

as duffer ground. It lay idle for six or seven years, until about six months ago, when the present party reopened it, and by the improved method of hydraulic sluicing now adopted it is made to give payable results. In working this claim with sixty three-hour shifts of ten heads of water 95oz. of gold was obtained. Judging from the quantity of material sluiced away with the quantity of water mentioned, which is about 27,000 cubic yards, the yield of gold per cubic yard is extremely small, being only 1.69 grains. The next claim above this one—viz., Davidson and party—is said to have obtained about 80oz. of gold with thirty-five three-hour shifts of eight sluice-heads of water.

The principal workings on the field are on Dunedin Flat, Ross Terrace, and Larrikins. At the former place the ground is rapidly being washed away, but there are still seven claims being worked, some of which will last for four years. All the claims on this flat have been very good. On Ross Terrace there are ten claims being worked, some of which are paying very well, but the whole of the ground here cannot be worked until a deviation of the Kumara Water-race is made. At the time the water-race was constructed it was taken over ground that has since proved to be about the best on the field, and time after time deviations have been made to allow the ground to be worked. There are still about 16 chains of high fluming which will shortly have to be removed, to allow the workings to be carried on. This fluming not only locks up the ground on which it actually stands, but, as the depth of the wash-drift is 70ft., a considerable reserve has to be left on each side to render the flume safe.

At the head of Larrikins' Flat there are nine claims being worked, three of which will only last about two years—viz., Turnbull and party, Wilridge and party, and Corrigan and party. The ground here is much shallower than at Ross Terrace, being only about 25ft. deep. The heaviest sample of gold in the field is found at the head of this flat, and possibly, as the claims get worked further up, the lead of gold may be traced into the Terrace. Some of the claims pay very well, but some of them are very poor. The main difficulty in working the ground is the fall. All the tailings have to be discharged on the tailings-site, alongside the Teremakau River, and some of these claims are worked by tail-races and sludge-channels for over a mile in length, and the fall in the upper part of the tail-races has to be very small, necessitating a large quantity of water being used to sluice away a sufficient quantity of wash-drift. Coming down the Larrikins' Road there are eight claims, some of which have paid very well for working. Some of the claims are in the ground which was granted as a licensed holding and special claim several years ago, but which was never worked until it was purchased in blocks by private parties, who have paid large sums for the ground.

The only ground worked besides the claims mentioned is that held by the Long Tunnel Company. This company holds a special claim of 50 acres, but some of this area has now been sold to private parties. They are said to have expended about £13,000 in construction of reservoirs, water-races, iron-piping, and an underground tail-race about 3,000ft. in length. The claim at present is let on tribute, but the returns are very poor, and the ground for the deposit of the tailings is getting rapidly filled up.

The sluicing-ground on this field will, as previously stated, take a long time to work out; but there is apparently a great future for this field, even when the top ground is all washed away. The whole of the workings are on a false bottom, and there are several layers containing gold all through the wash-drift, besides there is a track of deep ground running through the flat which is likely to prove payable. This track is hemmed in on both sides by a blue reef. This reef crops out on the banks of the Teremakau River, and in constructing tail-races it is found to dip away into the flat; again, on the other side of the flat, the blue reef crops out at the foot of Kapitea Hill. Some shafts have been put down near the base of the hill, showing the reef dipping at a high angle into the flat. The ground resembles to a great extent that on Ross Flat, in the Totara district, where nine different gold-bearing layers have been passed through; but there is no terrace bottom as at Ross Flat. At the same time a similar description of blue reef is seen about Donnelly's Creek before it is covered by the terrace bottom. There is no doubt this is a field where all the miners who now hold claims ought to combine, and either sink a shaft or put in a tunnel from the Teremakau River to test the deep ground, as there is a great probability of a rich lead being discovered; if so, it would greatly enhance the value of the present claims, and give a permanency to the field; besides, the lead would be more likely to be traced towards the sea-beach.

The greatest difference one sees in this field on visiting it year after year is the rapid disappearance of fluming, which is now almost substituted by iron and steel pipes and siphons. At one time the flat was nothing but a network of small flumes, and frequent applications were made to have these flumes taken over by the Government, especially if they were in a decayed state, or else a subsidy was wanted to effect repairs; but since these flumes have been replaced by pipes every one seems satisfied, as they can be so easily laid down on the worked-out ground, and shifted to another place when required. There is no doubt that the use of iron and steel pipes has contributed greatly to the life of the field, as the old flumes occupied a considerable area of ground that could not be worked. The miners have also begun to see that small pipes are of very little use, as they will not supply a sufficient quantity of water, and the loss of head by friction destroys the useful effect of the water. Some of the claimholders have now pipes of 24in. in diameter, which a few years ago would have been looked on as a waste of money to procure. The following is an extract from the manager's report on the use of iron and steel pipes instead of fluming:—

"During the past year all the high fluming on the Kumara Goldfield has disappeared, with the exception of Lee's (arrangements have been made to remove this), and has been replaced by iron and steel piping, which is more suitable and more economical, both as to first cost and future repairs.