done in the Head-race Tunnel during the year, 180 sets of timber, and over 19,000 ft. of lining and lathing being placed in position. The work was difficult and expensive in places, owing to the bad nature of the ground, but repairs had to be effected before the parties on the north bank of the Taramakau River could be supplied, and the tunnel is now capable of carrying 140 heads of water.

Garner's and Murchie's were the only two private races supplied with water during the year.

McGrath and Co. completed their tunnel tail-race to their Upper Larrikins claim in February. This tunnel was started about seven years ago ; it is 2,970 ft. in length, and cost about £3,000, and is the biggest work of its kind ever carried out in this district by one party. They are now ready to start sluicing, and have made an application for thirty heads of water for five hours daily. This will materially increase the sales of water from the Kumara Race, and it is to be hoped the venture will prove an unqualified success, and that McGrath and Co. will be well rewarded for their energy and enterprise.

The most encouraging outlook, however, for the continued life of the Kumara field is afforded by the completion during the year of the 30 in. inverted siphon crossing the Taramakau Valley, and the construction of a storage dam and 130 chains of ditching on the north bank of the Taramakau River. This important scheme is capable of supplying the miners with at least fifty heads of water for twelve hours daily, and commands an extensive area, which has given most satisfactory prospects for profitable working for many years to come. Authorized free water to the amount of £49 10s. was supplied for opening up new claims.

The usual quantity of flushing water authorized by the Department was supplied when the No. 3 channel was working, and to the Kumara Borough for fire-brigade and other purposes, free of charge.

The following is a summary showing the revenue and expenditure of the Kumara Race for the financial year ended the 31st March, 1912 : Sales of water, £153 17s. 3d. ; cash received, £93 5s. 5d. ; expenditure, £433 18s. ; approximate value of gold obtained, £1,322 2s. ; average number of men employed, 8-16.