OTAGO.

No. 13.

Mr. Warden Willis to the Under Secretary for Gold Fields.

Warden's Office, Dunedin, 13th May, 1873.

I have the honor to enclose herewith the forms, properly filled up, which accompanied your circular letters of the 12th February and 11th March last respectively, and which show the position

of the gold field under my charge on the 31st March, 1873.

There is very little to add to my report of the 8th June, 1872, save that I have issued seventeen agricultural lease certificates for 2,260 acres of land; and that the number of miners has slightly increased. One of the quartz-mining companies to which I then alluded has collapsed; but the other is in full working order, and with every prospect of success attending its operations.

No cases have occurred which would have necessitated my holding Warden's Courts during the

The number of miners' rights issued during the same period was 140, and of business licenses, 8.

In order that "The Otago Waste Lands Act, 1872," and "The Gold Fields Act, 1866," which contain the same provisions relative to water rights and privileges, may be worked harmoniously, the Waste Land Board has recently appointed several of the Wardens in the Province, including myself, to be District Land Officers, the effect of which will be, that as heretofore all water rights were granted by the Wardens, they will now have to be granted by the Waste Land Board.

I have, &c.,

The Under Secretary for Gold Fields, Wellington.

ALEXANDER WILLIS, Warden.

No. 14.

Mr. Warden Pyke to the Under Secretary for Gold Fields.

Warden's Office, Lawrence, 1st May, 1873. SIR,— I do myself the honor to forward my report on the Tuapeka District of the Otago Gold Fields, for the year ending 31st March, 1873. Speaking generally, I think I may venture to say that never since the discovery of Gabriel's Gully has the Tuapeka District (proper) been in a more flourishing condition. The yield of gold has been in excess of the produce of previous years; land for cultivation is being taken up wherever obtainable; property in the township has greatly increased in value; work is plentiful and labour is scarce. It is difficult to obtain hands for any kind of employment at present.

At the Blue Spur, mining operations continue to be carried on with energy and profit. This

wonderful auriferous deposit has now been constantly wrought for more than ten years to a depth varying from 80 to 230 feet. The bed rock has been found near the centre of the spur, at a depth of 94 feet below the lowest tail-race at present in use, giving a total depth of payable cement of 324 feet. Everything is put through the tail-races, from the grass downwards. The average value of the dirt has been estimated by competent authorities at from 6d. to 1s. 3d. per cubic yard for surface stuff; and at 2s. 6d. to 5s. per cubic yard for bottom stuff, as at present wrought. The underlying old tertiaries contain heavy waterworn gold, and are believed to be even richer than the present workings, so that it will yield handsome returns when wrought, even though expensive machinery should be necessary for crushing the cement.

Since the first sluicing operations on this spur it is estimated that gold to the value of nearly £250,000 has been extracted from the soil; and the quantity of auriferous earth that has been washed away is calculated at 1,740,000 cubic yards. There yet remains to be wrought above present levels 2,460,000 cubic yards, and below those levels 660,000 cubic yards of payable ground.

This estimate (obtained by me from some of the most intelligent claim-owners) does not include ground of inferior quality, but which will no doubt yet be profitably wrought with better appliances, such as hydraulic force can yield, when water becomes cheaper. And when all has been washed down to the bed rock, the tailings, already 50 feet deep at the foot of the spur where the old township once stood, and which are rapidly filling up the entire gully, blocking up the main Tuapeka Creek, and threatening the existence of the lower portion of the town of Lawrence;—these tailings, I say, will be received the contraction of the contraction of the contraction of the superior to the superior to the contraction of the contraction of the superior to the superior t again be wrought with most surprising results, for with existing appliances it is certain that a large quantity of gold is lost. I do not, therefore, think that I overdraw the picture, if I predict that at least half a century will be requisite to fully exhaust the authorization resources of this famous spur, and that gold to the value probably of £2,000,000 still remains buried in its sands.

At present there are about seventy men employed on the various claims at a daily wage of 11s. for eight hours' work, and at this rate the cost of working is estimated at from 6d. to 14d. per cubic I may add here that the current price of water for sluicing is £7 per 100 inches per week

of 48 hours.

A new feature in this portion of my district is the production of gold from the quartz lodes of Gabriel's Gully. The first cake of retorted gold was obtained in December last by "Gabriel's Gully Quartz Mining Company." The following extract from my report (to the Provincial Government) for the quarter ending 31st December, 1872, may be interesting:—"The weight of the cake was 125 ounces (net), and it was the produce of about 500 tons of stone, which yielded (in the gross) 270 ounces of amalgam. The results thus nakedly given require other explanation, in order that the matter may be properly understood. This can best be done by a statement of the cost and gain attendant on the actual crushing, which statement has been placed at my disposal by the manager, Mr. H. L. Squires:

'Amount expended in raising and crushing 500 tons of stone £220 0 0 "Price obtained for produce—125 ounces—valued at £3 15s. per ounce... 468 15 0 "Leaving a profit of, say £248 15