

Mr. ROBERT MURRAY, Manager of the Central Otago Water-races, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

Naseby, 13th April, 1911.

I have the honour to present my report on the Mount Ida, Blackstone Hill, and Alexandra Water-races for the year ended the 31st March, 1911.

The total sales of water from the Mount Ida Race during the year amounted to £819 0s. 6d., a decrease as compared with last year of £302 17s. 3d. The expenditure on maintenance and repairs for the same period was £1,346 6s., a decrease on that of last year of £352 11s. 6d. The total cash received amounted to £819 0s. 6d. On account of payment in advance free water to the value of £8 7s. 8d. was supplied, and free water for washing up was also supplied to the value of £63 5s. 9d. The total value of water supplied from this race during the year amounted to £890 13s. 11d., a decrease as compared with last year of £324 1s. 3d. The average number of miners supplied with water was 36, being the same number as last year. The approximate quantity of gold obtained by parties using water from this race was 1,175 oz., valued at £4,538 8s. 9d., a reduction on that of last year of £354.

The weather from the 1st April to the 19th June was so dry that there was less than a third of the necessary water-supply; on that date a slight thaw set in, increasing the quantity available to seventeen heads, but hard frost immediately following, the supply was reduced again by a quantity of travelling ice in the race. A thaw occurred on the 25th, and on the 27th the race was running full; on the 29th a break took place in the 27th mile, near the Little Idaburn, but owing to frost and snow setting in I could not get at it until the 4th July, when the race was repaired, and water was available again on the 9th; but a snowstorm with high wind, increasing to a gale, set in during the night, drifting the snow into the race and forcing the water over the by-washes, when the whole of the water had to be turned out of the race, but no damage was done, hard frost continuing, with occasional snow showers. A thaw set in again in the first week in August, the race being in fairly good working-order, with the exception of five short stretches in shady places and high rubbly rock sidlings. I started on the 8th with all the strength I could muster to remove the obstructions, and on the 15th a supply was again available to the miners. There was very little snow on the range, and the weather was cold with slight frost during the night, nipping up the water from what little thaw there was during the daytime. Thus only sufficient water was available to keep half the claims going at a time, week about. During September the weather was very rough, with light falls of snow on the high country; sleet and rain on the race-level gave nearly a full supply to the end of October, and from this on to the end of March the weather was practically one continuous drought so far as giving a water-supply was concerned. At the beginning of April I had to renew a timber water-chute in one of the distributing races; having suitable iron pipes I replaced it by them, thus doing away with all climatic trouble. During December I renewed two gauge-boxes and strengthened 18 ft. of the Enterprise Dam bank. The water having declined to four heads. I started on the 20th February to clean out the race with all the strength I could procure, and with forty-three men finished to the head of the race on the 1st April. The race is now in good working-order, but only four heads of water are flowing. During the year there was barely a half-supply of water. With the exception of September and October—when there was almost a full supply—the old miners here say that it has been the driest season ever experienced in Central Otago.

There was only one month's water sent along the Blackstone Hill Race.

#### ALEXANDRA WATER-RACE.

The total sales of water from this race during the year amounted to £379 9s., an increase on those of the previous year of £203 17s. 4d. On account of payment in advance, free water to the value of £1 was also supplied. The total value of water supplied from this race amounted to £380 9s., the total expenditure being £432 7s. The Manorburn Sluicing Company, the principal users of water from this race, started hydraulic sluicing and elevating on the 7th April, using five heads night and day, but the weather being so very dry the dam emptied on the 27th, when they were compelled to suspend work. The weather continuing dry, there was no water-supply until the 17th June, when a regular blizzard set in, drifting the snow into the race, damming the water, and forcing it over the side. The damage done was repaired by the maintenance men, and water was flowing on the 20th of the same month, but on account of hard frost on the upper section the water was turned off. This company resumed operations again on the 22nd August and continued till the 26th November, when the dam emptied; the weather was so dry that they did not consider it worth while starting again for a few weeks' work. The other ground-slucicing parties were supplied, two of them using their tail-water for irrigating their farms. As it takes twenty-nine hours for water to flow from the dam to the point where required for use, it cannot be shut off when only required for one day's supply, and on these occasions it is given to the farmers, who require it for irrigation. Thus no water goes to waste. At 6.30 p.m. on the 12th February a heavy thundercloud burst along the whole length of the lower section of the race, filling it with *débris* and breaking it in many places. This damage I started to repair and clean out with twenty-three men and a horse and dray. In repairing the breaks I made use of a sufficient number of the large pipes bought, together with the race, by the Government.

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R. MURRAY Manager.