

1898.
NEW ZEALAND.

REPORTS OF WARDENS AND OTHER OFFICERS
ON GOLDFIELDS.

Presented to both Houses of the General Assembly by Command of His Excellency.

No. 1.

Mr. Warden HUTCHISON to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Auckland, 25th May, 1898.

It becomes my duty to report upon the state of the Puhipuhi Gold-mining District during the past year, and I regret that my report cannot be of a satisfactory character. The hope expressed by my predecessor in his report of last year that "next year's report might show improvement in this field in the shape of one or two mines employing the full number of men and being able to pay working-expenses from results obtained" has not been fulfilled. My report must rather be that there has been no improvement whatever. The majority of claims upon the register are virtually dead, awaiting only formal decrees of forfeiture for non-payment of rent and non-working; and the remaining few, which are not liable to forfeiture, have only been kept alive by a system of protection and reduced labour. Of effective mining work there has been none.

The claims in existence are: (1.) Three known as the Great Northern Nos. 1, 2, and 3, covering 296 acres. These were surrendered claims taken up by a gentleman on behalf of a syndicate on the 9th September, 1897. No work has been done upon these claims. They should normally give employment to ninety-eight men. Protection was granted on the 2nd December, 1897, for three months, in order to give time to raise capital for working and developing the mines. That period has expired, and there is now pending an application to work with one man, which is simply an application to keep the claim alive without working. The application is based upon the ground that a company has been promoted in England with a large working capital and time is required to make arrangements for so doing. The application has been adjourned for evidence of its *bona fides*. (2.) Two claims, known as the Star of England and the Star of England Extended, are owned by the Montezuma Company, of Te Aroha. These were taken up in February last. The usual application for protection is pending. No work has yet been done on these claims, but I understand that a quantity of stone has been extracted for testing purposes. In addition to these claims, two applications for abandoned ground have recently been granted, and some further applications of a similar nature are pending, but that this is to be taken as a sign of a real revival I should be slow to affirm—indeed, it is stated that the cause of this activity is to be found in the report before alluded to, that a company has been floated in England with a capital of £25,000 to work the Great Northern Claims.

On the whole, therefore, I regret to say my report must be that there has been no progress in mining during the past year in the Puhipuhi district.

I have, &c.,

J. HUTCHISON, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 2.

Mr. Warden BUSH to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Thames, 1st June, 1898.

I have the honour to submit my annual report upon the Hauraki Mining District:—

THAMES COUNTY.

During the past year very important works have been in progress in connection with the systematic development of our most important mines.

The erection of the pumping and winding machinery at the Queen of Beauty shaft by the Thames-Hauraki Company is perhaps the most important, for upon the success of this company practically depends the future of Thames proper. The general opinion, founded upon the knowledge that has been acquired in the carrying-out of similar works in other parts of the world and that several known reefs exist in the Queen of Beauty section, is that it will turn out a success.

The Moanataiari Company has completed a magnificent crushing plant, and hope with it to successfully treat the low-grade ore which is to be found in the mine.

It is probable that it will be at this battery that the ore from the Thames-Hauraki will be treated.

In the Waiomo district the discovery of a process to successfully treat the Monowai ore should cause other companies to be formed for the purpose of working the different refractory ores which are found there.

The failure of the Broken Hill Mine, at Tairua, caused that district to be deserted. The only mines now working at Whangamata are the Whangamata Proprietary and the Wentworth. Almost all the other claims have been forfeited or surrendered.

TAPU DISTRICT.

The most important mine in this locality is that of the Mahara Royal (Limited), an English company. A ten-stamp battery, driven by water, has been erected at a cost of £2,500. Abundance of payable quartz is being obtained to keep the mill going, and a large quantity of tailings, valued at £1 per ton, has been saved for future treatment. A low-level tunnel is about to be commenced to test the lode at a depth, and should the ore prove as valuable as in the upper workings an additional ten stamps will be erected. The prospects of this mine are considered excellent.

Sheridan.—A company was formed in Napier with a capital of £10,000 to work this mine. Operations have been carried on vigorously in generally opening up the mine, but work is now being confined to developing the main reef on the low level. For some time past the reef has not turned out as well as was expected, but a change for the better has now occurred, and the outlook is much brighter. The company has actually spent £4,000 for a return of £160, and deserve better luck.

The Jessie Company are erecting a small battery, and the Golden Band and Golden Horn Companies are prospecting their properties, but the results have not so far been satisfactory.

Loose gold is obtained in the creek, and I understand that a syndicate intend working it by dredging.

WAIOMO DISTRICT.

Monowai.—This mine is being systematically and vigorously developed under the able management of Mr. W. H. Williams, a gentleman of large experience in America and Australia. The ore is of a very refractory nature, and for years past efforts have been made without success to extract the precious metals. Mr. Williams claims that he can successfully treat the quartz, and has overhauled the battery. The ore will be treated by wet crushing, amalgamation, and Brown and Stanfield's concentrators. The tailings will be treated by cyanide, and the concentrates sent to Europe for special treatment. If this treatment is successful a large and complete plant will be erected. There is a good supply of ore to grass, and the mine is so well opened up that no difficulty will be found in keeping a forty-stamp mill fully employed.

Professor Black has treated small parcels of the most refractory ore by his permanganate-of-potassium process, and claims that he extracted 94 per cent. of gold. In order to save the silver another treatment will be necessary. As a consequence of this discovery, several properties through which the Monowai reefs are known to run have been taken up.

In the Comstock Claim, through which one of the Monowai reefs runs, operations have been resumed, and a cross-cut to intersect the reef is being driven.

The Broken Hills Company are still prospecting their property, but the results so far have not been good.

Most of the mines in this district have been forfeited or surrendered.

PURU DISTRICT.

The Puru Consolidated Gold-mining Company (Limited) have been carrying on systematic works in opening up their mine and taking out quartz. A ten-stamp battery, water-race, and dam have been constructed. A considerable quantity of ore has been won, the assay results of which show it to be payable. The lode is still looking well. A new reef was recently discovered, giving at the outcrop an assay-value of £1 9s. per ton. It is intended shortly to cut this reef at some depth below for the purpose of ascertaining whether it improves as it goes down. This company deserves every success for the way in which it has carried on its operations. It is hoped that very soon the mine will repay what has been spent upon it.

Nearly all the other claims held in this locality last year have been abandoned.

TARARU DISTRICT.

The Tararu Creek Company has been continuously at work. The battery-level is being driven to make connection with the City of Dunedin level, which is also being pushed on with from the opposite side of Tinker's Gully, the intention being to connect these levels so that the ore may be sent through the mine to the battery direct. The other works in progress are prospecting, driving, and rising to connect with the low level. This company had the misfortune to lose its battery by fire on the night of the 25th March. At the time the plant was undergoing extensive alterations. Nothing daunted by its loss the company at once decided to erect new and more suitable machinery, and Messrs. Price Brothers are at present engaged in erecting a thirty-stamp mill with all necessary plant. A water-race has been constructed three-quarters of a mile long, carrying eight heads of water, and having a fall of 95 ft. The Pelton wheel, which will replace the old water-wheel, will drive the battery, air-compressors, and rock-drills. Judging from the work going on, the company must consider that the mine is payable.

Chicago.—A company called the Chicago Gold-mining Company was formed in Christchurch for the purpose of working this mine, and is engaged in opening up the property. Plenty of quartz,

said to be payable, is being found. A ten-stamp battery is being erected, and provision is made in the foundations for the addition of another ten heads when required. A water-race and tram-line are also in course of construction.

Vulcan.—The Thames Exploration Company, of London, have been developing this mine. There are several well-defined reefs—namely, the Scandinavian, Vulcan, and Nightingale—in the property. So favourable are the prospects that it is intended to erect a battery of twenty stamps.

The Kaiser (The Kaiser Gold-mining Company, No Liability).—This mine has been prospected vigorously, and the results are very encouraging. The main reef is being driven on, and an assay taken some few days ago, it is stated, gave favourable results. Hopes are entertained that a good run of gold will soon be met with.

City of Auckland (City of Auckland Gold-mining Company, No Liability).—This mine, formerly known as the Sylvia, has been prospected vigorously. A shaft has been sunk 170 ft. to the south-west of the low level, and it is intended to erect pumping and winding machinery in order to work the mine at a lower depth, underneath the place where the old Sylvia Company found good payable ore some years ago.

THAMES.

Moanataiari.—The Moanataiari Gold-mining Company (Limited) has been steadily engaged in opening up the mine and saving quartz for treatment. A considerable quantity of what is thought will prove payable ore is to hand. The battery has been completed, and commenced working last month. At present only thirty heads of stamps are going, but when the Cambria main reef is thoroughly opened the supply of ore which will be obtained from that reef, combined with that secured from the other parts of the mine, will, no doubt, be sufficient to keep the sixty stamps at work. A most perceptible improvement has taken place in the workings in the Golden Age reef during the last month. Developments in other parts of the mine are proceeding satisfactorily and with encouraging results. A full description of the mine appears in the report of the Inspector of Mines, so that I need not go into that here.

Thames-Hauraki.—The Thames-Hauraki Goldfields (Limited) has made good progress with regard to the erection of the new pumping plant at the Queen of Beauty shaft. The first set of plungers have been placed in position at the 327 ft. level, and the rising mains placed in the shaft from that point up to the surface, while preparations are being made to lower the pumping-rods. Work has been retarded by the non-arrival of certain parts of the machinery; in fact, so far as the high- and low-pressure engines are concerned, no more can be done until a further shipment of their parts arrive.

At the Deep Sinker section a chamber has been cut at a depth of 460 ft., and a cross-cut driven eastward for nearly 60 ft., and a start made from the far end in a northerly direction for the purpose of cutting the Una Hill reefs. A cross-cut will also be started shortly in a southerly direction, with a view to intersecting the Occidental, North Star, and Magnolia reefs.

Work has been suspended in the Deep Levels Consolidated section, pending the result of an action for cancellation of the license at the suit of John and Sarah Read, which will shortly be heard.

May Queen Hauraki.—The May Queen Hauraki (Limited) have been working continuously. The May Queen shaft has been enlarged and retimbered, and it is intended to continue sinking as soon as the Thames-Hauraki pumping operations commence, when the water will be drained from this part of the mine. It is thought that the sinking of this shaft will open up a block of payable ground. The results from the crushings have been encouraging, although not actually payable.

New Alburnia.—The New Alburnia Gold-mining Company (Limited) have steadily carried on work during the year. The shaft has been sunk to 100 ft. below the No. 3 level, making a total depth of 563 ft. A chamber has been cut here, and a cross-cut commenced. At a distance of 43 ft. the Dixon's reef has been met with, which is found to contain nice minerals. The old Sons of Freedom level has been repaired, and driving resumed from the Moanataiari side. It is intended to extend this level 300 ft. to get under the main shaft, which will be sunk 77 ft. more, in order to get on the same level as the tunnel. A considerable amount of opening-up has been done, and a large quantity of ore won has been treated at the company's battery, but the results have only been moderate. The manager is still persevering, and eventually hopes to meet with success.

Kuranui-Caledonian.—The Kuranui-Caledonian Gold-mining Company (Limited), which own this mine, have been engaged during the year in developing and prospecting works. In the early part of the year the prospects were of a very encouraging nature. The first crushing of 200 tons yielded 400 oz., but lately the returns have fallen off. The gas in this mine has been very troublesome, and on one occasion three men nearly lost their lives. The manager has invented a gas-alarm, which, when the gas arises to a certain height, rings an electric bell, and thus gives the alarm to those working in the levels affected.

Waiotahi (Waiotahi Gold-mining Company, Limited).—This company continues with much the same results as for the last fifteen years or so, obtaining payable monthly returns, and employing sixteen men opening out and prospecting. For some time during the year work was stopped for the purpose of repairing the shaft, overhauling machinery, &c., so that the total returns for the year have not been so large as usual. As the result of economical and systematical working the directors have been able to pay the twentieth dividend.

Hauraki Golden Age.—The Hauraki Golden Age Company (Limited) has had a large staff of men employed, and consequently a great deal of work has been done, but nothing of a payable character has been found. A twenty-stamp battery has been erected, and an aerial tramway constructed to convey the quartz from the mine to battery, but as yet very little use has been made of it.

Victoria (Victoria Gold-mining Company, No Liability).—This company has been at work steadily during the year, but with indifferent success. Lately the staff of men has been reduced.

Cardigan.—Five men are at work prospecting, but no return has been obtained. This mine is worked from the Saxon shaft in the May Queen property.

Gloucester.—The Gloucester Gold-mining Company (Limited) is prospecting its property vigorously. A considerable amount of driving has been done. A shaft is being sunk with the intention of driving under the Lucky Hit reefs. The works are being carried out in a satisfactory manner. A fair quantity of gold has been obtained from various leaders and reefs in the surface drives, and more should be found at the lower levels. The company intend erecting pumping and winding machinery, and is engaged in excavating for the foundations of a battery.

Adelaide (The Adelaide Gold-mining Company, No Liability).—A large amount of work was done in the early part of the year, but, although a considerable amount of money was spent, nothing payable was found. The mine is under protection while the directors endeavour to collect calls with the object of continuing operations.

Karaka Mine (Limited).—This property is well opened up and ventilated. The quartz found looks promising, gold being occasionally seen in the stone. It is intended shortly to erect a small battery.

Prospecting has been going on in the Lincoln, Manchester, and Karaka Queen with fair results.

Fortuna.—The Fortuna Hauraki (Limited) is vigorously pushing on with the developing works. Pumping and winding machinery have been erected on the shaft known as the Old Dart, and the water has now been pumped out. The low level in this section is being opened up with the intention of prospecting the ground at a depth.

Ethel Reefs.—The Ethel Reefs Gold-mining Company (Limited), formed in England lately for the purpose of working the Anchor and Kedge Special Claims, has been engaged in prospecting and opening the mine. Should payable quartz be met with the company is prepared to erect a new and complete crushing plant. A small four-stamp mill has been used for the purpose of testing the ore obtained from the various reefs. Twenty-four men are now employed.

Several other mines in the vicinity, such as the Mascotte, Limerick, Caledonia No. 2, and Victory, are being prospected, but nothing very promising has been found.

Kirikiri Mines (Fleming's).—Prospecting has been going on, and good specimens obtained from the small leaders. So far no large body of stone has been found, but the prospects are sufficiently encouraging to induce Mr. Fleming to purchase the Day Dawn battery at Neavesville. This battery, consisting of four stamps and one berdan, will be removed from its present position to the mine. It is intended to drive it by a small gasoline-engine, water not being available. Mr. Fleming deserves every credit for the manner in which he has worked this property.

Puriri.—Empress of India: Operations are being carried on in this mine by Messrs. Bewick, Moreing, and Co. A good deal of work has been done, and forty men employed until lately. A quantity of quartz has been taken out and stacked ready for crushing. The prospects met with so far are encouraging.

Puriri Gold Estates (Limited).—This company has spent a large amount of money in prospecting and testing the reefs which have been discovered, but, although good assays have been obtained, the bodies of quartz are not considered sufficiently large to warrant the erection of a battery at present.

Pakirarahi.—Nothing has been done in this district for some time. A great many of the claims granted have been forfeited, and several others are protected. It was thought that this district would prove a good producer, but I am afraid all hopes have now been abandoned.

Tairua.—Broken Hills: The New Zealand Broken Hills Gold-mining Company (Limited) have ceased operations pending instructions from the English directors. A large amount of work had been done, a battery purchased, water-race and tramway commenced, when it was found that nothing to warrant the erection of such plant had been discovered.

Albert.—The Albert Gold-mining Company (No Liability) has been working steadily prospecting, but nothing payable has been unearthed. The manager still has hopes of finding payable ore.

Considering that it was in this locality that such trouble arose between the prospectors (Gordon, Worth, and party) and the Kauri Timber Company, which, after a great deal of litigation, was arranged, it is strange that nothing has been done in the way of developing many of the claims granted. I am informed that the Anglo-Continental Syndicate have had a few men prospecting on some claims over which they had options, but have now ceased operations.

Whangamata.—The Whangamata Proprietary (Limited) have done a considerable amount of work on the Luck-at-Last Special Claim in prospecting and opening out the mine. A large reef was found, and has been well opened up. The quartz is payable, and some 5,000 tons are stacked ready for crushing. A contract has been let for the construction of a mill, and the excavations are now being proceeded with. A water-race is also being constructed. It is hoped this will prove a valuable mine.

Wentworth.—This mine is being developed by the Hauraki Peninsula Exploration Company (Limited), of London. Two reefs have been discovered, from which very high assays have been obtained, and are now well opened up. It is intended to erect a battery, and at present a water-race, tramway, and buildings are being erected.

Prospecting is going on in the Golden Mount and Golden Falls, but almost all the other claims have been either forfeited or surrendered.

Ohui.—The Maori Dream is now the only mine at work in this locality. This claim has had a lot of money spent on it in prospecting, but nothing payable was discovered.

Great Barrier Island.—The Barrier Reefs Gold and Silver Gold-mining Company (Limited) are engaged in opening up and prospecting Ryan's Freehold. It is said that the prospects met with are highly satisfactory. The Mount Argentum, Aotea, Kaitoke, and Edgerton Companies have done a lot of prospecting, and several reefs have been discovered, but as the ore is of a refractory nature it will require special treatment.

OHINEMURI COUNTY.

Whilst the past year has not been so prolific in applications for special claims and licensed holdings as the two previous years, I am of opinion that more advancement and solid progress has been achieved than in any previous year. The gold returns from each mine for the year show a marked advance, a true sign of progress. New mills have started crushing, notably the Waikino battery (100 heads), Komata Reefs, Talisman, and Woodstock, and, as I predicted previously, this district has a future before it second to none in the colony. The evil effects of the boom of 1895-96 are gradually becoming effaced. Ground taken up during that period for purely speculative purposes has been surrendered and forfeited, and only those claims which are able to show something of value in them are being held for the purpose of being worked.

The district will now have a chance of proving its value, which must of necessity take time, as, although a great amount of genuine development is being done, the reefs continue principally low grade and need great care in treatment to prove payable.

Everything tends to show that the reefs are of greater value the more they are sunk on, this being proved most conclusively by the Crown and Woodstock Mines at Karangahake and the Waihi Mine at Waihi.

The wet-crushing process alluded to by me in last year's report as being in the experimental stages has been turned into a great success by Mr. Daw, the general manager of the Crown Mine, who has completely converted his battery into a wet-crushing one, which has enabled him to treat a greater tonnage than he otherwise could have done, reducing the cost of treating considerably, besides many other advantages. This success induced the Woodstock and Komata Reefs Companies to speedily follow suit. The Waihi also tried wet crushing with twenty heads for some time, but without much success. I hear, however, that they intend to give it another trial.

Lack of water to keep the big mills going at top speed during the exceptionally dry season just experienced, has caused a considerable amount of annoyance and inconvenience. The Ohinemuri River has never previously been so low at Karangahake, and the same remark applies to the Waitawheta Stream. Many batteries had to hang up half their stamps. There is not the slightest doubt that these companies will have to provide auxiliary steam-power if they wish to keep up their returns during the dry season.

The question of the future supply of timber at the present rate of consumption is also a difficulty that will have to be faced. It was lately given in evidence before me that the Waihi Company cut about 5 acres every second day. This, of course, is chiefly consumed in the roasting of ore. When it is pointed out that at the Waikino battery alone there are six large kilns in constant use, each holding 25 tons, it may be imagined that a considerable quantity of timber is required to thoroughly roast it.

The various mining townships are steadily growing. Each Court-day a large batch of residence-sites are granted. The Town of Waihi has assumed large dimensions, owing principally to the new 100-head battery starting work. To keep this going it was necessary to nearly double the number of men in the mine.

At Karangahake the business-sites have been so sought after that several quarter-acre sites in the main street, the rent for which is merely the annual business license-fee—namely, £3 per annum—have changed hands at prices between £700 and £1,000 each.

Roads throughout the county are in a very good condition, being well metalled to all the chief centres of population. Means of transit are therefore much easier than in former times.

Notwithstanding that a severe "slump" has existed all the year, being the natural reaction of the boom, the revenue derived from this part of the field has been greater than in any previous year, amounting to the sum of £12,000 odd. I may perhaps add that the County receive the major portion of this sum.

In the Karangahake district the leading mine is the Crown, which is under the able management of Mr. Daw. Great progress has been made during the year, and several large works undertaken. Twenty head of stamps have been added to the battery, whilst twenty more men are to be engaged shortly. The mine itself has been most systematically opened up, and a new level of 70 ft. below the level of the river has been started. The new underlay-shaft with its chamber is a splendid piece of engineering work, besides being the first of its kind in the peninsula. The big air-compressor, the largest in the colony, is working smoothly, and doing its work well. The water-race which drives the Pelton, which, by the way, is also the largest in the peninsula, carries thirty heads of water, is a mile and a half long, and has been entirely constructed during the year. I consider this mine has a splendid future before it, as it is being most economically worked.

The Woodstock Mine has hardly turned out as satisfactorily as was expected from its prosperous start. It has encountered a lot of hard luck. The ore, although assaying highly, is so refractory that it cannot at present be successfully treated. Mr. Harry Adams, of the Komata Reefs Mine, is at present trying his system for treating the ore, and five heads in the battery are under his control. He anticipates a successful issue and that he will be as successful as he has been with the Komata ore. Once this company manages to find a successful treatment certain prosperity awaits them, as there is any amount of ore in sight, some of it being almost as rich as specimen stone. The company, in common with its neighbours, the Crown and Talisman, have suffered severely through the dry season, and for a long time have been compelled to hang up half its stamps.

The Talisman Company has been very successful since it started to crush. The ore has maintained a uniform high value, and good returns have come to hand every month. The mine itself is being very well opened up. The battery, which is crushing "dry," obtains a good extraction, but it would appear that an auxiliary steam-engine is necessary during the summer months if good returns are to be maintained. Owing to this the Krupp mill, which is said to equal fifteen head of stamps, has only worked on rare occasions. I understand the company have in contemplation

the conversion of their battery to "wet" crushing if the experiments now being conducted in the Woodstock are a success.

The Talisman Extended are driving for a lode which is supposed to exist close to their eastern boundary. A good deal of prospecting work has been done in this mine.

The Victor Waihou Company, of which great things were expected, as it is supposed to carry the Talisman, Woodstock, and Crown reefs, has been closed down pending reconstruction.

The Woodstock Main Reefs Company has also closed down, having met with no success, after having done a lot of driving and prospecting work. The Stanley, Sterling, Waverley, Ivanhoe, and Excelsior Mines are all more or less protected, and have done but little work.

At Waitekauri, the big Waitekauri Company have shown considerable improvement in the output last year. The mine is now well opened up, and a large number of men are employed. Both batteries (dry crushing) are working smoothly. I understand that the Krupp mill has not been run during the dry season. In the Te-Ao-Maramara section of the mine the prospecting tunnel is being continued from both ends. Although nothing of importance has yet been struck the prospects are good.

The Alpha Company are now erecting their battery, which should be ready by the end of the year. The mine has been well opened up, and the lode assays exceedingly well. I hope to have something better to report of the company next year.

The Waitekauri Union Claims have accomplished a lot of prospecting and work of a preparatory nature, such as road-making, &c. No reefs to my knowledge have yet been struck. Although the ground holds a very good position for obtaining likely lodes it is difficult to say what the prospects are likely to be. A large amount of capital is being spent on this ground.

The Waitekauri United Company, I regret to say, has decided to shut down, as after carrying their low-level tunnel right through their property they struck nothing.

The Jubilee Company, which is one of the oldest mines in Waitekauri, and on which a great amount of work has been accomplished, have at last struck a better class of ore, which, although slightly refractory, assays well. They intend starting crushing with their ten heads of stamps in June. It is to be hoped that they will meet with some encouragement.

The Grafton and Grace Darling Companies have done prospecting and developing work. Both these companies should turn out good mines, but will need to start work in real earnest.

In the Komata the Komata Reefs Company has been very successful from the day they started crushing, at the latter end of last year. The ore has kept up a systematically high value, and a good extraction has been obtained. This company, I understand, intend to add an additional twenty head of stamps almost immediately, and other important works are also in contemplation, amongst which are putting in a low-level tunnel, 244 chains in length, through the Komata Reefs Extended Special Claim; also the constructing of a water-race down to Hubbard's boundary, transmitting the power by electricity. The mine now is well developed, and its prospects are distinctly good.

At Maratoto work is practically at a standstill.

The Waitekauri Extended Company, after spending a large amount of capital in constructing a forty-head battery, roads to it, water-races, tramways, &c., found a change of management was necessary, as the mine itself had not been properly developed to warrant such an expenditure. This is being undertaken by the management, and I understand experiments are now taking place in the battery to ascertain if it shall be run on the wet or dry process.

The Hikutaia Syndicate, in contradistinction to the last-mentioned company, have been fully opening up their property. Seven levels have been put in, and a large quantity of driving done on each of them; but the ore, which is plentiful, is so low grade as to hardly warrant the syndicate incurring the expense of erecting a large mill and water-races. To make this property pay it would be necessary to treat a large amount of ore per diem.

WAIHI DISTRICT.

The Waihi Gold-mining Company (Limited) have made great strides during the past year. Again it has put out a record return of gold for the year. Each year this great company increases its output, and it is expected for the year ending 1898-99 it will double the output of last year. Several important works have been finished, at a cost which must have run into six figures. The new 100-head battery at Waikino has been finished, and is now working as smoothly as could be wished. The two water-races to this battery alone cost £14,000. A new pump at the No. 2 shaft has been completed at great cost. This pump, I believe, is the biggest in New Zealand. It is capable of pumping 70,000 gallons an hour at a depth of 1,000 ft. It is at present only down 370 ft., and working at the rate of six strokes a minute. It can do nine strokes. The railway, of six miles, has also been completed. The company are now busy putting in two more levels at a depth of 370 ft. and 450 ft. respectively. Six hundred men are employed by the company, not including contractors, and the wages-sheet every month, excluding money paid to the contractors, totals up the very respectable sum of £5,500. The output per month, which is now close on £23,000, is expected to be increased to £25,000. The company have in contemplation the erection of another hundred head at Waikino as soon as the Union Waihi Company are in a position to take over the ninety-head battery at Waihi.

The Union Waihi Company are doing steady work, and have put down two good shafts. From the No. 1 shaft cross-cutting both ways is being carried on to cut the Amaranth reefs on the one side and the Union on the other. Before the former reef will be cut 640 ft. have to be driven. It is a big lode, but apparently only contains one main shoot of gold through it. Thirty men are at present being employed by the company.

The Waihi-Silverton Company have continued along steadily, their return averaging about £1,250 per month. In the new level opened up the ore shows slight improvement. It is quite

evident this company will have to sink to a considerable depth before big returns can be hoped for.

The Waihi Consolidated have sunk to a considerable depth in their shaft, but from what I can hear the ore is of very low grade. A considerable amount of work has been done. The company has had some difficulty to contend against with the water in the shaft.

The Waihi Grand Junction Gold-mining Company.—The Waihi Grand Junction and Waka sections: During the past twelve months an important discovery was made on this part of the Waihi Grand Junction Company's property. In cross-cutting north-west at the 500 ft. level of the No. 1 shaft a lode was intersected 411 ft. from the shaft. This lode gave out a strong flow of water, and proved its identity with the Waihi Company's lode system by the drainage from the Waihi Mine being immediately affected. There not being sufficient pumping-power available to deplete the lode a cement dam was constructed in the cross-cut to keep the water back until more powerful machinery was available. This is now on the way, in the shape of two Hornsby boilers of 138-horse power each (these are of similar type to Babcock's) and another pump with air-compressor and rock-drills. When this new plant is available the drainage of the lode will be undertaken. While waiting the aids to development a No. 2 shaft was started, and has been sunk 250 ft., and cross-cutting commenced. This work is an endeavour to locate the lodes above water-levels, but as yet with no tangible result.

Waihi, West Section: In this section the Martha lode was located 415 ft. south-east along the cross-cut from the 160 ft. level of the old shaft. The lode was poor at this level, and a winze upon it was started. This only obtained a depth of 16 ft. below the level when the water difficulty stopped the work. The effort, however, was successful in demonstrating that a few feet below the level the lode became payable, increasing in value as the winze got deeper. A new shaft, 11 ft. by 4 ft., was commenced from surface vertically over this winze, sunk and connected with it, and the sinking is being continued, with the intention of opening out at the depth of 110 ft. below the level. It is now the intention of the company to erect a mill upon this section, in close proximity to the workings; the proposed capacity of this mill to be 100 tons per day. Steps are now being taken with regard to securing a site and water for treatment. The average number of men employed for the last twelve months is thirty-seven.

The working capital of the company (£27,500) having become exhausted a reconstruction, providing a fresh working capital of £87,500 in a company of £200,000, was successfully carried through in December, 1897.

Owharoa.—The Ohinemuri Syndicate have not met with much success. In the shaft two reefs have lately been intersected, which assay well. The company, however, are unable to proceed further as the pumps have broken down, and until matters are fixed up nothing can be done. The Elliott tunnel has been carried through the property without striking anything. In consequence of this the company have thrown off the eastern side of their property and have taken in the Dawn of Hope and Teutonic Special Claims.

COROMANDEL.

Coromandel still continues to get good returns each month from several of its mines, most notably the now celebrated Hauraki, the Royal Oak, Kapanga, and now the Hauraki Associated Gold-mines Company comes up with a good monthly return from its special claim, the Pride of Tokatea.

Since my last annual report the Royal Oak and Tokatea Companies have completed the amalgamation scheme so strongly advocated by the general manager, Captain Hodge, and the results are, indeed, most satisfactory. The total gold already produced since August last is 9,702 oz. 4 dwt., of the value of £24,441 10s. 3d., thus enabling the company to declare a dividend of 3d. per share on its million shares. A new ten-head stamper-battery, complete with stone-breaker, &c., is being erected at the battery-site, and will be ready for use when the reserves are opened up on the Tokatea reef. The whole developments are being so concentrated that all the ore will be delivered from the No. 7 level to the battery. It is proposed to concentrate all the available water in the locality, at a cost of quite £7,000, in order to pump the shaft, work the battery, and to work rock-drills. When this is done this extensive mine will have every facility for working in an economic manner.

Hauraki Mine.—The powerful machinery for deeper development-work which was in course of erection last report is now completed and works admirably. The company's returns for year ending the 11th December, 1897, were £35,710 5s. 3d., from 11,793 oz. 3 dwt. of gold, thus keeping up a good reputation. The returns are not as large as they were, but with the new machinery and future developments great hopes are entertained of good results accruing from the lower levels. The value of last month's return was £1,277.

Golden Pah.—This licensed holding was part of the Hauraki Special Claim, but a new company was formed, and the Hauraki Special Claim subdivided, the Golden Pah Company taking over 18 acres 2 roods, on which has been erected powerful machinery for sinking and developing the ground. At the 130 ft. and 190 ft. levels a great deal of driving, cross-cutting, and general work has been done for developing and also for ventilating the mine systematically. A few small crushings have been obtained during the year, and profitable results are looked forward to from this mine.

On the Union Beach section of the Hauraki Special Claim machinery has been constructed and completed, the shaft cleared of water, and this part is now in full swing.

The Kathleen.—This company deserves to meet with success. An enormous amount of capital has been expended on machinery, &c., and prospecting done from the 200 ft. level. Numerous reefs have been met with, but so far have not proved payable.

The Kapanga.—The management of this mine has lately changed hands, Captain Hodge having been appointed manager. Good results are being obtained by several tributers in this mine.

and last week the company itself had a crushing, valued at £240. The deep sinking has been discontinued at the present time, and the company is concentrating its work in developing and systematically working the intermediate levels.

The Success.—This company's ground is on the Karaka Block. The deepest workings so far are 275 ft. Good patches have been found in this claim from time to time. Continuous work is going on for developing and ventilating the mine with great hopes of payable results.

New Hauraki.—This company has done a lot of work on its ground, which is also partly on the Karaka Block. Enormous reefs are found, but the average ore so far has not proved payable.

Scotty's.—The main shaft is down 400 ft., and at this level a cross-reef has been met with and driven on, intersecting Brewer's reef. The driving is being continued north to come under the winze which yielded the rich patch of gold. The winze is the same depth as the level, and in a few weeks' time it is hoped to effect communication for ventilation. Driving will then be proceeded with to pick up this level.

Hauraki Main Lodes.—This company's property is the Albion Special Foreshore Claim, upon which substantial machinery has been erected, and is in full swing. The shaft is down 180 ft., and the water is lifted by a Tangye pump capable of raising 7,000 gallons per hour. A great amount of driving and cross-cutting has been done, and is still going on with hopeful results. It adjoins the Golden Pah Licensed Holding.

Kathleen Crown.—This adjoins the Kathleen, and is still continuing its work of development. Good machinery for this purpose has been erected and is at work.

Blagrove's Freehold.—Adjoining the Kathleen Crown. A lot of work has been done. A report of some gold being found in this mine is correct, I believe, but it cannot be worked on till some considerable amount of driving has been done to connect the workings.

Hauraki North.—Considerable work has been done during the year, and several crushings of payable stone have been made, but at the present time operations are suspended.

New Golconda.—This mine is now under the management of Mr. R. H. Harrison. A great amount of work has been done, and from present appearances it is hoped that this mine will soon come to the front.

Hauraki South.—A fair amount of work has been done in this mine. The machinery in course of erection last year is completed, and work is still going on, but nothing of any moment has been discovered.

Bunker's Hill.—This company deserves credit for the energetic manner in which the claim has been worked, and, being alongside the famous Hauraki Mine, it will seem hard after all the work the company has done if a good patch of gold is not struck soon.

Welcome Find.—This company has done a vast amount of work during the year. It adjoins the Hauraki Special Claim, and it is considered that a portion of the Hauraki main reef goes through this ground. Some payable crushings have been taken out during the year, and the work is still being pushed ahead.

Hauraki Associated.—This company owns the Pride of Tokatea and Orina Special Claims, and has spent a considerable amount of capital in developing its mines and constructing a battery, with the result that a good monthly return of gold is now obtained.

Harbour View.—Considerable prospecting has been done in this mine, and is still going on under the management of Mr. A. Kelso. Several pounds of good specimens have been obtained during the year.

Golden Lead.—This company has been working during the year, and has lately struck a promising reef, of which great hopes are entertained, as it is supposed to be the Scotty's reef.

Britannia.—This company has done considerable work during the year, but the mine has now been closed down, and all hands discharged.

Four-in-Hand.—This company has done good work during the year, and it intends to construct a battery to crush its own quartz. I believe the ground is now well opened up.

Queen of the North.—The prospects of this company seem to be encouraging, a fair amount of work having been done. Some tributes have been let in the mine.

At Port Charles there is nothing doing beyond a little prospecting by John McNeil.

At Cabbage Bay the Jersey seems to be the only company doing any work. It has lately had some crushings of a payable nature.

At Tiki the Progress Castle Rock, Pukewhau, and Royal Mint are apparently the only active working claims, and a large amount of work has been done on these claims. The want of a crushing plant is much felt.

At Manaia the British Fleet, Golden Hill, Hauraki Queen, and Little Minnie are the only claims apparently attempting anything, and I understand some English capital is being obtained to work the three latter.

Mining in Kennedy Bay district has fallen off considerably, and only a very few claims are at work.

Pukemaukuku Block.—This is Aitken's Freehold, on which prospecting is being done with a view to future active development. This part of the district has been very little worked.

Empress.—This special claim adjoins the Pukemaukuku Block, and several reefs have been discovered connecting with the Pukemaukuku, and good and payable tests have been made of quartz from this claim, but the want of a crushing plant near to the claim is much felt.

At Matarangi the Ocean View Extended Licensed Holding, the property of the Matarangi Company, is let on tribute, the tributers crushing their quartz at this company's battery and meeting with satisfactory results.

Kuaotunu.—The Mariposa Company has now absorbed the Try Fluke Company's mine and plant, and regular crushings give satisfactory results.

The Kapai-Vermont Company have a good claim, but seem to be at present in a woeful muddle.

The Maori Dream Special Claim came to grief a short time ago, being sold under warrant of distress.

The Irene Company has done a fair amount of work, but the special claim is now under protection.

Great Mercury.—This was the first licensed holding granted at Kuaotunu, and a good deal of gold has been taken out of it from time to time, but it has been worked by fits and starts, and not continuously; regular crushings have been more frequent of late.

At Mahakirau and Mercury Bay the mining has almost collapsed. Mr. T. H. Taylor has been most energetic in prospecting in this part, and deserves that his Great Marlow Special Claim should be a success.

The Colorado Licensed Holding is in full swing. Robert Fitzmoriarty and A. R. Rutherford are doing some prospecting work.

Opitonui District.—This is freehold property belonging to the Kauri Gold Estates (Limited). There are nine special claims of 90 acres each, and an enormous amount of capital is being expended in developing this part of the district. A good iron tramway has been laid between Whangapoua Harbour and the Opitonui Township, distant about seven miles, the trucks being drawn by a small locomotive. Extensive crushing plant is being erected, and as good prospects have been obtained a great future is looked forward to.

As I stated in my last report, a great want is felt by the Coromandel people of a proper public quartz-crushing battery for testing purposes, and I feel confident that many of the mines would pay if reasonable tests could only be made handy to the claims; but when the ores have to be sent to the Thames or Auckland the miners have to think twice before attempting even a trial crushing, the cost being so heavy.

On the whole, I may state that mining generally in the Coromandel district is in a very healthy state, and steady and persevering dead-work and prospecting is being vigorously carried on.

The large monthly yield of gold speaks for itself.

Te Aroha Sub-District.—The mining in this portion of the district is pretty well at a standstill, the Great Western and one or two of the Reid Campbell's properties being the only ones upon which any work is being done.

The future hopes of nearly all the claims in this part of the district are bound up in, and depend to a great extent upon, the success of the Rev. Mr. Campbell's treatment of the ores by the process which is about to be tested. A plant has been erected, and is nearly completed; a short time should therefore show whether the treatment proposed will be successful or not.

At Waiorongomai very little work has been done except at the tunnel, which is now in about 1,260 ft. The air-compressor for working the drills is practically complete, but the water-power is not yet available.

I am afraid, unless some process cheap in nature is discovered, there will not be much activity in mining in this locality.

The Under-Secretary, Mines Department, Wellington.

I have, &c.,
R. S. BUSH, Warden.

No. 3.

Mr. Warden ROBERTS to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Tauranga, 29th April, 1898.

I have the honour, in compliance with instructions, to forward the returns required, and to submit the following report on the portion of the Hauraki Goldfield under my charge. This being the first report I considered it advisable to include a summary of the incidents connected with the opening of the field:—

Immediately after the area of the Hauraki Goldfield was extended as far as the Kaituna River, in the Tauranga County, a number of special claims were applied for on Crown lands adjoining the boundary of the block known now as Fleming's Freehold. Prospecting operations had been going on in the locality with intermissions during the previous twenty years, and, although many reefs had been discovered and worked upon, little or nothing resulted.

The boom of 1896 caused speculators to give a little of their attention to undeveloped fields, and there was quite a rush of prospectors to the Tauranga County. At the present time a number of special claims are held, but it is only on the following ones that any work is being done, viz.: Te Puke Gold Reefs (Limited). This company, although not actually registered at the time of writing, will, no doubt, be so very shortly. The property consists of 1,087 acres of private land, and was originally known as Lee's Thousand Acres, and later as Fleming's Freehold. The company has a nominal capital of £20,000 in 160,000 shares of 2s. 6d. each. A cash working capital of £2,500 has been provided, and as it is intended that the workmen should work for half cash and half shares the amount mentioned is equal to £5,000. Only about 300 acres of the 1,087 are considered to be auriferous, and five separate reefs have been located. The main lode, known as Fleming's reef, has been cut through in three places, two drives being at the 40 ft. level, where the reef is about 50 ft. through, and the third at the 140 ft., where the reef is 26 ft. through and more compact. Numerous assays and tests have been made, all tending to show that the ore is payable. Some portions of the stone are rich, and contain gold visible to the naked eye, but the greater portion is of low grade, the average from wall to wall being about £2 to the ton. The whole is free-milling ore, and it is expected that it can be treated for 11s. per ton. For the last three months only three men have been employed, and latterly work has been confined to the 7 ft. reef known as Palmer's. The other reefs have also had more or less attention, and all proved auriferous.

Clark's Freehold adjoins the above to the north, and, as the name indicates, is also on private land. The property formerly belonged to Mr. Proud, but about two years ago was acquired by Mr. J. A. Clark, who all the time has kept one man and sometimes two men going. A 12 ft. reef was found some time back, and two drives were put in to cut it, one being 30 ft. and the other about 120 ft. An outcrop of nice-looking stone was found recently, and two drives, one of 23 ft. and the other of 40 ft., put in below. In the 40 ft. drive a great quantity of loose stone was found, and it is thought that the reef is close at hand. Assays from the loose stone gave good results, and the cutting of the reef is anxiously looked forward to. It is thought that Fleming's reef runs through this property into the Ben Lomond, and a drive of 50 ft. has been put in, but for the time being operations have been suspended in this drive. A second man is to be put on at once.

The Te Puke Gold-mining Company (No Liability).—This company originally held two areas of 100 acres each, first taken up under the names of the Golden Belt and Golden Butterfly, but have now reduced their whole area to about 50 acres, which includes a portion of the old Vermont Special Claim ground. This is the only registered company in this part of the district, the shares being sixpence, and on which calls have been made to twopence. Shortly after the formation of the company the services of Mr. A. Long were obtained as working mine-manager, and after prospecting for some time a run of loose gold was picked up. The gold is coarse and has the appearance of small nuggets, and by some is thought to be alluvial. This was a new development, and the company induced an old West-Coaster (Mr. Whitehead) to come and try what sluicing would do. Sluice-boxes were erected and a little was saved, but there was not sufficient wash-dirt. Since then Mr. Long has found a horizontal seam of what is locally termed cement. This seam varies in depth from 3 ft. to 8 ft. and is of considerable extent, running right through the hill. The lode contains gold of the nature mentioned before, and the general opinion is that it is payable. Anyway the cost of treatment will be very light. It is rather peculiar that while driving into this seam the first reef on the property was found. The reef is of very kindly looking quartz, about 3 ft. to 4 ft. wide, and gives fair dish prospects. It is the intention of the company to take out a couple of tons, both from the cement seams and quartz reef, and have a bulk test made at the Thames School of Mines.

Adjoining the three properties mentioned is a block of land named Waitaha, which is owned by Natives. This has been divided into three claims. The Sisters Special Claim is the centre claim, and is owned by Mrs. D. Asher and her sister, hence the name. During the first twelve or eighteen months Mr. David Lindsay and another had been working and a number of drives were put in. No. 1 drive is in 120 ft. and is now in good sandstone, a quantity of loose quartz having been met with while driving. No. 2 drive is in about 40 ft., but the mouth having fallen in work was suspended. No. 3 drive is in 42 ft. and is in sandstone. No. 4 drive is in 44 ft., and here a reef of about 5 ft. has been cut. The stone assayed £5 2s. 2d. per ton. About 18 ft. of the reef has been taken out and paddocked. A new reef has recently been found outcropping, and a drive is now being put in to cut it. The drive will have to be a fairly long one, but when the reef is cut there will be 450 ft. of backs.

Ben Lomond Special Claim.—This claim is to the east of the Sisters Special Claim, and is being worked by a syndicate, two men being employed on the ground. Operations at present are confined to opening out an 8 ft. reef, believed to be the No. 2, or Palmer's, in the Te Puke Gold Reefs Claim. The reef was struck with only a few feet of driving, and the stone gives a good assay return. There are two other reefs known on the property, but little work has been done on them up to the present.

Patience Special Claim.—This is the third in the Waitaha Block, and is considered by experts to be a first-class property, having on it a very large reef that can easily be worked. Mr. Lundon, who holds the license, is now negotiating for a company to commence work, and it is expected that active operations will be prosecuted as soon as the winter months are over.

Lady Jocelyn Special Claim.—To the south of the Te Puke Gold Reefs Claim a claim was taken up under this title with great expectations, as a run of gold was followed up to a very large reef, which outcrops for some distance. For some reason no further work was done, and the ground remains idle. This claim is on private land.

Cairngorm Special Claim.—This claim is also on private land, the licensee being Mr. S. Crawford. The property lies to the south of Fleming's, and should be traversed by several of the reefs in the last-named claim. Prospecting has been going on for some time, and two reefs have been located.

Tauranga and Kaimai (Borrell's Find).—To the south-west of Tauranga, about eight mile distant from the town, a prospector named Borrell found loose gold in the small tributaries of the Ruangarara Stream, and an association was formed for the purpose of keeping the workmen out, and, if possible, of discovering the reef from which the gold was shed. After careful washings in the creek a drive was started under what was presumed to be a blow or outcrop, but nothing but the smallest stringers were found underneath. Trenching and pot-holing were next tried, and afterwards numerous other drives, and although quantities of loose quartz, some actually containing visible gold, were met with no reef has yet been located. Numerous assays of the loose stone have been made, some giving a value of £6 to the ton.

Kaimai.—Almost due south from Borrell's. A great amount of prospecting has been done. During last year no less than fifty prospectors were sent out by syndicates, but no payable reef has yet been discovered, although loose gold can be got from the sand in several creeks, and boulders of flinty quartz can be met with in many places.

Ngapeke.—Between Tauranga and Te Puke a number of Natives worked at mining for some time without success.

The Under-Secretary, Mines Department, Wellington.

W. H. ROBERTS, Warden,

No. 4.

Mr. Warden ALLEN to the UNDER SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Blenheim, 9th May, 1898.

I have the honour to enclose you herewith my annual return for the Marlborough Mining District for the year ended the 31st March, 1898.

I have no special report to make concerning this district for the past year. A number of special, river, and terrace claims have been applied for during the past year, but, as most of these applications were not dealt with till nearly the end of the year, no work has been done on them. I am informed that some of the applicants intend to work their claims; therefore I hope to have a more satisfactory report to make at the termination of the present year.

Payable stone has been found in several places in this district, and experts from other districts have not hesitated to say that if such discoveries had been made in any other gold-mining district they would have been worked long ago.

Dr. McKenzie, who owns a very small dredge on the Wakamarina River, has succeeded in bringing payable gold to the surface. This, no doubt, has induced a few workers and many syndicators to put in applications for river claims.

I do not think that the question of the future welfare of a mining district should be decided by the presence or absence of applications for claims. My opinion of the value of this district has been formed long ago, and I see no reason to alter that opinion. There is no doubt that this is a district rich in minerals, and if the miners are not driven out of the district by the alienation of known auriferous country a discovery will, sooner or later, be made that will tend to bring a working population of miners and mining companies into this district.

The Under-Secretary, Mines Department, Wellington.

I have, &c.,

J. ALLEN, Warden.

No. 5.

Mr. Warden HEAPS to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Nelson, 4th May, 1898.

I have the honour to forward herewith the returns for the year ended the 31st March last, for each of the sub-districts of that portion of the Karamea Mining District within my jurisdiction, and to report generally thereon:—

NELSON.

The track from the Wangapeka-Karamea Saddle to the Crow River was hardly completed in time to produce any marked results this year; but now that facilities have been provided for getting on to the ground many may be expected to visit the locality early next spring who have previously found payable gold in the Crow River.

I have not heard that any fresh finds have been made in the neighbourhood of the Sherry, the Wangapeka, or the Baton. At the Sherry two water-races are in course of construction, and about a dozen men are said to be working on McRae's Run, Wangapeka, with fairly satisfactory results, but as yet there is no sluicing on a large scale commenced. Altogether about thirty miners find employment in this sub-district.

MOTUEKA.

During the past year all the applications for special claims, representing an area of 700 acres, in the Mount Arthur district, which were referred to in my last report, have lapsed. As far as I am able to judge, they were taken up without due investigation on the part of persons interested, though doubtless in the near future means will be found of working this known auriferous country to greater advantage than it is being worked at present by the few miners engaged.

The mineral licenses referred to in my last report were granted for an area of 300 acres, for the purpose of working the asbestos deposits in the Upper Takaka Valley, in the vicinity of Mount Arthur. A strong company has been formed, who are about taking over the licenses, and already tenders are called for surveying a tramway-line from the deposits to ultimately connect with the tramway-line down the valley to the port at Waitapu; and I hear that a track is being, or is about to be, cut to connect with the Mount Arthur Track, and so obtain comparatively easy communication with Motueka and Nelson. I have obtained fine specimens of asbestos from the deposits. The quality is undoubtedly good, and the quantity is said to be assured.

TAKAKA.

At the Bubu there are five parties working. Patterson and party are bringing up a tail-race, and expect when they reach their ground to get on to good gold. Whelan and party have a sluicing claim, which I understand pays well when they have water. Rose and party are also sluicing, but have to get protection during the summer months on account of the scarcity of water. Stewart and party were on good gold at the time a slip occurred and destroyed their workings and covered up their face. Cate and Son are said to be making small wages. The general impression about this locality appears to be that the ground is good enough to support a number of men, but water is scarce, and the workings consequently retarded.

At the Anatoki there are six or seven parties working in the bed of the river, but with poor results. Here, again, the difficulty of bringing water on to the ground prevents the terraces being sluiced.

At the Onakaka six licensed holdings have been applied for to work a mineral deposit thought to contain platinum, but samples submitted to the Government Analyst have not confirmed expectations.

COLLINGWOOD.

Generally speaking, the mining outlook in this sub-district is still satisfactory, and much good work is being done, with successful results in some cases, and in others—which have not yet arrived at a paying stage—with considerable confidence of success in the future.

Since the 1st April, 1897, nine special claims and licensed holdings have been granted and taken up, making up a total of twenty-nine now held, embracing an area of 1,470 acres 2 roods 11 perches, besides which there are two coal leases, containing an area of 139 acres.

The Parapara Hydraulic Sluicing and Mining Company have during the last year been continuously mining on a reserve held by them and on Mr. Travers's private land—in one place with two nozzles playing on an open face, and in another with two elevators. An average of about fifteen men have been employed during the year, and good returns of gold are said to have been obtained.

The Collingwood Goldfields Company (Limited), which has taken over Messrs. Fell and Gilmer's leases at the Quartz Ranges and Golden Gully, has about fifty men employed. This company has erected a sawmill, and is cutting the timber for fluming the water from the Boulder Lake to the Quartz Range Claims. The timber will be taken to the commencement of the race on the tram-line (already constructed), a distance of four miles. Practically all the alluvial ground at the Quartz Ranges, which experts have pronounced payable throughout, is held by this company, which to all appearance has a successful future before it.

The Rocky River Hydraulic Sluicing Company completed bringing on the water to their claim at Rocky River, and have commenced sluicing. No returns are as yet to hand, but it is generally believed that the venture will prove successful.

The Johnston's United Mining Company is still at a standstill. Unfortunately, a bush-fire spread to and destroyed the company's battery and plant in February last.

A good deal of work has been done on the licensed holding held by Squire and Bray during the last year. The result so far has been somewhat discouraging, but Mr. Squire is still sanguine that he will yet obtain a good return for the capital expended.

Of the five dredging claims granted during the year, only two have been taken up; these are on the Aorere River. It is early yet to say what the present holders will do, but I think it is unlikely that the rich deposits the Aorere River is known to contain will remain much longer neglected.

The Taitapu Estates Company, together with the Pioneers of New Zealand and the Australian Gold Trust Company, have given employment to about a hundred men throughout the year on the Taitapu Estates at West Wanganui. The valuable battery imported last year by the Taitapu Estates Company has been got on to the ground, is erected, and crushing has commenced. The Pioneers of New Zealand, who have been prospecting on another part of the estate, have met with satisfactory results. From 20 weighed tons of unpicked stone crushed at the new Taitapu battery 65 oz. of retorted gold were obtained.

Messrs. Caldwell and Son are steadily working their coal lease at Pakawau, where they have a good seam of coal. Their output for the past year was 230 tons, but this will be greatly increased as soon as the lessees have put down a tram-line, now about to be constructed from the mine to the wharf.

There has again been a decrease in the number of miners' rights issued and applications made during the past year, but this, as I explained last year, must not be taken to indicate a decrease in mining, but rather that the miners are electing to work for the steady wages paid by the large companies in preference to working in small parties as heretofore with precarious results.

In conclusion, it is gratifying to be able to repeat what I said last year—viz., that the Collingwood district is practically free from unemployed, and that the ordinary population, as well as a large number of strangers, have found ample employment here during the year.

I have, &c.,

The Under-Secretary, Mines Department, Wellington.

WILSON HEAPS, Warden.

No. 6.

Mr. Warden STRATFORD to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Westport, 13th April, 1898.

I beg to submit the following report upon that portion of the Karamea Mining District which is included within my jurisdiction:—

WESTPORT.

The year just closed has witnessed a decided relapse from the excitement and activity that had existed for some time previously, and, as a consequence, most of the large mining areas then taken up have been forfeited or abandoned, the licensees having failed to comply with the conditions imposed. Very little prospecting is being done now in comparison with the energy displayed in this direction twelve or eighteen months ago.

A few mines are proceeding slowly but steadily with preparatory works. The General Exploration Company is employing a reduced number of men, both at Fairdown and Bendigo, and some time must yet elapse before gold is obtained in appreciable quantities.

The Britannia Company has been prospecting vigorously throughout the year, and has found payable stone in various parts of the mine. Some work has been done at the Great Republic Mine, Stony Creek, and crushing ought to be started at an early date.

About the only claim at Mokihinui upon which anything has been done during the past year is the Lady Agnes. A few men have been employed prospecting, and, so far as I can learn, they have not met with the success anticipated.

No further developments have resulted at Karamea, Oparara, and Cascade Creek, and none of the large areas recently taken up in these localities are being worked.

The Beaconsfield Mines, at Waimangaroa, have been acquired by an English company, and preliminary works have been recently put in hand. It will probably be twelve months or more before stone is being milled.

At Addison's the Golden Sand Company started crushing cement about December last. The first clean-up took place recently, and it is reported that shareholders express themselves satisfied with the result.

Besides the claims already mentioned, some three or four other companies have done a little developmental work, and this about exhausts the list of larger mining ventures launched during the last year or two.

The bulk of the gold produced in the Westport district still comes from Addison's, and is obtained principally from claims which have been worked for twenty-five or thirty years, in most instances, perhaps, by the men who took them up originally. Doubtless the experience acquired by these pioneers of the sixties has enabled them to command a measure of success which has been denied to many companies and parties who in later years have endeavoured to participate in the good things of the locality.

The proclamation of rivers and creeks in the district as outlets for tailings, when given effect to, will be a great boon to the gold-mining industry, and will assist materially in its development; in addition to which it will tend to lessen litigation—one of the most potent factors in retarding and crippling genuine mining enterprise.

The beach-combing branch of gold-mining is now almost a thing of the past, so far as the beaches north of the Buller River are concerned. Year by year they have gradually been getting poorer, and at the present time the few remaining miners so employed can scarcely be said to be making a living.

Taking a general view of the situation, it may safely be said that there will be a material increase in the yield of gold in this district within the course of a year or two.

LYELL.

Although in Lyell and the surrounding district the past year has not been so prosperous as previous ones a large amount of work has been progressing, and the district has now an appearance of stability, which did not exist even when the locality was in a more flourishing state.

The Dee Creek Gold-slucing Company (No Liability) was formed to work an alluvial terrace near Della Vedovas. It has already expended about £1,500 in the construction of a dam and water-race. In about three months' time everything will be in readiness to start sluicing.

The Exchange Dredge, formerly known as the Cock Sparrow, has been actively engaged in the Buller River, near Three-channel Flat. The Cock Sparrow Company, being unable to work at a profit to the shareholders, sold the property to the wages-men, who have already paid off a considerable amount of the purchase-money out of profits.

At Lyell business is now almost entirely dependent upon the results from the Alpine Mine. For a number of years the United Alpine and Lyell Creek Extended Companies had been working the same reef in adjoining claims, and it was apparent to shareholders in both companies that amalgamation would result in increased economy and profit. Until recently it had been found impossible to arrange terms, but all difficulties were at length surmounted, and the desired amalgamation became an accomplished fact. The company now holds upwards of 154 acres of ground, and since the amalgamation a considerable amount of prospecting and other work has been done. A large quantity of stone is now in sight, and no doubt the battery will be kept constantly running for some time to come. This mine has now produced gold to the value of over a quarter of a million sterling, and has paid £74,266 in dividends.

The Tyr Connel Claim is held by four men, who have been working leaders for a long time past. Stone of good quality is frequently obtained, but it is limited in quantity, and scarcely affords adequate remuneration for the labour expended in mining it.

The old Cæsus Mine and battery have been taken up again recently, and are being repaired and put in working-order.

The Kent, Surrey, and Middlesex are three special claims of 100 acres each, situate at the north of the Alpine holdings, and are now being actively prospected.

Following up the Buller River from Lyell it is found that most of the claims along the banks which were worked in the early days are now held by the Chinese, who are indefatigable in searching for the few pennyweights of gold left behind by their predecessors. There are, however, still some Europeans making a comfortable living from their own claims along the banks of the river.

At White's Point a gigantic scheme for the diversion of the Buller River is on the *tapis*, and two special claims have been applied for in that portion of the river which will be drained should the diversion be accomplished.

The Buller dredge has been working steadily at Fern Flat with satisfactory results. At present work is being carried on near the junction of Husband's Creek with the Buller River, and a wide face with a good depth of wash is being operated upon, giving highly payable returns. The company is now building another dredge a short distance up the river from the scene of their present workings. It is expected that the new dredge will treat double the quantity of wash that the present dredge does without entailing any increase of working-expenses.

Near Murchison the Matakītaki Gold-dredging Company have built a new dredge, and have recently launched it on their claim in the Matakītaki River. The work of removing the machinery from the old dredge to the new one is now in progress, and should shortly be completed.

At Maruia Mr. George Walker has taken up two special claims and a licensed holding, comprising about 70 acres of alluvial ground. It is intended to work these areas by ordinary ground-slucing, and for this purpose a good supply of water is being brought in. There is a great depth of wash-dirt, and natural facilities exist for working the ground economically and on a large scale.

CHARLESTON.

No fresh discoveries of any importance have been reported during the year. The sea-beach claims continue to be eminently productive, and have given a better yield of late than they had been doing for a long time past. At the Back Lead and Candlelight the miners depend chiefly on the county water-race for their supply, which has been very irregular for some months owing to breakages in the siphon. It is expected that repairs will be effected by about the middle of this month. Four batteries are at work crushing cement and giving satisfactory returns, and a fifth battery is in course of construction.

Only a few miners are now employed at Croninville. The shallow ground has been worked out, and the deeper ground cannot be profitably worked by small parties of men without capital.

At the Four Mile there are three special claims, of an aggregate area of 250 acres, held by a German syndicate, but very little has been done upon the ground beyond felling and burning the bush.

At Fool's Terrace a special claim of 52 acres has been taken up by A. M. Bourke. A tunnel has been driven 700 ft. and other necessary preliminary work carried out. If this claim proves a success other claims will doubtless be taken up in the same locality, which has not yet been thoroughly prospected. Two special claims have been taken up at Brown's Terrace, but very little has been done towards developing them.

On the south side of the Totara River, near the sea-beach, J. M. Powell has taken up a special claim of 26 acres of black-sand country. Six Government heads of water are being brought from the Totara River near Croninville, a distance of four miles.

At Brighton and Long Beach only a few miners are employed. Four beach claims are being worked, only one of them giving satisfactory returns. The terraces in this locality are also very poor—in fact, it may be said that they were practically worked out more than thirty years ago. Judging from present indications the prospects of a mining revival in Charleston and Brighton are not in any way encouraging; but, as the unexpected frequently happens in mining affairs, hopes for a brighter future are not altogether unwarranted.

The Under-Secretary, Mines Department, Wellington.

I have, &c.,

H. A. STRATFORD.

No. 7.

Mr. Warden STRATFORD to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Reefton, 14th May, 1898.

I have the honour to forward to you herewith statistical returns for the year ended the 31st March last, and submit the following report on the Inangahua portion of the district under my charge for the same period.

The return of gold from the quartz-mines is small. 9,751 tons of quartz has been crushed, yielding 4,266 oz. of gold, of the value of £18,253. The yield of gold from alluvial workings amounts to 3,015 oz., of the value of £11,811.

From the opening of the district to the 31st March last 695,701 tons of quartz has been crushed, from which 489,608 oz. of gold has been obtained, representing a value of £1,915,979, out of which £593,468 has been distributed in dividends. The total amount of alluvial gold raised for the same period is approximately estimated at 134,687 oz., representing a value of £499,827. The total gold-production of the district is, as far as can be ascertained, 624,295 oz., of a value of £2,415,806.

The following table will show the calls, &c., made by various companies in the district during the year :—

Company.	Calls made.			Dividends.	Quartz crushed.	Yield of Gold.			Value.		
	£	s.	d.			£	Tons.	Oz.	dwt.	gr.	£	s.	d.
Boatman's Exploration ...	292	10	0	...	...	...	...	...	...	...	...
Keep-it-Dark ...	...	...	...	...	3,282	1,031	12	12	4,098	4	0
No. 2 " South Keep-it-Dark ...	700	0	0	...	*	25	6	16	101	3	2
A1 ...	...	...	...	50	56	175	18	16	715	14	1
Hercules ...	1,400	0	0	...	*	12	13	8	50	11	7
Golden Lead ...	900	0	0	...	...	...	...	...	...	...	...
Sir Francis Drake Syndicate (private company)	...	...	...	...	1,357	465	9	1	1,867	14	8
Big River ...	...	...	...	...	480	390	11	0	1,582	6	1
" ...	...	...	...	...	†	620	0	0	2,480	0	0
Cumberland ...	1,000	0	0	...	...	...	...	...	...	...	...
Dillon ...	3,166	13	4	...	...	...	...	...	...	...	...
Newhaven ...	100	0	0	...	...	...	...	...	...	...	...
Boatman's Sluicing Company ...	100	0	0	...	...	...	...	...	...	...	...
Wealth of Nations ...	...	...	...	...	932	186	15	7	749	0	0
Progress Mines of New Zealand	...	...	...	...	3,644	1,358	0	13	6,608	13	8
Inglewood ...	200	0	0	...	...	...	...	...	...	...	...
Alluvial gold ...	7,859	3	4	50	9,751	4,266	7	1	18,253	7	3
Totals ...	...	...	...	...	...	3,015	0	0	11,811	0	0
						7,281	7	1	30,064	7	3

* 9 tons 19 cwt. concentrates treated conjointly by Keep-it-Dark and Hercules.
by cyanide process.

† 3,970 tons tailings treated

I submit for your information the following account of the work done by the principal mines in the district during the year :—

BIG RIVER.

Big River.—During the past twelve months No. 6 level, which is the lowest level in the mine, being 930 ft. below the surface, has been driven to intersect the block of stone left underfoot in No. 5 level. After driving 270 ft. without striking stone an uprise of 60 ft. was put up to connect with the winze which had been sunk 90 ft. on stone. From the bottom of the winze a prospecting drive 150 ft. in length was driven along the track of the reef, which contained broken stone of good quality. A good deal of prospecting has been done on the low level, but unfortunately without success. A tunnel has been started from the shaft in a south-east direction with a view, if possible, of picking up the old block of stone worked so successfully some years ago. An intermediate level has been driven between Nos. 1 and 2 levels. After driving 100 ft. a small block of rich stone was struck, but it soon cut out again. This intermediate level is now being continued on a good reef-track, and payable stone may be discovered at any time, as at a higher level a block of stone worked yielded near 3 oz. to the ton.

The company sold a heap of tailings, containing about 9,000 tons, to a Mr. McDonald, of Johannesburg, for 8s. per ton. He erected a plant and treated the tailings by the cyanide process. He treated about 3,970 tons, and obtained gold worth £2,480. The company are now treating the remainder of the heap.

During the year 480 tons of stone has been crushed, yielding 390½ oz. gold, valued at £1,582 6s. 1d. The total output of the mine is 14,459 tons of stone, yielding 20,327 oz. gold, valued at £81,822 19s. 9d., out of which dividends to the extent of £40,500 have been declared.

MERRIJGS.

Cumberland Extended.—The Cumberland Exchange and Success Companies were amalgamated in December last under the title of the Cumberland Extended. The operations of late, with the exception of repairs, renewals, &c., necessary to maintain good ventilation, have been of a prospecting character, with the object of proving the bottom level for a continuance of the stone worked in the upper levels. Since the formation of the new company the low level has been extended 211 ft. in a northerly direction, the ground driven through being of a promising character, carrying a reef formation, pug, slate, and loose quartz. It is considered that some little distance will yet have to be driven before the point will be reached where stone may be expected.

Inkerman Combined Mines.—At the new Inkerman workings on the western slope of the main ridge between Rainy Creek and Devil's Creek sinking the main shaft was proceeded with and 87 ft. sunk by the 15th April, making the total depth of the shaft at that date 423 ft. At this depth a chamber measuring 16 ft. by 11 ft. by 8 ft. was constructed, and No. 4 level was driven eastward a distance of 605 ft. From this level a drive north on a reef-track was produced for 125 ft., with a cross-cut to the west of 87 ft. To facilitate driving this level (which will ultimately connect with the low-level tunnel coming in from the other side of the range) a dam was constructed in No. 3 level, and all water accumulating from the old stopes and from surface percolation was stored behind it, a Tangye pump being employed to lift the water some 319 ft. to the surface. In the surface tunnel north and works (to the eastward of the main shaft) 504½ ft. of new country has been opened up, representing driving 383½ ft., a winze of 104 ft., and an uprise of 17 ft. The winze, stopes 53 ft., and a cross-cut of 34 ft. have been opening on stone. At the surface winze, north of Revival Gully, 46½ ft. has been sunk, 23 ft. driven, and 16½ ft. stoped; 63 ft. has been on stone.

In the old Inkerman Mine 818 ft. has been driven in new country and 212 ft. in sinking and rising, and of these distances 314 ft. has been opening on stone. To ventilate this portion of the mine an air-shaft was sunk 102 ft. and connected with an old uprise. The No. 2 Inkerman block has been driven on 75 ft. and a winze sunk on it 6 ft.

In the Supreme Mine 822 ft. has been driven and 147 ft. sunk; 514 ft. has been opening up on stone.

The Low-Level tunnel from Rainy Creek was commenced in February, 1897, and on the 25th March had been driven 2,089 ft. The first 221 ft. was driven by hand-drills and took twelve weeks, and the balance, 1,868 ft., was driven by rock-drills and took forty-six weeks, the respective averages per week being 18.41 ft. and 40.6 ft. The tunnel is ventilated by air-boxes which are worked by an exhaust with compressed air obtained from the receiver at the mouth of the tunnel. The power is obtained from a Cornish boiler situated at the battery, which drives a Rand air-compressor.

The total amount of ground opened up represents 6,157 ft. The average number of men employed for the year was sixty-five. For the fifteen months ended the 25th March last the company expended £11,324 in wages. This does not include amounts paid for contracts or official salaries. The company recently obtained six months' protection of their properties on the grounds that they had spent over £20,000 thereon and that such expenditure had exhausted the capital of the company and they required time, &c., to raise further capital.

Golden Lead.—The driving of the low-level tunnel has been proceeded with and it is now in 1,100 ft. Most of the driving has been through very hard ground. Better country, however, is now showing in the face. The tunnel will have to be driven another 160 ft. before it reaches the perpendicular of the surface lode and into the reefing country. This company has shown much energy under adverse circumstances.

CRUSHINGTON.

Keep-it-Dark.—The principal work carried out during the year has been the opening-up of No. 7 level. The total depth from the brace of the main shaft to No. 7 level is a little over 1,000 ft. The depth of the main shaft from the brace on the surface to No. 3 level is 486 ft., and from the

brace of the inside winding-shaft (which is 500 ft. from the main shaft on No. 3 level) to No. 7 level is 516 ft. A cross-cut 185 ft. in length from the bottom of the inside winding-shaft intersected the reef on No. 7 level. The reef has been driven on about 100 ft., and one or two stopes opened out to test the quality. There is a large body of quartz, but so far as operations have extended it is of low grade, yielding only about 4 dwts. per ton. Stopping out stone has been proceeded with from No. 5 level upwards, on a continuation of the good block of stone which was worked during the preceding year, but the quality of the stone has deteriorated to such an extent that it is scarcely payable.

Prospecting operations on No. 1 level recently resulted in the discovery of a reef, which at the present time has been driven on a little over 40 ft., the stone in the face being about 13 ft. wide. A crushing of 100 tons of stone from this block has given 134 oz. of amalgam. This block is 500 ft. from any quartz hitherto worked in the mine. The new water-wheel for winding purposes has been completed and is working well. Three thousand two hundred and eighty-two tons of stone have been crushed during the year, yielding 1,032 oz. of gold, valued at £4,098 4s. A quantity of concentrates (9 tons 19 cwt.) was treated on account of this and the Hercules Company, and yielded a return of £151 14s. 9d. The total output of the mine is 125,512 tons of stone, which yielded 66,719 oz. of gold, valued at £259,753 5s. 8d., out of which dividends to the amount of £113,416 13s. 4d. have been given.

No. 2 South Keep-it-Dark.—Prospecting operations have been carried on in various parts of the mine, but without payable results. A cross-cut is now being driven west from No. 3 level with the view of intersecting the same line of reef on which the Keep-it-Dark is prospecting from No. 1 level. This cross-cut has now been extended 200 ft.

Wealth of Nations Group.—The incline shaft has been sunk 280 ft., making a total depth of 624 ft. A chamber has been cut for winding-gear, and also ore- and waste-bins. New rails have been laid down for 1,100 ft., and timber renewed. The 200 ft. level has been retimbered for a distance of 150 ft. In the 350 ft. level 320 ft. has been driven north on the track of the reef. In the 500 ft. level 64 ft. of driving has been done to the north on the track of the reef, and a chamber cut at the incline shaft, and 40 ft. of the drive has been timbered up. On the south block a rise of 30 ft. was put up to connect with the old stopes. In the old stopes between the 350 ft. and 500 ft. levels a considerable amount of work was done to secure the ground and put it in working-order. On the old Energetic side the old level had to be redriven and timbered a distance of 300 ft., and a drain cut in the 200 ft. level to take the shaft-water. A hoisting-engine, with compressor, &c., has been erected at a cost of £400.

MURRAY CREEK.

Golden Fleece Group.—This includes the Inangahua low-level tunnel and other properties. The low-level tunnel has been extended 1,485 ft., making the total length of the tunnel 5,285 ft. A cross-cut of 610 ft. has been put in, and a rise of 88 ft. was made to connect with the bottom of the winze sunk in the Golden Fleece to a depth of 380 ft.

Inglewood Extended.—This comprises properties formerly held by the Inglewood, Phoenix, and North Star. The Phoenix reef was worked down 150 ft., the Inglewood reef 350 ft., and the North Star 75 ft. The mine is under offer to the Consolidated Goldfields of New Zealand, whose property (the Golden Fleece) it adjoins, and that company would have facilities for working the reefs mentioned if they live down, as the Inangahua low-level tunnel if extended a comparatively short distance would go through the Inglewood ground and give a large height of backs. Gold to the value of £33,609 has been obtained from these reefs. Four men only are working in the mine, and they are having a small crushing put through the battery.

PAINKILLER.

Dillon Extended.—This company's operations have been chiefly confined to the work of extending the No. 2 level south in the direction of the high ground in what was formerly the old Dillon Licensed Holding. After rising and making the connection complete between this level and Lawn's winze from intermediate level, several contracts were let for driving the tunnel ahead, and since leaving that point 343 ft. has been added to the level. For the greater part of the distance a reef-track in very likely country has been followed, and at the present time the face shows a good formation with quartz leaders. At the end of January a body of quartz, varying between 2 ft. and 3 ft. in thickness and of payable quality, was struck. It lasted for a length of 30 ft., and as a well-defined track has been kept ever since the indications have been considered sufficient to warrant further prospecting at this part.

BOATMAN'S.

Welcome.—The work of developing the reef found in No. 5 level has been carried on. The rise on the southern end of the block was continued 167 ft., and a cross-cut put in 21 ft. to the west. The track was driven on for 32 ft., and this was risen on 35 ft. A cross-cut was put in about 50 ft. down the main rise, 13 ft. to the west, and the track driven on for 38 ft. The cross-cut from Eureka incline was driven 312 ft., but without success.

DEVIL'S CREEK.

Progress Mines.—The work of development has steadily been proceeded with. The sinking of the main shaft (Globe B shaft) was completed in August last, and cost £4,394. A Corliss winding-engine, capable of lifting from a depth of about 2,000 ft., has been erected at a cost of £7,432. The Otto aerial tramway, 6,796 ft. in length, has been completed at a cost of £8,064. A new forty-stamp mill has been erected and fitted with the latest appliances for economical working and saving of gold, including rock-breakers, automatic feeders, and vanners. The cost was £10,035. The water-race, ten miles and a half in length, and capable of carrying twenty-five

heads of water to work the mill, &c., has been finished, and cost £15,285. Chlorination works are now in course of erection. A very complete and interesting description of these works appeared in the *Inangahua Times* of the 9th March last, and was copied into the *New Zealand Mines Record* of the 16th April last, so that it is unnecessary here to refer to them further. A very large amount of work has been done in the mine. On No. 4 level 556 ft. of driving and 89 ft. of cross-cutting has been done. On No. 5 level 623 ft. of driving and 87 ft. of cross-cutting, and an uprise of 177 ft. put up to No. 4 level. In the intermediate level 110 ft. has been driven and 47 ft. of cross-cutting done, and an uprise of 183 ft. put up to No. 5 level. In No. 6 level 258 ft. has been driven and 560 ft. of cross-cutting. A rise of 106 ft. has been put to the intermediate level, and another rise of 244 ft. has been put up to No. 5 level. Two winzes have been sunk—one 21 ft., and the other (No. 7) 119 ft. On No. 7 level 738 ft. of driving has been done and 582 ft. of cross-cutting, and a rise of 17 ft. put up. This level has been connected with the main shaft. This represents a total driving of 2,285 ft.—1,365 ft. of cross-cutting, 727 ft. of rising, and 140 ft. of sinking. The mine has been well opened up, sufficient stone being developed, it is estimated, to supply sixty head of stamps for between four and five years. It was recently stated by Mr. Foster, the company's engineer, that he estimated the mine would return a profit of £28,526 a year, his estimate being based upon a return of 8½ dwt. per ton. The former owners of a portion of this mine—viz., the Globe and Progress Companies—crushed 135,793 tons of stone for a yield of 64,008 oz. of gold, or 9 dwt. 10 gr. per ton.

GENERAL.

The yield of gold from the quartz-mines has been small, but the current year should show an improvement, as the Progress Mines have started crushing with sixty head of stamps, and better returns may be expected from the Keep-it-Dark, judging from the appearance of the new reef in No. 1 level. About forty men are prospecting at Victoria Range, about twenty being employed by the Anglo-Continental Syndicate on the Kirwan's Reward properties. I have not heard of any discovery of importance, and am unable to supply any information concerning it owing to my inability to obtain it.

I have to thank managers of companies and others for information kindly supplied, enabling me to furnish this report.

I have, &c.,

H. A. STRATFORD, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 8.

Mr. Warden STRATFORD to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Greymouth, 21st April, 1898.

I have the honour to submit my annual report upon the district under my charge, and at the same time to forward to you the statistical returns.

Greymouth.—No further developments have taken place in the cement claims at Rutherglen, the promoters so far have failed to induce capitalists to invest in them. As the wash, both above and below the cement, is said to contain gold in payable quantities for hydraulic sluicing it is confidently believed the claims could be profitably worked by bringing in a good water-supply for sluicing purposes, when the cement could be picked and stacked for crushing, and would act as an auxiliary to the sluicing operations. Along the south beach a few parties are getting a good living, the Leviathan Company alone winning over a thousand pounds' worth of gold during the past year.

Dunganville.—There is nothing new to report on this once one of the best gold-producing districts on the West Coast, but it is by no means worked out. A very large area of it will still pay for sluicing, but the difficulty is to get water at sufficient elevation to command the ground. I am told there is a possibility of the Hohonu Water-race Company shortly bringing water on the field. The few parties who own high-level water-races still make good wages, although they are only able to work in wet weather.

Barrytown.—Going north, the Old Darkies' Terrace at Point Elizabeth is attracting attention, and an attempt is about to be made to bring water on to it from the Seven-mile Creek. Special claims have been taken up at Ten-mile, and a contract has been let for the survey of a forty-head race to command the ground. At the Fourteen-mile the Pactolus Company are about to bring in a race to work the holding belonging to them.

The Barrytown Flat Gold-mining Company No. 1 have been pushing on their race from Baker's Creek as fast as circumstances would permit. The race is carried along a very steep siding of slate-rock, and the strata is so shattered that the ditch would not hold water, so the channel had to be boxed the whole way. As there is no mill on the ground the timber was cut in Greymouth and rafted to the Seventeen-mile Beach. The heavy piping and machinery connected with the elevating plant or blow-up was conveyed to Barrytown in a punt specially built for the purpose. The transit was effected in three trips of about 60 tons each, the tug "Westland" standing by to tow the punt off when unloaded. Now that the timber and machinery are on the ground it will not be long before this enterprising company are at work. Further north, at Canoe Creek, the Barrytown Flat Gold-mining Company No. 2 have taken up a special claim of 100 acres and had a race surveyed from Canoe Creek (length, four miles and three-quarters) and the contract for the first mile has just been let.

The Waiwhero Gold-mining Company, floated in Christchurch, have also commenced operations, and are constructing a race to work the terrace ground. This company has erected a sawmill to enable them to cut timber for use in their claim and thus avoid the heavy expense in rafting and punting the same from Greymouth.

The prospects in this subdivision of my district are exceedingly favourable.

QUARTZ-MINING.

Langdon's.—With the exception of the Victory Mine owned by Curtis Brothers, which is steadily worked, no further steps have been taken to develop this field. One or two claims are still under option to English capitalists, but the prospecting that is being carried on is of the most superficial kind.

PETROLEUM.

It is worthy of mention that Messrs. Neils, Mortenson, and party reported a discovery of crude petroleum in a swamp at Kotuku, near Lake Brunner, and applied for a mineral lease, but the Midland Railway complications have so far prevented the applications being dealt with.

COAL-MINING AND TIMBER.

The Greymouth-Point Elizabeth Railway and Coal Company's bridge over the Grey River is all but finished, but pending litigation has prevented this company from completing the work in connection with the opening-up of their Coal Creek Mine. The output of coal from the company's Brunner Mine for the year was 85,592 tons.

Blackball Coal-mining Company.—The output of coal from this company's mine for the year was 43,000 tons.

Timber.—The total quantity of timber shipped from the Greymouth port during the year was 10,199,527 superficial feet.

Return of cases disposed of in the Magistrate's and Warden's Courts at Greymouth for the year ending the 31st March, 1898: Civil, 154; Criminal, 203; Warden's, 48.

The revenue for the year amounted to £3,155 16s. 6d., made up as follows: Warden's department, £2,927 18s. 6d.; Magistrate's department, £160 10s.; licensing-fees, £67 8s.: total, £3,155 16s. 6d.

Particulars of revenue collected in the Warden's Court, Greymouth, for the year ending the 31st March, 1898:—

	£	s.	d.
Miners' rights	315	0	0
Water-races	28	2	6
Registrations	24	12	0
Rents	1,352	8	0
Fees and fines	39	15	0
Miscellaneous	1,165	9	0
Business license	1	10	0
Machine-site and quartz-crushing	1	2	0
	<hr/>		
	£2,927	18	6

AHAURA DIVISION.

Blackball.—The few alluvial sluicing claims in the vicinity still continue working with satisfactory results. The Roaring Meg sluicing claim at Upper Blackball has been recently floated as a company, and they are getting ready for sluicing on a very large scale. With a plentiful supply of water at a high pressure and 150 ft. of face with a little gold all through it the prospects of the company appear decidedly good.

QUARTZ - MINING.

The range near the head of the Blackball Creek is a network of quartz reefs. One immense reef runs about north and south, evident for two miles on the surface, and numerous leaders run into it at acute angles, some of them being very rich. Although nothing adequate has yet been done in the way of exploration the development so far has clearly proven that rich deposits of gold extend right along the range from the Blackball to Moonlight. Very many special claims of 100 acres have been granted to different parties, but the work of exploration has been seriously retarded owing to the expense and hardships consequent upon the non-existence of roads or tracks; but this is now within measurable distance of being remedied, for the Grey County Council (with the assistance of Government) have undertaken the extension of horse-tracks to many parts which were previously inaccessible, and within the next few months these tracks will have been completed sufficiently to admit of the conveyance of provisions and tools at reasonable cost. Most of the parties interested in the various special claims which are situated on the range are waiting the result of the operations of the Cræsus Gold-mining Company, which has in hand the development of a reef, discovered by one Neilsen, near the summit of the Blackball Peak, which is upwards of 4,000 ft. above sea-level. They are said to have proved the lode to exist in a solid condition for several hundreds of feet along the surface, and have tested the lower depths by means of tunnels and a winze with even better prospects than obtain on the surface, and they have now 220 ft. of backs proved. That the best results are confidently anticipated by those connected with this property is evidenced by the shares being firmly held by those who have been associated with this enterprise from the first. The difficulties experienced in the carrying-out of an extensive work in a country like this, and the scanty means of transporting the necessary implements and provisions, have necessarily hindered the progress of the company considerably. Their battery is now in course of erection at the foot of the hill, near the left-hand branch of the Blackball Creek, from which the motive-power is derived for the working of the mill. An aerial tramway a mile and a half in length is all but ready for service in conveying the ore from the mine to the mill. Adjoining the Cræsus Company's property is a special claim known as the Poneke, on which a tunnel is being driven to cross-cut a lode which has been traced for a considerable distance on the surface. This tunnel has already been driven for upwards of 400 ft., but will need to be carried a

further hundred feet or so before the lode is likely to be met. On some of the adjacent claims, such as the Taffy, Red Lion, and Homeward Bound Companies, considerable surface-work has been carried out in prospecting with fairly successful results. The Garden Gully Company have done a lot of work in their holding, which is located in the Roaring Meg Creek. The surface stone is good, but up to the present they have failed to intersect the lode below the surface.

Moonlight.—There has been considerable prospecting for quartz during the past twelve months, lately by the Paparoa, Prophet, and Deering's Wonder Special Claim holders. The stone in the latter claim is about 2 ft. in width, and shows gold freely, but it has not been traced on the surface for any great distance. The Prophet Claim has a formation of quartz and slate 6 ft. in width, the stone also showing gold freely. A tunnel is being driven in each of these claims to intersect the formation at a lower level. The Paparoa Claim Company have been tunnelling for the past year, and have met with partial success, having intersected several small bodies of stone.

ALLUVIAL.

The claims at Healey's Gully are proving remunerative; the difficulty is the want of a sufficient supply of water. The whole supply on the fields, about thirty heads, is in the hands of the Great Republic Company, used by them during the day, and let to other claimholders during the night. This makes the working of the claims most difficult and expensive, and it has wisely been decided to erect a reservoir in the Roaring Meg Creek. The Montgomery Terrace Company intend bringing in a race from the Blackball Creek to work their ground. Its length will be four miles, and as the get-away for tailings is good the claim would appear to have every chance of turning out well. At Upper Moonlight there are still a considerable number of miners engaged in alluvial workings, who are getting fair returns, but the future of the place depends on the reefing country.

Bell Hill.—A few parties are still mining at Bell Hill, and a Christchurch company have brought in a race to work the licensed holding taken up by them. The company have had great difficulties to contend against, but judging from the appearance of the face they have good prospects before them.

Half-ounce, Duffer's, Granville's, and Noble's Creeks.—I have nothing new to report on these places. The creeks in ordinary weather carry very small supplies of water, and sluicing operations are in consequence much restricted.

Orwell Creek.—Here several parties of miners have lately taken up claims at McCoola Terrace. This terrace was rushed some twenty-five years ago, and a number of tunnels driven, some of which went right through the hill. In this locality the area of sluicing ground is large, but the supply of water is extremely limited.

Ahaura.—No new ground has been broken on the north bank of the Ahaura. The holders of those claims commanding a supply of water are obtaining remunerative returns for their labour. There is a large area of unbroken auriferous ground in and along the river which only requires a sufficient supply of water to provide employment for a large number of miners and to make the working of it a profitable undertaking.

Nelson Creek.—The population in this subdivision remains stationary. The claims at No. 2 terrace did not turn out as well as expected, although a few parties still remain on it tunnelling.

No Town and Red Jack's.—At present about thirty Chinese are working the bed of Red Jack's, and generally sluicing operations are being carried on extensively in these subdivisions. At Cronin's Terrace, Sunday Creek, the gold ran into very deep ground, too low to obtain levels for tunnels to work it, and the terrace had to be abandoned.

Generally speaking, I may say that alluvial mining in the Grey Valley remains about the same as last year, and no revival can be expected until some new schemes for water-conservation are matured and carried out on a large scale.

Return of revenue received at Ahaura for the period ending the 31st March, 1898:—

	£	s.	d.
Miners' rights	330	0	0
Registrations	34	11	0
Water-races	22	5	0
Fees and fines	5	16	0
Rents	1,102	5	0
Miscellaneous	77	17	5
	<hr/>		
	£1,572	14	5

During the year there were lodged 414 ordinary applications, twenty-five applications for special claims, and three applications for licensed holdings.

I have, &c.,

H. A. STRATFORD, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 9.

Mr. Warden MACFARLANE to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Hokitika, 6th June, 1898.

I have the honour to forward herewith the usual mining statistics for the year ended the 31st March, 1898, together with the annual report on mining matters in the districts under my charge.

HOKITIKA.

Notwithstanding an exceptionally favourable year for hydraulic and ordinary sluicing operations the returns of gold from Westland show little, if any, increase on last year's production. New areas require to be brought under operation, but, as this means a large outlay of capital and a considerable length of time before gold can be won, special inducements must be held out to parties willing to invest capital in such ventures. The time required for the development of a mine, even when the money is all in hand, is exemplified by the Humphrey's Gully Hydraulic Company's operations. This company have now completed the working survey of their large head-race, and will at an early date be calling for tenders for the construction of same. The Back Creek and Kanieri Lake Race Company have been for some time negotiating with a London company to finance a scheme for bringing a large supply of water on to Back Creek and Seddon's Terraces. This is one of the most promising fields we have, but they can only be worked by a large expenditure of capital. A number of the claims on these terraces are at present yielding handsome returns to the miner for ordinary drifting operations; but, instead of drifting, if a plentiful supply of water was available, the whole terrace would be sluiced away. The non-proclamation of the river as a tailing-site has a tendency to frighten capitalists, as they are afraid they might be subject to suits for damages, &c.; but a careful examination of the position will show room for at least ten years' tailing before they would touch the river. However, this matter should engage the serious attention of the Government, seeing that the non or wholesale working of all that line of terraces abutting on the Hokitika River for a distance of eight or nine miles will either mar or make the prosperity of Hokitika. A successful beginning has been made on Lake Mahinapua with the Kanieri dredge, which is now on payable gold in the bed of the lake nearly opposite Shanghai Point, and have traced the gold to the outlet of the lake. They are now down 12 ft. and still on golden wash.

Very little prospecting is being done in this district, and what little there is is mostly in the neighbourhood of old workings. The discovery of a body of blue cement containing quartz pebbles on the south side of Lake Kanieri, and yielding 5 dwt. to the load, may be of some importance, but not having seen it I cannot say what it is worth. On examination I hope to be able to report favourably. In this district we have six offices where applications can be lodged and titles registered. A miner can lodge his application at any one of the six: his claim may be in one of the sub-districts, such as Okarito, and yet his application may be dealt with in Hokitika, or *vice versa*. All this has led to endless trouble and litigation. To remedy this and prevent confusion I have, with the consent of the department, subdivided my district into five divisions—viz., Kumara, Stafford, Hokitika, Ross, and Okarito—the boundaries of each being set out on the map now being prepared by the Survey Department. One of the said maps to be hung in each office for the information of the public. All applications and registrations will then be dealt with in their respective sub-districts and in no other, unless under special circumstances.

KUMARA SUB-DISTRICT.

This sub-district is fairly prosperous, the past year being favourable for sluicing operations, and in consequence of only a few stoppages in the water-supply satisfactory returns were in most cases obtained. To the north of the Teremakau, and on the Greenstone, the only change worth recording is the improvement in the races and dams of the Erin-go-Bragh Company. Owing to the improvements thus made this company now supplies a large number of claims along the Greenstone Road. O'Grady and party's special claim has been taken up by a Christchurch syndicate, and they are now busy with race- and dam-construction, preparatory to a more extensive way of working. First-class returns were obtained from this claim before it passed into the hands of the new company. It will be some time before the company will be in full work or in a position to prove the value of their property. Considerable improvements have been made in the methods of sluicing the ground worked during the year, but, notwithstanding this, several claims have been abandoned on account of non-payable results. Further prospecting has been done in the deep levels, and, although there are several claims now at work and paying small wages, no rich runs have been struck. On Kelly's Range a considerable amount of money has been spent in prospecting for quartz reefs by the Consolidated Gold-mining Company and others, but without discovering anything of value. Gold was found in several places, but nothing good enough, and there is now nothing doing on the range. On the Taipo a number of special claims and water-races were taken up in connection with an outcrop of serpentine. Gold of a payable character was said to have been found in this rock, which occurs here as a dyke formation. The tests made from the outcrop gave very good results, but samples taken at a greater depth did not show payable prospects, and it is just possible that the gold from the first tests may have been carried into the reef, as the Taipo, a gold-bearing river, crosses the outcrop. Anyhow, I understand work has been suspended, and the only special claims now at work are the hydraulic sluicing claims on the Seven-Mile. I believe at least one of them promises well, but results will not be known for some time. A good deal of money has been spent this last year in this block on surveys, rents, and prospecting with so far very meagre results.

WAIMEA AND STAFFORD SUB-DISTRICTS.

The miners in the above sub-districts appear to be fairly well satisfied with the results of their year's work. The water-supply for the year has been exceptionally good, not only those supplied by the Government race, but also the miners working in the back gullies and on the hills above the race level, and the supply being fairly constant the gold returns were in keeping therewith.

The special claim known as the Wheel of Fortune is reported to be on good gold. The owner is said to be in England trying to raise more capital to work it in a more wholesale manner. A short time ago Professor Black visited the ground and, I understand, reported favourably on the venture. Whether the flotation of the company is an accomplished fact or that negotiations are still pending I am unable to say.

WATER-RACES.

I am indebted to Mr. Aitkie, the manager of the Government water-race, Kumara, for information re races, dams, drainage-tunnels, and sludge-channels in the district.

The deviation of the Waimea Water-race at Kawaka has considerably improved the water-supply for the Waimea and Stafford districts, and the Wainihinihi Race, when completed, will still further augment it. In fact, after this race is completed the supply will be ample and constant. A survey of the race has been made, and it is anticipated the work of construction will be proceeded with forthwith. No stoppage in the supply occurred during the year.

The branch race to Callighan's has been made use of by a few parties during the year, and as there is plenty of unworked ground in the locality a more extensive use of the race-water may be looked for in the future.

The Middle Branch dams and branch race for the supply of water to the claims intending to sluice into the Waimea main tail-race have had very little done to them during the year.

The Waimea main tail-race has been completed with the exception of timbering the jump-up and one or two other small matters, and could with a very small expenditure be made use of at once. The delay in making use of this tail-race has been caused by certain financial difficulties, which it is to be hoped will soon be settled. The starting of sluicing in this main tail-race would give a great impetus to mining in this district.

The Kelly's Terrace drainage-tunnel has been driven about 2,600 ft., but no gold has yet been met with. A further distance of 4,000 ft. has yet to be driven before known auriferous ground will be reached.

The general supply of water for the year was all that could be desired, and I understand that the dams were empty only two days during the whole year. The increased capacity of the large dam at the Loopline Road has been a great boon to Kumara, as had it not been for this water would have been short on the field on several occasions for considerable periods of time. The completion of the Wainihinihi Race will to a large extent render the supply for Kumara independent of long periods of dry weather, and make it regular and constant.

The No. 5 channel is now drawing near completion in a satisfactory manner, and before another year expires several claims should be opened out and sluicing into it. The starting of sluicing into this channel should lead to a revival of mining in Kumara and a much greater demand for water.

In connection with the various channels and tailing-ground now used by the miners of Kumara, it is to be regretted that the spirit of litigation is so rampant with regard to the supposed rights of each party, when mutual concessions, dictated by common-sense, would overcome most of the difficulties that are now carried into the law-courts for adjudication, at considerable cost to all parties concerned.

ROSS SUB-DISTRICT.

Mining matters in this district have not improved since my last report. On the contrary, what with the Ross United Gold-mining Company going into liquidation, consequent on the cancellation of a large portion of their claim for the non-payment of rent, &c., and the utter collapse of the company who took up leases on the Cedar Creek reefs the mining outlook is anything but encouraging. It has been said that the Ross United barred the way against capitalists, who would gladly have undertaken to put a suitable plant on the ground. This may or may not be truth. However, now it is open to any one having the capital to become possessed of one of the best mining properties in New Zealand. The grant is now held as a reserve by the Government, who, I understand, are prepared to grant liberal terms to any party who can show sufficient capital to carry out a plan of working the ground, to be approved by the Government Engineer. Nothing more is known of the value of the Cedar Creek reefs than was known years ago. They have been pegged and repegged, some expenses incurred, rents paid and due, but little or no work done to prove their value. In nearly every case the leases have been cancelled, and without outside help the people of the district can do nothing more. The Mont d'Or Special Claim is the one successful venture we can point to in the district at present. This claim continues to pay regular quarterly dividends to its lucky shareholders, and they have yet a large field before them. The only prospecting of any account being done is on the Totara River, where a North Island company have men at work testing the value of the river and valley gravels for dredging purposes. I am informed the prospects are eminently satisfactory, and the wash can be easily dealt with by the up-to-date dredges now procurable. This company are wisely proving their ground by sinking a series of paddocks before committing their shareholders to a large expenditure for dredging plant. The prospect obtained and the character of the material to be dealt with will, I think, justify the company in putting up a first-class dredging plant on the ground. A few men are prospecting on the Waitara River. This river and the Big Wanganui—two of our largest rivers, and both draining a large area of highly mineralised country—are practically unexplored, and would if carefully and intelligently prospected open up new and extensive fields for the miner.

OKARITO AND JACKSON'S BAY SUB-DISTRICTS.

With the exception of the extensive works now being carried on by the Waiho Hydraulic Sluicing Company on the terraces between the Callary and the Totara Rivers, and the taking-up of two dredging claims on the Five-Mile and Gillespie's Beaches, there is nothing of importance to report. Considerable difficulty is being experienced by the contractors for the works on the Waiho Claim in getting the necessary material on to the ground. Seeing that over 120 tons of iron for pipes, besides a large quantity of other material required in connection with the claim, has to be carted over some twelve miles of very indifferent roads it is not to be wondered at if the roads made originally for the convenience of the settlers with their limited requirements should

be unable to bear the heavy traffic now put upon them. The County Council, whose duty it is to keep the roads in repair, are doing what they can with the limited revenue at their command to keep the roads passable, but it is a somewhat difficult task. The work in connection with this claim has brought a number of men into the district, and will for a considerable time afford them employment.

Owing to the unforeseen difficulties that have arisen in connection with the transport of material both by sea and land the actual working of this claim will be delayed some months beyond contract time. I understand it will be from four to five months before sluicing operations can be commenced.

The silver-pine-sleeper industry is employing a number of men, who are earning fair wages. Some 4,000 sleepers are now ready for shipment, and but for the unfortunate loss of the local steamer "Waipara," under contract to take the sleepers from the Okarito Wharf, this trade would have assumed larger proportions, a considerable quantity of this valuable timber being available.

Nearly the whole of the ordinary miners on the Waiho are preparing to undertake the working of the beaches of the Upper Callary. This can only be done during the winter months when the frost has dried up the river. If conditions continue favourable I expect to hear of some rich finds. A track has been made and a wire bridge thrown across above the gorge, giving easier access to what has hitherto been a very inaccessible place.

During this year some of the sea-beaches south have given very good returns, simply from what is termed beach-combing, thus showing that if the said beaches were dealt with in a wholesale and intelligent manner the results must be eminently satisfactory.

About two months ago McKay and Adamson crossed the divide from the Hermitage into the head of the Callary, ostensibly to examine the country for the quartz lodes that are supposed to have supplied the gold to the Callary and the Waiho, but as far as I can learn they did no prospecting, but simply made the trip across and returned by the Karangarua; so this interesting piece of country is still open to the spirited explorer. The mere feat of discovering passes and recording heights and other alpine features is not of much help to us from a miner's point of view, however interesting it may be otherwise.

In the far South matters are much the same as they were last year, the only important undertaking being a special claim on what is known as Sardine Terrace, near the mouths of Ship and Bullock Creeks. Prospecting has been carried on with very satisfactory results, and I understand that steps are now being taken to bring in some ten or twelve heads of water to begin with, which can be done at a very moderate outlay. Should the returns warrant a larger supply, this can be obtained by going back some six or seven miles, where an ample supply is obtainable. This is one of a series of terraces of great promise for wholesale hydraulic mining, and the success of this claim would mean the taking-up of many others. To the south of Jackson Bay, on the Olivine Ranges, and the block lying to the west of Cascade River nothing in the way of mining is being done, although this is one of the most promising districts in Westland. Owing to its inaccessibility the ordinary miner is still unable to get his supplies and tools with any reasonable hope of having time to do anything else. The track to Barn Bay is all that can be desired, but until it is continued some four miles further it is impossible for horses to get along. It would be very much in the interests of all concerned if this block were made accessible to the ordinary miner. The settlers on the Jackson's Bay Settlement would gladly avail themselves of the chance of supplementing their earnings on their holdings, besides being an open door for others who would gladly avail themselves of the opportunity. I trust the matter will engage the attention of the Hon. the Minister of Mines when the estimates for the tracks on the goldfields are being considered.

Owing to the unfortunate wreck of the steamer "Waipara" the whole of the southern settlements have been put to considerable inconvenience through want of communication. In Okarito especially goods had to be carried overland, causing a rise in prices from 50 to 100 per cent. At present there are some ninety bales of wool and 4,000 sleepers awaiting shipment, and in consequence the settlers and miners are put to great inconvenience and expense, otherwise the South is in a fairly prosperous condition.

I have, &c.,

D. MACFARLANE, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 10.

Mr. Warden HAWKINS to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Lawrence, 9th May, 1898.

I have the honour to submit herewith the annual statistics of the mining industry in the Tuapeka district for the year ending the 31st March, 1898, and the following report of the various centres for your information:—

The mining enterprise throughout the whole of the district has been fairly active during the year. Several dredges have been built and are at work, and others are being built.

The licenses for twenty-eight special claims and six licensed holdings have been taken up during the year, and 300 miscellaneous applications were dealt with.

TUAPEKA.

There are now three dredges at work on the Tuapeka Flat: (1.) W. Murray and party on special claim near the Chinese Camp have done fairly well, and the owners are said to be satisfied with the undertaking. This dredge is lighted with electric light. (2.) J. Harris and party, known as the Tuapeka Flat Dredging Company: This dredge has stopped work for a great part of the year on account of the owners deciding to change the boiler, and there has been great delay

in getting another out from England. (3.) James Henley and party: This dredge has only just started. The locality was a rich one in the early days, and it is very probable, if properly worked, that it will give satisfactory returns.

The Evans Flat Dredging Company and the Tuapeka Dredging Company are each constructing a dredge to cost about £2,500. It is expected that the latter will be in working-order in about ten days and the former in about a month. Mr. Cullen is the consulting engineer for the building of these dredges, and they are being fitted up with all the latest appliances, and are being lighted with electric light at a cost of about £60. The engines and boiler have been imported, the makers being Messrs. Marshall and Sons, of Gainsborough, England.

Three other special claims have been taken up on the Tuapeka River below the above with the object of putting dredges on.

WEATHERSTONE'S.

The dredge owned by Mr. J. W. Robertson in this locality has not been working satisfactorily. He has had much broken time, and as yet it does not appear to be a success. The only other claim which I need mention in this locality is that of Messrs. Smyth, Adams, and Donlan, known as the Golden Rise Mining Party. They have increased their area during the year, and now hold a special claim of 73 acres. They have an elevating plant, and have been working steadily with satisfactory results.

BLUE SPUR.

The Blue Spur and Gabriel's Gully Consolidated Gold Company (Limited), under the able management of Mr. J. H. Jackson, have been working steadily for the year, and have won 3,163 oz. of gold, valued at £12,482. This claim is the mainstay of the Blue Spur Township, giving employment to a large number of men—viz., about forty-two—and owing to the company having an excellent water-supply they are enabled to make good time.

The Local Industry Gold-mining Company, in Gabriel's Gully, worked steadily for a great part of the year; they won 270 oz. of gold and paid a dividend of 1s. per share.

Messrs. J. Kitto and party have been working with a good supply of water for the greater part of the year, and the results are stated to be very satisfactory.

Messrs. Mills and Browne, at the foot of Munro's Gully, have an elevating plant with good pressure of water. They have increased the area of their claim during the year, and now hold a special claim of 46 acres. They are reported to be doing well.

TUAPEKA MOUTH.

The dredge that was working on what was known as Watts Goodwin's Claim at the mouth has been sold on account of some difficulty in working the ground by means of dredging. It is stated that the claim would pay well for sluicing if water with a little pressure was available. The dredge is now erected on Messrs. Henley and party's claim on Tuapeka Flat.

A dredge has been recently put on to Messrs. McLeod and party's claim at the mouth, having been brought down the Clutha River for the purpose, and I understand the returns so far are considered satisfactory.

WAITAHUNA.

Several special claims and other mining rights have been applied for and obtained in this sub-district during the year, but no new finds have been reported.

The Waitahuna dredge continues to work on the river-flat below the township, but I am informed the average returns are slightly below the previous year. It is now owned by McKenzie and party.

Waitahuna Gully.—Messrs. Thomson and party (the Norwegian Claim) have been working continuously during the year, employing about a dozen men, with fairly good results.

Ferris and party have been working on their licensed holding with good average yield.

The Sailors' Gully Gold-mining Company (Limited), after going to considerable expense in enlarging water-races, laying down pipes, and constructing dams, have now been sluicing for some months. They have had fairly good returns, and are confident that the claim will turn out satisfactorily.

Messrs. Hagan and party, and Quilter and party, are still working the old tailings in the bed of the gully, and owing to the wet season most of the claims in this locality have been able to turn over during the year a considerably greater quantity of stuff than last year, and therefore it is reasonable to expect that they have had a better yield of gold.

Canada Reef, Table Hill.—A special claim has been taken up here by John Lawson and party. They have about a dozen men employed opening out the reef.

Burnt Creek Quartz-mining Company (Limited), Table Hill District.—This claim is situated about fourteen miles from the Waitahuna Township. The company have a considerable body of stone opened up, and expect to commence crushing very soon. The crushing-machine consists of ten head of stampers; the battery is driven by a turbine, and the water-supply is by race from Tokomairiro River.

GLENORE.

Dredging is pretty well the only form of mining carried on in this locality, and there are three dredges at work on the south branch of Tokomairiro River:—(1.) John Nelson and party: This party have put in a new boiler, imported from England, during the year, at a cost of about £400. They have been working steadily during the year, and are reported to be on payable gold. (2.) Messrs. Tulloch and party: Working steadily during the year, and are on payable gold. (3.) Messrs. Robertson and party: This party have built a new dredge during the year; it is lower down the river, below the township; it has been working for about three months, and is reported to be doing well.

MANUKA CREEK.

Messrs. J. D. Stewart and party : This party hold a large area under extended claims, and have done a lot of work in bringing in additional water, constructing dams, and opening up the claims. The situation being at a high altitude the water-supply during the summer is not very good, but during the rest of the year the party is of opinion that the returns will be satisfactory.

WAIPORI.

The mining enterprise is still particularly active in this sub-district. Numerous applications for special claims and other mining rights have been dealt with during the year.

The O.P.Q. Gold-mines Company (Limited) was floated on the London market during the year, and took over the O.P.Q. Reefing Claim from the New Zealand Minerals Company. About thirty men have been employed during the year sinking shafts, erecting battery, and endeavouring to open up the reef.

The Amalgamated (Waipori) Deep Lead Gold-mining Company have made a fresh start. The mortgagee (Mr. Farrell), having purchased the property, is preparing to work the claim in a systematic way.

The Success Gold-dredging Company (Limited) took over a special claim of 84 acres from William Hanley, and built a dredge on it at a cost of £2,900. It has been working since January last, and the directors are well satisfied with the results so far.

The Empire Gold-dredging Company (Limited) is a company formed during the year, which took over the special claims of Messrs. McKinlay and Pilling. The claim is situated on the Waipori Flat. The dredge is now built, and will be working shortly. It is well equipped with all the latest appliances, and reflects great credit on the contractors, Messrs. Morgan and Cable, of Port Chalmers. The dredge will burn Westport coal, the only one in the district doing so.

Messrs. McNeil and party : The dredge on this claim is now entering on its second working year. The company is a private one, and the returns are not published, but I am informed that they are exceedingly good.

The Jutland Flat (Waipori) Gold-mining Company (Limited) has been working steadily for the greater part of the year, and has won 1,151 oz. of gold during the twelve months, and dividends amounting to £1,875 have been paid.

The Upper Waipori Alluvial Gold-dredging Company (Limited) has also been working for the greater part of the year. The yield of gold was 1,169 oz. Dividends declared amount to £600 for the year.

The Bakery Flat Sluicing Company (Limited) had some bad luck at the commencement of the year in opening up their new claim, but they have now got it in good working-order, and the returns are said to be satisfactory. A recent washing-up of the company yielded 71 oz. for the month. The claim includes all the available river-flat above the well-known Jutland Flat Dredging Claim. During the year an attempt was made to reach the main bottom of the gutter which underlies the false bottom on which operations are carried on, but without success, for after sinking 51 ft. from the surface the plant was withdrawn.

TAPANUI.

Very little mining in this part of the district has been going on during the year. Only one dredge is now at work on the Pomahaka River, and the owner reports that he is getting gold in payable quantities. A few miners in the Waikaka and Greenvale districts are said to be doing fairly well. Edge and party are working their licensed holding taken up about a year ago, and I believe their prospects are fairly bright.

WAIKAIA.

The mining industry in this locality has been very active during the year, and the business in the Warden's Court has considerably increased. The following statement of revenue collected at Waikaia will give an idea of the amount of work transacted in the Court for twelve months ending the 31st March, 1898, viz. : Warden's Court, rents, miners' rights, &c., £605 5s. ; Warden's Court, fees and fines, £8 15s. 6d. ; Magistrate's Court, Civil fees, £19 3s. ; Magistrate's Court, criminal fees and fines, £36 13s. : total, £669 16s. 6d.

There were 210 ordinary applications received and twenty-six applications for special claims and licensed holdings; thirty-two objections to applications were heard, and fifteen suits were entered in the Warden's Court.

There are about two hundred and seventy Europeans engaged in mining in the district, and about fifty Chinese.

The local bank has purchased about 2,090 oz. of gold during the year, and as all the gold found at Nokomai, Upper Waikaia, and Whitecombe districts, which would yield at least 700 oz., is disposed of at other centres, the total yield for this district would be about 2,790 oz., valued at about £10,900. This estimate I believe to be well within the yield.

The following are the principal claims at work in the district :—

The Argyle Hydraulic Sluicing Company have obtained 996 oz. of gold during the year from their two claims, although one of the claims was shut down for three months for want of sufficient water to work their hydraulic claim on Winding Creek.

The Waikaia Gold-mining Company, on Scrubby Terrace, obtained 206 oz. of gold for the year, which must be considered a good return, seeing that the company were only able to work for about six months of the year for want of water.

The Sew Hoy and Kum Poy Claims at Nokomai have also been short of water, and there are now about forty men employed in cutting another water-race, and when completed it will enable them to work at all times.

Messrs. Erskine and Thompson have sold their claim at Nokomai to a company called the Lion Gold-mining Company, which has now about thirty men employed in cutting a water-race from the Roaring Lion Creek to work the claim.

A company called the Otago Syndicate (Limited) have taken over the mining property of the Switzers Freehold, and all the claims of Messrs. Kennedy, McArthur, and party at the Winding Creek. They have about three hundred men employed in constructing water-races and working the claims. The water is to be brought in from the Liethan and Waikaka Streams, but owing to some difficulty with the contractors it is probable the work will not be completed for some time. The estimated cost of construction will be about £10,000, but when the races are completed there will be sufficient water to enable the company to work about nine elevators at once.

The Golden Crown Dredging Company have during the year placed a dredge on the Waikaia River at a cost of £3,500, but so far they have not been able to get on to payable gold.

A movement is on foot to have the Waikaka River declared a sludge-channel, but it is not known how far its promoters have obtained the support of the mining community.

WAIKAKA.

There are two dredges at work on payable gold in this locality; one is owned by Mr. J. R. Perry, and the other by Messrs. W. McGill and party. A few other special claims have been granted, and a number of applications are pending.

There is evidence of increased activity in matters relating to mining in this locality.

I have, &c.,

ROBERT S. HAWKINS, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 11.

Mr. Warden DALGLIESH to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Naseby, 20th May, 1898.

In submitting the accompanying annual statistics of the mining industry for the Mount Ida district for the past year I have the honour to state that the period under notice has been marked even more acutely than ever by the scarcity of water, preventing, in a measure, the successful continuance of the works in progress at the various centres, causing, indeed, a state of comparative stagnation throughout almost the entire district. It is most satisfactory to notice, however, that despite the long and repeated disappointments in that respect, which have been met on all sides with great patience by the miners, they are still showing a determination to face their difficulties with the courage and energy so characteristic of the gold-miners of New Zealand; and the intimation given of the determination of the Government to proceed with the work in connection with the proposed reservoir at Eweburn has given rise to feelings of the utmost satisfaction and increased hope with regard to future supplies of water. A certain amount of prospecting has been carried out, which promises to bear out the predictions contained in some of my former reports—that independent of the ordinary sluicing and elevating works now in operation there is within the Mount Ida district a large area of ground which will be found remunerative for steam-dredging purposes. In this connection I may mention the Main Gully at Naseby, where there are now several elevating plants at work giving very excellent returns. One steam-dredge of large capacity is in position, and, I am informed, giving excellent returns in the meantime and indications of future prosperity. Several other dredges are to be constructed for the same locality as soon as possible, but delay in this matter is an enforced necessity, arising from the fact that all the builders of dredges in Otago are fully occupied on contracts, which will prevent the immediate construction of those contemplated for this part of the field. The one now at work belongs to the Naseby Dredging and Hydraulic Sluicing Company (Limited), is of large capacity, and reflects credit on the company for their spirited enterprise in placing, in addition to their two elevating plants, so complete a dredging plant on their claim. It is 70 ft. in length by 25 ft. 6 in., very strongly built of hardwood and kauri. The ladder is 45 ft.; the buckets have a capacity of $3\frac{1}{2}$ cubic feet; the full lifting-power when running full being equal to 90 cubic yards per hour. The engines and boilers are very superior—20-horse nominal power, indicating up to 38-horse power actual. Altogether, the dredge and machinery are most creditable both to the company and the makers. There are two steam-dredges at work at the Upper Kyeburn; they are both obtaining gold, but in what quantities I have not been informed. Both of them have been used in other localities. One is, I fear, too small for the class of wash to be operated on, it requiring a large and modern dredger capable of treating very large quantities of ground, which, however, is comparatively shallow, and a dredge sufficiently powerful would, perhaps, entail a larger expenditure than would be warranted on the amount of ground now held under one lease. It is becoming a question of some moment whether in these shallow localities where manipulation is so easy in comparison with what has to be encountered in the deep and rapid rivers elsewhere, and large areas can so soon be worked out, it will not be necessary to increase the holdings for this special class of mining, which appears likely soon to become the mainstay of mining in this district. Every encouragement will have to be afforded those contemplating embarking capital therein. In any future mining legislation I consider this subject worthy of every consideration.

The ordinary mining work in the vicinity of Kyeburn has been carried on as well as possible during the year, and, excepting the universal complaint as to water being so scarce, I believe the returns have not shown any material alteration. At Hyde and Macrae's matters have altered but little if any since my last report. About the same number of miners remain, both European and Chinese. The Taieri Gold-sluicing Company have carried out extensive works and introduced a

capital plant on their claim at a large cost. Unfortunately, the company has not yet been able to get started to work, but the prospects are, I am informed, quite satisfactory. In the old workings at the back of the Township of Hyde a shaft has been sunk to a depth of nearly 50 ft. below the old bottom, which had been worked to a depth of from 60 ft. to 80 ft. by the former workers. On the bottom of the new shaft a very good prospect was obtained—namely, 2 dwt. to a dish—but the amount of water found at that depth entirely precluded any further prospecting being carried on. The opening-up of this deep ground has been the ambition and hope of miners here for many years, and the prospect now alluded to appears to be pretty convincing proof of the existence of a highly payable strata at the depth named. The present shaft has been sunk under very great difficulties and positive danger. McBride and his partner have displayed energy and courage in carrying out the work to the extent they have. I may mention, in connection with this matter, that I recently met a deputation of the miners engaged in this undertaking and visited the works. There is no doubt it is a subject of great importance to the Hyde portion of the district to secure the exploitation of this ground. The majority of the miners in that locality, however, are not in pecuniary circumstances which will enable them to carry out the necessary works without assistance. The present project is to take advantage of an old cut by deepening and cleaning it out and then drive a tunnel sufficiently deep to carry off the water and enable them to work the ground for some 160 to 180 yards to strike the wash found in the shaft they have sunk. I was informed by a deputation of miners that the scheme is to be submitted for the report of a competent engineer, and probably some aid from the public funds will be applied for. So far as I can judge, it is a matter worth very favourable consideration. In the meantime a number of claims have been taken up in the hope of further developments taking place.

Several new ventures have been entered upon at Macrae's Flat in connection with steam-dredging. The prospects obtained, I am informed, being sufficiently good to warrant contracts to be entered into by the grantees for, at any rate, two steam-dredges of modern type and large capacity. There are still about eighty miners—European and Chinese—on this part of the field, principally engaged in sluicing and paddockging. The returns although not large are, I believe, still considered satisfactory, whilst the introduction of steam-dredging is looked forward to with great hope for the future of the place.

No new developments have taken place in quartz-mining, and work on those lodes which are still being operated upon has been of necessity much retarded by the scarcity of water for motive-power. Messrs. Donaldson have erected an aerial tramway for conducting the quartz to their mill. I am informed they have about 500 tons ready for treatment. Messrs. Sutherland and Glover, at Dunback reef, I hear, have some 250 tons waiting treatment. From the claim of Cunningham and party a couple of trial crushings have been made at the Nenthorn batteries, both giving an average of 1 oz. per ton. It is probable that this party will erect a small crushing plant for their own use. Nenthorn remains very quiet, although some good yields have been secured on a limited scale. Messrs. Mills have continued working on the old Surprise reef, but the country has proved very hard. They have succeeded in getting one or two crushings, showing, I am told, up to 2 oz. per ton. Messrs. Sligo Brothers, I understand, have now secured the old Ceresus battery, and are working the Blue-slate reef. They are stated to have 350 tons at grass. The old Consolidated Claim is now being worked by Messrs. Eggers and Peddie. I believe some very good stone has been taken out by them, 70 tons yielding, I believe, 80 oz. of gold. McConnell and Wright attempted to work the Jacob reef, but owing to the smallness of the lode gave it up. It has been described to me as only 3 in. wide, but the return for 8 tons was about 20 oz. of gold; but even that was not found to be payable with so very small a reef to work on. Messrs. Callery and McConnell are stated to have worked with considerable success in the claim on what was formerly known as Kitchner's Fortune. They had a crushing of 63 tons of stone with a yield of 70 oz., and have now 50 to 60 tons ready for the mill. The Bonanza Mine is stated to have changed hands at a figure not divulged, and it is understood that the new proprietors contemplate considerable outlay in placing the mine in first-class working-order, extending the tunnel some 500 ft., erecting an aerial tramway, and making other improvements.

Several other small parties are at work on the old lodes about Nenthorn, all obtaining a little gold. Altogether a good many hundreds of ounces of gold have been obtained from Nenthorn and the neighbourhood during the past year, and I feel sure the amount would have been very largely augmented had water been at all reasonably plentiful.

There is positively nothing new to report from the neighbourhood of Hamilton's, Patearoa, or Upper Taiari. No advance has been made yet as to dredging the Taiari near Patearoa, operations still pending the result of legal proceedings in the Supreme Court. No further progress has been made with regard to the quartz-mining claims at Rough Ridge, although frequent statements are being made regarding arrangements being completed with some London capitalists to work the lodes on a large scale. Idaburn, Blackstone Hill, and Hill's Creek show no difference worthy of note, and the same remark applies to German Hill, in Ida Valley. At Black's No. 3 a considerable sum has been spent in attempting again to exploit the deep lead there. The work has been carried out so far in a very practical manner, and the party who have undertaken this very difficult work deserve every success. There is a drift to be dealt with, which hitherto has proved fatal to several shafts. No doubt the gold is there if it could only be got at. At Black's sluicing has been almost at a standstill, but somewhat of a fresh departure has been made in dredging the flat. Several new special claims have been granted in lieu of those surrendered. Further prospecting has been carried on, and the consequence is that a large and up-to-date steam-dredge is now in course of erection on the flat. Nearly the whole of the plant is on the ground, and it is anticipated a start to work will be made in the course of a few weeks; the proprietors are very sanguine of success. The old-established sluicing properties at Matakaniui and that locality have been kept idle for a most vexatiously long time during the year. A few weeks ago, however, there was an increase of water, enabling the

majority of the claims to be started. I have no doubt that the results will again be satisfactory. The long-anticipated amalgamation of the well-known Undaunted Company with the Mountain Race Company has at last been brought to a satisfactory settlement. The new company will be known as the Undaunted Gold Mining Company, (Limited); the capital £15,000, in 150 shares of £10 each. The payable nature of the ground is, of course, well known, and the new arrangement will enable the company to work much more economically, so that a successful future is pretty well assured. No further steps, so far as I am aware, have been taken with regard to the construction of the large reservoir in Thompson's Gorge. No doubt it would be of great value to the locality if carried into effect.

At St. Bathans and the vicinity the work has been carried on with the vigour usually displayed by the miners located thereabouts, but from the prevailing cause the quantity of ground worked has been much diminished. It is unnecessary to make allusion, under the circumstances, to each individual claim or company, as it would practically be a constant repetition of the want of water hindering work being carried on continuously. Exception may, however, be made with regard to one or two cases in which new machinery and appliances have been started. The M and E Water-race Company have recently erected a powerful elevating plant, which will enable them to reach the lower and richer strata existing in their claim. With this improvement in their method of working I anticipate a successful future for the company. Mr. Ewing's claim at Kildare Hill still shows signs of continued richness. The elevating plant is, I believe, still being increased, and is the largest, I understand, now at work in the colony. The claim at Vinegar Flat, owned also by Mr. Ewing, has been better supplied with water, and I understand the return has been highly satisfactory. On this property a new device, perfected, I understand, by Mr. Ewing himself, has been brought into use—the "stone transit." It has been described as consisting of an aerial tramway 30 ft. high, strong cables on which the "traveller"—conveying the stones—runs. It is worked by a winch (on the bank), which is driven by water-power and a Pelton wheel. The span is about 100 yards; it moves about one cubic yard per truck, averaging 20 tons per hour. The truck is raised from the paddock to the "traveller" by iron hooks, and is conveyed along the cables to its destination, where it empties itself, then returning to the paddock, where another truck is awaiting it ready filled. One practical man can work the "stone transit," saving much labour. The winch and appurtenances are all under cover. There are from sixteen to twenty men employed on the claim, which is lighted at night with electric light of 3,000-candle power, and about ten heads of water are used. Mr. Ewing's claim at Cambrian's has also been vigorously worked, with very satisfactory yields. Gray and Fordham: Davis's party and others are believed to be on payable ground.

The Cambrian dredge is nearly ready for a commencement. It is of the most modern description, all appliances being of the very best. It is 65 ft. in length by 29 ft.; buckets of a capacity of $4\frac{1}{2}$ cubic feet; ladder, 40 ft.; tables, 216 superficial feet; compound engine of 20-horse power. The elevator will stack the tailings 15 ft.; its estimated capacity, 120 cubic feet per hour. It has cost the proprietors £4,000.

I regret to say that the St. Bathans Channel, which is the only outlet for the claims in the St. Bathans Basin, is in a bad state, and is rapidly filling up, and unless there is a very marked increase in the water-supply for flushing it out I am afraid the consequences may be disastrous. It is much to be deplored, as very large sums have been from time to time expended on it, and very considerable interests are at stake.

Notwithstanding the many drawbacks the mining population has not diminished to any appreciable extent during the year, and in the anticipation of the dredging operations proving a success, and the increased supply of the all-necessary water, both from natural causes in the way of more rainfall and the conservation scheme now promised, better times may be reasonably looked forward to.

Closer settlement is taking place consequent on further opening up of the Otago Central Railway. The business transacted in the Courts shows no diminution, whilst the revenue also keeps fairly up, as the following items will show: Business licenses issued, 18; water-race licenses, 258; general registrations, 675; miners' rights, 574; residence sites, 15; complaints in Wardens' Courts, 44; ordinary applications, 481; special claims and licensed holdings, 81; applications opposed, 61; revenue and deposits, £3,259 8s. 6d; fees and fines, Warden's Court, £30 2s.

The amount of gold raised during the year I estimate at 19,000 oz.

I have, &c.,

S. MEAD DALGLIESH, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 12.

Mr. Warden McCARTHY to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Clyde, 1st June, 1898.

I have the honour to enclose herewith the annual statistical returns, and to submit the following report on mining matters in the sub-districts under my supervision, for the year ended the 31st March, 1898.

WAKATIPU AND ARROWTOWN.

There is nothing of importance to report upon in these subdivisions of my district. No new discoveries have been made, nor has there been any startling "finds" of the precious metal. The yield of gold has, if anything, increased, and the revenue is in excess of the previous year. Although there has not been the same activity in the mining industry as has been observable in the other portions of my district there has been a not inconsiderable amount of capital invested in various ventures of a more or less substantial nature, and it is to be hoped that the investors will not be disappointed in recouping their outlay with a good margin of profit.

HEAD OF LAKE WAKATIPU.

The only quartz-mine at the head of Lake Wakatipu has been abandoned and the license cancelled. In alluvial mining about the same number of men are employed as last year, and are earning fairly good wages.

MOKE CREEK AND TWELVE-MILE.

The same remarks are applicable to Moke Creek and Twelve-Mile district. The Moonlight Sluicing Company has paid the shareholders good dividends, and two other large claims have been taken up on the same run of gold.

SKIPPER'S AND UPPER SHOTOVER.

Several quartz areas have been taken up during the past year, but nothing has been done in actual work on them. The Achilles Goldfields (late Phoenix) is temporarily shut down for want of capital, and the old Gallant Tipperary Quartz-mining Company (Limited) is about to appear under another name, having gone into liquidation and been purchased by a syndicate. The Leviathan and Crystal Companies have been shut down during the past twelve months. Alluvial mining appears to have flourished much better; all those sluicing appear to be well satisfied with the results of the year. There are several private companies hard at work getting their plants and pumps to work, in order to endeavour to wrest the gold from the bed of the Shotover River by hydraulic lifting as soon as the river goes down to winter level.

MACETOWN AND ARROWTOWN.

The Glenrock Consolidated, Limited, (formerly the Premier), at Macetown, have had a prosperous year, and have become a *rara avis* among gold-mining companies—a dividend-paying one. The Westralian and New Zealand Gold-explorers, Limited, (formerly the Tipperary), too, have more than paid their way, which is saying a good deal. The Homeward Bound and Victor Emmanuel reefs have been vigorously prospected, but nothing very rich has been found. The Arrow Tunnel company are said to be on a very rich wash, and are employing a number of hands. An Invercargill Company has taken up the Arrow River bed, at Arrowtown, and are pushing on work with great activity. It is proposed to work the claim by hydraulic lifting and sluicing. The company has secured extensive water-rights, and the work of bringing on the water is energetically being pushed on.

KAWARAU.

A dozen dredging claims have been taken up, but as yet not a single dredge has been built. One at Victoria Bridge will soon be at work, but it will be a long time before the other claim-holders can expect to commence operations, owing to the impossibility of the necessary machinery being placed on the ground for some considerable time.

CARDRONA.

Four dredging claims have been taken up on the Cardrona River, but for the same reason as already stated it will be some time before any work can be done on them.

CROMWELL.

Alluvial.

During the year ended the 31st March, 1898, no new discoveries of payable sluicing ground have been made, and, with the exception of Quartz Reef Point, alluvial mining remains much as it did this time last year. At Quartz Reef Point, however, several parties have been and are still doing very well, while the remainder are getting enough gold to make them stick to their claims.

BANNOCKBURN.

Very little is now heard of the syndicate which (through Mr. T. O. Matthews) was understood last season to be in treaty for the whole of the mining property on the Bannockburn. Mr. Matthews holds a 50-acre claim on the deep lead, but has as yet done nothing to develop it. All the old hands are still working along as fast as the water-supply will permit them, but no exceptional finds are reported.

A few hands still manage to find a living in the basin of the Roaring Meg, but the quartz reef between the Meg and the Gentle Annie seems to have fizzled out.

Most of those who for years have worked on the Criffel have left, but Mr. Schlaast, on behalf of the New Eldorado Company, has been granted a 50-acre claim, so that faith in Criffel is not yet quite dead.

Weir and party are working a 24-acre claim on the Motatapu, but with what success I have not heard.

Although no startling finds are reported from Midrun work is still being prosecuted there, and the old hands seem contented, which, I take it, means that they are making a decent living.

The upper reaches of the Lindis have come into prominence during the year, and several parties are at work there, while on the same river below Rumbling Gully several claims are being steadily worked.

LOWBURN.

Werner and party are developing a 40-acre claim at Lowburn, with, I am told, fair prospects of success, while a few straggling parties are working at the Five-Mile and adjacent gullies.

On the whole, however, I may safely repeat that alluvial mining has not made great advances

Quartz.

In reefing, Halliday and Butler are opening out their 54-acre claim on the Carrick. The Golden Gate Claim is being worked on tribute; while the Lawrences have had no reason to complain. Since the new year they have obtained 147 oz. of retorted gold from 752 tons put through, which may be reckoned fairly satisfactory, seeing that they do all their work within themselves.

The Cromwell tributers have, however, the most reason for rejoicing, for from that mine since the 1st April, 1897, the total output has been 1,212 tons of quartz, yielding 2,464 oz. 3 dwt. 6 gr. of retorted gold. I am credibly informed that their September wash-up, wherein they obtained 826 oz. 3 dwt. 6 gr. from 319 tons of quartz, was the second best ever obtained from the Cromwell Mine, even in its palmiest days. This, I may add, was the result of ten men's work for four months.

Dredging.

Nevis.—Dredging has had a chequered career during the past twelve months. Four dredges have been at work on the Nevis, while four more are either in construction or are being projected. Some of those at work have had satisfactory returns, while others have not been quite so fortunate, although all have more than paid wages. The Upper Nevis Company have brought their dredge to their lower claim below the township. Allan and Aitken's pontoons at the Nevis mouth are now ready for the machinery, which is expected to be in position very shortly.

Cromwell.—Dredging has not been so successful on the Upper Clutha, where Talbot's current-wheeler is closed down. Crookston's is being removed to below Cromwell Bridge to work McPherson's two small claims, and McLay's is expected to follow in a few days to operate upon McPherson's Hartley Beach Claim. Hotop's (Maori) will then be the only dredge left on the river above Cromwell Bridge. I understand that unless the returns of the last-mentioned dredge improve shortly it will be moved up the river to work the ground lately held by A. C. McGeorge.

The Hartley and Riley Beach Company's dredge is now awaiting the machinery, and I understand that the promoters are sanguine of success when they get a commencement made.

On the lower Kawarau the Electric Company's No. 3 dredge is approaching completion. Their No. 2 dredge is doing very well on their No. 3 claim, while their No. 1 dredge is testing their No. 2 claim, rumour says, with very satisfactory results.

Good progress is being made in building the Magnetic Company's dredge at Kawarau Gorge.

As I write this I am told that Crookston's dredge has successfully shot the rapids above Cromwell Bridge.

During the year twenty-five applications for special claims and licensed holdings were made; ten mineral leases and licenses were entered, and 272 ordinary applications dealt with; 552 miners' rights were issued, whilst the goldfields revenue, including deposits, amounted to £2,368 7s. 4d., which exceeds that of the previous year by £331 7s. 4d.

CLYDE AND ALEXANDRA.

With the exception of the Fraser River, which has maintained an average supply, all the creeks and gullies in this district have during the past year furnished very poor supplies of water. Mining, therefore, by means of sluicing has been seriously hampered. Many of the owners of races and persons following this occupation, however, are possessed of small areas of land, and with the products of this, together with the gold obtained, they may be considered to be in a fairly prosperous condition.

Two or three parties are obtaining payable gold on the Dunstan Commonage, the fact of the ground being shallow and highly auriferous enabling them in a few months to make fair wages for the year. The banks of the Clutha between the two towns still engage the attention of the owners of the Fraser River right-holders, but the ground is exceedingly difficult to get away, and were it not for the abundant water-supply at their command payable working could not be carried on.

Messrs. Gartley Brothers, at Springvale, are profitably occupied, as are a few on Tucker Hill, near Alexandra; but Messrs. Rivers and Gartley, who purchased the rights of Jackson Brothers, have been seriously handicapped during the past season in consequence of the extreme drought.

It does not appear that the number engaged in the various gullies and creeks around the neighbourhood has depreciated, nor, on the other hand, has any increase taken place, but I am given to understand that the individual earnings are not less than the average of previous years.

Dredging.

For several years this industry has been gradually progressing, but never has it presented such a prosperous condition as now. There are thirteen dredges at work within a distance of four miles on the Clutha River, and three in the Manuherikia about the mouth of the Manorburn, while five are in course of construction upon the former and three upon the latter river. Those in course of construction on the Clutha are: The Earnsclough No. 2 at Sandy Point, the Golden Beach at Poverty Beach, the Matau at Mutton Town Point, the Unity opposite the Dunstan Hospital, and the Vincent at Clyde, each of which will cost £5,000 and upwards. On the Manuherikia, the Chatto Creek and the Nil Desperandum are approaching completion, whilst the old Morning Star is being re-erected, with the addition of many modern improvements, for the New Zealand Dredging Company's Claim, adjoining the Lion Rock.

Of those at present working, the Moa has had the most sensational returns during the past year. In June operations were commenced in the river opposite the historical Frenchman's Point, and in seven weeks 590 oz. were netted, the largest weekly return (said to be a record in these parts) being 288 oz.

During the year a considerable amount of lost time was incurred, both in overhauling the machinery and in consequence of the height of the river; nevertheless gold to the value of £8,710 was obtained, and out of this the fortunate shareholders got £5,600, being £1,750 more than the total paid-up capital.

The Molyneux Hydraulic Company's dredge, which was completed and commenced operations in May last, the cost being £5,500, is, I think, the most capable and efficient one now at work upon the Clutha. The ground is generally considered below the average quality, and presents greater obstacles to the working probably than any other dredge has to cope with; yet during the period from the 23rd May last to the 26th ultimo 1,100 oz. were obtained, which is about an average of 25 oz. per week. It is calculated that 11 oz. will cover working-expenses and leave a small margin for wear-and-tear, so now that the company has cleared off all arrears and has placed itself on the dividend-paying list the shareholders may reasonably expect a few years of continued prosperity.

No dredge in these parts whose returns are made known to the public can, I think, show a more consistent and withal payable record than the Enterprise Company's. Work has now been carried on about four years and a half on the company's claim opposite Sandy Point, and, judging from the small amount of shifting, at least a similar term must elapse before new ground need be looked for. During last year 1,089 oz. were obtained, out of which the directors were able to declare dividends amounting to £1,250. When we take into consideration the fact that the dredge is by no means up to date in strength and in general appliances this handsome profit speaks volumes for the auriferous nature of the beaches and banks—of which there is practically no limit—between Clyde and Alexandra.

Through the courtesy of Messrs. Kelman and Spencer I am in a position to state that the Chicago and the Earnsclough No. 1, both dredging at Sandy Point, have had a very successful year. The latter, being a more powerful dredge, has produced a third more gold than the former, but in both cases the profits are extremely satisfactory.

The proprietors of the Eureka No. 1 (Leijon and party), Ngapara (Ross and others), and the Perseverance steam and current-wheeler (Finlay and party) being unwilling to divulge the result of their operations I am unable to say more than this: Judging from the steady work all of them have put in, from the pertinacity with which they confine themselves to about the same spots, and from the general well-to-do air of the interested parties I have no hesitation in saying that they are occupying prominent positions in the van of prosperity.

The Victoria, which for some weeks made fruitless efforts to bottom the claim of that name opposite Clyde, has been absorbed in a company named the Island Basin, and is now undergoing a complete overhauling at Alexandra, prior to being taken down to the claim a few miles below. This dredge had previously been on the Island Basin Claim, having been built for it; and, although prospects which would be deemed highly payable for a suitable steam-dredge were obtained, it, being at the time a current-wheeler, was found to be incapable of competing with the moving drift. The public here will watch with considerable anxiety the outcome of the second visit, as not only are there several claims taken up on the various beaches of the river above and below, but it will be the first time this portion of the river has had the opportunity of being tested by a steam bucket-dredge.

Barely an inch of the Manuherikia River and the adjoining low flats from Alexandra to the mouth of Chatto Creek is now available for application, and, judging from the activity displayed by some of the claimholders, the time is not far distant when a large fleet of capable dredges will be seen at work here. Judging also from the look of the wash and the very satisfactory returns from those at present working I think the confidence reposed in this locality as suitable for successful dredging will not be found to have been misplaced. No doubt some of the claims will prove to be richer in the precious metal than others, and probably some will be operated upon by more efficient dredges than others, but from the prospecting which has been done, taken with the results of actual working, it is generally supposed that the average all over will not be less than 20 oz. a week.

The Manorburn dredge, situate near the mouth of the creek of that name, was the first to commence, and, although it is far from being as efficient as those since built, the shareholders have little reason to complain. Many delays were caused during the year from various reasons, but the gold obtained, which is valued at £2,515, must have left a considerable margin of profit.

The Turakina was the next to try conclusions on an adjoining claim, and being a well-constructed dredge—the builder having profited by the weaknesses of the Manorburn—it commenced and continued to do its work faithfully and well, the result being that from the end of November to the middle of March gold to the value of £945 was obtained, which enabled the directors to declare the first dividend on the Manuherikia.

The Lion Rock, the only other dredge at work at present, is also on an adjoining claim. It has not long commenced, but during this short time the returns have been quite equal to those of the neighbours, and Mr. Herbert Park, who has superintended the construction of the three, informs me that a magnificent seam of wash has been struck.

The Chatto Creek and the Nil Desperandum, a few miles higher up, are very near completion, and the Morning Star, lately brought from the Shotover, will not be much behind them. Timber has been ordered for at least three more, and probably by this time next year ten dredges will be at work upon the river.

Agriculture and Horticulture.

The last season has been very disastrous to most farmers around this neighbourhood, and coming as it did immediately after one which was equally bad makes it doubly hard for those who depend almost solely upon the results of cropping.

There are a few exceptions to this state of affairs, but only where water for irrigation has been available.

Fruit, on the other hand, has been most abundant, and, although a large quantity has found its way to a market, a little less than that realised upon has either been fed to the pigs or wasted altogether. The chief market for the orchardist here is Dunedin, and to land it there necessitates a seventy-mile journey. Notwithstanding this obstacle, however, a continuous stream of wagons may be seen during the season wending their way to the nearest railway-station.

BALD HILL FLAT AND OBELISK RANGE.

Mining matters have progressed favourably here since my last report. No new finds have been developed, but all existing claims continue to furnish payable results. There is a large extent of auriferous ground of medium quality in the neighbourhood, but at present the number of claims which can be worked is limited by the quantity of water available. Obelisk Creek and Flat are the centre of operations, and in the event of this being worked by dredging, which is not improbable, the water now used would be set free for ground unsuited for any other method than sluicing, which would double the number of breadwinners in this somewhat neglected locality.

The Last Chance Company (Hesson, Simmonds, and party) employ about nine men, and, being the holders of a good water-supply, experience very little lost time, except in hard frosty weather. Their claim includes the creek, and is of a depth of from 16 ft. to 23 ft. The ground is fairly good, as will be shown by the return of 256 oz. for eleven weeks' work, during which time about half an acre was put away.

Mr. Ewing has lately shifted his plant, which consists of a mile of piping, to the upper end of his claim, adjoining Wilkinson's. Unfortunately, Mr. Ewing has no permanent water-supply; otherwise the ground is good enough to reward him liberally for his pluck and energy.

Mr. Wilkinson has yet a considerable strip of ground to put through, and if this is as good as that which he has worked during the last few years Mr. Wilkinson, perhaps, will not require another claim. Messrs. Carroll and Lynch are now, I am pleased to say, recouping a substantial benefit from the result of a lot of dead-work. Their claim is undoubtedly a good one, and will occupy their attention for a good few years to come.

During last winter and early spring several small parties got some nice patches on the river at and about the Nine-Mile. During the time they were working very few made less than a pound a day, and one party of three for the short season obtained gold to the value of £600. Work can only be carried on here when the river is low, generally in the months of July, August, September, and sometimes October. During this period, under favourable circumstances, many nice little rises are made.

Quartz.

The two reefs at present being worked on the Old-Man Range—viz., White's and the Excelsior—continue to pay the enterprising proprietors in a satisfactory manner. White's Reef, owned by Mr. Robert Symes, has now engaged upon it seven hands. During the year a considerable amount of what is termed dead-work has been carried on in further developing the mine. The battery has been shifted down to a more suitable position to receive the stone, and a kind of puddling-machine has been erected for the more effective treatment of the pug, which in some instances carries highly payable gold. Mr. Symes informs me that, taking everything into consideration, he has never been better satisfied with his prospects than at the present time.

The Excelsior reef, on Coal Creek Spur, owned and worked by Messrs. Gray Brothers, has by the results from the past year's labours proved highly satisfactory to the proprietors. The last cake, which took five men five weeks to procure, weighed 52 oz. 18 dwt., and was got from 40 tons of stone. Mr. F. Gray informs me that the stone is being traced steadily downwards to deeper levels and that the general outlook of the mine is exceedingly good. Both reefs are above an altitude of 3,000 ft., so that in the winter months a good deal of lost time is experienced.

ROXBURGH.

Sluicing.

Like Bald Hill Flat the water-supply has been quite up to the average of previous years, and mining by means of sluicing in these parts has not by any means depreciated. Two or three new claims have been opened out, while nearly all, if not all, the old claims are still working.

The Pleasant Valley Gold-mining Company has had a very prosperous year. The claim, which is rather difficult to work because of the rugged nature of the country, is situate on the bank of the Clutha about a mile or so above the mouth of Coal Creek, the supply of water being obtained from Elbow Creek and one or two other little streams not far distant from the claim. The company is a small one, consisting of a thousand shares of £1 each. Gold to the value of £1,981 was obtained during the year, £850 of which amount was returned to the shareholders in dividends. The capital paid up is £560, while the plant necessary to produce this result does not exceed in value £500. The find is looked upon as one of very great importance in this part of my district. A claim adjoining has been applied for, and the future outlook of the company is so good that steps have been taken to increase their holdings.

Haughton and party, on Commissioners' Flat, are working steadily, and seem quite satisfied with what they are getting, as also are four or five small parties on the west bank between Coal Creek and Roxburgh, who, being the owners of the water used, are making excellent wages.

The list of dividend-paying companies has still among its number the Roxburgh Amalgamated Company, whose claim is situated immediately opposite the Town of Roxburgh. A large strip of country has been sluiced away during the year, and a considerable number of men are continuously employed. The ground is generally of a poor character, and it is only by a wholesale disposal of it that a company composed of such a large number of shareholders can hope to obtain a return for

the investment. Loudon and party, and one or two others working in close proximity to this claim, are realising good results.

The once famous Hercules Nos. 1 and 2 Claims at Hercules Flat, now owned by Mr. John Ewing, are kept steadily going under the management of Mr. Robertson, with what result I cannot say, but I am credibly informed that fair interest on the capital invested is being obtained.

Mr. Ewing also owns a special claim of 100 acres at Anderson's Flat, upon which he has expended during the year a large sum in prospecting by means of boring-rods, hired for the purpose from the Vincent County Council, but after several unsuccessful efforts to bottom the rods were found to be unsuitable, and the work has been postponed for a time.

The Island Block Extended Claim at Miller's Flat, purchased by the Golden Run Company, has been worked when water was available. The supply is a poor one, and a considerable amount of lost time has been the result. The wash, however, is very good, and the company has determined to expend £500 in raising the wall of their dam, which will considerably increase the working-time of the company.

The Island Block Company's ground, I believe, is now being worked by tributers, but with what result I cannot say.

Gunton Brothers, on Craig's Flat, who lately purchased the interests of James Sullivan, amid the usual difficulties resulting from a spasmodic water-supply, are doing very well, and devote their spare time to strengthening and increasing their dams.

Several other parties are working the banks of the river in this locality with more or less prosperity.

Dredging.

Although some of the claims have done exceedingly well the industry as a whole if not languishing is certainly not making the progress the extent and quality of the ground would warrant. The dredges in use are fast getting behind the age both in size and appliances. The average cost, I am told, did not exceed £2,750, whereas dredges of twice that value are necessary to cope with the constantly moving drift in the river here. The beaches and banks from Coal Creek to the Island Block are known to be highly auriferous, and present no real difficulty in working with anything like up-to-date machinery.

The Dunedin Gold-dredging Company, although on payable gold now, has not had a successful year. The weekly returns have barely averaged two figures, and the operations may be set down to have been carried on at a slight loss.

The old Edina dredge, now owned by Miss Ryley, has for a few months been prospecting a claim in the river just above Roxburgh. Shortly after starting some good gold was struck, but, unfortunately, the machinery gave way, and since then frequent breakages have occurred, thereby preventing all chance of following the gold up.

The dredge once the property of the Roxburgh Gold Steam-dredging Company, in liquidation, was purchased by a party of six working-men at a cost of £600, and is now prospecting on Mr. Youngman's claim opposite Roxburgh. The claim has been held off and on for about eleven years, and this is the first time a dredge has been placed upon it. The river is very deep here, and rather more than the ordinary amount of drift will have to be dealt with.

The Etrick dredge, situate just above the town of that name, has been working most of the year very steadily and profitably. Out of the 430 oz. obtained the shareholders divided £808.

The Bengerburn Company were unsuccessful in their efforts at the mouth of the Benger Creek, and the dredge is now working on tribute.

The Golden Treasure dredge, near Kerr's Creek, has done exceedingly well. The company is composed of three thousand shares at £1. The gold obtained was 1,177 oz., out of which the fortunate shareholders netted £2,300.

The Otago Company, near the punt-site at Miller's Flat, made a profit of £1,800, whilst the Golden Gate, whose dredge is at McCunn's Beach, favoured the shareholders with £1,375.

The Golden Lead Company did not meet with success at McCunn's Beach, and are about to move the dredge to opposite Craig's paddock.

The Golden Run Company's dredge having proved incapable of working into the bank at the head of the Island Block, at the front of which some excellent returns were at one time got, steps are being taken to have constructed a dredge with all the modern appliances.

Pringle and party and Bennet and others have both done well, but do not wish their actual returns made public.

WAIKAIA AND CAMPBELL'S.

The little excitement which prevailed in these parts at the beginning of last year has now subsided. A considerable amount of prospecting was done in connection with two or three reefs which for years have been known to exist, but apparently the result has not been sufficiently satisfactory to warrant any further expenditure. Some good has arisen, however, from the influx of new blood, for a considerable quantity of hydraulic plant has been taken over the hill with a view to working the Waikaia River, and I believe that everything is in readiness to make a start, and should success attend the venture no doubt others will follow in due course.

Agriculture and Horticulture.

These industries have not suffered nearly as much from drought as they have in Central Otago. The crops, both of cereals and of fruit, have been good and well saved, and taking the farmer's condition generally I should say it is healthy and prosperous.

CLYDE, ALEXANDRA, AND ROXBURGH.

During the past year fifty-four special claims and licensed holdings, covering an area of 2,995 acres, were applied for, and sixty, embracing 3,102 acres, were granted and issued. Sixteen coal

leases and licenses, including 235 acres, were applied for, and seven, of an aggregate area of 160 acres, were issued. Thirty-three complaints were dealt with, 464 ordinary applications (ninety of which were opposed) were heard and determined, 810 miners' rights were issued, and the total goldfields revenue, exclusive of deposits, which amounted to £1,092 4s. 6d., totalled £2,390, exceeding that of the previous year by £416.

I have not been able to obtain the results of the past year's workings from all the dredges and sluicing claims in this portion of my district, some of the owners being unwilling to furnish details; but through the courtesy of the proprietors and secretaries of the companies hereunder I am in a position to supply, in the aggregate, some returns from a few of the proprietors, giving also the approximate amount of capital involved. I may state, in doing so, that some of the parties not included in the return are those who have, I believe, obtained the best results.

Name of Company or Party.	Capital involved.			Total Gold obtained.			Value.		
	£	s.	d.	Oz.	dwt.	gr.	£	s.	d.
DREDGES.									
Spencer and party (Chicago) ...									
Kelman and party (Barnsclough No. 1) ...									
Clyde Dredging Company (Moa) ...									
Manorburn Gold-dredging Company ...									
Molyneux Hydraulic Company ...									
Enterprise Gold-dredging Company ...									
Dunedin Gold-dredging Company ...	59,540	0	0	13,321	0	0	51,618	17	6
Ettrick Gold Steam-dredging Company ...									
Golden Run Dredging Company ...									
Golden Treasure Dredging Company ...									
Roxburgh Gold Steam-dredging Company ...									
Otago Dredging Company ...									
Pringle and party ...									
SLUICING.									
Hesson, Simmonds, and party ...									
Carroll and Lynch ...									
Gartley Brothers ...									
Pleasant Valley Gold-mining Company ...	11,710	0	0	2,652	0	0	10,276	10	0
Gunton Brothers ...									
Louden and party ...									

S. ERNEST MCCARTHY, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 13.

Mr. Warden CAREW to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Warden's Office, Dunedin, 21st May, 1898.

I have the honour to forward herewith the annual statistics for the Hindon portion of the Otago Mining District for the year ending the 31st March last.

An average number of about 115 miners have found employment in the district.

The Deep Stream Hydraulic Sluicing Company (Limited) completed their first water-race in December last, and up to the 31st March had obtained about 216 oz. of gold. On the claims held by the Barewood Quartz-mining Company (Limited) three shafts have been put down on the line of reef, about half a mile apart, to a depth of 200 ft. In one of the shafts an easterly drive at that level, about 40 ft. in from the shaft, struck a lode about 8 ft. thick containing gold, and is being followed by driving both north and south. The low-level tunnel, a heavy undertaking, is in about 200 ft.

Lyders and party, of the Golden Burn Company, hold claims on the same line of reef, but on the opposite side of the Taieri River. They have a battery of ten head of stamps, and have done a considerable amount of prospecting and development work. I understand they have a lode, averaging about 5 ft. of stone, which is gold-bearing, but contains arsenical pyrites, for which they require additional plant.

Other reefs are being prospected, and there are a large number of known auriferous reefs in the district, but the problem is to work rather low-grade quartz at a profit.

I have, &c.,

E. W. CAREW, Warden.

The Under-Secretary, Mines Department, Wellington.

No. 14.

Mr. Warden KEDDELL to the UNDER-SECRETARY for MINES, Wellington.

STR,—

Warden's Office, Invercargill, 15th June, 1898.

I have the honour to forward herewith returns for the year ending the 31st March, 1898, and to furnish the following report as to the condition of the mining industry in this district:—

OREPUKI.

Mining on this field is of a very settled and steady nature. Nearly all the available water is on the ground. The number of men employed and the quantity of gold won does not vary much from year to year. The work in past years has been carried on chiefly in the gullies and low flats, but as these have become worked out the energies of the miners are now turned to the terraces, and during the past year several exceptionally good ones have been opened out. Unfortunately for the sluicers these were selected in the early days for residence purposes, and portions were converted into freeholds when the purchase of residence areas was in vogue, with the consequent result that patches of freehold at irregular intervals obstruct the miner, often leading to litigation or substantial compensation to avoid it.

On the whole, the number of men employed and the returns of gold for the past year is reported to be above the average.

ROUND HILL AND LONGWOOD.

The Round Hill syndicate have increased the length of their water-race by extending it to outlying creeks, and thus added to their working-power.

The Ourawera Gold-mining Company possesses a first-rate elevating plant in good working-order, and during the past year some handsome dividends have been paid.

The Longwood Range is still being vigorously prospected in different localities, and one or two gold-bearing reefs have been struck. The stone when tested was pronounced payable.

WAIAU MOUTH (WEST).

This is a newly opened field. During the past year the miners have been chiefly employed in bringing in water, which is a somewhat heavy undertaking, the country being flat, and the water low-lying, thus necessitating long races. One race about fourteen miles in length is on the point of completion; and another a few miles shorter is finished, thus enabling the owners to be at work sluicing. There are other races in various stages of construction. A well-defined run of gold has been traced for about two miles and proved to be payable. Most of the claims granted are extended claims of 1 acre.

On the Waiau River a number of dredging claims have been taken up. The reports from those which have been prospected appear to be of a satisfactory nature, and one company is negotiating for a dredge.

The Waiau Mouth Elevating Company (east side) have recently constructed a water-race and erected elevating machinery on one of the back beaches, about 5 or 6 chains above the present high-water mark. This company is reported to have bottomed on payable gold.

WILSON'S RIVER.

The Morning Star Company is the only reefing claim in this locality that is turning out gold, and for the past year has given some good returns. The last two crushings have fallen below the average, but work is being pushed on. Other mines on the field are prospecting for the reef with varying results. A battery is in course of erection for the Alpha Company, and is expected to be in operation at an early date.

A number of men are still employed in alluvial workings. The population is reported to be about four hundred all told.

Communication with this field is chiefly confined to the regular steamer or casual cutter, but an overland track from the Waiau River is nearly completed, the through journey taking about four days. This track runs through gold-bearing country, and several prospecting parties are out along the line of it, but so far no applications have been made for any ground between Waiau mouth and Wilson's River field.

WYNDHAM.

There is no noticeable change here—indeed, to judge by the business in the Warden's Court I am inclined to believe that mining has decreased since last report.

In conclusion, I may state I am indebted to others for the information contained in this report. Since I have assumed charge of this district during the absence of Mr. Poynton my time has been so fully occupied that I have had few opportunities of making myself fully acquainted with this large field, which I am satisfied will become a very great and populous centre of mining. There is a general feeling throughout this district of its large capabilities, and capital alone is required to make it one of the first in the colony.

I have, &c.,

JACKSON KEDDELL, Warden.

The Under-secretary, Mines Department, Wellington.

No. 15.

Mr. JAMES COUTTS, Inspector of Mines, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Inspector of Mines' Office, Thames, 18th April, 1898.

I have the honour to forward herewith the annual statistical returns and my report on the mining industry for the Auckland District for the year ending the 31st March, 1898.

The gold-mining industry in this district has not turned out as well as was anticipated in the early part of the year. This, I consider, is due to the large areas of ground taken up where neither gold-bearing lodes or rock favourable for the precious metal existed, and consequently the prospecting operations in a number of cases have resulted very unsatisfactorily. There were also a number of men sent out to prospect who had no knowledge of the nature of the country in which gold-bearing lodes were to be found, and with no experience of the work; therefore a number of the claims were abandoned.

There has also been a large amount of money spent recklessly in the erection of crushing plants where there was no payable ore in sight to warrant the outlay. However, it is pleasing to state a number of the companies have gone in for systematic mining and erected first-class machinery in the shape of pumping- and winding-engines; also batteries with the most modern appliances for saving gold and silver, some of which have already proved that the expenditure was warranted; and this has, in my opinion, been the means of putting the mining industry on a more satisfactory basis on this goldfield. There is also every prospect of the gold returns being greatly increased in the coming year, as several batteries that were in course of construction have now been completed.

COROMANDEL.

Kapanga Mine.—The operations in this company's mine in the early part of the year were chiefly confined to the development of the low levels. A considerable amount of driving was done between the 500 ft. and 1,000 ft. levels, but without success. A bore was also put down with the diamond-drill from the bottom of the shaft to a depth of 225 ft., and as the bore proceeded assays of the core were taken regularly as it was brought up, and in some instances the gold obtained was most encouraging. Some six months since the management decided to let blocks of ground on the different leaders on tribute. Some of the miners at once took advantage of the opportunity, as they had reason to believe that payable gold could be obtained at the upper levels, and so far some of the tributers have been very successful. The blocks of ground let on tribute are from the 400 ft. level upwards, the company reserving every alternate block on the line of the reef, thus securing the company an opportunity of getting a share of anything good that may be discovered in the adjoining blocks. The prospect of the company looks more encouraging than it has done for years, as the lode is intact at the 400 ft. level for some considerable distance. Forty men are employed on wages and thirty on tribute.

Scotty's Mine.—This company in the early part of the year was pressed for the want of funds, and it was found to be necessary to stop operations and apply for protection to enable the directors to raise money to carry on the works they contemplated doing to develop the mine. Since work has again been resumed the shaft has been sunk to a depth of 415 ft., and a level opened out at the 400 ft. level for the purpose of intersecting the Brewers' reef, which has been worked to a considerable extent in the upper levels. At the 300 ft. level, driving, sinking, and rising are being carried on the same reef, which is a strong body of quartz, and is all saved for treatment. Thirty-three men are employed in the mine.

Britannia Mine.—The company's mine has been continuously worked during the year. The shaft has been sunk to a depth of 240 ft., and a chamber opened out at 220 ft., from which three cross-cuts have been driven. In the eastern drive a reef formation was met with 40 ft. from the chamber, and this was driven for a distance of 80 ft., but not meeting with any payable quartz this was discontinued. The cross-cut west was driven 220 ft., and a reef cut 2 ft. thick, which was driven on for a distance of 210 ft. The south-west cross-cut has been driven 280 ft., and a reef cut and driven on 100 ft. north and 90 ft. south. A little gold has been seen in this reef, which is 1 ft. in thickness. This reef is being worked on at an intermediate level, about 130 ft. above the bottom level, with very encouraging results. As the reef has carried gold for a distance of 70 ft. it will now be necessary to connect this level with the 220 ft. level for ventilating and to give better facilities for opening up this portion of the mine. A 10-horse-power steam-engine is used for winding, and steam is supplied from a 20-horse-power boiler to work the pumps. Twenty-three men are employed. No returns.

Golden Lead Mine.—A considerable amount of work has been done in this company's mine. A surface-level was put in from the side of the creek, which intersected Scotty's reef, but as there was very little quartz over this level it was deemed advisable to drive a low level to open up the reef at a depth. The reef was met with at 280 ft., and has been driven on for some distance with most encouraging prospects, gold being freely seen in the quartz every time it is broken down. Five men are employed.

New Hero Mine.—Prospecting works are being carried on in this mine. Two men are employed.

Pigmy Mine.—This mine was protected, but the company have again resumed operations, and are now driving prospecting levels to intersect the West Tokatea reef. Three men employed. No returns.

East Hauraki Mine.—This company has done a considerable amount of work, and are driving an intermediate level to cut the West Tokatea reef. A large quantity of gold has been taken out of this mine, and the manager is sanguine of meeting with quartz in payable quantities at any time. Three men are employed.

Great Kapanga Mine.—This mine was protected, but three men have been lately employed in putting in a prospecting-drive to intersect any reefs that may traverse the property. Very good gold has been obtained from time to time from leaders cropping out on the surface, and it is fully expected payable ore will be met with in the drive that is now being put in.

Conquering Hero Mine.—This company have two men employed prospecting various reefs and leaders that have been cut at the low levels, and although nothing of importance has been discovered this year, yet the quartz in some places is of a kindly description for gold.

Tokatea Consols.—The mine has been continuously worked, and although there has not been a large quantity of quartz produced, yet some of the leaders that have been operated on have given excellent results. Thirty-three tons of quartz have been put through the mill for 169 oz. 9 dwt. of gold, which may be considered very encouraging. Nine men have been employed.

Hauraki Associated.—This company's mine has been continuously worked, and they are systematically developing their property. A large quantity of payable crushing-ore is being obtained from the Rainbow End, Foot-wall, and Nicholls leaders, on which driving, rising, and stoping operations are being vigorously carried on. The leaders vary from 2 in. to 1 ft. in thickness, specimens being obtained in the Foot-wall leader at Nos. 1 and 2 levels nearly every breaking-down; also hauls of picked stone are frequently met with in the other leaders. A battery, consisting of twelve stamps and four berdans, has been erected at Kennedy's Bay, a distance of three miles and a half from the mine; and, as there will be some difficulty in getting the quartz carted to the battery in the winter, the management have decided to erect an aerial tramway from the low levels to the mill, which will no doubt be a considerable saving when once erected. 341 tons of quartz have been crushed during the last four months for the return of 1,101 oz. of gold. Forty men are employed.

Harbour View Mine.—This company had protection for the mine in the early part of the year, but have now two men employed stoping on the Blue Peter leader at the No. 3 level in the ground formally known as the North. The leader is 6 in. in thickness, gold being frequently seen in the quartz as it is broken out, and occasionally picked stone is obtained. The quartz is all saved for treatment; also a considerable amount of work has been done. At No. 2 level two tributers are working on the Ben Bow leader, and three on the Simpson leader on the Nos. 1 and 2 levels in the Harbour View section.

Royal Oak of Hauraki.—This company's ground now comprises the Tokatea and Royal Oak, an area of 114 acres 3 roods 11 perches. A large number of men are employed, forty in the Tokatea and forty in the Royal Oak section. The companies being amalgamated gives much better facilities for opening up and developing the property. The Tokatea shaft has been sunk to a depth of 170 ft. below the No. 7 or main adit level. A chamber has been opened out at this level, and driving is now proceeding east and west on the reef, which is about 2 ft. in thickness. The quartz at this level is highly mineralised and contains a fair amount of the precious metal, and hauls of picked stone are frequently obtained. This may be considered very encouraging, as this is the greatest depth that gold has been found on the eastern side of the Tokatea Range. In the upper levels the leaders are being systematically opened up, and, although the mine has not produced a large quantity of crushing-dirt, yet the stone crushed has been exceedingly rich. Since the month of August 205 tons 15 cwt. have been put through the mill for a return of 9,695 oz. 19 dwt. of gold. This reflects with great credit on the management for the confidence and perseverance displayed in opening up this valuable property, which there is every reason to believe will repay the shareholders for the outlay. There were difficulties to contend with in the commencement of the year which retarded the work, but this has now been overcome, and the prospects of the company look more hopeful than they have for some considerable time.

Queen of the North Mine.—This company has four wages-men and six tributers employed in the mine. The company is driving a low level to intersect the various leaders that have been worked on the surface-levels. The tributers are engaged working on leaders on the surface, and are meeting with a fair amount of success.

Hauraki Gold-mining Company's Mine.—This company is still one of the largest gold-producers in Coromandel, and it is pleasing to hear that new discoveries are being made, which help to keep up the returns. The new find at the 300 ft. level has considerably assisted in augmenting the last two months' returns, the store of quartz that is to be obtained at the upper levels being well-nigh exhausted. The shaft is being sunk with all possible speed, and another level will soon be opened up, as rich gold was left in the floor of the 300 ft. level. Something good may fairly be expected when the next level is reached and the lode intersected. Considerable improvements have been made in the pumping- and winding-engines. A pumping-engine has been erected on the main shaft, which is estimated to pump to a depth of 1,500 ft., and in the Union Beach section pumping- and winding-engines have been erected, which are capable of hauling the stuff and pumping the water to a depth of 1,000 ft. 3,463 tons 8 cwt. of quartz have been crushed during the year for 7,258 oz. 1 dwt. of gold. Ninety-four men are employed in this company's property.

Hauraki Main Lodes Company (Limited).—The company's mine is situated on the beach below high-water mark, and is adjacent to the Union Beach and Golden Pah shafts. The works in progress have consisted in sinking the shaft to a depth of 180 ft., and a chamber was opened out at a depth of 150 ft., from which cross-cut drives have been energetically pushed on for the purpose of intersecting any reefs that may traverse the property. In the No. 1 drive south the country has been of a favourable description, but so far nothing of importance has been met with. In the No. 2 north-west drive a mullocky reef was cut through, which contained a considerable amount of mineral, but no gold could be seen in the stone. In the No. 3 drive west nothing has yet been discovered. A new pumping and winding plant has been erected, which, to all appearance, will be capable of contending against any water that may be met with. Twenty-four men are employed, but no returns of gold have yet been obtained.

New Golden Pah Mine.—This company has continuously worked their mine, employing forty-six men on various works—erecting machinery, sinking shaft, and driving levels, &c. Prospecting operations have been carried on at the 80 ft. level, the 180 ft. level, and the shaft at the time of my last visit was down a depth of 220 ft., and they were then preparing to open out for another level. The country that has been passed through in the shaft has been of an excellent description for gold, and it will certainly be a disappointment if payable ore is not met with here, more especially as high-class ore was taken out of the upper levels. 48 tons was lately crushed from the main reef (Jewellers') and the other leaders for 168 oz. 16 dwt. of gold. The pumping- and winding-engines have been erected, and the work in connection with them has been carried out in a substantial manner.

Kathleen Gold-mine.—This company have had twenty-seven men employed for the greater part of the year. The shaft has been sunk to a depth of 240 ft., but the work of driving has been confined to the 200 ft. level. The south cross-cut has been driven up to the boundary, but without meeting with any important discovery. Hartridge's reef has been driven on easterly for a distance of 500 ft. This reef is 4 ft. thick, but of a mullocky nature, and, although the country on each side of the reef is all that could be desired, yet nothing of an encouraging nature was found in the reef. The reef has also been driven on the west, but with no better results. The Carlyon and Hauraki North reefs have also been driven on east and west of the cross-cut, but nothing payable has been met with. The machinery and everything in connection with this mine is in excellent order, and it is to be regretted this company did not meet with better success.

Bunker's Hill Mine.—The operations in this company's mine have been chiefly confined to the No. 2 level and 130 ft. level. There was also some work done on the leader below the No. 2 level. Driving and rising have been carried out on the Legge reef, but without discovering any payable ore. Driving has also been done on the Nos. 1 and 2 reefs, and, although gold has been frequently seen in the quartz, yet nothing has been met with that might be considered payable. Twenty-one loads of quartz have been treated during the year for a return of 148 oz. 7 dwt. of gold. From eight to twelve men have been constantly employed. A Tangye winding-engine has been erected, which is worked by a 40-horse-power Tangye boiler, which has no difficulty in hauling the stuff up and keeping the water down.

Hauraki No. 2 Mine.—This company has done a considerable amount of work in the shape of driving. A large body of quartz was cut through in the north-east cross-cut, but the tests made of it from time to time showed that it was very low-grade ore. The ground has been protected for some time, and the pumps are now being taken out of the shaft.

Golconda Mine.—This company has eight men employed. The work in progress is at present confined to putting a rise up from the bottom level to No. 1 level, for ventilation and to give better facilities for working out a block of ground on No. 1 leader. The leader shows gold freely, and the manager is confident a block of ground that is intact between the bottom level and No. 1 level will pay well to take out. Several other leaders have been worked in this mine with a fair amount of success. 17½ tons of ore has been crushed for 28 oz. of gold.

Welcome Find Mine.—The company have done a large amount of work in this mine during the year. The principal work has been driving and stoping on what is termed the Southern lode, which is about 4 in. thick; also driving on the No. 2 reef, which is 6 in. thick. A large amount of work has been done in the shape of driving cross-cuts, and as the country is mostly of a hard nature the cost of driving has been something considerable. 58 tons of quartz has been put through the stamps for 238 oz. of gold. Fifteen men are employed.

Hauraki North Mine.—This company have done a large amount of work in opening up the mine, and, although the leaders in the upper levels have not turned out as well as expected, yet the prospects met with in driving at the 150 ft. level were sufficient to warrant the sinking of a shaft for another level. The shaft has now been sunk to the required depth. A chamber has been cut out, and a cross-cut drive is being put in to intersect the leaders that were worked with success at the upper levels. 222 tons of quartz have been put through the mill for 135 oz. 2 dwt. of gold. Fourteen men are employed.

Hauraki South Mine.—This company has continuously worked their mine, employing fifteen men, the principal work being the sinking of the shaft. The shaft is 13 ft. 8 in. in the clear, and is sunk to a depth of 150 ft. There has been a good deal of water to contend with, but the work has been very successfully carried out. A chamber has been cut out on the south side of the shaft at a depth of 142 ft., and a cross-cut drive is being driven in a westerly direction for the purpose of intersecting any reefs or leaders that may run through this part of the property. 10 tons of quartz has been crushed from leaders on the surface-levels for 9 oz. 8 dwt. of gold.

OPITONU DISTRICT.

Kauri Freehold Gold Estates.—This company has carried on extensive works during the year. A tramway has been laid from Whangapoa to the mine at Opitonui, and a locomotive-engine is employed in conveying material from the landing-place to the mine. A branch line is also in the course of construction up the Oweru Valley. There is also a considerable amount of work being carried on at the mines on the different sections of the property. Several levels are being put in, and two shafts are sunk. On one of the shafts a pumping and winding plant has been erected. The other shaft is being put down for the purpose of connecting the St. Hilda level with this shaft, which has been driven a distance of 520 ft. on a large body of stone, containing a fair percentage of the precious metal. From the tests made of the different reefs on the property the superintendent is sanguine that when the works are all completed and battery working there will be no doubt as to its ultimate success. Two hundred men are employed.

KENNEDY BAY DISTRICT.

Bay View Mine.—Four men are employed in driving a level from the side of the hill for the purpose of making a connection with the bottom of a winze that has been sunk on a leader from No. 2 level. Good specimens were obtained from this leader in sinking the winze, and it is anticipated that as soon as communication is effected the company will be in a position to open up a payable block of ground on this leader from the bottom of the winze. $3\frac{1}{2}$ tons of quartz has been crushed from this mine for a return of 17 oz. of gold.

Flossie Mine.—Three men are engaged in driving on a small leader on the surface-level. The leader is about 2 in. in thickness, and has been driven on for a distance of 60 ft. $1\frac{1}{2}$ tons of quartz has been crushed from this leader for 36 oz. of gold.

Evening Star Mine.—Two men are engaged in driving on a leader 4 in. in thickness at No. 3 level. As gold is seen frequently in the quartz in breaking it out the block of ground that is being opened up, the manager considers, will be payable. No returns from the mine this year.

Morning Star Mine.—This company has driven a distance of 40 ft. on a small leader, which prospects fairly well, and the manager intends shortly to have some of it crushed. Should it prove to be of a payable character more men will be employed to open up the mine. There has been no returns from the mine this year. Two men are employed.

There are a few men employed in prospecting in this district, and as the Hauraki Associated has erected a ten-stamp battery, and are prepared to crush for the public, the companies or miners trying ground in this locality have better facilities for testing or crushing the quartz than ever they had before, which will no doubt be the means of opening up some payable ground and be a boon to the people living in the district.

WAIKOROMIKO DISTRICT.

Four-in-Hand Mine.—The work in this mine has been chiefly confined to driving on the reef, which is 3 ft. 6 in. in thickness, and has been driven on for a distance of 150 ft. at the low level and 120 ft. at the surface-level. The prospects of this mine are of a very encouraging character, but as there has been no facility for getting the quartz crushed the mine was for some time protected; but as a road is now being made from the Hauraki Associated battery to the mine the company will soon be in position to have the quartz carted and crushed, if the directors may deem it advisable, before erecting their own battery. Operations in the mine are, I am informed, at once to be pushed on vigorously, and there is a likelihood of some of the adjoining properties being amalgamated with this one, which will no doubt give better facilities for working the mines. Seven men have been employed on the mine for the greatest part of the year.

Waikoromiko Mine.—Two men are employed driving on a lead 14 in. in thickness, which has been driven on a distance of 60 ft. Fair prospects have been obtained by crushing the quartz in a mortar, but no returns have been obtained.

Forest Queen, Cuirassier, and Tandem.—These companies have done a large amount of work in opening up the mines, and the prospects are encouraging, but the difficulty has been in getting the stuff to a battery, consequently the mines are protected pending arrangements as to the best method of working the claims. The Tandem had 2 tons crushed for the return of 2 oz. 12 dwt. of gold.

Fabulous, Tainui, Tainui Extended, and Arawa Mines.—These mines have done a large amount of surface prospecting, but no returns have been received. They are all at present protected.

PORT CHARLES DISTRICT.

During the years 1896 and 1897 a considerable number of claims were taken up, but in many cases only a very limited amount of work was done, such as surface-prospecting, but with no encouraging results. In some of the holdings a fair amount of work has been done and several reefs discovered which contained gold, yet nothing of a payable character was found except in the Eve Claim, situated between Big Sandy and Stony Bays, and held by McNeil Brothers. This has been constantly worked during the last eight months with three men, giving handsome returns: 1 ton 4 cwt. 2 qr. produced no less than 356 oz. 14 dwt. of gold. The reef has only been worked to a small extent on the surface, and a level put in, which has intersected it about 30 ft. below the place where it crops out on the hill. At this level it has been driven on for a few feet. The reef is not as large as where it is worked on the surface, being only 14 in. in thickness in the face of the drive, the quartz being of a favourable description for gold. I am informed the stone taken from the reef at this level gives good prospects, although I could see none in the quartz broken out. As it is a considerable distance from the beach, and expensive to get the quartz to a battery, the owners decided to take in more ground, as they only held a small area, and consequently the Jay Gould and De Hirsch Claims have been included in their claim. They have received offers, and intend to accept one of them, for the purpose of getting a company floated.

Hauraki Peninsula Mine.—This mine has an area of 80 acres 2 roods 32 perches, and is situated between Big Stony Bay and Cape Colville. The syndicate are driving a low level for the purpose of intersecting a reef which has been stripped on the surface. The reef is from 7 ft. to 8 ft. in thickness. Some of the quartz that has been assayed, I am informed, has given payable results.

Port Jackson Mine.—This syndicate is only carrying on surface prospecting, and so far nothing of importance has been discovered. Two men are employed on this property.

There are only three holdings being worked in this district, employing eight men.

CABBAGE BAY DISTRICT.

White Star Consolidated.—This mine comprises several holdings, making an area of 750 acres, which has been prospecting to a considerable extent by Bewick, Moreing, and Co., who held for some time an option over the property. The reefs were driven on for some distance, but no gold was

discovered except a few pounds of specimens that were obtained from a small leader in No. 3 level, where a winze was sunk on it to a depth of 37 ft., and as nothing of a payable character was found the property was given up, and only two men are now employed in the mine.

Queen Victoria of Hauraki Mine.—There are two men working in this mine employed in breaking out a few tons of quartz from the main reef, for the purpose of having it crushed to ascertain if it will be payable to work. A small crushing of 42 lb. of stone was put through for 2 oz. 14 dwt. of gold.

Jersey Mine.—This mine has been steadily worked during the year. Some very fair specimens were obtained from a small stringer of quartz, and a small parcel of 2 tons was put through the battery from here, which gave a return of 51 oz. of gold. Six tons was also put through the stamps from the leader at a low level, which gave a return of 18 oz. 18 dwt. of gold. There is also a reef 4 ft. 6 in. in thickness, on which a considerable amount of work has been done in the shape of driving and sinking, but as the prospects met with were not of an encouraging nature the work here was discontinued. Three men are employed in the mine.

Cuvier Light.—There has been a large amount of work done on this property in trenching and driving. Two reefs have been driven on for a distance of 80 ft. A small leader 2 in. in thickness has been driven on 300 ft. Four prospects were obtained in places in driving on this leader, but nothing of a payable character. No returns have been obtained from this mine. Two men are employed.

Canopus Mine.—A cross-cut has been driven a distance of 26 ft. from the side of the hill, which has intersected a reef formation 9 ft. in width, but so far this has proved to be of no value. There has been some trenching and driving done at different places, but nothing that may be considered payable has been found. Two men are employed on the property.

Antipodes Holding.—Three men have been steadily employed in surface prospecting and driving. A cross-cut drive has been put in a distance of 112 ft. This was driven for the purpose of intersecting a reef which was discovered on the side of the hill some considerable height above the drive.

There are several properties in this district on which a large amount of work has been done, but most of them are at present protected.

CADMAN'S GULLY.

Aitkin's Freehold.—This property is being systematically prospected, and has been continuously worked, employing from four to seven men. The principal work has been driving and sinking on the reefs, which vary from 6 in. to 18 in. in thickness. Gold is frequently seen in the quartz, and the prospects of the mine are of an encouraging nature; but no returns of any quartz having been crushed have been received.

Katie, Empress, and All Nations.—These mines have been occasionally worked, but nothing of importance discovered to warrant any great outlay of capital to develop any of the reefs that may traverse the claims. Eight men at intervals have been employed in these mines.

Karaka Block.—This property is being worked by a syndicate, who have had ten men continuously employed for the last six months. Very good prospects were obtained on the reef that was discovered at the outcrop on the side of the spur. The reef here was 4 ft. thick and contained a large amount of iron-pyrites, and gold could be freely seen distributed through the quartz. A considerable amount of driving and sinking has now been done on the reef, and 5 tons of quartz has lately been crushed for a return of 36 oz. of gold.

TIKI DISTRICT.

Coromandel Freehold.—This company bought this property about twelve months ago, and as this is an English company with large capital the mine, in all probability, will be systematically developed. The manager is pushing on with works on the various reefs and leaders that traverse the property. The Blackmore and Home Rule reefs vary from 2 ft. to 3 ft. in thickness, and have been driven on for a considerable distance, and as a large amount of gold was obtained from those reefs by different parties from time to time it may fairly be expected the mine will be payable when the company is in possession of a battery and the mine opened up. 10 tons of quartz was lately crushed, which gave a return of 9 oz. 10 dwt. of gold. Ten men were employed last time the mine was visited.

Progress Castle Rock.—This company has five men employed, the principal work being confined to driving a low level to intersect the reef which will be connected with No. 2 level. The reef will average 15 in. in thickness, and has been driven on at No. 2 level a distance of 900 ft. and connected by a rise with No. 1 level; the distance between the two levels being 74 ft. The reef has also been driven on 600 ft. at No. 1 level. It is intended to pass all the quartz down the rises to the bottom level, where it will be conveyed from this level to the battery by a ground tramway, a distance of 2½ chains. The ground is being levelled off and excavations made preparatory to the erection of the battery.

Pohutu and Nelson Mines.—These mines are being worked by a syndicate and have six men employed. Four men are engaged in driving a low level to intersect the Nelson and Matawai reefs. The drive is in a distance of 175 ft., and should the reef keep the same underlie as it has at the upper levels it should be cut at 220 ft. The other two men are driving and prospecting in the Nelson section. No gold returns.

Royal Mint.—Two men are employed in driving and surface prospecting.

Light Brigade.—There are three men working on this claim, driving on a reef and surface prospecting.

Magnet Mine.—This mine has two men employed sinking a winze on a reef 18 in. in thickness. A little gold can be obtained in crushing the quartz in a mortar, but not sufficient to warrant them sending any to a battery for treatment.

Pukewhau Mine.—This mine was protected for six months, but operations have again been resumed, five men being employed in driving on the reefs. So far no gold has been obtained.

MANAIA DISTRICT.

British Fleet Mine.—There are only two men employed driving a level to intersect the Golden Hill reef. This drive is in a distance of 90 ft., passing through good country with nice mineral veins running through it. No returns.

Little Minnie Mine.—Three men are employed driving a level to intersect a reef 2 ft. thick that has been tried on the surface. A little gold is sometimes seen in breaking the stone on the outcrop, and it prospects fairly well. The low level is in a distance of 105 ft., and the reef is expected to be reached in another 40 ft. of driving. No returns.

Golden Hill Extended.—This ground is being worked by a party of four tributers, who have done a large amount of work on the different reefs that run through the property. A two-stamp battery is on the claim, but this has not been worked for some time. There have been no important discoveries made, and no returns from the mine.

GREAT BARRIER DISTRICT.

Great Barrier Gold- and Silver-mining Company.—This claim was formally known as Ryan's Freehold. At time of visit the principal work in progress was sinking a shaft and driving a low level to intersect the reef. It is intended to drive the low level a distance of 600 ft., and connect with the shaft, which is to be sunk to a depth of 200 ft. When this is completed it should give about 290 ft. of backs, with a considerable amount of crushing dirt. The reef averages about 18 in. in thickness, and the quartz is of a kindly description. Samples of the ore have been taken and tested from time to time, and I am informed they have given good results, and the value of the bullion obtained from the assays averages from £7 to £152 per ton. A surface or higher level has been driven 230 ft. in the hill further up than the shaft to intersect a large reef which crops out on the surface. A small winding plant has been erected over the shaft. Twenty-four men are employed.

Iona Gold- and Silver-mining Company.—The work now under way in this mine is driving a low level on the western branch of the Iona reef, which averages about 4 ft. in thickness. I am informed that assays have been made of the reef in different parts which proved satisfactory, averaging about £5 to £7 per ton. A top level has also been driven 100 ft., at which distance the Iona main reef was cut, which is a large body of stone. From this reef also samples were taken and assays made, which gave an average value of about £7 10s. per ton. It is the intention of the company to push on the driving in the low levels from the western branch of the Iona reef to enable them to cut the reef at a depth where it is cut in the top level, which would give a considerable amount of backs. Seven men are employed.

Kaitoke Mine.—Six men are employed in this mine. Driving in the No. 1 level has been extended to a distance of 340 ft. for the purpose of cutting a reef which has been discovered on the surface, but has not been proved as to size. Samples have been taken out, and, I am informed, averaged about £13 per ton. Driving has also been done in the No. 2 level, and a cross-cut of 120 ft. has been put in to cut the Barrier No. 3 reef. There are several reefs in this ground, which have been stripped and trenched on the surface, two of which average 18 in. and 15 in. in width.

Great Barrier Gold- and Silver-mining Company.—This company has done a considerable amount of work, and are now driving on the reef at a distance of 325 ft. The reef is about 18 in. in thickness and looks promising. A ton of stone was treated, and, I am informed, gave a yield of 4 oz. of gold and 1,500 oz. of silver, which was considered very satisfactory. Only six men are engaged.

Mount Argentum Gold- and Silver-mining Company.—There are four men employed in the mine. The principal work in hand is sinking a winze on the reef, which is about 4 ft. in thickness, and from assays we are led to believe that the reef's value is about £6 per ton. The winze is down a depth of about 30 ft. A considerable amount of surface prospecting and trenching has been done on the ground, and several reefs intersected, some averaging 3 ft. 6 in. in width.

Barrier Gold and Silver Estate Company.—The principal work in progress in this mine is driving a cross-cut to cut the Barrier No. 3 reef, which is expected to be met with at a distance of 300 ft. The cross-cut has been driven 120 ft. through a boulder formation, but now it has changed, and a soft blue sandstone has been met with. Eight men are employed.

Aotea Mine.—The company are now employed driving a low level to intersect the Iona reef, which was met with in a level 90 ft. higher, and was 4 ft. in thickness. The level has been extended 220 ft., but an additional 200 ft. will have to be driven before the reef is cut. Six men are employed.

Staffa Mine.—A branch of the Iona reef is supposed to pass through this property, as it has been cut in a higher level, and is 2 ft. in thickness. The company are now employed driving a low level to cut the reef, which is in a distance of 230 ft. Four men are employed.

Original Great Barrier.—This company have ten men employed, and the principal work in hand is driving a No. 2 level to cut the reef which was cut on the top levels. The reef should be met with at a distance of about 500 ft., of which 230 ft. has already been driven. The reef is 2 ft. in thickness in the upper levels, and, I am informed, is of good value. Driving is also being carried on in the low levels, but a considerable distance will have to be driven before the reef is cut. Ten men are employed.

Kauri Freehold Block (Whangaparapara).—This claim has been worked by the New Zealand Exploration and Anglo-Continental companies under an option for two years. A low level is being

driven on the line of reef, which is about 2 ft. wide, and is valued at £2 per ton. A few reefs have been discovered on the block by surface prospecting, and average from 1 ft. to 12 ft. in width, but no returns have been made. Fifteen men are employed.

Egerton Mine.—This company are proceeding with two levels. The first or top has been driven on a distance of 80 ft., 40 ft. of which has been driven on the reef, which is 1 ft. in thickness, and is valued at £3 per ton; the latter or low level has also been driven on a distance of 80 ft. Driving on the hanging-wall, which is 14 ft. wide, is now being carried on. Eight men are employed.

KUAOTUNU DISTRICT.

Mariposa Gold-mining Company.—This company has done a very large amount of prospecting and developing work, employing from forty-five to seventy men during the greater part of the year. The principal work on the Try Fluke section is stoping and rising over the low level on the Try Fluke reef; also driving an intermediate and prospecting level. On the Mariposa section driving, stoping, and rising operations are proceeding on the Try Fluke reef, and all the stone broken out is taken to the battery. In the Venus section the cross-cut has been driven 600 ft. and the Red Mercury reef cut, which averages about 1 ft.; also the western lode, which is about 9 in., but so far has not proved of much value at this level. Work at present is confined to the development of the New East lode and the preparing of a chamber, &c., for deep-sinking purposes at No. 4 level. Of the former, the new lode was picked up east of the Fluke reef, and has been driven upon 300 ft., averaging 2 ft. 6 in. in thickness, and a large section stoped out. The lode has produced good payable ore, and from indications we have every prospect of its value increasing at a deeper level. A cross-cut is now being put in at No. 3 level, 150 ft. deeper, to intersect the lode, and it is expected to be cut within a month. With regard to the chamber, this is now all but ready for the erection of a steam-pumping and winding plant, which is on the way out from Home. The company is also engaged in completing the rise for poppet-heads, rope-way, and smoke-passage. From indications there is every reason to believe that the deep levels will be productive of eminently satisfactory results. The drainage of the lodes will also be a great boom to surrounding claims. The returns for the year show 4,440 tons crushed for 1,531 oz.

Kapai-Vermont Gold-mining Company.—This company's operations have been chiefly confined to stoping on the Try Fluke reef, between Nos. 1 and 2 levels. The reef has varied from 1 ft. to 20 ft. in thickness, and as some of it has been low-grade ore the quartz that was sent to the battery for treatment had to be carefully selected. The quartz in the upper levels is now almost exhausted, and in consequence the directors have been considering a scheme for the future development of the mine at lower levels. 2,785 tons of quartz has been treated during the year for 1,864 oz. of gold. Thirty men are employed in the mine and battery.

Great Mercury.—Operations are confined to the Red Mercury section of the mine. The lodes under development are three in number—viz., Just-in-Time, Red Mercury, and Foot-wall reef. The ore bodies vary from 6 in. up to 2 ft. in thickness, and are very patchy in character, and as a result the stone has to be selected. The ore is free milling, and in consequence there is no trouble with the cyanide process. The extraction is from 85 to 90 per cent., and the cost of treatment is 4s. 10d. per ton. 470 tons of quartz and 433 tons of tailings has lately been treated for 332 oz. of gold. Sixteen men have been employed in the mine and battery.

Waitaia Gold-mining Company.—This company's mine has been continuously worked during the year. The operations have been directed in opening up and developing the various reefs and leaders. Connections have been made by passes from Nos. 1 to 4 levels, and a rise is now being put up from No. 5, or bottom, level to No. 4 level. When this is completed they intend to run the quartz down through the passes from the upper levels to the No. 5, where it will be trucked out to a hopper that has been erected near the mouth of this level; thence it will be conveyed from here by a ground tramway to the battery, which is likely to be erected a distance of about half a mile. The reefs and leaders vary from 6 in. to 18 in., and as they have been driven on at the different levels for a considerable distance large blocks of ground are now available for stoping. As the quartz broken out of the drives has been of a payable nature the prospects of the company may be considered very encouraging. Twenty-six men have been employed in this mine.

Irene Gold-mining Company.—This company have five men employed driving south on the Try Fluke reef from the bottom of a winze that has been sunk to a depth of 100 ft. from No. 1 level. This drive is in a distance of 40 ft. from the winze, but only a portion of the reef is saved for crushing, which is 5 ft. thick. The reef has been driven and sunk on in other places, but so far nothing payable has been found. 100 tons of quartz was put through the stamps for 15 oz. 13 dwt., and 85 tons of tailings treated by the cyanide process yielded 27 oz. 10 dwt., of gold.

Prospecting operations are being carried on in the following mines with two men on each, viz.: Maoriland, Ajax, Mint, and Alpine Fluke.

Matarangi Mine.—Four men are tributing in this mine.

BOAT HARBOUR DISTRICT.

Claims have been taken up in this district but no returns have been made.

OPITO DISTRICT.

A number of areas have been taken up and a little prospecting done, but no returns received.

MAHAKIRAU DISTRICT.

About eight prospectors are employed in this district. No returns received.

PREECE'S POINT, COROMANDEL.

Preece's Point Gold-mining Company.—The company have sunk the shaft to the required depth, and opened out a chamber, on which has been erected a pumping and winding plant. There is no work at present being done in the shaft, and the men are engaged driving two surface-levels. It is the intention of the company to resume work in the shaft again shortly. Six men are employed, including two engine-drivers.

Golden Shore Gold-mining Company.—This claim is situated at Preece's Point, being on the foreshore. A reef in this property crops out on the beach, but cannot be worked owing to the tide. It is a good-sized body of stone, and samples taken from it have shown some good dabs of gold. The company are now sinking a shaft on the beach a little below high-water, and are down a depth of 70 ft. It is their intention to sink another 15 ft. or 20 ft. and to open out at the 75 ft. level. Ten men are employed.

MATA DISTRICT.

Three Sisters.—Two men are employed on this claim, and are engaged in driving a low level to cut a lead which varies from 4 in. to 12 in. in thickness. The drive is in 106 ft., and they expect to cut the reef in another 30 ft. Half a ton of quartz has been sent to the School of Mines for treatment. There are also a party of three men sluicing in the Gentle Annie Creek, who are getting a little gold, but no important discoveries have been made.

TAPU DISTRICT.

Mahara Royal Gold-mining Company.—This is an English company, who have erected a ten-stamp battery and six berdans, the ore being treated by amalgamation. A water-race has been constructed for a length of a mile and three-quarters, which gives an effective fall of 260 ft., and is capable of carrying thirteen sluice-heads of water. A Pelton wheel is used for driving the mill, which is connected with the race by 14 in. pipes. In erecting the battery provision was made for the erection of additional stamps and other gold-saving appliances with a small outlay if it was found necessary. A ground tramway has been constructed from the mine to the battery, a distance of 21½ chains, which has a slight grade, and is worked by a horse. The mine is well opened up. The principal work in hand is driving and stoping on the reef at No. 2 level, which is 90 ft. above the tramway. This drive has been driven on the reef for a distance of 350 ft., and is connected by a rise with No. 1 level, where a considerable amount of work has been done on the reef. The reef is 4 ft. thick and is well defined. There is every appearance of it improving in depth, as a winze is sunk some 25 ft. on it from No. 2 level, where it fully maintains its size and quality. A main drive has been started on the tramway level, which is termed No. 3 level. This drive will have to be driven a distance of about 500 ft., but as it has to penetrate through hard country it will take some time to complete it. There is no immediate hurry for this drive being pushed on to cut the reef, as there is abundance of quartz in sight to keep the battery crushing for some considerable time. A cross-cut drive is being put in to intersect a reef that has been discovered on the hill some distance away from the workings. This drive will give 100 ft. of backs. The reef is 3 ft. and gives good prospects on the surface. 1,420 tons of quartz has been treated at the battery for 823 oz. of gold. Thirty-five men are employed, including the men at the battery.

Sheridan Gold-mining Company.—This mine has been continuously worked with an average number of twenty men. Five additional stamps have been erected, making the plant fifteen heads and six berdans, the ore being treated by amalgamation. A large amount of work has been done on the leaders in the surface-levels, but as a crushing of 373 tons of quartz treated from here only gave a return of 10 oz. 16 dwt. the most of the surface or upper levels were discontinued. The principal work now in progress is driving on the lead at the low level to get under the point where the winze is being sunk from No. 3 level. When this is accomplished they will be in a better position for conveying the quartz from the upper levels to the battery, as the stuff can then be passed down from one level to another at a small cost. 443 tons has been treated for a return of 118 oz. 5 dwt. of gold.

Shannon Mine.—Three men are engaged in surface prospecting. A cross-cut has been put in from the side of the hill, and a lead 10 in. thick intersected. The quartz is of a kindly appearance, and gold was occasionally seen in breaking it out; also excellent prospects are met with in the loose stuff on the surface. No returns.

Golden Band Mine.—Two men are employed in driving on a reef 8 in. in thickness, which gives very good prospects; but no quartz of any consequence has been treated to prove the value of the mine.

Little Jessie Mine.—Three men are employed in driving south on the reef at No. 3 level. 20 tons of quartz has been crushed from the mine for 6 oz. 6 dwt. of gold.

Golden Point Gold-mining Company.—A large amount of work has been done by this company in driving and sinking. A winze has been put down on the leader to a depth of 100 ft. below the bottom level, but as the company has been very unfortunate in not discovering gold in payable quantities application for protection was applied for and granted. 20½ tons was crushed for 1 oz. 1 dwt. of gold. Ten men were employed the greater part of the year.

WAIOMO DISTRICT.

Monowai Mine.—This company has fifty-four men employed, and is thoroughly opening up the mine, with the intention of proving the value of the different reefs that run through the property. In the Monowai section, No. 3 B level, a drive has been driven along on the foot-wall side of the reef for a distance of 500 ft., and the reef cut through in places and found to be on an average 30 ft. thick. In the southern drive at this level the reef has been driven on for a distance of 300 ft., which will be connected with No. 3 B level. A winze is also being sunk on the reef from No. 2

level, which will give excellent ventilation to this part of the mine. In No. 2 low level in the Gem section the reef is 8 ft. thick, and has been driven on for a considerable distance. As this level is connected by a tramway, three-quarters of a mile in length, with the battery it is the manager's intention to pass all quartz that is broken at the upper levels down through the rises that connect with this level, and run it direct into the mill. A tramway is also in course of construction from the Monowai level, a distance of a mile and a quarter. There will be two inclines in this tramway, which will be self-acting, the trucks being let down by a wire rope and brake. The battery, which consists of ten stamps, has been overhauled and put in good working-order, and a portable engine has been put in position to assist in working the stamps when there is not sufficient water in the race to work the plant. The vats and tanks that were used in connection with the dry-crushing process have been removed to the new shed that has been erected a short distance below the battery, where they will again be used for the treatment of the tailings by the cyanide process. It is also the manager's intention to put the ore through the stamps with the wet crushing, and after passing over the tables the tailings will be run through the Brown and Stamford's concentrators, and the concentrates will be sent to England for special treatment. There has been no quartz treated from this mine during the year, but as the battery is now completed regular monthly returns may be expected.

Toulouse Mine.—Two men are employed in prospecting on this claim; but nothing of importance has yet been discovered.

Comstock Mine.—Two men are employed in driving to intersect the Monowai lode. The drive is now in a distance of 160 ft., and it is expected the reef will be met with in another 100 ft.

Alma Mine.—This mine has an area of 98 acres, and is situated between the Puru and Tararu. The Hauraki Peninsula Exploration Company have lately taken over this ground and commenced prospecting operations.

TARARU DISTRICT.

Kaiser Mine.—This mine has been steadily worked with from three to five men. A good deal of driving and sinking has been done on the leader, which has varied from 6 in. to 2 ft. in thickness. 78 tons of quartz has been crushed for 72 oz. 3 dwt. of gold. Although it has not produced a large amount of crushing dirt, still the prospects met with have been very encouraging.

City of Auckland Mine.—Seven men have been employed in this mine. The chief work in progress is in the higher levels. There is also a considerable amount of driving done on the Little Agnes reef, which is about 10 ft. in thickness and assays well, but seems rather difficult to treat. Driving is also being carried out in the Raglan Spur section to intersect the Californian reef, which has been cut in a level near the surface, and is about 4 ft. in thickness. This, I am informed, gives good prospects. The company have also sunk a shaft 170 ft. to the south-west of the low level, and intend to erect a pumping- and winding-engine to work the reef at a greater depth. 3 tons was treated on the Thames for the yield of 12 dwt., and one ton was treated at Fraser's Reduction-works, Auckland, and gave a return of bullion to the value of £3 10s. 8d.

Puru Consolidated Gold-mining Company.—A considerable amount of work has been done on this mine, and in the No. 1 level driving has been done on the Rimu reef to a distance of 275 ft., which averages about 2 ft. in thickness. The quartz looks to be of a fair quality, and, I am informed, is free-milling stone, carrying very little mineral. In No. 2 level, which is 60 ft. below No. 1, the reef has been driven on a distance of about 400 ft., and averages about 18 in. The reef on the face at present is about 2 ft. in thickness, and has shown colours of gold when breaking down. When this level is complete it will give a considerable amount of backs. A ten-stamp battery, which is in course of erection, is almost completed, and is to be connected with the mine by an aerial tram. Ten men are employed. No returns.

Scandinavian Gold-mining Company.—Four men are employed in this mine in driving on the reef in the north side of the spur. During the year 12 tons of quartz was crushed for 16 oz. 5 dwt. of gold.

Sunlight Gold-mining Company.—The work in this mine under way at present is driving on the No. 2 leader, which runs from 2 in. to 2 ft. in thickness. Four men are employed. No returns.

Argosy Gold-mining Company.—There has been a considerable amount of work done in this mine, and during the year eight men were employed. At present the mine is under protection, and is worked with two men. No returns.

Vulcan Extended Gold-mining Company.—Seven men are employed in this mine. The principal work at present is driving a low-level cross-cut to intersect the Vulcan reef, which averages about 5 ft. in thickness. 2 tons of quartz was crushed for 2 oz. 11 dwt. I am informed that it is the intention of the company to erect a battery at an early date, and the water-race is in course of construction.

Chicago Gold-mining Company.—The underground work is at present stopped in this mine, but a considerable amount of work has been done in developing the reefs. During the fine weather the men have been employed on outside work in connection with the erection of the battery, water-race, and tram-line. The battery, which is a ten-stamper one, is near completion, and is connected with the mine by a ground tram 14½ chains long. The water-race is in course of construction; it is 49 chains in length, and will give a fall of about 260 ft. There is a considerable amount of quartz available to keep the battery going for some considerable time, and it is considered to be of a payable quality. Twenty men are employed.

Temple Bar Gold-mining Company.—Two men have been employed on this ground during the year driving on the reef in the low level, which averages about 1 ft., and fair prospects have been obtained by pounding.

Tararu Creek Gold-mining Company.—This company has done a large amount of work during the year. The principal work in the mine has been driving the battery-level to connect with the City of Dunedin level, which is also being pushed on from the Tinkers' Gully side. When this work is

completed the quartz broken in the Dunedin section will be passed down from the upper levels to the battery-level and trucked direct into the mill, thus doing away with the cartage. The battery-level is in a total distance of 2,342 ft., 1,092 ft. having been driven on the hanging-wall side of the reef. As the drive proceeded, the reef was cut through in places to ascertain its thickness and value. Its average thickness is 7 ft., and it contains gold in places in payable quantities. In the Tinkers' Gully side the City of Dunedin level has been driven on the same reef mentioned above for a distance of 1,258 ft. There is yet 400 ft. to drive to get to the point where these drives will be connected by a pass, the distance between the two levels being 120 ft. A fire occurred on the 25th March in the battery, completely burning down the house and causing considerable loss to the company, the old stamps, &c., having just been taken out and a commencement made to erect a new thirty-stamp battery. This had also the effect of stopping the battery-level pending the erection of a Pelton wheel to drive the air-compressor to work the rock-borers. A water-race has been constructed three-quarters of a mile in length, capable of carrying eight sluice-heads of water, which has an effective fall of 95 ft. to the battery. 1,579 tons of quartz has been crushed for 427 oz. of gold, and 2,475 tons of tailings treated for 1,670 oz. of gold. Twenty-five men have been employed.

There has also been a number of other claims worked in this district during part of the year, but they are at present under protection—viz., Lylas, Mount Taylor, Eaglehawk, and Ake Ake.

Waitangi Gold-mining Company, Shellback Creek.—This mine was under protection for some time in the early part of the year, but since work has been again resumed developing operations have been carried on on the Nos. 3 and 4 reefs in the top level, which averages about 4 ft. Some very fair stone has been taken from these reefs, in which gold is to be seen freely. A parcel of quartz is being sent to the battery for a trial crushing.

Thames Gold-mining Company, Shellback Creek.—Four men were employed in this mine in the early part of the year, but of late the mine has been under protection. The only work done was cleaning and timbering old levels.

KURANUI DISTRICT.

Kuranui Mine.—This mine was worked by the company during the former part of the year, but at present is worked by tributers in the surface-levels. Four tributers had 93 tons of dirt crushed for a yield of 3 oz. 8 dwt. of gold.

Darwin Mine.—Two men are employed on this ground driving on the Multun reef in the top level, which averages 10 in. in thickness, and is driven on a distance of 160 ft., and is of a promising appearance. It is the company's intention to break out a few tons for trial crushing. A large amount of work has also been done on the reefs in the low levels, and a parcel of 5 tons of quartz gave a return of 4 oz. 6 dwt. of gold.

Fearnought.—This is one man's ground, and is at present being worked by a party of two men, who are employed driving surface prospecting levels, but nothing of importance has been discovered. 2 tons of quartz crushed yielded 1 oz. 14 dwt.

Tudor Mine.—Two men are employed on this ground sinking a winze on the Bendigo reef in the low levels. The reef, which has been worked to a considerable extent, averages about 18 in. in thickness. 14 tons of stone crushed gave a return of 32 oz. 3 dwt. of gold.

New Alburnia Mine.—Operations in this company's mine have been steadily carried on during the year. The shaft has been sunk to a depth of 100 ft. below No. 5 level, making the total depth of the shaft 563 ft. A chamber has been opened out at this depth, and a cross-cut driven north for a distance of 43 ft., where the Dixon's reef was intersected. The reef was then driven on east and west, and is 2 ft. 6 in. in thickness, containing very nice mineral. At No. 5 level driving and stoping operations have been carried on to a considerable extent on the Dixon's and Sons of Freedom reefs, and the same may be said of No. 4 level. A large amount of work has been done in the shape of cross-cutting and rising for the purpose of making connections with the upper levels for ventilation. The old Sons of Freedom level from the Moanataiari side has been repaired and driving resumed. It is the intention to extend the tunnel a distance of 300 ft. to get under the main shaft, which will require to be sunk 77 ft. to get down to the level of the drive. This will both drain the mine to this depth and give ventilation. 3,775 tons of quartz has been crushed during the year for a return of 1,766 oz. of gold. Forty men have been employed, including the surface- and battery-men.

Kuranui-Caledonian Mine.—This company have done a large amount of developing work between Nos. 1 and 4 levels on the Nos. 1 and 2 reefs, and driving and stoping have been carried on to a considerable extent on the Cross reef, Kelly and Darby leaders, at Nos. 1, 2, and 3 levels. During the year 1,726 ft. has been driven on the reefs and leaders; winzes sunk 196 ft., at places to connect the different levels; cross-cuts driven to the extent of 752 ft.; and old drives cleaned out and repaired for a distance of 1,950 ft. This company's prospects were very encouraging in the early part of the year, the first crushing of 200 tons giving a return of 401 oz. of gold; but since then the returns have become less, and for the last five months very little quartz has been crushed. 3,286 tons of quartz was crushed during the year for 1,580 oz. of gold, and an average of thirty-seven men has been constantly employed.

Waiotahi Mine.—This mine is still being continuously worked, and a fair amount of crushing-dirt is being produced from the various leaders that traverse the mine between Nos. 1 and 3 levels. The leaders being small, a large area of ground has to be stoped out to obtain the quartz, and in consequence the quartz must contain a considerable quantity of gold to pay. There has been 1,360 tons of quartz crushed for 1,917 oz. of gold, the value being £5,214 13s. 7d.; but as there has only been sixteen men employed, and as the mine is only worked on systematic and economical principles, a very small margin of profit has enabled the directors to pay a dividend of 2s. 6d. per share, making the twentieth dividend since the company was formed.

Nonpareil Mine.—This company had twelve men employed in the early part of the year, and for some time the prospects of the mine looked exceedingly encouraging. There was a large amount of prospecting done, but as sufficient gold was not obtained to meet the expenses the directors had the number of men reduced to two and portions of the mine let on tribute. The Liverpool Boys and Wade reefs were the principal reefs operated on, from which 153 tons of quartz was crushed for a yield of 412 oz. of gold, and 9 tons for tributers for 21 oz. 5 dwt.

Moanataiari Mine.—This company's operations during the year have been principally confined to development-work in the mine and the erection of the crushing plant. The main shaft has been sunk from No. 3 level another 100 ft., making the total depth of the shaft 503 ft. A chamber was opened out a few feet above the bottom of the shaft, and what is termed No. 4 level is being pushed on from here with all possible speed. Driving, stoping, and rising are proceeding in the various levels on the different reefs that traverse the property, but the greatest portion of the ore sent to the mill is at present coming from the Golden Age reef at the Point Russell level. The lode is from 8 ft. to 9 ft. in width, and has been opened to a considerable extent, but as some of the quartz is low-grade ore only 5 ft. to 6 ft. of the reef is selected and sent to the mill. In the intermediate level, 100 ft. below the Point Russell level, the Golden Age and Reuben Parr reefs junction, and here the reef has been driven on for a considerable distance. At No. 3 level of the main shaft the Cambria reef and leaders on the hanging-wall of the reef are being operated on. Specimen stone is frequently met with in the leaders, which indicates that something good may be obtained from the reef. At No. 1 level the Nos. 1 and 2 reefs were opened up to a great extent. A rise has also been put in from the main adit-level a distance of 210 ft. to connect with the upper levels, which is to be used for passing the ore down from the upper levels to the main level, thence it will be trucked direct into the mill. Pending the completion of the battery there has been very little quartz crushed this year from the mine. The first cleaning-up took place last month, with the result that 1,233 tons of quartz was treated for a return of 602 oz. of gold. 123 men are employed.

West Coast Mine.—This mine has been steadily worked during the year by the owner, John Northey. The work has been confined to working small stringers in surface-levels. During the year 29 tons of quartz was treated for a return of 24 oz. of gold. Two men are employed.

Little Maggie Mine.—This mine adjoins the Nonpareil mine, and is worked by the owner, William Britt, the work being confined to driving and stopping on small leaders and stringers. Two men are employed. During the year 15 tons was crushed for a return of 16 oz. 2 dwt. of gold.

Infant Mine.—This mine is also worked by the owner, J. Johnson, on small leaders and stringers, and 8 tons of stone has been crushed during the year for a return of 8 oz. 17 dwt. One man employed.

Hauraki Golden Age Mine.—This company has thirty-five men employed, and has in consequence done a large amount of work in the mine. The Golden Age has been driven on for a distance of 1,000 ft. Two winzes have been sunk 160 ft. from the Balmoral level to the main adit-level for ventilation. The reef runs from 12 ft. to 50 ft. in thickness, but the greater portion of it is and hanging-wall reefs have been driven on to a considerable extent, but nothing of a payable low-grade ore and appears not to be good enough to send to the battery for treatment. The No. 2 character has yet been discovered. A new twenty-stamp battery has been erected, and an aerial tramway to convey the quartz from the mine to the battery is nearly completed; but this work has been stopped, and the present operations are confined to the development of the mine.

A number of other mines have been worked during the greater part of the year, and a considerable amount of work done therein—viz., Moanataiari North, Freedom, New Whau, New Caledonia, Orlando, Caspian, Alburnia East, and Moanataiari Extended, but most of them are now under protection.

GRAHAMSTOWN DISTRICT.

Victoria Mine.—The operations in this company's mine in the early part of the year were chiefly confined to driving and stoping on what is termed the Victoria leader in the Prince Imperial section of the mine; but as the returns became smaller every month and were not payable, the number of men was reduced to four, who are prospecting at No. 2 level. 283 tons of quartz was crushed for 683 oz. 10 dwt. of gold. An average of sixteen men was employed.

Cardigan Mine.—There are five men employed by this company. The work done has been of a prospecting character, and the present work is driving on the Cardigan reef. No returns have yet been obtained.

WAIOKARAKA DISTRICT.

May Queen Mine.—This company have enlarged and retimbered the May Queen shaft, and as soon as the pumping machinery of the Thames Hauraki is fairly started, and the water drained from this part of the mine, the sinking of this shaft will be resumed for the purpose of opening up other blocks of ground on the different reefs, which are supposed to contain gold in payable quantities. A considerable amount of work in developing has been done in the Saxon section of the mine, and a leader about 1 ft. in thickness is being worked in the foot-wall of No. 1 reef, which has given payable results. 859 tons of quartz has been treated by the company for 924 oz. of gold, and 42 tons by tributers for 85 oz. 10 dwt. Fifty-two men are employed by the company, and six tributers.

Thames Hauraki Company.—This company has done a very large amount of work during the year on the different sections of their property, but the erection of the pumping machinery on the Queen of Beauty shaft has been greatly retarded lately by the pieces of machinery most urgently required not arriving from England. As the balance of machinery is expected to be all on the ground within the next two months, and as everything to hand is in position, it should only take a short time after the balance arrives to complete this important plant. At the Deep Sinker section the shaft has been sunk to a depth of 480 ft., and a level opened out at a depth of 460 ft., which

has now been driven a distance of 150 ft. The country is hard, and not all that can be desired for gold-bearing reefs, but a change of country may come in at any time. In the Deep Level Consolidated section of the property the adit-level has been driven towards the Hape Creek a total distance of 1,160 ft., but unfortunately nothing of importance has been discovered.

KARAKA DISTRICT.

May Queen Extended Mine.—Operations in this mine have been carried on during the year with from two to eight men employed, the principal work being driving and sinking on the reefs in the road-level from the Karaka Creek. During the year 39 tons was treated for a return of 44 oz. 17 dwt. of gold.

Claremont Mine.—This mine is worked by the owner, who directs his attention chiefly to working small leaders that junction with what is called flinties, and it is at the point where the flinties run into the leaders that the gold is found. 213 lb. of stone was treated during the year for 181 oz. 11 dwt. of gold.

Manchester Mine.—This mine has been worked by two parties of tributers during the latter part of the year. Swan and party, working the lower level section of the property, have cleaned out and retimbered an old level for a considerable distance, for the purpose of getting into a reef that has been worked on in the old workings, and from which they have had a crushing of 23 tons of quartz for a return of 27 oz. 6 dwt. of gold. Smith and party had also a crushing of 8 tons of stone from the reef in the higher section of the property for a return of 10 oz. 15 dwt.

Gloucester Gold-mining Company.—This company's property is undergoing vigorous prospecting. A considerable amount of trenching and driving has been done. A shaft has been sunk to a depth of 140 ft., and a whim erected for haulage purposes, but it is intended to replace this by a pumping- and winding-engine capable of sinking to a depth of 400 ft., or further if required. The foundations are to be built with concrete, and will be of a substantial character. The estimated cost of the engine, pumps, poppet-heads, engine-house, and everything complete will be about £1,950. This is one of the most promising properties in the Karaka Creek, and is being explored by an English Company, whose attorney in New Zealand is the Hon. William McCullough, M.L.C. The developing works are being carried out in a satisfactory manner under the supervision of Mr. Thomas McCullough. A fair quantity of gold has been obtained from time to time from the various leaders and reefs in the surface-drives, and there is every prospect of gold being got at a depth, as the parties who had previously worked on the property obtained gold as far as they were able with their primitive appliances to keep the water down. The Lincoln Special Claim has been secured by the company's attorney, and negotiations are proceeding for the purchase of the Manchester Claim. This should prove a valuable addition, as the Manchester tributers found a body of quartz 3 ft. wide, some of the ore from which has been tested as worth £2 15s. per ton by the battery treatment. Twelve men are employed.

Adelaide Mine.—A large amount of work was done in this mine in the early part of the year in opening up the main and cross reefs at the low level. The prospects at times were very encouraging, but after a considerable amount of money had been spent, and not sufficient gold being obtained to pay for the working of the mine, the claim was protected. 242 tons of quartz was treated for a return of 168 oz. 13 dwt. of gold. An average of twelve men was employed.

Prospecting works have also been carried on in the Karaka Queen, Lincoln, Duplex, and McIsaacs, all situated in the Upper Karaka.

Karaka Mines (Limited).—This company have done a large amount of work in the shape of driving and stopping. On the No. 1 reef 170 ft. has been driven on the reef east and 215 ft. west. The reef is about 2 ft. thick and the quartz looks promising, and nice gold is also occasionally seen in the stone. The mine is well timbered and the ventilation good. Seven men are employed.

UNA HILL DISTRICT.

Occidental Mine.—Six men have been employed in this company's mine. The operations have been chiefly confined to driving to cut the Loyalty reef, but as nothing of a payable character was discovered, and the funds became exhausted, the company applied for absolute protection for four months, which was granted.

Fortuna Mine.—Thirty-three men are employed. The company are vigorously pushing on with the development of the mine. The Gibraltar reef has been driven on for a distance of 175 ft. At the No. 1 level the reef is about 8 ft. thick, and I am informed gold has been occasionally seen in the quartz in breaking down. A winze is also being sunk on the foot-wall of the lode from this level to No. 4 level. Driving is also proceeding on the Magnolia reef at No. 3 level. This reef was 9 ft. thick where it was cut through, and has been driven on for a distance of 440 ft. and connected by a rise with No. 4 level. At No. 4 level six men are engaged driving on the Jupiter reef, which is 20 ft. thick and shows a little gold. The company has also erected a small pumping and winding plant on what is known as the old Dart shaft, and the water is now pumped out to the No. 3 level at a depth of 220 ft. The company's operations are now directed in opening up the low levels in this section of the property.

HAPE CREEK DISTRICT.

Ethel Reefs (formerly Hauraki Anchor).—This company has twenty-four men employed in opening up the reefs and leaders at the different levels from the side of the hill near the Hape Creek Road. Driving is proceeding east on the foot-wall of the Jupiter reef, which is about 20 ft. in thickness. In the Stephenson level four men are engaged in driving west on the Stephenson reef, which is 18 in. thick. In the east drive on this reef a winze is being sunk for the purpose of proving the value of the reef and making a connection with the old Anchor level for ventilation, which is to be repaired and afterwards used as a main level to work the various reefs at a depth. At the Prescott

level driving west is also proceeding on the Souvenir reef, which is 6 ft. thick, from which fair prospects are obtained. The Jupiter, Nellie, Stephenson, Fogarty, and Woolmer reefs have all been worked on more or less. This company has a new complete crushing plant, which it is intended to erect should sufficient encouragement be met with to warrant the outlay. 164 tons of quartz has been crushed for 89 oz. 4 dwt. of gold, and the tributers crushed 23 tons for 42 oz. 10 dwt. of gold.

Mascotte Limerick Mine.—A considerable amount of prospecting was done on this property in the early part of the year, but operations in the mine are now abandoned.

OTUNUI DISTRICT.

In the Otunui district very little work has been done during the year.

KIRIKIRI DISTRICT.

Fleming's Mine.—A little prospecting has been done, but I have heard of no important discoveries being made. It is intended to put up a small crushing plant to prove more fully the value of the ore before erecting a mill to treat on a large scale.

PURIRI DISTRICT.

Empress of India Mine.—A great deal of work has been done in this mine, and forty men were employed up to the beginning of April. 4,170 ft. of driving has been accomplished, the greater portion of which has been on the reefs, besides sinking winzes and other prospecting-works. The reefs and leaders traversing this property vary from 3 in. to 4 ft. The reefs driven on are not considered payable for the whole length, but some of the quartz assayed is stated to have given excellent results. The mine is well situated on the side of the hill, with every facility for working, and there would be no difficulty in constructing a ground or aerial tramway to convey the quartz, a considerable quantity of which is stacked at the different levels, from the mine to the mill. An option is at present held over the property by an English company, and it is expected that some decision will shortly be arrived at. No returns.

Puriri Gold Estates (Limited).—Extensive work has been done on this company's property in the way of surface-prospecting and road-making. Operations at the mine are confined to driving a low level from the side of a creek. Six men are employed at this drive, which is in a distance of 115 ft., and penetrating through very hard country. Favourable assays were obtained from the reef they are driving for, which was cut through on the surface.

The two mines mentioned are all the claims that are now being worked in the district.

NEAVESVILLE DISTRICT.

There has been very little work of any importance done in this district during the year.

TAIRUA DISTRICT.

Broken Hill Mine.—A very large amount of money had been spent on this property, but after purchasing a battery and making all necessary arrangements for its erection, with water-race and tramway to connect with the same, it was discovered that nothing of a payable character had been found to warrant the outlay, and all the works have now been stopped, pending instructions from the directors in London. Thirty men were employed. No returns.

Albert Mine.—This company has continuously worked its mine with seven men, and in consequence a good deal of work in the shape of prospecting has been done. The manager is sanguine as to the mine being of considerable value, but as yet nothing of importance has been discovered. For a time this mine was the only one in the district that was doing any work.

Anglo-Continental Company.—This company did a large amount of prospecting in this district, but, as nothing of importance was discovered, operations on the properties held by them were stopped, but I am informed they have again resumed work.

OHUI DISTRICT.

There were a number of men employed prospecting in this district in the early part of the year, but most of the claims are now protected. A six-stamp battery has been erected, but no returns have been received.

WHANGAMATA DISTRICT.

Whangamata Proprietary Mine.—This company has done a large amount of work, and the mine is now well opened up. The reef is about 7 ft. thick, and has been driven on in No. 1 level for a distance of 750 ft., and winzes sunk on it to connect with the bottom levels. A shaft is being sunk from near the top of the hill for the purpose of working the reef at a depth, and the different levels will be connected with the shaft.

The bottom level will be used for trucking the quartz out to the hopper; from thence it will be conveyed to the mill by a tramway. A contract for the excavating of the battery-site is now proceeding, and a water-race is also in the course of construction. There is something like 5,000 tons of quartz in the paddock ready to be sent to the mill, which, I am informed, contains gold in sufficient quantities to pay and leave a good margin of profit. Thirty men were employed during the year.

Wentworth Mine.—This company has nine men employed in the mine and seven men constructing a water-race, and it is intended to erect a battery. Two reefs are being driven on, which are about 2 ft. in thickness, and said to obtain gold in payable quantities. There has been little work done in the mine, as it was protected for six months during the year.

In the early part of the year extensive prospecting-works were carried on in the Phoenix Golden Mount, Golden Falls, and several others; but operations in all the mines in this district have now been discontinued, with the exception of the Whangamata and Wentworth Mines, as already mentioned.

OHINEMURI COUNTY.

MARATOTO DISTRICT.

Hikutai Gold Syndicate.—This company's mine is well opened up. The reef, which is from 6 ft. to 14 ft. in width, has been driven on at No. 5 level for a distance of 1,250 ft., and 600 ft. at the bottom level. Winzes have been sunk from one level to another, and in consequence the ventilation is all that can be desired. A considerable amount of prospecting has been done at the surface-levels with encouraging results. The ore, though of low grade, is said to contain gold in sufficient quantities to pay for breaking-out, crushing, and other expenses in connection with the working of the mine, and still leave a small margin of profit, and there is enough quartz in sight to keep a hundred stamps steadily working for years. Thirteen men are employed.

Walker's Maratoto Mine.—There has been a considerable amount of prospecting done on this property during the year, but no important discoveries have been made to warrant the erection of a battery. From five to sixteen men have been employed. No returns.

Prospecting operations in the Volunteer, Lord Salisbury, Retreat, and the other claims in this district have been suspended.

KOMATA DISTRICT.

Komata Reefs Company.—This company has done a considerable amount of excellent work during the year. A twenty-stamp battery has been erected suited either for dry or wet crushing, with cyanide-vats and some of the latest appliances for saving gold. Dry crushing was tried for a while, but it was deemed advisable to try the wet-crushing process, as in some of the other mines in this district wet crushing was being carried on with similar ore, and is said to have given better results than the dry crushing, and this company is now satisfied the ore from their mine can also be more successfully treated by the wet process, which must be admitted is a great benefit to the men that have to handle the ore in the mill. The company considering there is sufficient ore in sight to warrant the outlay is also erecting another twenty stamps, with vats, &c., necessary to treat the stuff after passing through the stampers. The ore is conveyed from the mine to the mill by shoots and ground tramways, which act admirably. The mine is well opened up, and the reefs that are being operated on are the Komata, Argale, Hartridge, and the Lavington. The reefs vary from 9 in. to 8 ft. in thickness, and, as the ore fluctuates a good deal in value, it requires careful attention so as to save the portion that contains the gold in payable quantities; but there is no trouble in getting abundance of quartz to keep the mill constantly employed. During the last five months 2,380 tons of quartz was treated, for 10,628 oz. of bullion, valued at £8,018 13s. 1d. One hundred and four men are employed in the mine and mill.

A large amount of prospecting-work was done in the early part of the year in the Komata Queen, Komata Amalgamated, Byron Bay, and several other claims in the district, but operations in those mines have ceased for the present.

KARANGAHAKE DISTRICT.

Woodstock Gold-mining Company.—This company has done a large amount of work during the year, and it is to be regretted that owing to the long drought the mill has only been worked intermittently, thereby causing considerable loss to the company. Experiments in wet crushing at the battery have given satisfactory results, and in consequence the forty head of stamps will be converted to wet crushing during the next few months. In the No. 1 level, Marie lode, the reef has been driven on for a distance of 550 ft., and is said to contain gold and silver in payable quantities. At the intermediate level the reef has been driven on south of the cross-cut for a distance of 350 ft., and is connected by rises with No. 1 level, the vertical height of the block being 120 ft. between the two levels; the lode is 4 ft. in width, and is of a payable nature throughout. The Marie reef at No. 2 level has been driven on for a distance of 810 ft.; here the lode varies from 4 ft. to 5 ft. in thickness, but the bulk of it is of good quality, and it is all sent to the mill for treatment. The cross-cut west at this level has been driven a distance of 700 ft., and five distinct reefs have been cut through, carrying more or less gold and silver. The principal lode is known as Shepherd's, and is about 12 ft. in thickness. A considerable tonnage of quartz has been crushed from here, giving good payable results. The Marie reef has been driven on at No. 3 level for a distance of 950 ft., and has varied from 3 ft. to 15 ft. in thickness, carrying a high percentage of the precious metal. At No. 4 level the Marie lode has been driven on for a distance of 684 ft., from which good crushing-ore is being obtained. The cross-cut west at this level has been driven a distance of 400 ft.; this drive is being put in for the purpose of intersecting the Woodstock lode which runs parallel with the Marie lode, and at the point where the lode is cut at this level there will be 380 ft. of backs. 11,355 tons of quartz was put through the mill during the year, for 52,454 oz. of bullion, to the value of £35,172 7s. Two hundred and one men were employed.

New Zealand Crown Mines.—This company have done a very large amount of work during the year on what is considered outside work. A water-race has been constructed a distance of $1\frac{1}{4}$ miles to convey the water from the Waitawheta Stream to drive the air-compressing machinery for working the rock-borers in the mine and the pumping and winding plant, which are all erected in large chambers cut out in the rock at the mouth of the low level. The company are also erecting another forty head of stampers, which will be completed in the course of a few months, when they will be in a position to treat double the quantity of ore that they are doing at present, with very little extra expense. The different works in the mine are being pushed ahead. No. 4 level is in a distance of 1,960 ft., and is still being extended in a southern direction on the reef, and stoping operations are also proceeding over this level. In No. 6 level the reef has been driven on for a distance of 1,860 ft.; the reef is, on an average, about 8 ft. in thickness, and is all being broken out and sent to the mill for treatment. Fifty-two men have been employed in driving and stoping over this level. At one place in the level underhand stoping has been carried along the bottom of the

level a distance of 80 ft. and to a depth of 50 ft. The reef is 14 ft. wide in lower workings, and is stated to be worth £5 per ton. Two hundred and ten men are employed. 16,989 tons was treated during the year, for 20,792 oz. 10 dwt. of gold, valued at £41,120 2s. 2d.

New Zealand Talisman Mine.—This company has done a very large amount of work during the year. The mine is opened up by seven drives from the side of the hill, the distances between the drives varying from 70 ft. to 123 ft. As the reef has been driven on in some of the levels for over 500 ft., and is from 3 ft. to 5 ft. in thickness, it shows there is abundance of quartz in sight to keep twenty stamps constantly crushing for some considerable time. Driving and stoping on the reef in the upper levels has been the principal work carried on, and, as there was a large amount of quartz stacked at the mouth of the different levels ready for treatment, there was no necessity to employ many men to keep the mill going; and owing to the long drought for the last three months there was not sufficient water in the race to keep the full number of stamps employed, consequently the yield of gold has not been as large as it otherwise would have been if the battery had been fully engaged. The reduction plant consists of two rock-breakers of Blake type, one revolving ore-drier, ten heads of 850 lb. stamps, ten heads of 1,000 lb. stamps, one No. 5 Krupp ball-mill, two wooden cyanide vats—16 ft. diameter, 4 ft. deep; amalgamating tables, six berdans, and the usual accessories, the machinery being operated by means of two Victor turbines. The works and offices are electrically lighted. For the last nine months 4,194 tons of quartz has been treated, for 15,225 oz. of bullion, valued at £13,681 7s. 3d. Seventy men are employed.

Talisman Extended Mine.—This mine has been continuously worked during the year, the principal work being driving a low level to intersect the Talisman reef. This drive is in a distance of 780 ft., and it is expected the reef will be met within the next 100 ft. of driving. A considerable amount of surface-prospecting has been done on the ground, and leads cut varying from 1 ft. to 4 ft. in width, but nothing discovered that can be considered payable. Four men are employed. No returns.

Imperial Mine.—A considerable amount of work has been done on the reef at Nos. 1 and 2 levels. The reef is about 2 ft. thick, and in places in the levels the prospects met with were exceedingly encouraging, but as the country has been disturbed, and the reef cut out by breaks, it is difficult to follow the reef. A low level has been recently started to cut the reef at a depth. Five men are employed.

Woodstock Main Reefs.—This company has employed twenty men, and in consequence has done a large amount of prospecting. The mine is opened by drives from the side of the hill. The No. 6 level has been driven for a distance of 628 ft., and the reef has varied from 3 ft. to 14 ft. in width, but most of the quartz is low grade, and not of a payable character. The No. 3 (Ivanhoe) level has been driven 600 ft., but, owing to no discoveries of a payable nature being made, the company has decided to stop operations.

The Stanley, Sterling, Waverley, Golden Fleece, St. Patrick, and Crown Imperial have done a good deal of prospecting, but, as no rich discoveries have been made, most of the claims have been protected.

OWHAROA DISTRICT.

Ohinemuri Syndicate Mine.—This company has erected a pumping and winding plant on their shaft between the road and river, near the Smile and Fortune battery. A shaft 12 ft. by 6 ft. in the clear has been sunk to a depth of 143 ft., and a chamber opened out at a depth of 120 ft., from which two cross-cut drives are being driven. The north cross-cut is in 100 ft., and the north-west cross-cut 115 ft. The Radical reef is expected to be cut at any time, but the intention of the company is to extend those cross-cuts for the purpose of intersecting any reefs that may traverse this portion of the property. Twenty-one men are employed. No returns.

There was some work done on Heightman's Freehold in the early part of the year, but for several months past there has been no work done in any of the mines in this locality.

WAIHI DISTRICT.

Waihi Gold- and Silver-mining Company.—The operations of this company consist principally of driving and stoping in the Martha, Welcome, and Victoria lodes, which are supplying abundance of quartz to keep the mill constantly crushing. From the stopes on the Martha lode over No. 2 level the ore coming to hand is of excellent quality, and the reef looks well. The Victoria lode at No. 2 level is producing a fair quantity of ore of medium quality, the width of the lode being 6 ft. in the face. From the Welcome lode at No. 2 level the ore for the whole width (14 ft. 6 in.) is of good quality. The stopes opposite No. 1 shaft on the same reef are supplying first-class ore, the lode at this place being 6 ft. wide. At the No. 1 level on Welcome lode, in the western end, there is an improvement in the quality of the quartz, and the lode is 5 ft. in width in the face. Owing to the face of this drive being in a distance of 2,200 ft. from No. 1 shaft it has been decided to suspend operations here until No. 2 shaft is available, or a connection made with No. 3 shaft. A cross-cut has been accordingly started from the south-eastern side of the level for the purpose of connecting it with No. 3 shaft. The Surprise lode at No. 1 level, which is about 12 in. wide, has been driven on for a distance of 132 ft. During the past few weeks good progress has been made with the sinking of No. 2 shaft, and it has been sunk below the point where No. 4 level is to be opened out. The No. 3 shaft has attained a depth of 100 ft. below the surface, and three small lodes have been cut through in this shaft, varying from 15 in. to 24 in. in width, all of which contain a fair percentage of gold. The new Victoria battery at Waikino commenced crushing on the 25th February with fifty heads of stamps, and, with the exception of trifling details, everything in connection with this portion of the plant worked very satisfactory. 37,164 tons of quartz has been crushed and treated during the year, for 126,801 oz. of bullion, valued at £134,533 8s. 9d. As the mine is well opened up and abundance of quartz in sight to keep both batteries fully employed, it may be fairly expected that, should no serious thing happen whereby any of the batteries may be stopped, the return of gold from this mine next year will be about double that of the past year.

The first crushing of the two batteries for the month of April, 1898, has been received, which shows that 5,660 tons of quartz has been treated, for 18,361 oz. of bullion, valued at £18,445 2s. 5d. There are five hundred men employed by this company; three hundred and ten in the mine, the balance at the batteries and surface-works.

Union Mine.—This company has seventy men employed. The operations in the mine are chiefly confined to development-work. The main shaft is 14 ft. by 6 ft. in the clear, and has been sunk to a depth of 300 ft. From this shaft three levels have been opened out, and a large amount of work done in the shape of driving. The principal work is on the Union reef, which varies from 3 ft. to 6 ft. in thickness, and is said to contain a fair percentage of the precious metal. Work is also proceeding on the Amaranth reef, which varies from 12 ft. to 30 ft. in thickness. Assays made of some portions of the reef give payable results. In the Winner section of the mine a cross-cut drive is being driven from the whim-shaft to intersect the Winner reef.

Waihi-Silverton Gold-mining Company.—This company has done a large amount of driving and stopping at Nos. 1 and 2 levels, and the shaft has been sunk to a depth of 250 ft., where a chamber was opened out, and a cross-cut driven to intersect the reef. Driving is now proceeding on the reef north and south. The reef at this level is about 7 ft. in width, and, although it is low-grade ore, yet it is said to contain gold in payable quantities. The shaft is also being sunk below No. 3 level, for the purpose of opening up another level with all possible speed. The forty-stamp mill has been continuously employed. 11,253 tons of quartz has been treated for 8,456 oz. of bullion, valued at £16,452 4s. Seventy men have been employed.

Waihi-Gladstone Mine.—A large amount of prospecting, &c., has been done in this mine during the year. A shaft 6 ft. by 3 ft. in the clear has been sunk to a depth of 175 ft. The reef has been driven on for a considerable distance at No. 1 level, and a winze sunk to a depth of 65 ft. The reef is about 6 ft. in width, and, although a considerable portion of it is low-grade ore, yet samples taken from several places have given good results. The mine is at present protected pending instructions from England. Nine men have been employed. No returns.

Waihi Consolidated Company (Favona and Brilliant Mines).—This company have completed the erection of their pumping and winding plant mentioned in last year's report, and are now pushing on with the development of their mine, and the prospects met with are considered fairly satisfactory. At No. 1 (200 ft.) level driving is proceeding on the reef, which is about 4 ft. in width, and is said to give good results by assay tests made of some of the stone. In the northern face the reef is slightly disturbed, but this is probably on account of the workings being so near the surface. Good progress is being made with the sinking of the shaft below No. 1 level, which is penetrating through an excellent channel of country. Seventeen men are employed. No returns.

Grand Junction Mine.—This mine comprises two blocks of land. The Grand Junction is situated on the north-east of the Waihi Company's mine, and the Waihi West section on the south-west of of the Waihi Company's mine. The Grand Junction shaft is 503 ft. deep, and a chamber opened out at a depth of 494 ft., and from this chamber cross-cut drives have been driven north and south. In the cross-cut north, at a distance of 411 ft. from the shaft, a large body of ore was met with, supposed to be the Martha lode, but owing to the large amount of water that was tapped when the reef was cut the pumps were not capable of dealing with it, and it was deemed advisable to build a dam in the cross-cut to prevent the water finding its way to the shaft until a larger pump was put in, consequently this drive was stopped pending the alterations. The south cross-cut has been driven a distance of 200 ft., but nothing of importance has been met with. Work at the main shaft has been suspended with the exception of working the pumps eight hours a day. The company decided to sink a prospecting shaft on the line of reef to the north-east of the main shaft for the purpose of intersecting the reef and working it at a higher level to prove its value. The shaft is now down a depth of 250 ft. Two cross-cuts are being driven from the bottom north and south, and are in a distance of 25 ft. both ways. According to the supposed line of reef on the surface it should be intersected in about 30 ft., but should it not be met with in this drive it is intended to sink the shaft for another level. In the west section No. 2 shaft is being sunk with temporary sinking plant. It is down to a depth of 190 ft., and at 160 ft. connection was made with the cross-cut driven from the No. 1 shaft, where the reef met with was supposed to be the Martha, being 18 ft. in width where intersected. It is now the company's intention to sink 100 ft. from the 160 ft. level before opening out, so as to render available a quantity of backs. Thirty-eight men are employed.

Waihi Consols Mine.—This company has done a considerable amount of prospecting, and has lately erected a small engine on the shaft for the purpose of proving more fully the ground at a depth. As this mine is situated on the west of the Waihi Grand Junction, or Waihi West, the ground may be considered to be in a favourable position and worthy of further prospecting. Ten men were employed. No returns.

Waihi South Mine.—This mine adjoins the Waihi Consols, and is to the south of the Waihi West Claim. A shaft has been sunk to a depth of 220 ft., and two cross-cut drives have been driven from the shaft in a northerly direction towards the boundary of the Waihi Consols Claim, but in both cases nothing of importance was discovered, and the claim is now protected. Thirteen men were employed. No returns.

Prospecting operations were carried on to some extent in the early part of the year on the Waihi Monument, Great Northern, King of Waihi, Mataura, Waihi Golden Pinnacle, Waitete, Waitete Extended, Waihi Proprietary, and Queen of Waihi.

WHAREKIRAUPUNGA.

Royal Standard Mine.—This company has done a large amount of work during the year. A tramway has been laid from the landing in the river to the mine, a distance of about four miles and a half, and only requires some ballast in places to complete this great work. An excavation has been made for the battery about three-quarters of a mile from the mine. The construction of a

water-race is in a forward state, and the manager's house, offices, store-house, &c., are all built suitable for a large company's business, and Mr. Pascoe, the manager sent from England, considers there is nothing in the mine to warrant the outlay, and in consequence has recommended the directors to stop all works until the matter is fully considered. It is said £23,000 have been spent on various works connected with the mine.

WAITEKAURI DISTRICT.

Waitekauri Mine.—The various works in this company's mine are proceeding very satisfactorily. At the Kilu level the reef has been driven on for a distance of 650 ft. The No. 1 shaft is down a depth of 320 ft., and it is intended to sink to a depth of 330 ft. before opening out for the next level. Driving and stopping operations are proceeding on the reef above Nos. 1 and 2 levels. The No. 2 shaft is down 195 ft., and a chamber is opened out at 185 ft., and from this chamber a cross-cut drive is being put in to intersect the reef. It is intended when the proper level is attained in the shaft to drive a cross-cut to meet the Socket tunnel, which is in a distance of 1,800 ft., and which is being pushed on with all possible speed, but there is yet 4,364 ft. to be driven from the face of the tunnel to the No. 2 shaft. Owing to the large quantity of water met with in the cross-cut at No. 1 level in No. 2 shaft, operations in this level were suspended for a time, as the engine could not pump fast enough to keep the water down, but this was only till the water drained off the reef. In the Waitekauri section four men are driving to connect with the New Zealand Jubilee workings for ventilation for both mines.

Te-Ao-Marama Section: The company has decided to thoroughly develop this section of the property. Twenty-four men are now employed here, but this number is likely to be increased greatly. A shaft has been commenced on the side of the hill, which is to be sunk to a depth of 600 ft., and when this depth has been attained it is intended to open out and drive to meet the low level that is being driven from the Grace Darling Creek. The whole of the company's properties are being systematically developed, and are giving employment to a large number of men. 21,708 tons of quartz has been treated for 46,076 oz. of bullion, valued at £50,528 8s. 11d. Three hundred and twenty men are employed on the different sections of the property.

New Zealand Jubilee Mine.—Forty men are employed in this mine. In No. 2 level, which is 78 ft. below No. 1, there are twenty-four men engaged in driving and sinking operations. They are sinking a shaft from this level at a distance of 600 ft. from the mouth of the tunnel, which is in 1,000 ft. This level is being driven south-east to intersect the Waitekauri reef, which they expect to cut after 80 ft. more has been driven. What is supposed to be a dropper from the reef, about 7 in. in width, has been cut, and looks very promising. It is intended to connect this level with the Waitekauri workings on the reef for the purpose of securing natural ventilation. There are sixteen men engaged in connection with the sinking of the shaft and the erection of the machinery. The shaft, which is 9 ft. by 4 ft. in the clear, having already attained a depth of 50 ft. A large chamber has been cut out in this level, and poppet-legs erected over the shaft, which is to be worked by two small Tangye boilers and engine, which are in position and ready to start in a few days. A rise has been put through to No. 1 level to carry off the smoke and steam. The chamber is 32 ft. long, 16 ft. wide, and the main sets, 17 ft. high, and is securely timbered. The shaft is going down on the foot-wall of Christie's reef, and it is also intended to intersect the Waitekauri reef from this shaft at a depth of 300 ft. At a low level there are nine men engaged driving on the reef; the drive is in a distance of 1,400 ft., the width of the reef being from 3 ft. to 4 ft. No returns.

Waitekauri United Gold-mining Company.—This company has done a very large amount of driving and prospecting. The No. 1 level has been driven a distance of 1,500 ft., and No. 6 level, from the western side of the hill to meet No. 1 level, has been driven 350 ft., but as nothing of any importance was met with for the whole of the distance the company obtained absolute protection, and operations in the mine have been stopped for the present. No returns.

Waitekauri Union Mine.—Western Section: There are nineteen men employed on this section of the company's property. The main low-level tunnel, which is in a distance of 530 ft., is going on as fast as possible, but the country is very hard, which makes the progress rather slow with hand-power. The level is driven with the intention of cutting the Te-Ao-Marama reef at a distance of 1,500 ft. from the mouth of the tunnel. An air-compressor engine is to be placed close to the mouth of the tunnel for the purpose of working the rock-drill, which will expedite the driving of the level. A considerable amount of surface-work, road-making and excavating for plant, now nearly completed, has been done, and it is expected that the engine will be running in the course of a few days. The shaft has been sunk to a depth of 180 ft., and a small pumping and winding plant was erected on this shaft, but it was found the engine and pumps were not large enough to compete with the water, and work has been stopped on this section pending the arrival of a larger pumping plant. No returns.

Grafton United Gold-mining Company.—This company have eight men employed. The principal work is driving the low level, which is being pushed on with three shifts to intersect the Golden Cross reef. They are in a distance of 550 ft., and expect to cut the reef in another 100 ft. The drive is at present penetrating a rather tight class of country. No returns.

Alpha Gold-mining Company.—This company have thirty-two men employed, and intend to thoroughly open up the reefs at various depths. The indications are of an encouraging nature, and there is a fair body of stone which prospects well. There are four different levels working at present, twenty-eight men being engaged underground. The low level is in 227 ft., and is being pushed ahead vigorously with three shifts. No. 5 level, which is 100 ft. above the low level, is in a distance of 32 ft. No. 4, which is 100 ft. above No. 5 level, is in 274 ft., and there is a rise through on to the surface for a distance of 98 ft. All these levels, including the western recently started, are being expeditiously pushed ahead so as to have them connected, and the reef will be opened up by the time the battery is erected. The company have decided to erect a twenty-head mill for wet crushing, to be worked by steam-power. All the necessary excavations for the battery-site are nearly com-

pleted, and the manager is now anxiously waiting for the completion of the road so as to get the machinery on the ground before the wet weather sets in. No returns.

Waitekauri Reefs Company.—Six men are employed on this company's grounds, four of them being engaged in cleaning out and retimbering the Stevens's No. 2 level for the purpose of extending it to intersect the Waitekauri South No. 2 reef. In the low level of the British Empire section two men are driving on the reef, which averages about 2 ft. 6 in., but the ore, though of a kindly quality, is not so far considered payable. No returns.

Young New Zealand Mine.—Five men are employed cleaning out and retimbering the low level, which is in a distance of 460 ft. It is intended to extend this level with the view of intersecting a series of reefs cut and worked at the higher levels, the principal object being to get under the Welcome reef, where a considerable run of gold was obtained in the early days. About 200 ft. more will have to be driven to reach the desired point. This will give 100 ft. of backs on the reef to the next level. A start has been made with a rise through from this level to the surface for the purpose of ventilation, which is rather defective at times. No returns.

Grace Darling Mine.—Five men are employed in this mine rising on the reef to the surface from the No. 2 level and timbering the No. 2 level for the purpose of stoping the reef south. The reef, which averages 5 ft. in width, has been driven a distance of 400 ft. to the south, this block being intact to the surface and ready for stoping. The reef has been driven on north to the surface, a distance of 300 ft., a good deal being stoped at this end. All the ore broken down is saved for treatment. It is intended to make some slight alterations and repairs to the battery before putting any more ore through it. The reef looks encouraging, and with proper treatment the ore should be payable. Returns, 50 tons for 58 oz. 12 dwt. of gold.

Waitekauri Junction.—There are four men working in this mine. They are driving a low level from the creek to intersect a reef trenched on the surface and from which prospects have been obtained. The level is in a distance of 60 ft., and about 40 ft. further will have to be driven in order to cut the reef at a depth of 45 ft. below where it is trenched. No returns.

Waitekauri Extended Gold-mining Company.—This company have twenty-eight men employed—seventeen underground and eleven on the surface; but this number will shortly be increased, as tenders have been called for sinking, and driving two or three extra faces. The principal work at present is driving the low level, which is in a distance of 820 ft. There is still 300 ft. to drive in order to cut the reef, which has been driven on in No. 2 level for a distance of 500 ft., and averages 30 ft. in width. Cross-cuts have been put in at intervals of 50 ft. along the reef, which runs north and south, 280 ft. of backs being available between the low level and No. 2 level, where sinking operations are to be proceeded with on the reef in order to make connection with the point at which the low level will intersect the reef. It is intended to make this connection before commencing to crush permanently, as the ore can then be passed through from Nos. 1 and 2 levels, connecting with the hopper to be erected at the terminus of the aerial tramway, and brought in direct contact with the battery, thus obviating the necessity of sending the ore by a ground tramway from the mines to the kilns, a distance of half a mile, and from the kilns to the battery by aerial tramway for three-quarters of a mile. If the dry crushing is maintained, a rotary furnace will be erected at the battery for the purpose of roasting the ore, saving a good deal of handling, and doing away with the kilns, which cannot be worked satisfactorily in wet or windy weather, as the ore is either damped or the lighter portions blown away while in transit to the mill. The battery, when completed, will consist of forty heads, twenty heads being already in position. A few tons of ore were put through these stamps, but, as the water-supply was short, and several alterations and adjustments were necessary, the battery will not resume crushing for some time. Experiments will be conducted with wet and dry crushing in the meantime, and the connection of the levels will be pushed ahead. It is intended to put through the mill 600 tons of ore as a test, 300 tons to be treated by dry crushing, and 300 tons by wet crushing. Every alternate truck of the ore broken from the reef will be tipped into a hopper for wet crushing, and when the results have been definitely determined the battery will be completed and fitted up for the process found most suitable and economical for the treatment of the quartz. Although the ore is of a low grade, there is an immense quantity of what is considered payable material available. No returns.

Waitekauri Cross Mine.—Eight men are at present employed, and are principally engaged in sinking an underlay-shaft on the reef in the low level at an incline of 76 deg., a depth of 100 ft. having been already attained. The low level is in a distance of 900 ft.—600 ft. along the reef. The shaft is being sunk on the reef at a distance of 500 ft. from the mouth of the tunnel. When a depth of 300 ft. is sunk it is intended to open out on the reefs north and south. This will give a large quantity of backs, as well as prove the quality of the reef to a depth. A chamber is being cut in the level near the shaft for the purpose of erecting pumping and winding machinery, the motive-power for which will be supplied by electricity, generated on the Maratoto side of the range, where the company have constructed water-races for a distance of 100 chains. One of the races has been completed, and all the benching on the second race is finished, but the ditching has not yet been done. The necessary buildings for the electric plant have been erected, and power will be transmitted by cable over the range, a distance of two miles; but they are waiting the arrival of some important portions of the machinery destroyed by the fire on Auckland Wharf. The reef, which has been driven on to a considerable extent, is a very large ore-body, varying from 14 ft. to 60 ft., giving an average width of 20 ft. throughout; it is of low-grade ore at the depth driven on, but seems to improve in quality as it goes down. No returns.

TE AROHA AND WAIORONGOMAI.

Te Aroha Gold-mines (Limited).—The principal work carried on by this company during the year has been driving the main low-level tunnel, which is now in a distance of 1,230 ft. The tunnel was commenced very large, and after driving a few hundred feet it was deemed advisable to reduce it in size, and it is now being driven 8 ft. by 8 ft. in the clear, and owing to the nature of the country most of it had to be timbered. It has been driven for a considerable distance on

the foot-wall of the reef, and the reef has been cut through at four places and found at each place to be a strong body of quartz, but low-grade ore. There has been a Riddler air-compressor erected, at a cost of £2,630, near the mouth of the tunnel, for driving the rock-drills. A high-level water-race, capable of carrying seven sluice-heads of water, has been constructed for a length of 64 chains, which cost £1,100, while a penstock and 1,300 ft. of 14 in. steel pipes has been laid down from the bottom end of the race to the air-compressor, at a cost of £1,352. In the Colonist section 400 ft. has been driven, and 279 ft. has been driven on the Silver King reef; in all, 1,558 ft. has been driven, for a total cost of £9,500.

Great Western Mine.—This company has erected a small crushing plant to treat the ore at the mine, as assays taken from the reef were sufficient to warrant the outlay. The reef varies from 2 ft. to 12 ft. in thickness, and was formerly known as the No. 2 New Find, Waiorongomai. Thirty-four men have been employed.

Loyalty.—Two men have been constantly employed in this mine, and there is 50 tons of quartz in the paddock ready to crush, which is said to be worth £6 per ton.

Grand Result.—This company has 50 tons of quartz broken out, and which is to be sent down to the Montezuma plant as soon as the County tramway is put in repair.

Montezuma.—Four men are driving the No. 2 level in the Waterfall reef, which is about 2 ft. 6 in. in thickness, but of rather poor quality. The drive is in a distance of 250 ft. Operations are also being carried on in the Waitara and Plutus sections of the mine.

The Thermo-hyperphoric reduction plant is approaching completion under the superintendence of the Rev. Joseph Campbell. The cost of treatment of the ore from the time it is delivered into the mill is estimated by the Rev. Mr. Campbell at not more than 8s. per ton, and, as it is anticipated 95 per cent. of the bullion will be saved, it should prove a cheap method of treating the ore.

TAURANGA COUNTY.

KATIKATI DISTRICT.

A number of claims have been taken up, but only four men are prospecting, and no important discoveries have been made.

I have, &c.,

JAMES COURTS, Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

ACCIDENTS IN GOLD-MINES.

Name.	Mine.	Nature.	Date.
* John Childerhouse ..	Nonpareil, Thames	Fatal accident, by a stone falling from the roof of the drive	13 May, 1897.
George March ..	Grand Junction, Waihi	Stuck the pick into his foot ..	30 Mar., "
Richard Owen ..	Moanataiari Mine, Thames	Fell from the roof of building, fracturing his skull	3 May, "
William R. Young ..	Hauraki Mine, Coromandel	Detonator went off when in the act of putting it in the fuse: hand hurt	4 June, "
Thomas Moore ..	Mariposa Mine, Kuaotunu	Shot went off while charging a hole: hand hurt	3 " "
Thomas Dick ..	Grand Junction Mine, Waihi	Forefinger broken by a crane ..	24 July, "
M. Mainwaring ..	Talisman, Karangahake	Hurt on the tramway	30 " "
George Cleave ..	May Queen, Hauraki, Thames	A piece of stone fell down a rise, striking him on the head	5 Aug., "
M. Taylor ..	Union Beach Mine, Coromandel	In changing a bucket got his arm broken	17 " "
* John Wood ..	Waitekauri Battery, Waitekauri	Fatal accident: dragged round on the shaft of the roller-mill	18 " "
Charles Adams ..	Kapai-Vermont, Kuaotunu	Dislocated his shoulder when trucking	27 " "
Alexander Gemmel ..	Kapai-Vermont, Kuaotunu	The point of his finger taken off in battery	20 " "
James Trayes ..	Waihi-Silverton, Waihi	His arm broken going down the shaft on the cage	11 Sept., "
John Hutton ..	Waihi Mine, Waihi	Shot went off, injuring him ..	8 Nov., "
Henry Jury ..	Kuranui-Caledonian, Thames	Slipped off a ladder going up to stopes, injuring his side	3 " "
Adam McConnell ..	Kauri Freehold Gold Estates, Opitonui	His thigh broken by a piece of mullock	2 Dec., "
Albert Whitely ..	Waihi Mine, Waihi	His arm broken shunting a truck	9 " "
Thomas O'Loughlin ..	Waihi Mine, Waihi	Leg sprained by falling 20 ft. in No. 2 shaft	5 Jan., 1898.
George Barry ..	Grafton United, Waitekauri	Hand slightly injured by explosion of detonator	10 " "
* A. J. Foard ..	Golden Cross, Waitekauri	Fatal accident: killed by falling down No. 1 shaft	15 Feb., "
Fred Hamlon ..	Woodstock Main Reefs, Karangahake	Little finger taken off with the fan	7 Jan., "
Matthew Cahill ..	Waiotahi Mine, Thames	Hurt by slipping on a ladder ..	11 Feb., "
Archibald Kerr ..	Woodstock Main Reefs, Karangahake	Little finger taken off with fan ..	16 " "
Peter Weir ..	May Queen Battery, Thames	Three fingers crushed with the stamps	2 Mar., "
John Carroll ..	Waihi Mine, Waihi	Sprained ankle slipping on ladder	12 " "
Ben Lason ..	Komata Reef, Komata	Head cut by falling down a pass ..	21 " "

* Fatal.

There were three fatal accidents in this district during the year, and Richard Owen has not recovered from the injuries he received whilst at work at the Moanataiari battery. The other accidents were not of a serious character.

No. 16.

Mr. R. TENNENT, Inspector of Mines, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Inspector of Mines' Office, Westport, 23rd April, 1898.

I have the honour to report as follows on the gold-mines in the Marlborough, Nelson, and West Coast Districts, for the year ending the 31st March, 1898:—

WAKAMARINA.

Golden Bar and Ravenscliff Quartz-mines.—(18/11/97): On my arrival at the Wakamarina I was reliably informed that mining operations at these mines had ceased for a considerable time.

COLLINGWOOD.

Parapara Hæmatite-works.—(6/11/97): The hæmatite-works, owned by Messrs. Washbourne, are situated on the Parapara Stream, six miles from Collingwood. They have a six-head battery, each stamp being 750 lb. in weight, with berdans, drags, &c., the motive-power being supplied by a 30 ft. diameter water-wheel. The output averages 80 tons per annum, and the hæmatite, which is put up in 28 lb. bags, finds a ready sale in Nelson at £12 per ton. Preparations are now being made for the manufacture of a knife-polish powder. Five men employed.

Golden Ridge Mine.—(31/10/97): No. 1 level has been driven along the reef, which averages from 1 ft. to 4 ft., for a distance of 400 ft., and the quartz is stored at the mine-mouth, ready for milling operations. In the No. 2 level a cross-cut has been driven 50 ft., through a mixture of slate and sandstone. The drive along the reef is in about 360 ft. The reef, which carries a very good foot-wall the greater part of the way, varies in width from 1 ft. to 6 ft. The reef runs north-north-west and south-south-east, with a strong underlie to the west. Twelve men are employed in the two drives, which are well timbered, and ventilated by a rise from No. 2 to No. 1 level, the distance being 50 ft. The quartz from these workings is stored in a paddock ready for crushing. The battery, which is nearly completed, consists of twenty stamps, each 9 cwt., and four 4 ft. 6 in. berdans. The plant will be very complete, and the building is of a substantial character. Water will be used as the motive-power, and all the fluming in connection with the races is completed. The water will be conveyed through a tunnel 999 ft. in length, twelve men being employed, and the air for the tunnel is supplied by a water-blast. The aerial tramway is nearly completed. The works are being carried out under the superintendence of Mr. Richmond Hursthouse, the general manager of the Golden Ridge Gold-mining Company.

Taitapu Gold Estates.—(30/10/97): On the No. 2 block, where twelve men are employed underground, and two men on the surface making tracks, the outcrop of the reef can be traced for three miles, it runs in the same auriferous belt as the Golden Ridge Mine. The reef has been tested by a winze 120 ft. in depth, and averages from 4 ft. to 6 ft. in width. Where the reef was intersected by No. 1 cross-cut at 100 ft. the reef has been followed north 250 ft. and south 100 ft. The quartz is stacked at the mine-mouth and top of the winze ready for milling. In the No. 3 block the outcrop of the reef is 5 ft. wide, and pieces broken from it showed gold freely. No. 1 cross-cut is in 120 ft. The reef where intersected is 4 ft. wide, and lying very flat. Driving on this reef has been continued 120 ft. south and 147 ft. north. The reef prospects well, and varies from 4 ft. to 6 ft., carrying a good foot-wall. The cross-cut from No. 2 or low level is driven 310 ft., the ground being very wet; a reef may be expected at any time. The ventilation is supplied by a water-blast having 120 ft. of fall. Twelve men are at work on this section and eight men prospecting for outcrops of reefs. There are 126 men employed by the company on the various works on hand. Mr. F. H. Johnston has charge of the operations of Nos. 2 and 3 blocks. There are three other companies—the Australian Gold Trust, Pioneers of New Zealand, and the London West Australian Syndicate—prospecting on the company's property, and are reported to be meeting with very encouraging results.

Red Hill Syndicate.—(4/11/97): This company holds an area of 100 acres situated six miles south-west of Collingwood. At time of visit no men were at work, the mouth of the tunnel having caved in.

LYELL.

Alpine Extended.—(19/8/97): After the amalgamation of the United and Lyell Creek properties mining operations were chiefly confined in forming direct communication between the two mines. This work was accomplished by the extension of No. 10 south level to meet the north winze from No. 9 Alpine. The ladder-way in the winze between Nos. 9 and 10 is completed, and the level securely timbered; ventilation good. On the east cross-cut six men, in three shifts, have driven 10 ft. and met with the hard hanging-wall. The west cross-cut is still being carried forward, and quartz boulders are met with; timber is well forward on the working-face. The south level is pushed forward with three shifts on the track, and a fine belt of stone forms the roof of the drive, but broken from the bottom. To carry forward the air on level face a stope is being taken out, and an air-course carried along to connect with the winze. The air was dull on the level face, but a holing was expected that night. Stopping between Nos. 8 and 9 was nearly finished. On the intermediate, between Nos. 6 and 7, a cross-reef was followed for 40 ft., but was cut off by a new make of stone. Green and party are following the leaders that were left from the former workings; ventilation good. Garbett and party (two men) are cross-cutting for a reef that is supposed to exist in the ground where they are working.

United Italy.—(21/1/98): This property is situated nine miles north of Lyell. There are two men driving on track of a reef 18 in. wide. The present face of the drive is very wet, which retards the progress of the work very much. Small veins of quartz are making in the track, and the men are hopeful of good stone.

Golden Crown.—(21/1/98): This company holds an area of 50 acres. The work is chiefly prospecting, and is under the charge of James Greaves. Several gold-bearing veins, varying from 6 in. to 2 ft., have been cut. A reef from 1½ ft. to 11 ft. in width traverses the ground, and tests made of this stone give promising results.

Cræsus, Lyell.—(21/1/98): Satisfactory progress is being made with repairs to the fluming and battery. A parcel of stone belonging to the Tyr Connel Company will be the first to be crushed. Work at Tyr Connel has ceased.

WESTPORT.

Lady Agnes Quartz-mine.—(28/3/98): Work is chiefly prospecting, four men driving and one man working on the surface. A tunnel is driven 250 ft. following the line of reef.

Red Queen.—(28/3/98): At time of visit there were no men at work.

Swanson Claim.—(28/3/98): No work being done here.

Britannia Quartz-mine.—(29/3/98): This lease is held by a local company. The country is of a broken formation, and nothing defined has yet been met. Two veins are known to exist in the ground about a quarter of a mile apart, and prospecting has been carried on. From the Fortune Creek side of the hill three levels have been driven on No. 1 reef, and three on No. 2 reef from Gardener Creek side. The quartz, which is found in crushed patches, contains gold. Since the occupation of this company £1,400 has been expended on the property, and over 1,000 ft. of tunnels driven. Five men employed.

Republic.—(29/3/98): At time of visit no men at work. The battery and aerial tramway have been put in good repair.

Cosmopolitan Syndicate.—(29/3/98): One man prospecting on the surface.

Twins, late Beaconsfield.—(30/3/98): Two men repairing the drive on the south side of stream, eight men excavating battery-site, and three men repairing water-race.

REEFTON.

Inangahua Low Level.—(17/3/98): Since the present company took possession of this property the main tunnel has been driven 2,376 ft., making a total distance of 6,276 ft.; from mouth of tunnel to air-winch, 3,900 ft.; from mouth of tunnel to cross-cut, 4,686 ft.; length of cross-cut, 410 ft. At the latter measurement the rise is put up to meet the winze sunk from the Ajax section. Depth of winze, 475 ft. The distance to be risen will be about 100 ft.

Progress Extended Quartz-mine.—(10/2/98): The principal work in connection with mining operations on this property has been the sinking of the Globe shaft. Sinking operations were commenced on the 9th November, 1896, and completed on the 21st August, 1897. During that time a delay of three weeks was caused by a surface landslip. Two winding compartments and ladder-way, 4 ft. by 4½ ft., and 2 ft. by 4½ ft. respectively, are well timbered throughout, and all the details of the work have been satisfactorily carried out. Large and securely timbered chambers forming the entrances to the levels have been constructed. The development-works, which have attained an advanced stage, place this property in a position to produce large outputs of ore from the bodies of stone that are in sight. With the facilities which the two main shafts afford a steady ventilating current is supplied. Timber, where required, is heavy and well set. To connect the rise from No. 6 with bottom of winze from No. 5 a distance of 15 ft. has yet to be risen. This connection will improve the ventilation on both levels, and carry the air forward on No. 5 stopes. The western extension of No. 7 level from the Globe shaft, which runs parallel with Progress low level, is connected by short rises, thus carrying the air forward on the working-face.

Wealth of Nations.—(22/12/97): The incline shaft, 6 ft. in length by 3 ft. 6 in. wide, which has been sunk (on an underlie of 2½ in. to 1 ft.) from the battery-level to a depth of 630 ft., it is securely lined, and all the necessary fittings for winding purposes are complete. The shaft has one winding compartment, 3 ft. 6 in. square, and ladder-way, 2 ft. 6 in. by 3 ft. 6 in. The winding-engines are placed in position; head-gear and delivery-bins have been erected. A line of 3 in. steel pipes 1,700 ft. in length connect the air-compressors with the winding-engines. The 350 ft. and 500 ft. levels have been extended 320 ft. and 40 ft. respectively, both on track of reef. The Energetic, battery, and 200 ft. levels are being retimbered. All other work done is of a development character. Air good throughout the mine, and reports kept. Sixteen men employed.

Keep-It-Dark Quartz-mine.—(27/10/97): The south drive has been driven 55 ft. on track of reef with no indications of change. On No. 5 level eight men are stoping. Ventilation good; rules posted, and reports kept. The clearing out and retimbering of the upcast shaft from No. 2 to battery level has been done satisfactorily, and ladders are provided the whole distance. The cross-cut from No. 1 level struck the line of reef at 190 ft., and at 150 ft. a short drive was set off on the track. After driving 72 ft. a fine block of stone was met, and when last visited 35 ft. was driven in the stone, which measured 13 ft. on the face. A further make of stone was shown on the hanging-wall. Air-boxes are led forward to the face. Sixteen men employed. The ventilation of this new section of work will be very much facilitated by the work done on the upcast shaft.

Hercules Quartz-mines.—(29/9/97): There are only four contractors driving the south-west cross-cut at the 470 ft. level. (23/12/97): Four men are extending north level on reef track. Since starting, 85 ft. has been driven. Ventilation good, reports daily kept, and rules posted.

No. 2 South Keep-It-Dark Mine.—(27/10/97): Four contractors are driving the south-west cross-cut on No. 3 level, the distance driven being 260 ft. from the shaft. Ventilation good. (23/12/97): This cross-cut has been extended for 30 ft., and the contract has now expired. Reports kept. Six men employed.

Ajax Quartz-mine.—(17/3/98): The winze has been sunk to a depth of 475 ft. A rise from the Inangahua low level will connect with this winze, the height to be risen about 100 ft. There are three men prospecting some of the upper levels and keeping the water from the winze.

Sir Francis Drake Quartz-mine.—(26/8/97): During the year the principal work has been stoping out a block of ground in the surface-level, which is now exhausted. On a later visit work is again resumed in the shaft preparatory to sinking. Eight men are employed.

Big River Quartz-mine.—The No. 6 level, 930 ft. below the surface, has been driven 270 ft. to intersect the line of reefing country. A rise was put up 60 ft. to connect with the winze, which was sunk 90 ft. on the stone from No. 5. At the bottom of this winze 150 ft. was driven along the track, which contained lumps of gold-bearing quartz. In the low level several hundred feet of driving has been carried out, but without favourable results. A tunnel has been started from the shaft to intersect and prospect the old blocks, which were worked with success on the higher levels. After driving 100 ft. on the intermediate, between Nos. 1 and 2 levels, a small block of rich stone was found, but it soon ran out again. This level is being continued on a good track, and payable stone is expected.

Inkerman Combined Quartz-mines.—(11/2/98): Since February, 1897, the reopening and prospecting of these old properties have been vigorously pushed forward under the supervision of Mr. G. G. Dixon. At the New Inkerman Mines 504 ft. of country has been opened, representing 383 ft. of driving, and sinking and rising 121 ft. The work carried out in the old Inkerman consists of 818 ft. driving and 212 ft. sinking. To ventilate this section a shaft was sunk 102 ft. and connected with an old uprise. At the Supreme Mine 970 ft. of country has been opened, 514 ft. of this distance in ore. The low-level tunnel from Rainy Creek was commenced in February, 1897, and on the 25th March 2,089 ft. was driven, 221 ft. by hand-drills and 1,868 ft. by rock-drills—respective weekly averages, 18.41 ft. and 40.6 ft. The greatest distance driven in any one week was 64 ft., and in any four consecutive weeks 199.5 ft. Air-boxes are led throughout the tunnel, and are worked by an exhaust obtained from the compressed-air receiver at the mouth of the tunnel. The total new country opened represents 6,157 ft., and the average number of men employed was sixty-five. The wages paid to the workmen for the fifteen months amount to £11,324, exclusive of those getting timber and driving by contract, and official salaries.

VICTORIA RANGE.

Lord Brassey Mine.—(20/2/98): The very important discovery of fragments of quartz containing gold, made eighteen months since, has been the cause of a good deal of driving and prospecting. No. 1 level is being driven from east to west. The course of the loose stone is north and south, and will give 200 ft. of backs in this tunnel, which is 173 ft. in length. No. 2 cross-cut is about 4 chains further down the range, and is being driven in the same direction as No. 1. The length driven is 130 ft. Two shafts have been sunk—one 20 ft., the other 26 ft., in depth—carrying payable stone. Fifteen men employed.

New Haven Special Claim.—(22/2/98): This property is situated to the north of the Lord Brassey Special Claim. They have sunk 30 ft. on a vertical leader, and it shows gold to that depth. Here it opens out to a fine body of stone 5 ft. wide, and gold can be got by pounding and panning. Two men employed.

PAPAROA RANGES.

Julian Claim.—(4/9/97): Two men employed. They have about 40 tons of stone in the paddock. (14/12/97): Two men driving a low level.

Victory Mine.—(4/9/97): Six men employed; ventilation good. The quartz in this mine is of good quality (see returns). (14/12/97): Seven men employed, four stoping and three attending to the battery and other outside work. Good ventilation.

Minerva Special Claim.—(13/3/98): No one at work at the time of my visit.

Taffie Special Claim.—(14/3/98): This property is situated on the western slopes of the range. There are various reefs and leaders in the ground carrying gold. In one reef 3 ft. wide, coarse gold can be seen in the stone. Three men employed.

Croesus Special Claim.—(15/3/98): Fifteen men employed. A winze on a reef 4 ft. in width has been sunk 40 ft., and the manager informed me good payable stone was found the whole of the way down. The water was very troublesome, and had to be drained by a cross-cut, which will give 150 ft. of backs (vertical). Where the reef was cut at the flat sheet it is 2 ft. 6 in. wide. When driven on this reef varies in size up to 5 ft. wide, and as gold is seen in the quartz stored at mouth of drive it should be payable. There is about 60 tons stored at the mouth of this cross-cut. No. 1 South cross-cut is driven 68 ft. to intersect No. 1 reef, which averages 2 ft., wide and prospects well at the outcrop wherever cut into. This cross-cut will give 160 ft. of backs (vertical).

Poneke Special Claim.—This company is driving a cross-cut, present length 250 ft.

Homeward Bound Special Claim.—This company is at present driving a cross-cut. At 60 ft. a small leader carrying gold was cut.

Red Lion Special Claim.—Two men prospecting on the surface.

Alpha Special Claim.—Three men prospecting on the surface.

Zealandia Special Claim.—(15/3/98): One man prospecting on the surface.

Triple Alliance Special Claim.—One man prospecting on the surface.

Imperial Special Claim.—Two men prospecting on the surface.

ROSS.

(23/4/98): Antonio Zala's tunnel is very wet, and occasionally small patches of quartz are met with. This tunnel is a subsidised one.

Gagliardi and Son's tunnel is also a subsidised one, and is very wet. The country rock now being penetrated is very favourable for gold, and the reef should soon be met with.

Alpha.—No driving has been done in this mine for some time. The two men employed having been engaged in making a tramway and repairing the small battery.

BOATMAN'S GROUP, LARRY'S CREEK.

Caledonia and Rosebery Special Claims (100 acres each).—The only work now being done is cleaning out and repairing the previous workings and putting up a rise on the boundary of a known block of stone. This rise will be suitable both for stopping and ventilation. Nine men employed.

Welcome.—(17/3/98): Operations are of the same character as mentioned in last annual report. The works are purely of a development character—viz., extending No. 4 tunnel on the line of Welcome lode, which averages 2 ft. 6 in. in width.

The Fiery Cross battery and water-race have been put in repair preparatory to crushing 150 tons of ore now at grass, so as to test its value prior to more extensive developments. Fifteen men employed. Ventilation good.

Dillon Extended (Area, 60 acres).—(19/2/98): The reef averages from 18 in. to 5 ft. in width. There is about 60 tons of quartz in the hoppers and battery. The aerial tramway has just been put in thorough repair. Five men employed.

ALLUVIAL MINING.

MAHAKIPAWA.

King Solomon Mine.—(17/11/97): The pumping- and winding-shaft, which is 120 ft. deep, is securely lined with sawn timber, and is fitted with a proper staged ladder. The motive-power supplied for pumping and winding is communicated from a 30 ft. diameter overshot water-wheel, from which a 10 in. diameter lifting-set with 3 ft. stroke, connected to a quadrant, raises the water direct to the surface. A level from the bottom of winding-shaft, following the run of the wash-drift in a south-easterly direction, is driven 300 ft. Air-boxes were led up to the face, and the drive is well timbered. Notice was given for further fencing round the shaft, also to provide a proper magazine for explosives. These instructions were carried out. Five men employed.

WAKAMARINA.

Wakamarina Gorge Claim.—(18/11/97): The work of clearing out the *débris* from the bottom of this gorge is carried on successfully under the management of Mr. Thomas Alexander. The Skeleton shaft, formerly used for raising the dirt from the lower end of the claim, is abandoned. Operations are now carried on from the upper end of the gorge, where the dirt is filled into trucks and hauled up an incline tramway on to the top of the dam; the dirt is tipped from the trucks into a sluice-box, and afterwards discharged into the river. The water is raised to the surface by two sets of lifting-pumps, 75 ft. in depth, with 3 ft. to 5 ft. stroke, both sets working from quadrants, which are connected direct to the engine. The dams, as far as can be seen, are thoroughly reliable, but Mr. Alexander has added some improvements to the upper dam. Fourteen men employed. In fine weather the water is pumped in a shift of eight hours.

COLLINGWOOD.

Quartz Ranges Crushing and Sluicing Company.—(29/10/97): This company, whose head office is in London, has a capital of £35,000, and holds an area of 300 acres, about twenty-two miles west of Collingwood—seventeen miles and a half by main road, the remainder of the road by tramway, in the construction of which there are eighteen men employed. The water for sluicing will be taken from the Boulder River and Lake, and conveyed by flume for a distance of four miles and a half, the quantity of timber required for the fluming being 700,000 ft. In addition, 2,200 ft. of pipes, 2 ft. 4 in. in diameter, will be required. The altitude of the point of the river where the water is to be obtained is 1,600 ft., and the altitude of the sluicing-face 1,200 ft. The company has a large number of men employed, and are erecting a sawmill to cut the timber required for mining operations, houses, offices, &c. The works are under the management of Mr. F. G. Mace.

Rocky River Sluicing Company.—(28/10/97): This company, whose head office is in Auckland, holds an area of 100 acres, nineteen miles south of Collingwood, the workings being at an altitude of 1,200 ft. Water for sluicing is at present obtained from McKenzie Creek, but a survey has been made for a larger race, to be taken from the Rocky River. The pipes for this work are being made in Nelson. A large quantity of gold has been obtained in this district from time to time. Six private parties now at work are making good wages. The gold is coarse, and a piece weighing 16 dwt., with small particles of quartz attached to it, was recently picked up. On the top of the range (locally known as "The Castles") there is a large quantity of gold-bearing cement with a thick layer of limestone underneath.

Parapara Hydraulic Sluicing Company.—(27/10/97): Operations at this claim are carried on with ten men, working two nozzles, 4 in. and 3½ in. respectively. There are two faces operated on. No. 1 face is worked 47 ft. in height, and No. 2 is taken in benches 26 ft. and 40 ft., twenty heads of water being in constant use. The dimensions of the main tail-race are 4 ft. wide by 3 ft. deep, and connected with a branch 2½ ft. wide by 3 ft. deep. The wash-dirt overlies a body of limestone, which rises in ridges, making the progress of the work very expensive. A miner named Thomas B. Dillon, while engaged at the nozzle, was caught by a slip of earth from the face, dislocating and breaking the small bone of his ankle.

WESTPORT.

Halligan and Party's Claim, Addison's Flat.—(16/2/98): This property is worked by a party of six men. A new face is being opened out on the upper side of the Charleston Road, from which a shaft is sunk connecting the main tail-race. The plant in connection with the elevating tramway and water-balance appliances is completed and in working-order. At present the men are engaged excavating a table-site on the line of tail-race 2,370 ft. from the working-face.

Shamrock Claim.—(16/2/98): The various works in connection with this property are undergoing a thorough overhaul and renewal. A further extension of the sand channel has been driven 400 ft., with the object of opening out the ground at the present face. The elevating tramway and

hydraulic machinery connected therewith are rebuilt and placed in suitable position. Considerable improvements to the gold-saving have been added, and an additional six heads of water have been obtained after repairs were carried out on the race. Eight men are employed.

General Exploration Company.—(16/2/98): The works in connection with these properties are being carried steadily forward under the supervision of Mr. Bradden, acting attorney for this company, who furnishes the following statement:—

During the twelve months ending the 31st March, 1898, the General Exploration Company has engaged in the development of two principal hydraulic schemes in the Westport district—viz., the Fairdown Terrace, on the north of the Buller River, and the Bendigo Terrace, on the south side. In addition, the working of high-level cement areas at the Four-mile has been undertaken; also general prospecting has been and is being consistently prosecuted. The Fairdown has been developed to a productive point, and has been in work for some time. It is contemplated and intended to still further enlarge the water-supply for these operations by an expenditure of £4,000 to £5,000 in lifting the Wareatea water-supply.

The Bendigo Terrace operations are approaching partial completion. A beginning at sluicing should become possible, by completion of tail-tunnel, elevating-shaft and -gear, and opening out work, towards end of June next. The water-supply for Bendigo so far as at present completed is provided principally by Island Creek, Reid's Creek, Back Creek, and Waimea Creek. The extended proposition of water-supply for Bendigo and Addison's Flat, for which surveys have been completed and which will likely be put in hand before long, embraces the Nine-mile, Twelve-mile, and Thirteen-mile Creeks. Finally, there is the Ohika River supply, which may be brought in should there be found warranty in the extent and value of available alluvial gold areas for the expenditure of £50,000 to £80,000 which such an induction would involve.

The construction-works carried out in developing so far the two properties mentioned consists of—25,014 ft. of water-races; 10,857 ft. of tunnel; 14,000 cubic yards of dam embankment; 230,000 superficial feet of timber; 3,120 lineal feet of iron pipes, 18 in. and 24 in.; 8,200 square feet of gold-saving-table surface; 5,180 ft. of shafts, containing about 1,300 superficial feet of timber. The average number of men employed during the course of the company's operations has been 218. Expenditure for wages, £23,000; expenditure for material, £8,500. To complete the construction-works on hand will require 200,000 superficial feet of timber, 3,000 ft. tunnelling, 10,000 ft. ditch construction and enlargement.

The present operations of the General Exploration Company by their comprehensiveness and scale, using forty-five to fifty heads of water, will have the effect of making remunerative the workings of alluvial materials left as too risky to touch with the smaller supplies heretofore generally in use. If this expansion of scale on which operations are to be conducted has the desired effect in diminution of working-costs, then the further enlargements of sluicing schemes up to a hundred heads or more by the introduction of such a supply as that of the "Ohika" would, despite its great cost, be a reasonable proposition in view of the existence at command of the enormous areas of 1½ gr. to 2 gr. ground then becoming workable.

REEFTON.

A1 Sluicing Claim.—(16/3/98): This subsidised prospecting-tunnel has been extended a further distance of 728 ft., which makes a total distance of 1,317 ft. The object of this drive is to open out an alluvial flat that lies between Cronadun and Boatman's. Small prospects of gold can be obtained all along the drift. Air-shafts are sunk at regular intervals, producing good ventilation.

GREY DISTRICT.

Barrytown No. 1.—(11/3/98): Nearly all the machinery and 170,000 ft. of timber for the water-races and other works are successfully landed, and operations in erection of works and completion of water-races are being pushed ahead before winter sets in. A mile and a quarter of benching has been finished, and on the completion of the water-race there will be 600 ft. of pressure on the nozzles. Area, 192 acres. Twenty men employed.

Barrytown No. 2 Special Claim.—This company has let a contract of a mile of water-race, 4 ft. by 4 ft. The contractor is pushing on the work as fast as he can get the material.

Waiwera Special Claim.—This company is also pushing on the water-races as fast as possible, employing fifty men. A few days prior to my visit a large landslip occurred and did considerable damage to the portion already constructed.

On the beaches between Greymouth and Barrytown there is a considerable number of men washing the beach sand.

HEALEY'S GULLY, BLACKBALL DISTRICT.

(14/3/98): The Healey Gully Company is now supplying twenty-two men with water in their various claims, and is utilising the surplus on its own property. Two of the small claims using water have had a splendid wash-up for their first month's operations. The water having been brought on to this field, the various miners I spoke to were very hopeful of a successful future.

Montgomery's Terrace (Area, 100 acres).—This property has been prospected by two tunnels driven into the terrace so as to prove its value. The owners being now satisfied, there is £10,000 available to bring in the Blackball Creek and open up the mine. Mr. T. Jones informed me that active operations will be commenced at an early date.

AHAURA DISTRICT.

(8/10/97): There are twenty-one Europeans and one Chinaman working in Callaghan's Creek; twenty-seven Europeans in Nelson Creek and its tributaries. The miners here are very reticent about what gold they are getting—in fact, they refuse to give any information.

In German Gully, near Callaghan's Creek, a Christchurch company is carrying out some very large development-works prior to starting hydraulic sluicing.

ORWELL CREEK.

(16/3/98): About thirty men are working the terraces, but operations are restricted owing to the want of a good water-supply.

PENNYWEIGHT FLAT.

The population is about forty men and all are getting a little gold.

GREY VALLEY.

Sulky Gully Water-race.—(15/12/97): A further subsidy of £68 has been granted to carry out the work of construction. 185 chains of open channel between the rock tunnel and head-race has been completed.

HOKITIKA.

Craig's Freehold.—(12/3/98): This property is worked by seven tributers and one wages-man. A rich lead running north and south from the end of cross-cut 2,500 ft. in showed gold freely, which is deposited in a brown cement, averaging from 12 in. to 18 in. At 400 ft. in, a south drive 300 ft. struck good wash. Ventilation is supplied from an air-shaft at the junction of the cross-cut.

Humphrey's Gully.—(14/2/98): This property has an area of 300 acres, which is held by the Consolidated Goldfields of New Zealand. Operations on the claims employ two nozzles, with a capacity of over twenty heads. The survey for the extended water-scheme has been completed from the Arahura River to Brown's Creek. Five men are employed on the claim.

Arahura Flat.—(10/2/98): This subsidised tunnel has been driven 1,627 ft. by Dwyer and party. A ventilating shaft was required at the face, which was promised to be done.

GREENSTONE DISTRICT.

(28/1/98): There are about a hundred and thirty miners working with varied success.

KUMARA.

(30/1/98): No. 5 tail-race has not yet been completed. The present face shows about 1 ft. of blue reef in the bottom, the remainder loose gravels with a large body of water overhead.

At the time of my visit the deep-level tunnel was at a standstill. Work was to start in a few days, the Government having authorised an extension of 200 ft., not to cost more than 15s. per foot, the department to pay two-thirds.

KELLY'S TERRACE.

(29/1/98): At the time of my visit this drainage tunnel was idle. This work has been subsidised by the Government. Total length driven, 2,650 ft., leaving 3,950 ft. more to be driven to the point where payable gold was left many years ago.

WAIMEA.

(6/10/97): Work in the Waimea Main Tail-race at the time of my visit was suspended pending some arrangements with the trustees.

At Taipo Water-race, on the 14th September, 1897, Richard Bennett, aged twenty-seven years, was injured by a stone rolling down the hill and striking him on the head. (19/10/97): Dr. Scott reports Bennett progressing very favourably.

ROSS.

Mont d'Or Claim.—During the year sluicing operations have been carried on satisfactorily. Twenty-two men employed.

Ross United.—This property is being worked by twelve tributers.

Prince of Wales.—This property is now being worked by eight tributers.

In Donnelly's Creek there are several parties working with varied results.

Totara Dredging Syndicate (area 40 acres).—(28/2/98): Eight men employed sinking a shaft so as to test the depth of the wash preparatory to building a dredge. At the time of my visit they were down 15 ft.

FROM ROSS TO OKARITO AND WAIHO.

Duffer's Creek, Eighteen Miles South of Ross.

(3/3/98): There is a tunnel being driven here subsidised by the Department. The present length is 373 ft. Marches and Scott are putting in this drive at present. There are six men working here as hatters.

Lake Ianthe.

There are six men here hydraulic sluicing, paying a royalty to Mr. Green for the use of the water from his race.

Waiho River.

The Wild Gold-mining Company had two special claims at the time of my visit. Nearly all of the benching for the pipe-lines was completed. Two tunnels have to be driven. No. 1, total length 135 ft., of which 100 ft. has been done; No. 2, 250 ft., 25 ft. of this has been driven. The rock these tunnels are passing through is of a very firm description of serpentine. This company is employing sixteen miners and nine surfacemen.

On the various branches above Nesbits there are sixteen miners working with varied results.

Lake Mapourika and Forks.

There are twenty-three miners working, either single-handed or in pairs. There are also seven men working just below the Forks.

CEMENT-MINING.

ADDISON'S FLAT.

Golden Sand.—(30/3/97): This property is largely owned by an Auckland syndicate, who have erected a ten-head battery. The stamps and all the machinery, which appear to be substantially built, were manufactured at the Despatch Foundry, Greymouth, had a very successful start. The cement is brought up to the mill on an incline tramway, the motive-power being supplied by a 12 ft. water-wheel, and for the battery by a 6 ft. Pelton. The cement to be operated on is of large extent, the area being about 300 acres, and in the present face 8 ft. thick. Twelve men are employed.

Venture Claim.—(30/3/98): This property is largely owned by a local syndicate, who employ eight men. The battery, which consists of twelve stamps, 4 cwt. each, has been at work for some years, a water-wheel, 30 ft. diameter and 2½ ft. breast, supplying the motive-power. The cement lead is 4 ft. thick, and is connected with the battery by a horse-tramway.

Milligan and Party.—(30/3/98): This party hold an area of 50 acres, employing eleven men. The cement lead, which is from 7 ft. to 14 ft. in thickness, is connected with the battery by a horse-tramway. There are ten heads of stampers, 6 cwt. each, driven by a 6 ft. Pelton.

CHARLESTON.

Dublin City Cement Claim (9 acres).—(19/10/97): The cement is 7 ft. to 9 ft. thick, and is conveyed to the battery by a ground-tramway 3 chains long. The battery consists of eight stampers—weight, 350 lb.; motive-power, water-wheel 30 ft. in diameter, 3 ft. breast; crushing 16 yards per day of nine hours. Average value of gold, £3 19s. per ounce. At the time of last visit they had recoppered the tables, as the previous ones had been stolen. This claim is being worked by the four shareholders.

Morning Star Cement Claim.—This claim is owned and worked by four shareholders. The cement-bed is 5 ft. thick, and is connected with the battery by a chute 40 ft. long, and a wooden tramway 3 chains long. The battery consists of four head, weight 400 lb.; motive-power, water-wheel 35 ft. in diameter, 2 ft. 6 in. breast. About sixteen loads of cement is crushed every day of nine hours. Average yield, 2 dwt. per load; value, £3 19s. per oz.

Enterprise Cement Claim.—This claim is owned and worked by four shareholders, who are working it over for the third time—viz., first, they sluiced away about 4 ft.; second, they sluiced away about 1 ft.; third, they are taking everything except granite boulders. This averages from 4 ft. to 5 ft. in thickness, and is worth about 2s. 6d. per ton. This cement-bed is connected by a wooden tramway 7 chains long to the battery (four heads, weight 500 lb.); motive-power, water-wheel 30 ft. in diameter, 2 ft. 6 in. breast.

(19/10/97): Owing to heavy rains Birch and party's cement claim was not visited. Their returns show: Crushed, 2,600 tons; yield, 51 oz. melted gold.

RETURNS FROM CEMENT-MINES, 1897 and 1898.

Name of Mine.	Ordinary Cement crushed.	Retorted Gold.	Approximate Value.	
	Tons.	Oz. dwt. gr.	£	s. d.
Charleston and Brighton	4,700	62 0 0	} 3,526 19 6	
Dublin City ... ..	...	48 0 0	
T. M. Norris and Tyther ... ..	...	11 6 12	
Patrick Dyer and party	3,300	246 1 0		
Golden Sand	3,234	94 16 18		
Tyther and party	931	29 9 0		
William Millikin and party	9,792	406 0 0		
Totals	21,957	897 13 6	3,526 19 6	

DREDGING.

Philips Dredging Company, Mahinapua Creek.—(29/1/98): The dredge was floated on to this creek in November, 1897. Since that time work has been of a preparatory and prospecting character. The ground where operations are commenced is on a swampy flat, which forms a large bend of the creek, about one mile from the lake. The pontoons, which are built of steel plates $\frac{5}{8}$ in. on the bottom, are 90 ft. long by 20 ft. wide and 3 ft. 9 in. deep. The ladder is 72 ft. 6 in. long from centre to centre of tumbler shaft, and carries forty-three buckets, each having a capacity of 2½ cubic feet. The buckets deliver the *débris* into iron-grated sluice-boxes, through which the wash falls into a distributing-box; from thence it is run over a 30 ft. spread of plush-tables. The engines are of the compound type, with horizontal cylinders, 7 in. and 13½ in. diameters, with 12 in. stroke, and 7 in. and 12½ in. with 16 in. stroke. Water for washing purposes is supplied by a 13½ in. centrifugal pump, and the engines are worked at a pressure of 90 lb. from a Cornish boiler, 5 ft. diameter by 15 ft. in length, consuming 15 cwt. of Brunner coal in eight hours. The plant is placed between decks, occupying the stern-end behind the ladder. A good boat is provided, but no life-belts were on board; these have since been provided. Five men are employed on two shifts.

ACCIDENTS.

Ahaura, 25th June, 1897.—George Barnes was caught by a fall of wash-dirt while working by himself. He was taken out alive after being held by the legs for thirty-six hours, but died shortly after being released.

Ross, 27th July, 1897.—Thomas McGlarry was killed by a fall of wash-dirt. No blame was attached to any person.

Taipo, 14th September, 1897.—Richard Bennett received a fracture of the skull, caused by a stone rolling from the hillside.

Dee Creek Sluicing Company's Works, 8th October, 1897.—James Kirkness, aged twenty-eight years, had his right hand blown off while thawing a plug of dynamite; and David Swanson received injuries to his eyes.

Fairdown Sluicing Claim, 16th October, 1897.—George Ross, aged thirty-five years, had his left leg broken whilst attempting to lift a stone out of the sluice-box.

Reefton, 22nd October, 1897.—Philip Murphy was killed by a large granite boulder falling on his head whilst cleaning up some wash-dirt.

Wealth of Nations Mine, 12th December, 1897.—John Dixon, aged twenty-five years, was injured by the sudden fall of a platform down the shaft a distance of 150 ft.

Red Jack's Terrace, near Brighton, 8th March, 1898.—Samuel McFetish was killed by a fall of wash-dirt whilst holing at the face.

GENERAL.

At Karamea some large areas were pegged off, and several water-races also applied for. There are six men prospecting Scarlot's property prior to putting it on the Home market. So far the developments are said to be of a most satisfactory character.

At Charleston the whole of the back lead of cement has been applied for, and prospecting-shafts are being sunk prior to bringing in water and erecting reducing machinery.

Mining at Ahaura has received an impetus lately owing to a discovery of gold in the terraces on the Seven-mile Creek.

Wakamarina District: This almost exhausted goldfield still supports about thirty men, some of whom make fair wages.

I have, &c.,

R. TENNENT,

Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

No. 17.

Mr. JOHN HAYES, Acting Inspector of Mines, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Inspector of Mines' Office, Dunedin, 14th April, 1898.

I have the honour to report on the following gold-mining properties visited by me:—

QUARTZ-MINES.

Gabriel's Gully, Lawrence.—(6/5/97): An attempt is now being made to resume quartz-mining work here. Some years ago a reef varying from 2 ft. to 9 ft. wide was worked by a high-level adit between the main Blue Spur fault and a cross-course. A tunnel at a low level was also driven, and proved the reef to be only a few inches wide. From this tunnel exploration-works were conducted with the object of picking up the reef beyond the cross-course, but were not successful. The Gabriel's Gully Prospecting Association has had this low-level tunnel cleaned out and retimbered where necessary, with the object of again looking for the reef. The work has been very satisfactorily performed, so far as it has gone, and it is now intended to drive in the solid ground. (7/3/98): Three men are now employed here. At the present time they are working in the old high-level tunnel driving alongside the cross-course. Some stone of from 3 ft. to 4 ft. wide has been got, but it is possible it may turn out to be quartz which was left when the place was formerly worked.

Phoenix Mine, Bullendale (Achilles Goldfields, Limited).—(12/10/97): For some time past operations have been in progress with a view to increasing the efficiency of the mine and the reduction of working-expenses. Among the work in hand may be mentioned the sinking of a new incline shaft to the lowest levels, the grade being 54° from the horizontal, except for a short length near the bottom, where it is 60°. Double lines of rails are laid, and a well-built stairway (in lieu of ladders) is provided and substantially fenced from the winding-side of the shaft. The winding-power will be water at a high pressure working a Pelton wheel, connected by gearing to the winding-drums. It is intended to hoist all the quartz up this shaft and dispense with the present winding arrangements at the vertical shaft and the winzes connecting it with the lower levels. Underground, I found the workings in good order and admirably ventilated. The principal working-places are in Nos. 4 and 5 levels, and work (chiefly of a prospecting character) is going on in No. 6 level. At the mine, battery, and other works in connection with the mine (including new developments) 101 persons are engaged, but about forty-five of these will be dispensed with when the new plant is completed and at work. (23/2/98): Since my visit in October last considerable progress has been made in the erection of hauling and pumping plant at the new incline shaft. The latter is now sunk to within a short distance of No. 5 level, and if no interruption occurs the new arrangements should be in full work in the course of a few weeks. A winze is being sunk on the reef below No. 5 level. Ventilation and timbering satisfactory, but I had to find fault with the careless manner in which some of the men handle their explosives, and wrote the management thereon on my return to Dunedin.

The Phoenix is the only quartz-mine at present working in the locality.

Premier Mine, Macetown (Glenrock Consolidated Company, Limited).—(18/10/97): This mine is entered by an adit-level about 1,500 ft. long. The reef is followed on a grade of about 1 in 4 by an incline, the trucks being hauled up the incline by winding-gear worked by an electric motor. The walls of the reef appear to have a varying angle, averaging probably 50° from the horizontal, the reef having a variable width up to 6 ft. The method of working is by overhand stopes. The stone appears very good, and the prospects look favourable. Roadways and working-places are well timbered and looked after. Ventilation satisfactory. More man-holes are needed on the

incline: this was promised to be attended to. The battery has twenty heads of stamps, driven by a 6 ft. Pelton wheel. This wheel also drives the dynamo which generates current for the electric motor underground. A 4-ton cyanide plant is attached to the battery. Employés, forty-one. (24/2/98): Since my last visit the incline man-holes have been cut, and my instructions generally attended to. The question of the storage of explosives is one which affects this company's mine, and also the adjoining Tipperary Mine, belonging to the Westralia and New Zealand Gold-explorers (Limited), and has been made the subject of a communication to the Mines Department, Wellington. The reef continues variable in width, the foot-wall being irregular. Timbering and ventilation very satisfactory. There is a second outlet to the mine, so that in the event of any breakdown in the main tunnel the men have good means of egress. Total number of employés at mine and battery, fifty-five.

Tipperary Mine, Macetown (Westralia and New Zealand Gold-explorers, Limited).—(18/10/97): The adit-tunnel into this mine is 1,960 ft. long, and the drive extends 300 ft. on the line of reef from end of adit-tunnel. The reef has a varying width of from 5 ft. to 6 in., and is smallest at the face of drive. Near this point a winze-shaft is being sunk to prove the reef at a lower level. There is very little milling-stone in sight at present. Timbering appears to have careful attention, and the air is sweet. There being only one means of ingress to and egress from the workings, the ventilation is produced by a water-blast and the air conveyed in sheet-iron pipes. The battery is not at present at work. Persons employed, 15. (25/2/98): The winze-shaft, which had been commenced shortly before my last visit, is now down 80 ft., and shows the reef to be 4 ft. 8 in. wide. After another 20 ft. has been sunk it is intended to open out. The main drive has been continued, and shows better stone than when I previously saw it. To the rise of the main level the stone does not look very satisfactory, and prospecting operations are being prosecuted in the old low-level tunnel of the former proprietary—but which is considerably higher than the present company's level—to ascertain what stone exists to the rise of the present company's workings. The timbering and general arrangements of the mine are well carried out, but at this date the air was very slack at the working-face. Mr. Stanford, the manager, states that in a short time a connection will be made with the prospecting-tunnel, which will give a second outlet and insure better ventilation. Persons employed, nineteen.

While at Macetown I learned that two men were engaged in prospecting at the Victor Emmanuel property, and that preparations were being made to open out the Sunrise Mine on Advance Peak by the Glenrock Consolidated Company (Limited).

Bendigo Mine, near Cromwell (Cromwell Goldfields Company, Limited).—(17/1/98): This mine is now being worked on tribute, the party of tributers, ten in number, being engaged in extracting a block of stone at the 200 ft. level in the old main shaft. The ventilation and general arrangements for safety appeared to be well attended to, but more care should be exercised by the men in handling explosives. The principal shaft (which at present is used for pumping only) is some 14 chains east of the old main shaft, and connects with the reef by a cross-cut driven to the south. Here the reef is from 1 ft. to 2 ft. wide. I was informed that in the worked-out ground the reef had attained a maximum width of 10 ft. It splits up, or divides, between the two shafts, and the tributers are working on the north division of the reef, from which excellent returns have been obtained, 2½ oz. of gold per ton of stone crushed being a fair average; value of gold, £3 15s. per ounce. It is maintained that these returns would have been better still if more modern methods of treating the tailings were provided, and it is safe to say that the stone from the deeper ground has a much greater assay-value than can ever be realised with the present appliances. A second party of tributers are about to commence work at the principal shaft. At this shaft there is a lot of plant of a somewhat obsolete character, and if deeper sinking should be undertaken a new installation will in all probability be required. Superficially, it looks as if an adit from the valley below the mine would strike the reef at as low a level as the bottom of the present principal shaft. Assuming such an adit being driven, it would obviate some 500 ft. of winding and pumping, the shaft could be sunk as low as necessary, and all stone and water delivered at the adit. The water-power now driving the pumps and battery could be carried to the lower level, and would gain an additional pressure of some 200 lb. per square inch.

Golden Gate Quartz-mining Company, Bannockburn (James Horn, Secretary).—(18/1/98): Work has been going on at this company's mine in a small way for a couple of years, two men being ordinarily employed. Latterly six men were engaged, and some stone has been taken out, a trial crushing giving a return of 12½ dwt. to the ton. The reef is lying at an angle of, say, 15 deg. from the horizontal (more like a coal-seam), with an average thickness, so far as proved, of 1 ft. 4 in., and might be advantageously worked in a similar method to the long-wall system of coal-mining. Some of the stone is oxidized, and some has a whitish appearance. The former yields its gold freely; the latter is refractory, and needs separate treatment. The mine is entered by an adit-level above the left-hand branch of Pipe-clay Creek. A small battery (two heads) has been erected, and is driven by water-power. Considerably higher up the creek there is a tunnel on the company's claim at which some work was done several years ago, and Mr. Horn states that 23 dwt. of gold to the ton of stone was obtained. The reef is 2 ft. 6 in. thick, and lies at an angle of about 45 deg.

Young Australia Quartz-mine, Carrick Range, near Bannockburn.—(18/1/98): A reef was worked here some twenty years ago by an adit-tunnel and stoped overhead, and also for about 20 ft. under-foot. This latter work admitted of an accumulation of water below adit-level, which caused operations to be suspended. A shaft was subsequently sunk, but, the water proving too much for the primitive appliances available, the ground was abandoned. It is now held by Messrs. McCabe and Sons, who have commenced an adit 90 ft. lower than the original one. It is driven 380 ft. or thereabouts, but is now standing for want of funds. Mr. McCabe estimates that a distance of 300 ft. has yet to be driven to cut the reef, which is said to be 5 ft. thick, and lying at a grade of 1 in 3. The yield is given as 1½ oz. of gold to the ton of stone. The object of this lower tunnel is to gain workable ground, and drain the old workings into Adams's Creek.

Barewood Quartz-mines, Barewood.—(21/7/97): This property is now being exploited by the Anglo-Continental Gold Syndicate (Limited) and the London and New Zealand Exploration Company (Limited) jointly. The reef has been traced for two miles and a half on the properties held by the joint companies, and extensive prospecting-works are now in progress. A shaft, estimated to strike the reef at 300 ft., is now down 60 ft.; another shaft, about half a mile distant from the last one, has also been started. Both shafts are 11 ft. 6 in. by 4 ft. inside the timbers, and divided into three compartments. The ground is mica-schist rock, lying horizontally. The reef runs north-west and south-east, and lies at an angle of, say, 56 deg. from the horizontal. A third shaft, 7 ft. by 3 ft. 6 in., at Scott's Gully—sunk by former owners to a depth of 46 ft.—is now being sunk deeper, and at a depth of 150 ft. passed through the reef, which is 7 ft. wide. An adit-tunnel has been commenced from the side of a rocky gorge, through which the Taieri River flows. This tunnel is 7 ft. high, with an average width of 4 ft. 9 in. I understand that the stone will eventually be hauled out of the mine through this tunnel, and the battery be erected somewhere near the tunnel-mouth. This will allow of water-power being used for crushing the stone. Employés at date, thirty-four.

O.P.Q. Quartz-mine, Waipori (O.P.Q. (Waipori) Gold-mines, Limited).—(8/3/98): This mine is now being opened by the above-named company, and has an area of $76\frac{1}{2}$ acres. The work in hand comprises—(a) The sinking of a new shaft, 12 ft. 6 in. by 4 ft., which is now 150 ft. down, substantially timbered and divided into three compartments; (b) the driving of a new tunnel on the line of reef (from a point in the gully near to and about the same level as the top of the new shaft), now 450 ft. in; (c) the continuation of an old tunnel at a lower level, now 790 ft. in; and (d) the erection of a battery, &c. The low-level tunnel will reach the shaft at about 900 ft. from the entrance and 70 ft. down the shaft. It will form the adit for the outlet of water from the pumps. At 250 ft. in depth it is proposed to start a level from the shaft, but continue the sinking until the shaft is 500 ft. deep. The present winding plant is of a temporary character; a good plant has been ordered from Robey and Co., Lincoln, England. Twenty-six men at present employed.

Longwood, Southland.—(31/8/97): The Longwood Quartz-mining Company's prospecting tunnel is now 950 ft. in, but has not yet struck the reef. This work is subsidised. Found the tunnel in very good order.

Riverton, Southland.—(1/9/97): A trial shaft (now 32 ft. down) is being sunk at South Riverton with a view to proving a reef said to have been traced over a mile on the surface. The work is being undertaken by the Riverton Prospecting Association (secretary, A. E. Willetts).

HYDRAULIC AND ALLUVIAL MINING.

Blue Spur and Gabriel's Gully Consolidated Gold Company (Limited), Lawrence.—(7/5/97): Accompanied by Mr. J. Howard Jackson, C.E., the company's manager, I inspected the works. The ground being operated upon consists of hard concrete wash lying in the form of a trough, one side of which is formed by what Mr. Jackson describes as the "main Blue Spur fault," which has a dip westward, and lies at an angle of 23 deg. from the horizontal. In working, a tunnel is driven from the face of the wash into the body of it for a distance of about 40 ft., from which a couple of short side-drives are cut, the whole forming the shape of the letter T. In the chamber so formed a quantity of roburite (sometimes as much as 15 cwt.) is placed, the chamber stowed up tight, and the charge fired by electricity. This has the effect of loosening the ground, which is afterwards sluiced down, the sluiced stuff being carried by sluice-boxes for convenient distances and elevated by hydraulic elevators to other sluice-boxes at a higher level. By this means excellent opportunities are afforded for saving the gold, as the boxes are of considerable length and well provided with riffles and mattings. The gold is somewhat fine. Forty men are employed on the works and water-races, and every care appears to be taken to insure safety. For some time previous to my visit work had been intermittent owing to scarcity of water. (7/3/98): I again visited the works in company with Mr. Wilson, Inspecting Engineer to the Mines Department. The work is being carried on much in the same way as at my last visit, forty-four men being employed. Two large and three small jets are used for sluicing, and three hydraulic elevators raise the sluiced matter to the boxes.

Local Industry Gold-mining Company (Limited), Lawrence (J. C. Arbuckle, Secretary).—(7/3/98): This company has been working a short distance below the Blue Spur workings, but the plant is being removed to Rocky Point, Gabriel's Gully. The company's storage-dam is capable of holding two to three months' water.

Beaumont Local Industry Co-operative Mining Company (Limited), Beaumont (Secretary, J. C. Arbuckle, Lawrence).—(9/3/98): Operations have recently been commenced by this company (about half a mile above Beaumont Bridge) to work the alluvial flats alongside the Molyneux River by hydraulic sluicing and elevating. Twenty heads of water are brought in by a race of three miles and a half in length from Beaumont Creek to an elevation of 450 ft. above the claim, and continued in pipes 20 in. in diameter for a distance of 60 chains. The face shows a section of 16 ft. of gravel, overlaid by 12 ft. of sandy stripping, but as the bed-rock appears to dip into the face this thickness will probably be exceeded in a short time. The gold is fine, but easily saved. At present there is nothing but an ordinary sluice-box (with riffles and matting) for saving the gold, but side-tables are to be added shortly. Twelve men are ordinarily employed.

(29/10/97): *Roxburgh Amalgamated Mining and Sluicing Company's Claim* is situated on the eastern side of the Molyneux River opposite the Town of Roxburgh, but practically on the site where the old township formerly stood. The system of work is by hydraulic sluicing and elevating, the wash-dirt being approximately 40 ft. thick, overlaid by 20 ft. to 25 ft. of stripping, principally of a loose sandy nature. The wash is very free working, and does not contain many large stones. Mica-schist forms the bed-rock. This has been worn in places into gutters, which are filled up with wash-dirt. The gold is rather flaky; value, £3 17s. per ounce. Two nozzles and two elevators are usually kept working, a third elevator being kept in readiness for work when either of the

others is stopped. A fourth elevator is used for drainage purposes only. The present prospects of the mine appear good. Twenty-five persons are employed on the claim and water-race.

No. 1 Hercules Claim, Roxburgh.—(12/11/97): This is now held by Mr. John Ewing, of St. Bathans, and worked by hydraulic sluicing and elevating. The water-rights to forty-one heads and a half are secured, and a pressure due to a head of 520 ft. is obtained. The gold-bearing wash is 2 ft. thick on the bed-rock, and overlaid by 35 ft. to 40 ft. of drift-gravels. One elevator is used for the sluiced stuff, which is passed over a long sluice-box (having a fall of from 9 in. to 7 in. in 12 ft.) fitted with riffles and matting. A second elevator is used for pumping only. Eight men are at present employed. A new paddock is being opened out and the elevator moved. Mr. Robertson is in charge.

Ewing's Claim, Bald Hill Flat.—(12/3/98): The plant has been removed from where Mr. Ewing was working a few months ago to a claim above the Last Chance, and is now being re-erected. The ground will be worked by hydraulic sluicing and elevating. Water is obtained from Coal Creek, Butcher's Creek, and Butcher's Gully, and conveyed in races to a storage dam, which is situated about 1,000 ft. above the claim. The present position of the penstock only gives a head of 180 ft. to the new claim, but it is proposed to extend the pipe-line towards the dam till a working head of 300 ft. is obtained, and re-erect the penstock there. The gold is coarse and easily saved. Area of claim, 30 acres. Ten men employed. Mr. A. McPherson is claim-manager.

Last Chance Claim, Bald Hill Flat (Simmons and Hesson; A. McNeece, manager).—(12/3/98): At this claim there is a thickness of from 25 ft. to 30 ft. of wash, resting on a sandy clay bottom, and overlaid by about 5 ft. of surface-soil and -clay. At the time of my visit this surface stuff and the upper part of the wash were being sluiced off. Water is obtained from Shingle, Chasm, and Gorge Creeks. The races will carry fifteen Government heads, but owing to the dry season not more than four heads are at present available. This water is conducted to a reservoir, and gives a six-head supply on the day shift only. Main pipe-line is 15 in. and 13 in. in diameter; service pipes, 11 in., 9 in., and 7 in. in diameter; and a head of 320 ft. is obtained. Two nozzles are ordinarily employed and one elevator, the latter having a lift of 29 ft.; jet, 2½ in. diameter; throat, 7½ in. diameter. Ten men are employed on the claim and water-races. Length of pipes in use, 3,000 ft.

Carroll and Lynch's Claim, Bald Hill Flat.—(12/3/98): This claim has an area of 16 acres, 4 acres of which are already worked. Six Government heads of water are brought from Gorge Creek by a race seven miles long, and a working-pressure of 200 ft. (= 86 lb. per square inch) is obtained. The pipe-line tapers from 15 in. to 11 in. pipes, and the service pipes are of 9 in. and 7 in. in diameter, the whole measuring half a mile. Two nozzles are used. The elevator has a lift of 20 ft.; jet, 2 in.; throat, 6 in. At the face there is a section of 15 ft. of wash with a layer of sandy clay and mixed gravel running through it. A layer of surface-clay 5 ft. thick overlies the wash. This was being sluiced off at my visit, and I was informed that it is the practice to regularly clear the top off in this way, the operation taking from two to three weeks every three months. Six men are employed.

Ophir Deep Lead Gold-mining Company (Limited), Ophir.—(17/3/98): A claim of 50 acres at Ida Valley (Black's No. 3) has been taken up by this company, and a shaft sunk down for 145 ft.; the last 45 ft. was in schist rock. At 100 ft. deep there is a bed of auriferous wash 4 ft. 6 in. thick, and operations are now about to commence in it. The venture is a new one, and the mine not yet in full working-order. The shaft is 7 ft. 8 in. by 4 ft. 8 in., divided into two compartments, and fitted with a ladder-way. Steam-power is used for winding, and a puddler for breaking the wash and sluice-boxes for saving the gold are now in course of erection. Eleven men are employed.

Matakanui.—(1/5/97): Owing to scarcity of water only one claim is at work at date—viz., the Undaunted—where preparations were being made for a wash-up. The Mountain Race Company is now merged into the Undaunted. Claims are as under: Simms and Morgan, when working, employ four men; Ewing and McConnochie, nine men; Undaunted Gold-mining Company, twelve men; Sugar-pot Company, six men; Matakanui Water-race Company, eight men; Sheenan and Barron, two men. The ground in this locality appears rich, and could, I think, be worked to much greater advantage if the whole of the claims were consolidated into one strong company under good management and a really comprehensive water-conservation scheme taken in hand. At present nearly all the claims are idle for want of water. An attempt has been made to prospect the deep lead, and a shaft sunk near Thompson's Gorge to a depth of 65 ft. without coming on to the lead. This matter formed the subject of a special report to the Hon. Minister of Mines under date 10th May, 1897. (16/11/97): All the claims are at work, and a plentiful supply of water has been available since August, but none of the claims have yet washed up since that month. At the prospecting-shaft nothing has been done since my last visit, except to remove the engine. Mr. J. Pitches, of Ophir, has bought the claim, and promised to have the shaft, which I found open and unenclosed, properly secured by planking.

Cardrona.—(16/10/97): This is an alluvial goldfield, looked upon from a digger's standpoint as being pretty well worked out, but it is more than questionable if it would not be worth attention as a field for dredging operations. There are a few small claims working about the township, but these for the most part are on ground which has been gone over previously. In some cases really good wages are made during eight or nine months in the year during which work can be prosecuted. In midwinter operations are suspended owing to the snow. The claim nearly opposite the Cardrona Hotel yields some nice rough gold. It is worked by a party of tributers, who mine the wash-dirt, and truck it out to boxes at the mine-mouth. Their returns are said to be very satisfactory. The water from this mine is raised by an hydraulic elevator. This and the other claims in the locality are only just now making a start after the usual winter's stoppage. At Criffel Face work is also about being resumed for the season. There are only some half-dozen men there, and these are now engaged in cleaning and repairing the water-races.

Arrow Falls.—(18/10/97): Preparations are in hand for fairly extensive working under the direction of Mr. J. Miller. (26/2/98): An Invercargill syndicate has taken up this claim, Mr. Miller

being manager in charge of the works. Twelve men are employed. A full description of the works, and history of the claim, will appear in the report of Mr. Wilson, Inspecting Engineer. The claim appears to be managed very satisfactorily.

Nokomai.—(18/2/98): At Mr. Sew Hoy's claim the bed of the Nokomai Creek is being worked. The wash is 47 ft. thick, comparatively fine in character, without many large stones, and rests on a schistose bottom, on which the best gold is found. This is rough, but some fine gold is carried throughout the upper part of the wash. System of working: hydraulic sluicing and elevating. The elevator raises the soakage-water from the creek and the sluiced stuff to a height of 65 ft., using eleven heads of water for this purpose. The sluice-box is 100 ft. long, with a fall of 6½ in. in 12 ft., and fitted with Venetian riffles and matting. Electric light is used for night work. The water-supply is good, and a working-pressure of 240 lb. per square inch obtained. Loss of time owing to dry weather, say, one month in the year. A second elevator is in course of erection. Mr. W. Atkinson is claim-manager. Twenty persons (twelve Chinese and eight Europeans) are employed.

Parrawa.—(17/2/98): The Parrawa Water-supply and Gold-mining Company (Limited) commenced operations a few months ago near the banks of the Mataura River, about two miles below Parrawa. Water is brought by a race from Fiery Creek, then siphoned across the river and flats in 13 in. pipes. So far their operations have not been a financial success, the ground being very difficult to work on account of the very large boulders which have to be dealt with. The gold is heavy and rough, but the ground patchy in relation to its contents of the precious metal. Four men are employed.

Waikara.—(8/6/97 and 12/2/98): The Argyle Hydraulic Sluicing Company (Messrs. R. T. Stewart and Co.) work two claims—viz., an ordinary sluicing claim on the terraces and an elevating claim in the bed of the Argyle Stream. At the former the face of wash is about 140 ft. thick, yielding about 10 oz. per week with one nozzle at work. At the lower claim the paddock gives the following average section: Surface-soil and old tailings, 8 ft. to 12 ft.; gravel-wash, 10 ft.; false bottom; gravel-wash, 15 ft.; main bottom (sand): average, 35 ft. Gold is obtained on both false and main bottoms. In working it is the practice to first sluice down to the false bottom for the area of a good-sized paddock, taking the lower bed of gravel at a second working. The elevator has a lift of 42 ft., and uses about ten heads of water under a pressure of 135 lb. to the square inch. The sluice-box is 102 ft. long by 3 ft. wide, with a fall of 8 in. in 12 ft., and fitted with angle-iron riffles and perforated plates underlaid by cocoanut-matting. Both claims take their water from the same service, which comprises twenty miles of races and over a mile of pipes. Area of joint claims, 106 acres. Persons employed, seventeen.

Waikara Gold-mining and Water-race Company.—(12/2/98): This is another private venture, Mr. R. T. Stewart being manager. The claim is situated at Scrubby Terrace, Waikara, and the face shows a layer of auriferous wash overlaid by 36 ft. of stripping, the top 14 ft. being stiff clay, which has to be made loose with picks before it can be sluiced off. Below the clay, and overlying the auriferous wash, there are 22 ft. of shingly schist and slate. Sixteen heads of water are brought from Steeple Creek by a race eleven miles long, and carried across a gully in 22 in. pipes for a distance of 14 chains. Two 5 in. nozzles are used; head of water, 80 ft. The wash-dirt rests on a false bottom of soft sandstone, in which no gold has been found.

Kennedy's Claim, Murphy's Hill, near Waikara.—(9/6/97): A party of four men work this claim, which has an area of 4 acres. Wash-dirt is from 60 ft. to 100 ft. thick. From 6 ft. to 7 ft. is mined next the bed-rock and wheeled out to the sluice-box. Average yield, 2½ dwt. to 3 dwt. per cubic yard. The ground above would not pay to drive in, but is thought will do very well for sluicing. The workings are kept well timbered and in good order.

Winding Creek.—(9/6/97): This claim, formerly known as "Break-em-all," has been taken up by a syndicate. It is intended to work by hydraulic sluicing and elevating on an extensive scale, preparations being made to bring in fifty heads of water. Tenders are now being invited for the work.

Round Hill Gold-mining Company, Limited (Manager, Mr. George Lee).—(1/9/97 and 2/9/97): About 100 acres are held by the company. Forty Government heads of water are brought in through water-races, having an aggregate length of sixty miles. A continuation of the main water-race is just about being commenced, to give an increase of twelve Government heads of water from Granity Creek. This extension will be about 9 miles long. At the Ourawera Gorge a new storage reservoir, to hold 23,000,000 gallons of water, is about to be constructed. The main pipe-line has a fall of nearly 300 ft. in 90 chains, the pipes, 27 in. in diameter, being principally made of annealed steel. Branches of from 7 in. to 18 in. in diameter convey the water from the main pipe-line to the various working-places, and give a hydrostatic head of from 300 ft. to 325 ft. The ground in the upper paddock is of a sandy character for the most part and easily sluiced, but considerable labour is entailed in removing buried timber which the sluicing operations expose; evidently this has been either a portion of a submerged forest or a heavy accumulation of drift-wood. In the lower paddock the gold-bearing bottom is overlaid by heavy blue clay and a bed of very inferior lignite, all of which have to be sluiced away. There are four hydraulic elevators with boxes, tables, &c., and another one is in course of erection. The tailings are stacked up well on each side of the waste watercourse by being played upon by a jet from an ordinary sluicing-nozzle with water having about 300 ft. head. The saving-tables are of very large area and well provided with matting and plates; the main boxes are double and provided with ripples and plates. Every care appears to be taken to save the gold, all of which is very fine. It is stated that the value of gold (£3 19s. per ounce retorted) equals about 3½ d. per cubic yard of ground shifted, the working-expenses when all is in proper working-order being about 2½ d. to 2¼ d. per cubic yard. Mr. Lee has patented a new form of elevator-seat for use with hydraulic elevators. Instead of having a circular intake, an oval one provided with a pipe for the admission of air at the mouth is substituted. The air is forced by a very small water-jet. Mr. Lee claims an increase of efficiency by the altered form combined with the air-inlet. He also makes provision for a renewable "throat," thus saving expense in the maintenance of the plant. The pipes used on the works are mostly constructed on

the premises, a very compact plant having been erected for the purpose. The work is carried on at night as well as day, electric lamps being used. The current is generated by a dynamo driven by a Pelton water-wheel, which also provides the power for the workshops. Mr. Lee gives details as follows: Sluicing-nozzle, $2\frac{1}{4}$ in. diameter, uses $3\frac{3}{8}$ Government heads, 300 ft. pressure; elevator jet, $2\frac{3}{4}$ in. diameter, uses $5\frac{1}{8}$ Government heads; elevator has $6\frac{1}{2}$ in. to $7\frac{1}{2}$ in. throat (3 ft. long); casting, 2 ft. 6 in. long, 8 in. to 11 in. diameter; then 13 in. uptake: total lift, 50 ft.; 70 tons of stuff per hour shifted. Forty-seven men are employed by the company. The Round Hill Company supply about a dozen small claims with water when they have it to spare. Ten of these claims are worked by Chinamen (to the number of thirty). Also visited this claim on the 16th February, 1898.

(2/9/97): *O'Brien's Claim* is worked by ground-sluicing. The owner has his own water-race, which carries about one Government head of water, giving a pressure of, say, 100 ft. Working-face 35 ft. to 40 ft. thick.

Vasey and Brick's Claim is worked by water obtained from O'Brien.

(2/9/97): *Ourawera Gold-mining Company*.—This claim is near the property held by the Round Hill Company, and the ground is of similar character. One elevator is kept going. It has a lift of about 45 ft. Eleven men and two boys are employed. The arrangements for saving the fine gold are not nearly so complete as those of the Round Hill Company. Also visited this claim on the 16th February, 1898.

Orepuki.—(3/9/97 and 4/9/97): There are no large mining works here, although gold-mining provides remunerative labour for a considerable number of men. All the claims are small and, with one or two exceptions, worked by ground-sluicing. The gold is of the same character and of similar value to that at Round Hill. Water is brought principally from the Taunau, the Ourawera, and Waimeamea Streams. McLean and party have recently completed a race of eight miles in length, with a fall of 10 ft. per mile, to carry nineteen Government heads. Of this amount the owners of the race use about four heads at their own claim and sell the remainder to five other claims, three of which are worked by Chinese. The water is sold at £1 5s. per head per week. McLean's claim carries about 1 ft. 6 in. of auriferous wash, overlaid by heavy ground of considerable depth, and a good deal of standing timber has to be dealt with.

At Weston's claim the ground is about 60 ft. deep, the wash-dirt at bottom being 3 ft. thick. This claim and two others adjacent (King and Instone's, and Barry and Sorensen's) labour under the disadvantage of not getting clean water.

Hennessy's claim carries about 4 ft. of rough wash, overlaid by 2 ft. to 3 ft. of sandy wash; above this is about 24 ft. of clay, all of which is removed by ground-sluicing. The claim has not been very long at work. It is situated in the bush, and is higher up the Taunau Creek than any of the other claims.

Love's claim is worked by driving, and Homer's claim is sometimes worked in a similar manner—*i.e.*, when water is not available for sluicing.

At Barry and Sorensen's claim the run of gold-bearing wash ran out about three years ago. Since then the work has consisted in cutting a good channel through the barren ground and otherwise prospecting. It is considered that good ground will very soon be in sight again.

From what I could learn all the claims have paid well, and the digging population appear very comfortably off. There are several other claims not mentioned which I visited, but which do not call for special comment. The Chinese in the district number fourteen.

(15/2/98): A few days prior to my visit quite a mild rush had set in locally on account of a very good find on ground adjoining the north side of King's claim. This has been taken up by a party of five men (R. Rolstone, D. Whelan, T. Warren, and two others), and a shaft 7 ft. by 4 ft. is sunk 42 ft. on to a 2 ft. 6 in. layer of wash, which shows very good prospects. The shaft is to be timbered and a horse-whim erected. "Klondike" is the name by which the claim is to be known. Several other claims are pegged off in the locality.

At J. Forbes's claim three men are engaged ground-sluicing. The auriferous wash varies from 1 ft. to 3 ft., and is overlaid by 20 ft. or more of heavy stripping.

William Forbes's claim adjoins King's, and four men are employed driving in the wash-dirt. The face shows a thickness of 1 ft. The tunnel is well driven and substantially timbered. A new race is being constructed so as to enable this ground to be worked by sluicing. It is said four heads of water will be brought in. Hood and McGauchie have sunk a prospecting-shaft 36 ft. deep, and are now driving an adit from the side of King's claim to work their ground.

McLean's claim is now worked by Chinese (about twenty men), and Love and party have taken a claim in the bush below Hennessy's. They are driving on the wash-dirt. The remaining claims are working much in the same way as at my previous visit (3rd and 4th September, 1897).

DREDGING.

This branch of gold-mining is going on apace and is not confined to river-work. Near Waikaka Township there are two dredges working, one of which is fully a mile from the river, and obtains water by a race from a small creek. In my opinion, there are many places in the southern district, and in Southland in particular, where comparatively inexpensive dredges could be profitably employed on alluvial flats.

Owing to the fact of several accidents occurring in connection with dredge-mining I paid special visits to about forty dredges to ascertain what provisions exist for the safety of the employes. In many cases I found that dredge-managers had no idea of their being amenable to any legislative enactments in this direction. There were a few instances where I noticed with much pleasure the care taken to insure safety as far as possible, but in several cases I found a degree of carelessness and indifference which would not be tolerated for a moment in an average coal-mine.

A report (in schedule form) of the dredges visited is given, together with a form of circular letter which I propose to issue to all dredge-masters and secretaries of dredging companies.

DREDGES VISITED BY ACTING INSPECTOR OF MINES, DUNEDIN.

Name and Situation of Dredge.	Owners.	Dredgemaster.	Persons employed.	Safety Appliances.			Remarks.
				Boats.	Life-belts.	Life-buoys	
Perry's, Waikaka ..	J. R. Perry, St. Clair, Dunedin ..	H. W. Parsons ..	7	1	..	..	Working on flats away from stream and in dead water about 15 ft. deep. Hull needs a rail or wire fence forward of deck-houses. Dredgemaster promised to have this done.
McGill's, Waikaka ..	McGill and party, Waikaka ..	W. McGill ..	6	1	..	..	Exactly same conditions as above.
Golden Crown, Waikaka ..	Golden Crown Gold-dredging Company (Limited), Dunedin ..	..	..	..	..	..	This dredge has so far been unsuccessful, and was being moved up the Waikata Stream at time of visit.
Golden Terrace No. 1, Lower Shot-over, near Arrowtown, Queenstown ..	Golden Terrace Dredging Company (Limited), Dunedin (R. T. Wheeler, jun., Secretary)	E. A. Johnston ..	9	1	3	..	Boat-hook also provided. The river here is very rapid. Fencing is fairly good.*
Golden Terrace, No. 2, ditto ..	Ditto ..	William Shore ..	9	1	3	1	Similarly equipped to No. 1 Dredge.*
Perseverance, Waipori ..	McNeil and Co., Waipori ..	Thomas Atken ..	6	1	..	..	Hull needs fencing beyond the deck-houses (engines and winches). Working in practically dead water. Been at work thirteen months.
Success, Waipori ..	Success Gold-dredging Company (Limited), Lawrence (J. J. Gibson, Secretary)	William Hanley ..	7	1	..	..	Recently started (November, 1897). Not yet got on good ground. Working in dead water, quite shallow.
Judland Flat, Waipori ..	Judland Flat (Waipori) Gold-mining Company (Limited), Rattray Street, Dunedin (A. Bartleman, Secretary)	A. R. Edmunds ..	10	1	..	..	Working on flats in dead water; twelve men are occasionally employed. Area of claim, 244 acres; 90 acres worked in the last seven years. Average depth, 13 ft. below water-level. Fencing is very fair.
Golden Lead (Molyneux River), near Island Block ..	Golden Lead Dredging Company (Limited), (Isaac Stevenson, Port Chalmers, Secretary)	N. P. Klough ..	6	2	6	..	Hull, &c., reasonably well fenced. Dredge has only been at work a fortnight after being laid up for some months. Working in the river.
Golden Gate (Molyneux River), near Island Block ..	Golden Gate Dredging Company (Limited), Roxburgh (Jabez Burton, Secretary)	David Ballantyne ..	6	2	2	2	Hull is very well fenced. Working in the river.
Osago, Miller's Flat (Molyneux River) ..	Osago Gold-dredging Company (Limited), Dunedin (A. G. Fenwick, Secretary)	Irie Templeton ..	6	2	..	..	Machinery generally well fenced. The bevel gear of the top tumbler shaft, being alongside a narrow thoroughfare, needs fencing. Drew attention to this. Well-hole not protected in any way. As the decks are iron, it is necessary the well should be fenced off. Another rail about 8 in. to 12 in. above the deck is required on the fence round the unhooused portion of the hull. Working at side of river.
Golden Treasure (Molyneux River) Miller's Flat ..	Golden Treasure Dredging Company (Limited), (J. Burton, Secretary, Roxburgh)	George Bennett ..	6	3	2	2	Hull fairly well fenced. Screen has only been added recently, and fencing of driving-gear not yet complete. A small breast-rail in front of engine fly-wheel is desirable. Requested this to be fixed. Working at side of river.
Benger Burn, near Roxburgh ..	Benger Burn Dredging Company (Limited), Roxburgh (J. Burton, Secretary)	James Murray ..	6	1	..	..	Working on the flats out of the Molyneux River, and in dead water. Area, 40 acres. Been working five months at the rate of about 1 acre per month. Ground, 15 ft. to 20 ft. deep.
Ettrick, Moa Flat, Roxburgh (Molyneux River) ..	Ettrick Dredging Company (Limited), Roxburgh (J. Burton, Secretary)	John F. Kitto ..	6	3	3	5	Working in the stream. A gap aft of boiler-house needs fencing. Good provision generally for safety.
Riley's Dredge (late Edina), Roxburgh (Molyneux River) ..	J. Riley ..	William Goodwin ..	7 to 9	2	4	..	This is an old dredge, and was started by Mr. Riley a few months ago (on his purchase) near Dumbarton Rock, but has since been moved up the river three or four miles. Fencing is fair, but in need of repairs. Working in river.
Dunedin, Coal Creek Flat (Molyneux River), Roxburgh ..	Dunedin Dredging Company (Limited), Bond Street, Dunedin (A. Hamilton, Secretary)	Donald McLellon ..	8	2	1	3	Iron decks. Well-hole has a wire fence. Hull is not sufficiently fenced; dredgemaster promised to attend to this. Electric light is installed. Working in river.

* These dredges formerly belonged to the Sew Hoy Big Beach Dredging Company before that company went into liquidation.

DREDGES VISITED BY ACTING INSPECTOR OF MINES, DUNEDIN—continued.

Name and Situation of Dredge.	Owners.	Dredgemaster.	Persons Employed.	Safety Appliances.			Remarks.
				Boats.	Life-belts.	Life-buoys.	
Roxburgh, Coal Creek Flat, Roxburgh (Molyneux River)	Endeavour Dredging Company (private), Roxburgh	A. Rennie	6	2	3	4	The Roxburgh Dredging Company (Limited) has gone into liquidation. Present party bought the dredge. Fencing fairly satisfactory except at forward end of hull. This is to be attended to. Working in the river.
McLay's, Lowburn, near Cromwell (Clutha River)	McLay and party	George McLay	6	1	..	..	Well-hole partially fenced. Hull needs fence-rails forward of deck-houses. Working in stream. (Not paying.)
Current-wheel Dredge (Clutha River), Lowburn	Bryce, Klough, and Talboys, Cromwell	William Bryce	3	1	..	..	A current-wheel dredge. Working in the stream. (Not paying.)
Crookston (Clutha River), Cromwell	Crookston and party, Cromwell	William Crookston	6	2	..	..	Machinery well protected, but the hull requires more secure fencing beyond ends of deck-houses. Working in a rapid current. (Not paying.) About to be moored in Kawarau River.
Electric No. 1, Electric No. 2 (Kawarau River), Cromwell	Electric Dredging Company, Dunedin (S. Crow, Dunedin, Secretary)	A. McGeorge	7	2	4	2	On river near Bannockburn Bridge, working in rapid current. On river near Cromwell Coal-mine, working in rapid current. Hulls well fenced. Well-holes not fenced. Large dredges, well equipped. Owing to floods bringing a lot of loose drift down the river, these dredges can only work about eight months in the year.
Manuherikia (Molyneux River), Alexandra	Manuherikia Gold-dredging Company (private)	John Mackersey	4	2	3	1	One man per shift can work this dredge (a current-wheeler), but two men are always on board, the off-shift man being provided with a bunk. Dredge works in midstream in Molyneux River, just below mouth of the Manuherikia, but is now undergoing repairs and overhaul. Hull well fenced. The well is protected by a movable platform, in short sections, which is a very satisfactory arrangement. Fencing of hull very inadequate. Well-hole not fenced or protected. Iron decks. Working in banks (out of current).
Enterprise (Molyneux River), Alexandra	Enterprise Dredging Company (No Liability), Rattray Street, Dunedin (C. S. Reeves, Secretary)	Samuel Luke	7	2	2	1	Working in flats away from current. Boat was on beach half a mile away. Iron pontoons and decks. Fencing was very moderate. Stern fence-rail gone, stanchions only left standing. The largest dredge yet at work. Working in banks at side of river, and out of current. Face—say 30 ft. above water, and 28 ft. below = 58 ft. in all. Most of the hull is housed in. A few slight matters of fencing require attention. No fence to well-hole. The ground above water-level is sluiced down, a duplex pump being used to supply a "director" for the purpose.
Ngapara (Molyneux River), Alexandra	Ngapara Dredging Company (private), Alexandra	Robert Ross	6	1	..	..	A large modern dredge, working in the river. No attempt to fence the well. Some additions to fencing of hull and machinery to which I drew attention. Consider this dredge should have two boats, also a full complement of life-belts, and that it should be compulsory for men to wear life-belts when shifting lines in connection with this and all other dredges working in swift currents.
Molyneux Hydraulic (Molyneux River), Alexandra	L. G. Ryan, Secretary, Alexandra	L. Gards, managing owner	6	1	..	..	One of the earliest dredges, and very small. Formerly a current-wheeler, but converted into a steam-dredge. Fencing, &c., well attended to. Well-hole platformed over. Short length of fencing wanted on hull aft of boiler. One man per shift only. No one sleeps on board. Arranged with the dredgemaster for attention to the details referred to. He promised to provide for accommodation for an off-shift man so as to always have two men on board.
Moa (Molyneux River), Alexandra	Clyde Dredging Company (Limited), Dunedin (E. R. Smith, Secretary)	W. S. McCallum	7	1	..	2	
Eureka No. 1 (Molyneux River), Alexandra	Leon and party	J. McDonald	3	1	..	1	

Eureka No. 2, Alexandra ..	Leon and party ..	J. McDonald ..	7	..	1	Working near side of river. A well-appointed dredge, and everything on board very satisfactory.
Clyde (Molyneux River), Alexandra	Dr. J. C. Hyde and Company ..	Philip Brennan ..	6	1	..	Working in banks away from current. Fencing of hull very unsatisfactory. Iron decks covered with grease (from engines) about the engine-room, and everything in a dirty, slovenly state. Drew attention to requirements, and wrote the management thereon on my return to Dunedin.
Earnsleugh No. 1 (Molyneux River), Alexandra	Earnsleugh Dredging Company (private), (J. Kellman, Secretary), Alexandra	A. C. Perkins ..	6	2	..	A large, modern dredge, working about sixteen months. Hull well fenced. Well not fenced, and only a narrow plank provided for crossing. Fly-wheel of main engine needs fencing. Attention drawn to these matters.
Chicago (Molyneux River), Alexandra	Alexandra Dredging Company (George Spencer)	C. Weaver ..	6	1	..	An old dredge, undergoing repairs. Iron pontoons and decks.
Perseverance No. 1 (Molyneux River), Alexandra	Perseverance Gold - dredging Company (private), Alexandra	J. Findlay ..	3	1	..	A current-wheel dredge, working in the stream. One man on a shift, but all live on board, so that at least two men are present at any one time. Hull well fenced. Well is crossed by a 2 ft. wide gangway.
Perseverance No. 2 (Molyneux River), Alexandra	Perseverance Gold - dredging Company (private), Alexandra	J. Findlay ..	6	3	..	A steam-dredge, with steel hull. Works in bank away from current. Now in course of repairs. Well is crossed by a 3 ft. gangway.
Manorburn (Manuherikia Stream), Alexandra	Manorburn Dredging Company (Limited), Dunedin (Park, Reynolds, and Company Agents)	C. Richardson ..	7	1	..	Working in practically dead water. Dredge housed almost all over. Movable hand-rail wanted forward of deck-houses. Well-hole is boxed in. Machinery well protected.
Turakina (Manuherikia Stream), Alexandra	Park, Reynolds, and Company, Dunedin	Herbert Park ..	7	1	..	Similarly constructed to last dredge. Electric light fitted. Fencing wanted at foot and top of ladder-way to tables.
Lion Rock (Manuherikia Stream), Alexandra	Lion Rock Gold - dredging Company, (Limited), (Neville Siewwright, Dunedin, Secretary)	C. Richardson ..	6	1	..	A new dredge just commencing work. Built on similar lines to the Manorburn Dredge. Hull thoroughly well fenced. Well-hole boxed in. Machinery satisfactorily fenced. Will work in practically dead water.
Guffie's (Maniototo), Naseby ..	Guffie and party, Naseby ..	.. ..	..	..	..	A new dredge, not yet completed. Expects to be ready to start in about two weeks. (Similar to Lion Rock.)
Little Kyeburn, Naseby ..	Mrs. Silk, Dunedin ..	W. H. Kitto ..	6	..	..	An old, small dredge, formerly at Hyde; probably the smallest working dredge in New Zealand. Fencing required on hull.
Kyeburn Gold - dredging Company (Limited), (Kyeburn)	A. M. Comming, Dowling Street, Dunedin, Secretary	J. G. Donaldson ..	6	1	..	Formerly at Ophir. Now undergoing alterations. Works in practically dead water, 5 ft. to 9 ft. deep. Fence required forward of deck-house.

(Memorandum No. .)

SIR,— Office of Inspector of Mines (Southern District), Dunedin, 189 .
I have to direct your attention to section 29 of "The Mining Act Amendment Act, 1895," which provides that—

- "1. Every dredge used for mining purposes shall at all times be equipped with life-saving appliances to the satisfaction of the Inspector, and shall have at least one suitable boat.
- "2. Every manager who fails or neglects to comply with the provisions of this section is liable for each offence to a penalty not exceeding twenty pounds."

In pursuance of which, notice is hereby given that all dredges must be equipped with safety appliances as under:—

2 life-buoys } to be hung in conspicuous places within easy reach fore-and-aft.
2 light lines }
2 boat-hooks.

1 boat, containing a life-buoy, line, and boat-hook.

If working in or adjacent to a current the following additional appliances must be provided, viz.:—

Life-belts to be worn by each member of the crew of any boat while engaged in shifting the lines.

1 extra boat, containing a life-buoy, line, and boat-hook.

Attention is directed to the practice of men stepping on buckets when in motion for the purpose of crossing the well. This is dangerous, and must be strictly prohibited; and, where practicable, the well should be protected by a movable fence, or covered over as much as possible with a platform in, say, 2 ft. sections. Where neither method is practicable a gangway at least 2 ft. 6 in. wide, and fitted with substantial handrails at each side, is to be used for crossing the well.

Where coal, &c., is not brought on board by boats a gangway of sufficient length, not less than 2 ft. 6 in. wide, and fitted with a substantial handrail at each side, must be provided *and used*, as the practice of carrying coal on board a dredge across an unprotected plank or gangway is dangerous.

On dredges which are not entirely covered in, the sides of the uncovered portion of the hull must be fitted with stanchions, not more than 8 ft. apart, and two substantial rails or tightly stretched wires or chains, the lower rail, wire, or chain not being more than 10 in. above the deck; and these may be made movable for the purpose of taking coal, &c., on board, but are to be kept in position at all other times, as the practice of leaving certain portions of the hull unprotected is dangerous.

I have, &c.,

JOHN HAYES,

Acting Inspector of Mines.

To , Dredge-owner or -manager,

No. 18.

Mr. ALEXANDER AITKEN, Manager, Waimea-Kumara Water-races, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Kumara, 10th May, 1898.

I have the honour to forward the following report on the Waimea-Kumara Water-races for the year ended the 31st March, 1898:—

Waimea Water-race.

The total sales of water from this race for the year amounted to £787 18s. 7d., and the expenditure for maintenance during the same period was £677 1s. 6d., showing a credit balance of £110 17s. 1d. on the year's transactions.

The average number of miners supplied with water from the race during the year was 49.5, and the approximate quantity of gold obtained by them was 2,409 oz., having a value of £9,395 2s.

The sales of water are £10 19s. 2d. more than during the preceding year, and the yield of gold is 276 oz. more, having a value of £1,076 8s.

The difference in the sales of water is small, while the difference in the yield of gold is considerable. This is probably accounted for by the fact that the rainfall during the year was large, and the miners had an abundant supply to supplement the water from the race.

The expenditure on ordinary maintenance and repairs is £7 15s. 3d. more than during the preceding year, and the expenditure for maintenance and repairs will continue much the same as during the past two years, as it has now been reduced as much as possible.

Besides the sales of water as above, about £120 of free water has been given to parties who could not afford to pay on account of poor washings; but this would not affect the sales of water, as the water given would otherwise have gone to waste. A considerable amount of waste water was given to parties trying new ground in various parts of the district; but this was only given after all the paying parties had been fully supplied, and principally during wet weather, when there was plenty of water to spare.

DEVIATION WAIMEA RACE AT KAWHAKA.

All the work in connection with this deviation has been fully completed, and answers the purpose for which it was intended thoroughly. The deviation will in a few years save much more than its cost, and being all in open cutting, with the exception of about 17 chains of low fluming, there is but little danger of any costly accident, or stoppage of the water-supply for the Stafford and Waimea districts. All the timber used in the low fluming is silver-pine, which I am certain has a life of at least forty years. None of the high fluming is in use, and a great portion of it is now down. Any good timber in the old fluming has been taken out and laid aside for future use. This deviation not only carries sufficient water for the supply of Waimea, Stafford, and Callaghan's when there is enough in the Kawhaka Creek for so doing, but it also largely supplements the Kumara supply when there is plenty of water in the Kawhaka Creek.

BRANCH RACE TO CALLAGHAN'S.

The total sales of water from this race during the year amounted to £172, and the expenditure for maintenance and repairs was £125 5s., showing a credit balance of £46 15s. The sales of water from this race have not come up to expectations, although they have to some extent increased. Sluicing on a large scale has not yet been tried in this district, but some parties are now prepared to give it a fair trial with giant nozzles and quantities of water like those in use in Kumara. The average number of miners supplied with water from this race during the year was 7·37, and the approximate quantity of gold obtained by them was 315 oz., having a value of £1,228 10s.

BRANCH RACE TOWARDS MIDDLE BRANCH, WAIMEA CREEK.

Very little work has been done on this race during the year, as no water would be required from it until the Waimea Main Tail-race was completed. Surveys have been made of two dam-sites, and branch races therefrom, for the supply of water to the claims that will discharge into the Waimea Main Tail-race, but the settlement of these has been greatly obstructed by a few of the residents of Waimea and Stafford, who have marked out a dam-site and branch-race right, evidently with the intention of obtaining compensation from the Government. I am, however, of opinion that all necessary rights will be obtained shortly without payment of any kind to the parties referred to. A dam to hold night-water and water that would otherwise go to waste on Sundays and holidays, with a branch race leading to the claims, is absolutely necessary for the economical working of the large flat in the Middle Branch, which I feel confident will pay well as soon as the Waimea Main Tail-race is completed and sluicing operations fairly started. The construction of dam and branch race should be started as soon as proper rights have been obtained.

WAIMEA MAIN TAIL-RACE.

The Waimea Main Tail-race has been completed, and connected with the surface by a shaft, sunk near the Hokitika Main Road, in the Middle Branch of the Waimea Creek. The total length is 2,076 ft., and it is boxed and blocked throughout. The shaft requires to be timbered, and a few sets of timber will be necessary in the race where the shaft joins it, and the branch tail-races from the claims in the vicinity may then be connected with the main tail-race. As soon as this work is done, and the branch race for the supply of water completed, sluicing may be started in the Middle Branch, and, as it is almost a certainty the ground will pay well, many claims will be opened up and worked, and a larger number of miners employed who will use the water from the Government race.

KELLY'S TERRACE DRAINAGE TUNNEL.

The Kelly Terrace Drainage Tunnel has been driven a total distance of 2,602 ft., but the contractors have suspended work since December last, as the distance the stuff had to be trucked rendered operations too slow, and the contract would not pay enough to keep them going. Negotiations for the sinking of a shaft, which will improve the air and facilitate operations, are in progress, and work is likely to proceed again. No payable wash has yet been cut through. The proposed total length of the tunnel is 6,600 ft., so that about 4,000 ft. has still to be driven to the proposed termination.

I have, &c.,

A. AITKEN, Manager.

No. 19.

Mr. RODERICK MURRAY, Manager of the Mount Ida Water-race, to the UNDER-SECRETARY for MINES, Wellington.

SIR,—

Naseby, 21st April, 1898.

I have the honour to submit the following report on the Mount Ida and Blackstone Hill Water-races for the year ending the 31st March, 1898.

MOUNT IDA WATER-RACE.

The total sales of water from this race during the year amounted to £1,395 18s. 11d., and the expenditure on maintenance and repairs for the same period £1,384 18s. 9d. The total cash received was £1,425 12s. 2d. On account of payment in advance free water to the value of £74 11s. 7d. was supplied. Free water to the value of £16 13s. 8d. was supplied to assist in opening up new claims, and free water for washing was also supplied to the value of £102 16s. 2d. The total value of water supplied from this race during the year was £1,590 0s. 4d. The average number of miners supplied with water was sixty-one, a decrease of 5·5 from that of last year, and the approximate quantity of gold obtained by parties using water from the race was 2,885 oz., valued at £11,107 5s.

During the month of April I had to reface with sods the water-face of three of the dams, the old sod facing being almost all washed away; also, to replace an old flume 2½ chains in length, and a short one that was in a bad position, by iron pipes. None of this will have to be done again for many years. I started to clean out the race on the 2nd August, when on the third day after starting it again commenced to snow and freeze, when all work had to be suspended until the 19th. The widening of four miles from Home Gully Dam to Coalpit Gully was done while the race was being cleaned out. This now allows when there is plenty of water to keep all the claims on the east side of Main Gully in full work during the daytime. The cleaning was finished on the 10th September. The year has been the driest on record, the snow being all gone by the end of November. The water-supply from the beginning of December kept

steadily falling until by the middle of March there was only a head and a half in the race. Four new elevating claims started to work in the spring, making now eight elevating claims supplied with water from the Mount Ida Water-race.

McConnochie and Kennedy having abandoned their claim at Johnstone's Creek, the place is now deserted.

A portion of the siphon crossing Wet Gully is leaking so badly from corrosion that it will have to be replaced. As it is covered to a depth of 8 ft. by tailings I cannot say how much, but do not think there can be more than 30 ft. This can be done by the maintenance-men during winter, when the water is off. The race has been kept in a good state of repair during the year by the maintenance-men.

BLACKSTONE HILL WATER-RACE.

The total sales of water from this race amounted to £126 16s. 1d., and the total cash received was £126 16s. 1d. The total water supplied amounted to £126 16s. 1d. The total cost of maintenance and repairs was £30 10s. In May I had to give the race a partial side-trimming, as the side-growth was so heavy that frost would stop the water from getting through. Repairs had to be made on the tunnel crossing the main road in Johnstone's tail-race, as the rock kept crumbling away. In February, the water-supply being so low, I took the opportunity of having the race cleaned out; it is now in good working-order and will require very little being done to it for some time to come. Since December the water-supply has been very low, not enough to keep the two first rights supplied. The average number of miners supplied with water from this race during the year was 875, the same as last year; and the approximate quantity of gold obtained was 160 oz., valued at £616.

I have, &c.,

The Under-Secretary for Mines, Wellington.

R. MURRAY, Manager.

APPENDIX.

No. 1.

STATEMENT showing the REVENUE of the GOLDFIELDS collected in the several DISTRICTS, and the GOLD DUTY of the COLONY of NEW ZEALAND, for the Period from the 1st January to the 31st December, 1897.

District.	Miners' Rights.	Business Licenses, Machine and Residence Sites.	Water-races, Sluices, &c.	Gold-mining Leases, Rents, and Royalties.	Registration.	Fees and Fines, Wardens' Courts.	Miscellaneous.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
AUCKLAND.								
Coromandel ..	450 10 0	172 10 0	13 0 0	4,813 14 6	55 16 0	63 15 0	511 13 0	6,080 18 6
Te Aroha ..	65 10 0	796 0 0	30 5 0	830 15 0	8 12 0	6 6 0	1 7 0	1,738 15 0
Thames ..	673 10 0	26 0 0	17 5 0	8,624 18 5	49 19 0	54 9 0	455 8 0	9,901 9 5
Ohinemuri ..	599 0 0	193 10 0	14 0 0	12,285 2 8	58 4 0	..	475 1 7	13,624 18 3
Puhipuhi ..	14 0 0	2 0 0	..	373 3 3	..	..	0 5 0	389 8 3
Tauranga ..	5 0 0	..	..	25 0 0	0 3 0	1 4 0	..	31 7 0
Totals ..	1,807 10 0	1,190 0 0	74 10 0	26,952 13 10	172 14 0	125 14 0	1,443 14 7	31,766 16 5
NELSON.								
Collingwood ..	64 10 0	3 0 0	6 5 0	515 0 0	12 1 0	12 9 0	109 16 0	723 1 0
Westport ..	237 10 0	15 12 0	17 15 0	1,754 1 5	17 9 0	45 15 0	222 15 2	2,310 17 7
Charleston ..	85 12 0	..	10 5 0	189 16 0	7 0 0	0 3 0	15 12 0	308 8 0
Ahaura ..	249 10 0	..	19 0 0	724 5 0	28 18 0	5 16 0	43 13 8	1,071 2 8
Reefton ..	227 0 0	10 10 0	13 0 0	2,394 5 0	14 16 0	24 16 0	281 12 0	2,965 19 0
Wangapeka ..	18 10 0	..	0 5 0	..	0 12 0	..	1 7 6	20 14 6
Lyeil ..	52 10 0	..	4 0 0	238 9 0	2 15 0	..	2 7 0	300 1 0
Motueka ..	2 11 0	..	..	3 15 0	0 14 0	..	0 1 0	7 1 0
Murchison and Owen's ..	18 10 0	3 0 0	6 2 6	122 16 6	5 8 0	..	1 14 0	157 11 0
Totals ..	956 3 0	32 2 0	76 12 6	5,942 7 11	89 13 0	88 19 0	678 18 4	7,864 15 9
MARLBOROUGH.								
Havelock ..	55 0 0	3 0 0	3 10 0	281 3 0	4 19 0	7 1 0	26 7 0	381 0 0
WESTLAND.								
Hokitika and Kaniere ..	174 0 0	3 0 0	7 0 0	291 1 6	12 8 0	7 14 0	8 17 1	504 0 7
Greymouth ..	319 10 0	2 11 0	26 7 6	1,079 5 6	24 1 0	35 3 0	1,169 13 6	2,656 11 6
Ross ..	34 10 0	1 0 0	3 10 0	353 10 6	4 14 0	0 16 0	1 3 6	399 4 0
Stafford ..	79 0 0	1 0 0	6 17 6	65 0 6	5 19 0	6 16 0	282 18 6	447 11 6
Kumara ..	247 0 0	1 10 0	3 12 6	300 4 9	16 8 0	11 17 0	0 2 6	580 14 9
Goldsborough ..	68 2 0	..	11 5 0	..	9 4 0	..	2 18 0	91 9 0
Okarito ..	26 0 0	1 10 0	1 0 0	37 10 0	2 2 0	0 4 0	..	68 6 0
Totals ..	948 2 0	10 11 0	59 12 6	2,126 12 9	74 16 0	62 10 0	1,465 13 1	4,747 17 4
OTAGO.								
Tapanui ..	8 0 0	..	..	11 10 0	1 3 0	..	..	20 13 0
Hindon ..	109 10 0	7 2 0	3 0 0	631 7 3	6 9 0	1 4 0	1 18 6	760 10 9
Naseby ..	158 0 0	29 0 0	45 17 6	744 4 0	25 18 0	24 15 0	349 19 3	1,377 13 9
Roxburgh ..	..	..	..	..	..	..	..	..
Alexandra ..	471 10 0	15 10 0	25 17 6	1,887 10 5	36 15 0	35 9 0	100 14 0	2,573 5 11
Clyde ..	..	..	..	..	..	..	..	..
Black's ..	..	..	..	..	..	..	..	..
Pembroke ..	21 0 0	..	2 0 0	8 12 0	1 15 0	..	..	33 7 0
Cromwell ..	290 12 0	6 2 0	12 12 6	953 4 7	26 1 0	28 3 6	310 15 1	1,627 10 8
Queenstown ..	199 0 0	24 0 0	5 10 0	754 10 5	12 17 0	76 5 0	115 12 6	1,187 14 11
Arrowtown ..	95 0 0	..	7 2 6	355 8 6	11 3 0	7 8 0	2 3 0	478 5 0
Lawrence ..	281 12 0	3 0 0	22 10 0	1,862 14 0	16 16 0	38 11 0	2 2 0	1,727 5 0
Waikaia ..	130 11 0	6 0 0	13 0 0	404 7 6	13 1 0	9 0 6	4 8 6	580 8 6
Orepuki ..	93 0 0	..	..	..	..	..	..	93 0 0
Riverton and Longwood ..	184 0 0	14 11 0	22 10 0	640 1 0	18 14 0	38 9 6	8 18 6	927 4 0
Maerewhenua ..	5 10 0	..	4 10 0	3 17 6	3 18 0	..	44 11 0	62 6 6
Wyndham ..	7 10 0	0 10 0	..	12 13 0	1 3 0	..	..	21 16 0
Nenthorn ..	2 0 0	..	..	..	..	..	..	2 0 0
Middlemarch ..	4 10 0	..	..	..	..	..	..	4 10 0
Totals ..	2,061 5 0	105 15 0	164 10 0	7,770 0 2	175 13 0	259 5 6	941 2 4	11,477 11 0
Grand totals ..	5,828 0 0	1,341 8 0	378 15 0	43,072 17 8	517 15 0	543 9 6	4,555 15 4	56,238 0 6

No. 2.

STATEMENT showing the REVENUE of the GOLDFIELDS collected in the several DISTRICTS, and the GOLD DUTY of the COLONY of NEW ZEALAND, for the Period from 1st January to 31st March, 1898.

District.	Miners' Rights.	Business Licenses, Machine and Residence Sites.	Water-races, Sluices, &c.	Gold-mining Leases, Rents, and Royalties.	Registration.	Fees and Fines, Wardens' Courts.	Miscellaneous.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
AUCKLAND.								
Coromandel ..	67 0 0	7 10 0	1 5 0	501 7 6	6 18 0	24 4 0	58 15 0	666 19 6
Te Aroha ..	12 0 0	378 10 0	18 0 0	242 19 0	1 3 0	3 14 0	..	656 6 0
Ohinemuri ..	149 0 0	52 5 0	2 15 0	1,705 3 3	5 7 0	..	1,101 8 7	3,015 18 10
Thames ..	156 10 0	6 0 0	2 5 0	1,063 15 1	10 18 0	18 13 0	33 19 6	1,292 0 7
Puhipuhi ..	9 10 0	..	0 5 0	112 0 0	0 2 0	..	4 8 5	126 5 5
Tauranga ..	1 10 0	..	..	12 5 0	0 8 0	..	..	14 3 0
Totals ..	395 10 0	444 5 0	24 10 0	3,637 9 10	24 16 0	46 11 0	1,198 11 6	5,771 13 4
NELSON.								
Motueka ..	1 0 0	..	0 5 0	..	0 4 0	..	1 5 0	2 14 0
Collingwood ..	13 18 0	1 0 0	2 10 0	113 18 0	2 14 0	1 3 0	14 4 0	149 7 0
Westport ..	48 0 0	0 3 0	1 10 0	1,485 18 6	4 0 0	15 3 0	115 11 4	1,670 5 10
Charleston ..	27 10 0	..	2 17 6	96 9 0	1 15 0	..	1 4 0	129 15 6
Ahaura ..	80 10 0	..	3 5 0	378 0 0	5 13 0	..	33 13 9	501 1 9
Reefton ..	57 10 0	..	2 10 0	984 8 9	3 11 0	11 18 8	56 18 0	1,116 16 5
Wangapeka ..	15 10 0	..	0 1 0	..	0 3 0	..	0 8 0	16 2 0
Lyll ..	5 0 0	..	..	130 15 0	0 16 0	..	0 4 0	136 15 0
Murchison ..	2 10 0	..	0 15 0	73 11 0	0 11 0	..	0 5 0	77 12 0
Totals ..	251 8 0	1 3 0	13 13 6	3,263 0 3	19 7 0	28 4 8	223 13 1	3,800 9 6
MARLBOROUGH.								
Havelock ..	19 0 0	3 0 0	1 15 0	94 1 4	2 4 0	..	0 9 6	120 9 10
Picton ..	..	..	..	..	..	..	..	..
WESTLAND.								
Hokitika and Kaniere ..	33 10 0	..	1 2 6	71 7 6	2 5 0	1 10 0	1 14 8	111 9 8
Greymouth ..	76 0 0	0 1 0	6 10 0	589 7 6	5 16 0	4 15 0	0 6 6	632 16 0
Ross ..	12 0 0	..	0 5 0	38 2 0	0 17 0	0 9 0	0 1 0	51 14 0
Stafford ..	13 0 0	..	2 0 0	23 10 0	1 14 0	0 8 0	29 14 6	70 6 6
Okarito ..	9 0 0	..	0 10 0	12 10 0	0 11 0	..	..	22 11 0
Kumara ..	59 0 0	..	0 15 0	58 7 6	3 5 0	0 10 0	27 11 0	149 8 6
Goldsborough ..	19 0 0	..	2 2 6	..	1 18 0	..	0 15 0	23 15 6
Totals ..	221 10 0	0 1 0	13 5 0	793 4 6	16 6 0	7 12 0	60 2 8	1,112 1 2
OTAGO.								
Middlemarch ..	0 10 0	..	..	..	..	..	..	0 10 0
Tapanui ..	1 10 0	..	..	..	..	..	..	1 10 0
Hindon ..	19 10 0	2 5 0	..	193 17 6	0 13 0	..	0 5 0	216 10 6
Naseby ..	35 0 0	7 10 0	19 17 6	258 5 6	6 11 0	5 19 0	90 17 9	424 0 9
Black's ..	..	..	..	..	..	..	..	..
Alexandra ..	78 10 0	..	7 17 6	729 6 6	12 9 0	8 9 0	6 19 0	843 11 0
Clyde ..	..	..	..	..	..	..	..	..
Roxburgh ..	84 5 0	0 1 0	2 17 6	155 16 6	6 2 0	7 17 0	120 16 6	377 15 6
Cromwell ..	68 0 0	18 0 0	1 10 0	387 4 11	9 13 0	0 18 0	121 15 0	607 0 11
Queenstown ..	29 0 0	..	2 10 0	62 18 0	3 7 0	1 5 0	..	99 0 0
Arrowtown ..	62 1 0	1 0 0	4 17 6	191 0 4	4 9 0	32 12 0	1 1 0	297 0 10
Lawrence ..	..	..	..	..	..	..	..	..
Orepuki ..	39 10 0	3 0 0	2 15 0	120 8 6	4 6 0	4 18 0	5 2 0	179 19 6
Riverton and Longwood ..	..	..	..	..	..	..	..	..
Pembroke ..	2 10 0	..	..	..	0 2 0	..	..	2 12 0
Maerewhenua ..	..	..	0 7 6	..	2 4 0	..	3 16 0	6 7 6
Waikaia ..	35 0 0	3 0 0	2 0 0	105 15 0	2 8 0	0 15 0	0 8 0	149 6 0
Wyndham ..	2 10 0	..	..	0 13 0	0 10 0	..	..	3 13 0
Nenthorn ..	1 10 0	..	..	..	..	..	..	1 10 0
Totals ..	459 6 0	34 16 0	44 12 6	2,205 5 9	52 14 0	62 13 0	351 0 3	3,210 7 6
Grand totals ..	1,346 14 0	483 5 0	97 16 0	9,993 1 8	115 7 0	145 0 8	1,833 17 0	14,015 1 4

No. 3.

COMPARATIVE RETURN of REVENUE derived from the GOLDFIELDS in the several DISTRICTS of NEW ZEALAND during the Years 1896 and 1897, showing INCREASE or DECREASE under each Head of Revenue.

District.	Miners' Rights.	Business Licenses, &c.	Water-races, Sluices, &c.	Gold-mining Leases, Rents, and Royalties.	Registration.	Fees and Fines, Wardens' Courts.	Miscellaneous.	Gold Duty.	Totals.
AUCKLAND—	£	£	£	£	£	£	£	£	£
Year 1896	3,955	529	76	28,362	216	342	1,084	9,902	44,466
Year 1897	1,807	1,190	74	26,953	173	126	1,444	10,403	42,170
<i>Increase</i> .. .. .	..	661	..	..	..	..	360	501	..
<i>Decrease</i>	2,148	..	2	1,409	43	216	..	..	2,296
NELSON—									
Year 1896	1,244	35	122	5,273	111	55	697	..	7,537
Year 1897	956	32	77	5,942	90	89	679	..	7,865
<i>Increase</i> .. .. .	..	..	..	669	..	34	..	..	328
<i>Decrease</i>	288	3	45	..	21	..	18	..	..
MARLBOROUGH—									
Year 1896	46	1	5	216	3	..	1	..	272
Year 1897	55	3	3	281	5	7	26	..	380
<i>Increase</i>	9	2	..	65	2	7	25	..	108
<i>Decrease</i> .. .. .	..	..	2	..	..	..	..	..	..
WESTLAND—									
Year 1896	1,174	15	77	3,305	83	38	307	..	4,999
Year 1897	948	11	60	2,126	75	62	1,465	..	4,747
<i>Increase</i> .. .. .	..	..	..	..	..	24	1,158	..	..
<i>Decrease</i>	226	4	17	1,179	8	..	..	..	252
OTAGO—									
Year 1896	1,848	97	172	6,014	160	105	700	..	9,096
Year 1897	2,061	106	164	7,770	175	259	941	..	11,476
<i>Increase</i>	213	9	..	1,756	15	154	241	..	2,380
<i>Decrease</i> .. .. .	..	..	8	..	..	..	..	..	..
<i>Total Increase</i> .. .. .	..	665	..	..	..	3	1,766	501	268
<i>Total Decrease</i>	2,440	..	74	98	55	..	..	..	..

No. 4.

COMPARATIVE RETURN of the TOTAL AMOUNTS of GOLDFIELDS REVENUE (exclusive of Gold Duty) collected in the several Districts during the Years 1896 and 1897, and the Quarters ending 31st March, 1897 and 1898 respectively, showing the INCREASE or DECREASE in respect of each District.

District.	Years 1896 and 1897.				Quarters ending 31st March, 1897, and 31st March, 1898.			
	1897.	1896.	Increase.	Decrease.	1897.	1898.	Increase.	Decrease.
AUCKLAND.								
Coromandel	£ 6,081	£ 8,246	..	£ 2,165	£ 1,977	£ 667	..	£ 1,810
Te Aroha	1,739	1,806	..	67	517	656	139	..
Thames	9,902	9,274	628	..	3,183	1,292	..	1,891
Puhipuhi	389	644	..	255	96	126	30	..
Ohinemuri	13,625	14,592	..	967	4,976	3,016	..	1,960
Tauranga	31	..	31	..	..	14	14	..
NELSON.								
Motueka	7	13	..	6	1	3	2	..
Collingwood	723	713	10	..	149	149	..	..
Westport	2,312	975	1,337	..	409	1,670	1,262	..
Charleston	308	208	100	..	101	180	29	..
Ahaura	1,071	1,155	..	84	382	500	119	..
Reefton	2,966	4,018	..	1,052	963	1,117	155	..
Wangapeka	21	25	..	4	5	16	11	..
Lyell	300	265	35	..	61	137	76	..
Murchison and Owen's ..	158	165	..	7	48	78	30	..
MARLBOROUGH.								
Havelock	381	272	109	..	26	120	95	..
Picton								
WESTLAND.								
Hokitika	504	482	22	..	157	111	..	46
Kanieri								
Greymouth	2,657	3,064	..	407	414	683	269	..
Ross	399	449	..	50	156	52	..	104
Stafford	448	200	248	..	126	70	..	56
Okarito	68	38	30	..	13	23	10	..
Kumara	580	675	..	95	196	149	..	47
Goldsborough	92	92	..	..	24	24	..	..
OTAGO.								
Hindon	761	447	314	..	140	216	76	..
Naseby	1,378	1,355	23	..	440	424	..	16
Alexandra	2,573	1,817	756	..	417	844	427	..
Black's Clyde								
Roxburgh	1,627	1,141	486	..	472	378	..	94
Cromwell								
Arrowtown	478	494	..	16	50	99	49	..
Queenstown	1,187	1,091	96	..	445	607	162	..
Pembroke	33	26	7	..	10	3	..	7
Lawrence	1,727	1,207	520	..	371	297	..	74
Waikaia	580	501	79	..	116	149	33	..
Tapanui	21	10	11	..	4	2	..	2
Orepuki, Preservation, and Longwood	1,020	675	345	..	249	180	..	69
Maerewhenua	63	49	12	..	31	6	..	25
Wyndham	22	30	..	8	4	4	..	..
Nentham	2	254	..	252	14	2	..	12
Middlemarch	4	..	4	..	..	1	1	..
Totals	56,238	56,468	..	..	16,743	14,015	..	..
Net decrease .. ..	..	..	..	230	..	..	..	2,728

No. 5.

RETURN of GOLD DUTY credited to LOCAL BODIES for the Year ended 31st December, 1897, and Quarter ended 31st March, 1898.

Local Body.	For the Year ended 31st December, 1897.	For the Quarter ended 31st March, 1898.
COUNTIES—		
Coromandel	£ s. d. 1,876 12 1	£ s. d. 548 14 9
Ohinemuri	7,564 8 1	2,453 9 5
Piako	16 0 0	0 0 2
Thames	418 15 1	50 1 6
Whangarei .. ..	..	..
BOROUGH—		
Thames	527 2 1	57 12 3
Totals	10,402 17 4	3,109 18 1

No. 6.

RETURN of the QUANTITY and VALUE of GOLD ENTERED for DUTY* for EXPORTATION from NEW ZEALAND from 1st APRIL, 1857, to 31st DECEMBER, 1897.

PRODUCE OF THE GOLDFIELDS IN		DURING THE QUARTER ENDED 31st DEC., 1897.		ENTERED FOR EXPORTATION TO THE 30th SEPT., 1897.		TOTAL ENTERED FOR EXPORTATION FROM NEW ZEALAND TO THE 31st DEC., 1897.	
County or Borough.	District.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Oz.	£	Oz.	£	Oz.	£
County of Coromandel ..	Auckland	4,986	21,065				
Thames ..		505	2,181				
Ohinemuri ..		24,049	85,140				
Piako ..							
Borough of Thames ..		572	2,415				
		<u>30,112</u>	<u>110,751</u>	2,107,858	7,948,643	2,137,970	8,059,394
	Wellington ..	..	..	188	706	188	706
	Marlborough ..	..	..	85,604	333,412	85,604	333,412
County of Collingwood ..	Nelson ..	130	520	1,673,009	6,632,643	1,673,139	6,633,163
County of Buller ..	West Coast	2,412	9,649				
Inangahua ..		1,449	5,797				
Grey ..		3,693	14,772				
Westland ..		3,227	12,909				
Borough of Kumara ..		34	135				
Hokitika ..	97	388					
		<u>10,912</u>	<u>43,650</u>	4,288,778	17,054,955	4,299,690	17,098,605
	Canterbury ..	..	..	24	96	24	96
County of Taieri ..	Otago	640	2,461				
Tuapeka ..		5,757	23,191				
Vincent ..		6,746	27,033				
Maniototo ..		1,179	4,691				
Waihemo ..		111	453				
Waitaki ..		966	1,457				
Lake ..		1,224	5,016				
Wallace ..		1,680	6,751				
Waikouaiti ..		94	385				
Bruce ..		271	1,091				
Fiord ..	1,642	6,576					
Southland ..	892	3,590					
		<u>20,602</u>	<u>82,695</u>	5,348,213	21,164,079	5,368,815	21,246,774
	Unknown ..	..	..	122	484	122	484
Totals ..	..	61,756	237,616	13,503,796	53,135,018	13,565,552	53,372,634

No. 7.

COMPARATIVE RETURN of the QUANTITY and VALUE of GOLD ENTERED for DUTY* for EXPORTATION from NEW ZEALAND for the YEARS ended 31st DECEMBER, 1897 and 1896.

PRODUCE OF THE GOLDFIELDS IN THE DISTRICT OF	DURING THE QUARTER ENDED—				TOTALS FOR YEAR 1897.		TOTALS FOR YEAR 1896.	
	31st March, 1897.	30th June, 1897.	30th September, 1897.	31st December, 1897.	Quantity.	Value.	Quantity.	Value.
	Oz.	Oz.	Oz.	Oz.	Oz.	£	Oz.	£
Auckland ..	26,392	23,571	25,402	30,112	105,477	392,337	92,346	350,355
Marlborough ..	351	436	23	..	810	3,195	916	3,538
Nelson ..	1,134	..	625	130	1,892	7,055	2,753	10,333
West Coast ..	17,903	12,746	17,256	10,912	58,817	235,430	79,317	317,161
Otago ..	23,841	23,293	16,913	20,602	84,649	342,187	88,362	359,991
Totals for 1897	69,621	60,046	60,222	61,756	251,645	980,204	..	..
Totals for 1896	76,402	44,208	76,051	67,033	..	..	263,694	1,041,428

* Gold duty abolished in the South Island on the 31st March, 1891, by "The Gold Duty Abolition Act, 1890."

Department of Trade and Customs,
Wellington, 20th January, 1898.

W. T. GLASGOW,
Secretary and Inspector.

No. 8.

RETURN of the QUANTITY and VALUE of GOLD ENTERED for DUTY* for EXPORTATION from NEW ZEALAND from 1st APRIL, 1857, to 31st MARCH, 1898.

PRODUCE OF THE GOLDFIELDS IN		DURING THE QUARTER ENDED 31st MARCH, 1898.		ENTERED FOR EXPORTATION TO THE 31st DECEMBER, 1897.		TOTAL ENTERED FOR EXPORTATION FROM NEW ZEALAND TO THE 31st MARCH, 1898.	
County or Borough.	District.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Oz.	£	Oz.	£	Oz.	£
County of Coromandel	Auckland	5,488	23,268				
" Thames ..		1,204	4,928				
" Ohinemuri ..		21,802	76,886				
Borough of Thames ..		1,411	5,790				
		29,405	110,872	2,137,970	8,059,394	2,167,375	8,170,266
	Wellington ..	..	..	188	706	188	706
County of Marlborough	Marlborough ..	160	597	85,604	333,412	85,764	334,009
	Nelson ..	..	..	1,673,139	6,633,163	1,673,139	6,633,163
County of Buller ..	West Coast	1,342	5,367				
" Inangahua ..		3,813	15,254				
" Grey ..		9,653	38,611				
" Westland ..		9,129	36,516				
Borough of Hokitika ..		115	459				
" Kumara ..		118	473				
" Ross ..	1,037	4,149					
		25,207	100,829	4,299,690	17,098,605	4,324,897	17,199,494
	Canterbury ..	..	..	24	96	24	96
County of Taieri ..	Otago	329	1,295				
" Lake ..		1,771	7,260				
" Vincent ..		3,224	13,088				
" Maniototo ..		2,068	8,384				
" Waitaki ..		524	2,114				
" Waihemo ..		161	660				
" Wallace ..		1,640	6,617				
" Clutha ..		12	50				
" Tuapeka ..		3,649	14,752				
" Southland ..		799	3,216				
" Bruce ..	238	952					
" Fiord ..	281	1,124					
		14,696	59,512	5,368,815	21,246,774	5,383,511	21,306,286
Unknown ..	..	..	..	122	484	122	484
Totals ..	..	69,468	271,810	13,565,552	53,372,634	13,635,020	53,644,444

* Gold duty abolished in the South Island on the 31st March, 1891, by "The Gold Duty Abolition Act, 1890."

No. 9.

COMPARATIVE RETURN for the QUARTERS ended 31st MARCH, 1898, and 31st MARCH, 1897.

District of	Quarter ended 31st March, 1898.		Quarter ended 31st March, 1897.	
	Quantity.	Value.	Quantity.	Value.
	Oz.	£	Oz.	£
Auckland	29,405	110,872	26,392	101,607
Marlborough	160	597	351	1,392
Nelson .. ..	..	..	1,134	4,202
West Coast	25,207	100,829	17,903	71,778
Otago	14,696	59,512	23,841	96,837
Totals	69,468	271,810	69,621	275,816

No. 10.

STATEMENT showing the PRICE of GOLD per OUNCE, PRICE charged per TON for CRUSHING QUARTZ or CEMENT, and PRICES charged for WATER per SLUICE-HEAD per WEEK, during the Year ending 31st March, 1898.

Mining District.	Price of Gold per Ounce.	Price charged per Ton for crushing Quartz or Cement.	Price charged for Water per Sluice-head per Week.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	
AUCKLAND—North Hauraki	£2 16s. to £3 2s. 6d.	.. ..	.. ..	.. ..
South Hauraki	£2 14s.	0 5 6	£3 to £4	.. ..
Ohinemuri	£2 8s. to £3	0 8 0	Nil	.. ..
Te Aroha	£2 11s. to £3 9s.	0 7 6	Nil	.. ..
Puhipuhi .. ..	.. ..	.. ..	.. ..	.. ..
Tauranga	No mines crushing	.. ..	.. ..	.. ..
MARLBOROUGH—Pelorus and Wairau ..	3 17 0	.. ..	0 2 6	Private arrangement.
NELSON— Wangapeka	£3 13s. to £3 15s.	.. ..	.. ..	.. ..
Motueka	3 14 0	.. ..	.. ..	.. ..
Charleston	3 19 0	0 1 6	2 5 0	40 in.
Inangahua	£3 18s. to £4 1s. 10d.	8s. to 10s.	.. ..	.. ..
Collingwood	3 13 6	.. ..	.. ..	.. ..
Takaka	3 14 6	.. ..	.. ..	.. ..
Westport	3 19 0	.. ..	Nil	.. ..
Murchison	3 17 6	0 10 0	Nil	.. ..
Lyell	3 17 6	0 10 0	Nil	.. ..
WESTLAND—Hokitika, Kanieri, and	.. ..	.. ..	.. ..	.. ..
Waimea	3 18 0	.. ..	3 0 0	40 in.
Totara and Ross	3 18 0	0 12 0	1 10 0	40 in.
Stafford	3 18 0	.. ..	1 10 0	40 in.
Greymouth	£3 18s. to £3 19s.	.. ..	0 10 0	.. ..
Kumara	3 18 0	.. ..	2 0 0	20 in. by 2 in. opening.
Ahaura	£3 18s. to £3 19s.	0 12 0	1 10 0	.. ..
Okarito	3 18 0	.. ..	.. ..	.. ..
OTAGO— Hindon	3 17 6	Nil	Nil	.. ..
Tuapeka	3 18 6	.. ..	3 0 0	.. ..
Longwood	3 10 6	.. ..	.. ..	.. ..
Preservation	3 16 6	.. ..	.. ..	.. ..
Orepuki and Roundhill	3 16 6	.. ..	.. ..	.. ..
Waiau	3 14 0	.. ..	.. ..	.. ..
Arrow (Wakatipu Goldfield) and Queenstown	3 15 0	12s. 6d. to 15s.	None let	20 in. by 2 in.
Mount Ida .. ..	.. ..	.. ..	.. ..	.. ..
Macrae's, Hyde	3 17 0	.. ..	1 0 0	Hogburn head, private races.
Hamilton, Serpentine .. ..	.. ..	.. ..	1 10 0	40 in. by 1 in., Government races.
Maerewhenua	3 17 0	.. ..	1 0 0	20 in. by 2 in., and 4 in. pressure.
Cromwell	3 17 0	0 8 0	0 4 0	.. ..
Waikaia	3 14 6	.. ..	1 0 0	.. ..
Tapanui	3 15 0	.. ..	.. ..	.. ..
Wyndham	3 16 0	.. ..	.. ..	.. ..
Roxburgh	3 17 6	1 0 0	.. ..	.. ..
Clyde and Alexandra	3 17 6	1 0 0	.. ..	.. ..
Black's	3 17 6	1 0 0	.. ..	.. ..
			Water used by owners	
			Water used by owners	

No. 12.
TABLE showing the AVERAGE RATE of WAGES for the Year ending 31st March, 1898.

Mining District.	General Managers.	Legal Managers.	Mining Managers.	Engine-drivers.	Stokers.	Blacksmiths.	Carpenters.	Miners.	Labourers.	Boys.	Chinese.	Agricultural Labourers.	Domestic Servants.	
AUCKLAND— North Hauraki South Hauraki Te Aroha Puhapuhi Chinemuri Tauranga	£ s. d. £500 to £1000	£ s. d. £1 to £2	£ s. d. £3 to £5	£ s. d. 2 14 0	£ s. d. 2 8 0	£ s. d. 2 8 0	£ s. d. 3 0 0	£ s. d. 2 5 0	£ s. d. 1 10 0	£ s. d. 10/ to 15/	£ s. d. ..	£ s. d. 1 10 0	5/ to 10/	
	10 0 0	£1 to £2	3 0 0	3 0 0	2 8 0	2 10 0	3 0 0	2 8 0	2 2 0	1 0 0	..	1 10 0	10/	
	£150 to £1000	£1 to £2	4 0 0	2 8 0	1 16 0	2 8 0	3 0 0	2 8 0	2 2 0	1 10 0	..	1 0 0	5/ to 10/	
	..	£1 to £2	£4 to £6	3 0 0	2 8 0	2 8 0	2 8 0	2 2 0	1 16 0	0 15 0	..	1 0 0	7/6 to 10/	
	..	0 10 0	2 10 0	..	..	2 8 0	2 8 0	2 8 0	1 16 0	..	..	1 0 0	..
	..	2 0 0	3 10 0	2 14 0	2 8 0	2 8 0	2 14 0	2 14 0	2 8 0	..	..	1 16 0	10/
	..	1 10 0	5 0 0	3 10 0	2 10 0	2 0 0	2 14 0	2 14 0	2 8 0	2 0 0	0 12 0	..	1 0 0	10/
	..	£1 to £3	£4 to £10	3 10 0	2 10 0	1 16 0	2 10 0	3 12 0	£2 17 to £3	1 16 0	5/ to 10/	..	1 0 0	7/
	..	0 10 0	4 0 0	..	3 10 0	2 8 0	3 0 0	3 10 0	£3 10 to £4	£2 8 to £3	£1 16 to £2 8	..	1 0 0	10/ to 15/
	..	3 0 0	5 0 0	4 0 0	3 0 0	3 0 0	3 0 0	3 10 0	2 14 0	2 8 0	1 0 0	..	25/ and found	10/ and found
MARLBOROUGH— Wairau Pelorus	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	10/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
	..	..	..	..	..	9/ a day	8/ a day	8/ a day	6/ a day	4/ to 6/ a day	..	6/ a day	15/ and found
WESTLAND— Waimea and Stafford Hokitika and Kanieri Ross Kumara Greymouth Okarito	4 0 0	4 0 0	3 10 0	3 0 0	..	3 0 0	3 10 0	2 10 0	2 10 0	1 0 0	1 10 0	2 0 0	£1	
	..	1 0 0	£4 to £5	3 0 0	..	4 0 0	3 12 0	3 0 0	2 10 0	1 0 0	£1 10 to £2	1 0 0	8/ to 15/	
	..	1 5 0	5 0 0	..	..	4 0 0	3 12 0	3 0 0	2 10 0	1 10 0	..	..	8/
	..	1 0 0	£4 to £6	3 0 0	2 5 0	£3 to £3 10	10/ to 14/ day	£2 10 to £3	7/ to 9/ a day	10/ to 12/	20/-30/ found	£1 to £2 found	6/ to 12/6	
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	30/ and found	10/
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	..	..
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	..	..
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	..	..
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	..	..
	..	..	..	..	..	..	3 12 0	3 0 0	2 8 0	..	..	..	..
OTAGO— Hindon Tuapeka Tapanui Crownwell Clyde Alexandra Black's Roxburgh Waikata Orepuki and Longwood Arrow Queenstown Mount Ida Maerewhenua Wyndham	5 0 0	..	3 10 0	3 0 0	..	3 15 0	2 14 0	2 8 0	2 2 0	..	1 0 0	1 0 0	..	
	4 0 0	2 0 0	3 10 0	2 10 0	2 5 0	2 14 0	2 14 0	2 2 0	2 0 0	0 10 0	1 0 0	1 0 0	10/	
	..	0 10 0	4 0 0	3 0 0	2 10 0	3 0 0	2 10 0	2 8 0	1 16 0	0 10 0	15/ to £1	15/ to £1	9/ to 14/	
	..	0 10 0	4 0 0	3 0 0	2 10 0	2 10 0	3 0 0	2 8 0	2 0 0	1 5 0	1 0 0	£1 and found	9/	
	4 0 0	15/ to £1	3 10 0	2 10 0	..	3 0 0	3 0 0	£2 8 to £3	2 8 0	0 15 0	1 0 0	£1 and found	7/ to 15/	
	4 0 0	15/ to £1	3 10 0	2 10 0	..	3 0 0	3 0 0	£2 8 to £3	2 8 0	0 15 0	1 0 0	£1 and found	7/ to 15/	
	4 0 0	15/ to £1	3 10 0	2 10 0	..	3 0 0	3 0 0	£2 8 to £3	2 8 0	0 15 0	1 0 0	£1 and found	7/ to 15/	
	..	4 0 0	3 10 0	3 0 0	2 8 0	2 14 0	2 14 0	2 2 0	2 0 0	0 15 0	1 0 0	£1 and found	8/ to 10/	
	5 0 0	£40 per ann.	3 0 0	2 15 0	2 8 0	2 14 0	2 14 0	2 2 0	2 2 0	0 15 0	1 10 0	2 2 0	8/ to 10/	
	5 0 0	1 0 0	5 0 0	4 0 0	2 10 0	3 0 0	3 0 0	3 0 0	3 0 0	10/ to £1	£1 to £1 10	£1 to £1 5	10/ to 12/	
6 0 0	£30 to £50 yr.	£3 10 to £4	£3 to £3 10	3 0 0	2 10 0	4 0 0	4 10 0	3 0 0	2 2 0	10/ to £1	£1 to £1 5	15/ to 25/ keep	8/ to 10/	
..	..	3 0 0	..	2 8 0	2 14 0	£2 2 to £2 8	2 14 0	2 2 0	1 16 0	0 12 0	15/ to £1	6/ to 10/		
..	..	..	..	..	9/ a day	10/ a day	9/ a day	7/ a day	7/ a day	0 12 0	6/ a day	6/ to 10/	

No. 14.

TABLE showing approximately the NUMBER, DESCRIPTION, and VALUE of the WATER-RACES, TAIL-RACES, DAMS, RESERVOIRS, and GROUND-SLUICES in Operation during the Year ending 31st March, 1898.

Mining District.	Water-races.				Tail-races.		Dams.		Reservoirs.		Ground-sluices.		Approximate Total Cost.
	No.	Length in Miles.	No. of Sluice-heads.	Approximate Cost.	No.	Approximate Cost.	No.	Approximate Cost.	No.	Approximate Cost.	No.	Approximate Cost.	
AUCKLAND—				£		£		£		£		£	£
Hauraki North ..	6	3	14	460	2	50	4	530	2	25	..	..	1,065
Hauraki South ..	18	24	153	57,586	6	340	71	770	2	5,000	..	..	63,696
Te Aroha ..	1	2	10	3,000	..	..	..	..	..	..	..	..	3,000
Puhipuhi ..	2	1	1 to 3	250	..	..	..	..	..	..	..	..	250
Ohinemuri ..	14	18½	99	14,550	1	1,000	7	3,000	..	..	..	..	18,500
Totals ..	41	47½	279	75,846	9	1,390	82	4,300	4	5,025	..	..	86,511
MARLBOROUGH—													
Pelorus ..	38	58	82	6,977	11	655	4	145	4	105	..	..	7,882
NELSON—													
Wangapeka, Baton, and Sherry ..	12	12½	124	10,650	6	651	4	50	..	..	1	50	11,401
Collingwood ..	49	61	431	99,876	52	6,450	49	9,110	..	..	..	..	115,436
Inangahua ..	406	335½	3,296	186,259	516	30,540	573	23,147	..	..	..	..	189,946
Charleston ..	132	146½	1,016	17,957	228	22,420	283	8,830	..	..	69	345	49,552
Westport ..	218	200	1,638	42,341	181	25,787	372	16,000	..	..	..	..	84,128
Lyell ..	46	51	95	7,000	10	400	12	1,000	..	..	..	..	8,400
Murchison ..	120	98	420	18,000	48	1,500	45	1,100	..	..	..	..	20,600
Ahaura ..	750	856	3,100	160,000	850	70,100	650	18,600	..	..	..	..	248,700
Motueka ..	5	4	15	1,000	1	60	5	70	..	..	..	..	1,130
Takaka ..	13	7	38	276	11	400	20	300	..	..	..	..	976
Totals ..	1,751	1,771½	10,173	493,359	1,903	158,308	2,013	78,207	..	..	70	395	730,269
WESTLAND—													
Hokitika & Kanieri ..	288	224	610	220,000	300	3,500	303	2,900	..	..	..	..	226,400
Ross ..	142	120	530	55,780	167	1,800	73	1,927	..	..	50	620	60,127
Kumara ..	190	103	380	24,500	185	14,000	70	5,000	11	7,000	40	800	51,300
Greymouth ..	350	320	1,180	86,000	760	17,500	970	13,000	..	..	..	..	116,500
Okarito ..	23	16½	203	730	17	210	15	220	..	..	..	..	1,160
Stafford ..	700	300	1,600	17,000	700	8,000	550	7,000	50	3,000	600	3,000	38,000
Totals ..	1,693	1,083½	4,503	404,010	2,129	45,010	1,981	30,047	61	10,000	690	4,420	493,487
OTAGO—													
Hindon ..	71	115	701	35,380	21	380	17	1,500	..	..	20	125	37,385
Tuapeka ..	312	895	1,810	16,800	435	9,500	310	7,000	..	..	..	..	33,300
Tapanui ..	5	8½	10	130	3	30	2	30	..	..	..	..	190
Clyde & Alexandra ..	253	595	757	29,350	165	10,650	105	8,500	1	..	..	..	48,500
Black's ..	126	478	545	37,500	112	7,200	81	7,400	..	..	..	..	52,100
Arrow ..	90	175	225	14,000	125	4,500	25	1,400	25	..	..	..	19,900
Roxburgh ..	175	365	1,115	30,720	87	6,300	69	3,950	1	3,000	..	..	43,970
Cromwell ..	465	1,287	1,760	86,662	267	12,990	159	11,130	..	..	..	..	110,782
Waikaia ..	139	390	850	34,000	170	2,200	127	2,090	..	..	24	2,060	40,350
Orepuki and Longwood ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queenstown ..	120	200	600	65,000	150	5,000	40	1,700	30	..	..	..	71,700
Naseby ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kyeburn & Clarke's ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hamilton's and Sowburn ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hyde & Fullerton's ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Macrae's, Strath-Taieri, and Shag Valley ..	572	1,535	2,200	..	309	..	125	..	..	..	..	..	..
Serpentine ..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Bathans and Ida Valley ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wyndham ..	14	17	66	1,960	..	..	..	..	..	..	..	..	1,960
Totals ..	1,845	6,060½	10,639	351,502	1,844	58,750	1,060	44,700	57	3,000	44	2,185	460,137

SUMMARY.

Auckland ..	41	47½	279	75,846	9	1,390	82	4,300	4	5,025	..	..	86,511
Marlborough ..	38	58	82	6,977	11	655	4	145	4	105	..	..	7,882
Nelson ..	1,751	1,771½	10,173	493,359	1,903	158,308	2,013	78,207	..	..	70	395	730,269
Westland ..	1,693	1,083½	4,503	404,010	2,129	45,010	1,981	30,047	61	10,000	690	4,420	493,487
Otago ..	1,845	6,060½	10,639	351,502	1,844	58,750	1,060	44,700	57	3,000	44	2,185	460,137
Totals ..	5,368	7,020½	25,676	1,331,694	5,896	264,113	5,140	157,399	126	18,130	804	7,000	1,778,286

No. 15.

RETURN of CASES in the WARDENS' COURTS, and COSTS AWARDED, for the Year ending 31st March, 1898.

Mining District.	Number of Mining Disputes adjudicated on.	Aggregate Amount of Value.		Amount of Costs awarded.	Cases wherein Judgment has decreed Specific Performance.
		Claimed.	Recovered.		
AUCKLAND—					
North Hauraki	475	£ 3,119 2 11	£ 2,235 16 0	£ 236 17 0	..
South Hauraki	234	3,385 7 0	2,368 5 9	280 13 10	3
Te Aroha	13	70 0 0	70 0 0	8 15 0	..
Puhipuhi .. .. .	..	..	..	..	..
Ohinemuri	269	8,233 9 6	4,098 11 1	245 15 0	11
MARLBOROUGH	171	..	..	7 11 0	2
NELSON—					
Collingwood	16	129 3 11	56 15 2	21 13 6	5
Inangahua	59	3,838 17 0	808 17 0	35 14 4	..
Lyell	6	40 0 0	..	10 1 0	..
Westport	41	599 8 0	8 8 0	55 7 6	3
Charleston	6	43 0 0	2 8 0	13 10 0	2
Ahaura	12	67 11 6	56 9 8	9 12 11	..
Murchison .. .. .	..	..	..	..	..
WESTLAND—					
Kumara	17	150 0 0	28 0 0	40 8 6	..
Greymouth	41	..	..	39 15 0	..
Hokitika and Kanieri	7	48 6 7	38 16 7	12 12 0	..
Stafford	18	50 0 0	0 1 0	4 4 0	..
Ross	4	267 10 0	17 10 0	7 15 0	..
Okarito	1	20 0 0	..	..	..
Goldsborough	9	..	..	24 7 0	..
OTAGO—					
Tapanui .. .. .	..	..	..	..	..
Hindon	1	64 0 0	..	2 2 0	..
Tuapeka	20	28 0 0	1 0 0	72 14 9	..
Cromwell	47	70 0 0	50 1 0	23 10 6	..
Roxburgh	13	67 18 6	60 7 0	8 10 0	..
Black's	9	..	..	3 0 0	..
Clyde and Alexandra	20	816 0 0	31 11 0	63 17 6	..
Waikaia	15	50 0 0	..	16 10 0	..
Orepuki and Longwood	39	531 0 0	493 12 0	110 8 0	..
Arrow (Wakatipu Goldfield)	8	..	..	6 5 0	..
Queenstown	9	258 5 9	258 5 9	72 2 0	..
Mount Ida	31	213 0 0	159 6 9	30 0 0	..
Maerewhenua	6	5 0 0	..	18 7 0	..
Wyndham .. .. .	..	..	..	..	..
Totals	1,617	22,165 0 8	10,844 1 9	1,486 19 4	26

No. 16.

RETURN of the NUMBER of MINING LEASES or LICENSES and AGRICULTURAL LEASES in Force on the 31st March, 1898, the EXTENT of GROUND LEASED or held under LICENSE, and RENTAL per ANNUM.

Mining Leases.				Agricultural Leases.						
Mining District.	No.	Gross Acreage.		Rental per Annum.		No.	Gross Acreage.		Rental per Annum.	
		A.	R. P.	£	s. d.		A.	R. P.	£	s. d.
AUCKLAND—										
Hauraki North	253	14,771	0 15	2,709	9 0	38	1,515	1 0	..	..
Hauraki South	360	24,304	1 14	7,759	12 0	..	..	..	..	..
Te Aroha	41	2,773	0 3	1,113	6 0	1	100	0 0	1	5 0
Puhipuhi	5	496	0 0	124	0 0	..	..	..	..	..
Ohinemuri	385	28,624	0 38	18,437	3 0	16	744	0 0	..	..
Tauranga	26	2,188	1 23	1,094	0 0	..	..	..	..	..
MARLBOROUGH—										
Wairau and Pelorus	32	1,522	1 3	398	2 9	..	..	..	..	..
NELSON—										
Collingwood	1	10	0 0	10	0 0	..	..	..	..	..
Inangahua	182	9,646	1 20	4,382	18 6	..	..	..	..	..
Charleston	19	667	2 1	267	5 0	5	143	3 8	3	13 6
Ahaura	48	3,576	1 38	1,763	0 0	4	116	3 5	5	19 0
Westport .. .. .	..	..	..	..	..	..	..	..	..	..
Lyell .. .. .	..	..	..	..	..	..	..	..	..	..
Murchison .. .. .	..	..	..	..	..	..	..	..	..	..
Owen's .. .. .	..	..	..	..	..	..	..	..	..	..
WESTLAND—										
Okarito .. .. .	..	..	..	..	..	1	50	0 0	1	17 6
Hokitika and Kanieri	13	347	3 35	370	0 0	6	242	0 3	14	16 0
Kumara	20	235	1 9	167	18 0	3	58	1 3	6	0 0
Stafford	9	323	0 0	109	10 0	..	..	..	..	..
Greymouth	44	1,736	2 15	643	10 0	..	..	..	..	..
Ross	16	834	0 0	417	0 0	..	..	..	..	..
OTAGO—										
Waikaia .. .. .	..	..	..	..	..	3	71	3 5	7	8 0
Cromwell .. .. .	..	..	..	..	..	5	323	2 0	24	12 9
Hindon	46	1,650	0 0	736	7 6	5	299	0 0	15	11 3
Tuapeka	69	3,168	1 6	1,541	15 0	40	492	0 0	41	5 0
Black's	15	488	0 0	213	10 0	10	115	0 0	6	16 0
Clyde and Alexandra	64	3,047	0 0	1,002	0 0	13	498	0 0	44	12 6
Roxburgh	37	1,553	0 0	656	0 0	59	1,186	0 0	76	2 6
Naseby	71	2,513	3 39	953	7 6	29	1,357	2 35	65	12 0
Arrow (Wakatipu Goldfield) .. .. .	..	..	..	..	..	21	734	3 23	38	11 6
Queenstown .. .. .	..	..	..	..	..	26	379	1 8	16	3 6
Maerewhenua	1	30	0 12	15	10 0	33	1,164	0 0	45	12 8
Tapanui .. .. .	..	..	..	..	..	..	..	..	..	..
Wyndham .. .. .	..	..	..	..	..	..	..	..	..	..
Totals	1,757	105,006	3 31	44,885	4 3	318	9,591	1 10	415	18 8

H. J. H. ELLIOTT,
Under-Secretary for Mines.

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