

MINES STATEMENT.

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1938.
NEW ZEALAND.

MINES STATEMENT.

BY THE HON. P. C. WEBB, MINISTER OF MINES.

MR. SPEAKER,—

I have the honour to present to Parliament the annual statement on the mining industry of the Dominion for the year ended 31st December, 1937.

MINERAL PRODUCTION.

The following statement shows the quantity and value of the production of metalliferous mines, stone-quarries under the Stone-quarries Act, and of coal-mines during 1937 and 1936 :—

Mineral.	1937.		1936.	
	Quantity.	Value.	Quantity.	Value.
Gold and silver*	612,468 oz.	£ 1,319,743	597,548 oz.	£ 1,272,587
Platinum	55 „	423	29 „	187
Iron-ore	571 tons	880	..	..
Stone	..	444,837	..	342,861
Pumice	2,931 tons	8,057	3,242 tons	8,881
Coal	2,277,799 „	2,277,799	2,140,217 „	2,140,217
Tungsten-ore	23 ¹⁴ / ₂₀ „	6,468	28 ² / ₁₀ „	3,448
Manganese-ore	5 „	50	..	..
Silica sand	164 „	236	..	..
Quicksilver	1,344 lb.	336	..	..
Totals	..	£4,058,829	..	£3,768,181

* The gold-silver bullion is generally exported unseparated.

The value of minerals, including kauri-gum, exported and of the coal used in the Dominion, which is shown in Table No. 1 accompanying this Statement, amounted to £3,916,176, as compared with £3,691,419 during 1936. The total value of such minerals exported to the end of 1937 amounted to £199,875,932.

GOLD AND SILVER MINING.

During the year 612,468 oz. of bullion, valued at £1,319,743 was produced, an increase in quantity of 14,920 oz., and in value of £47,156, as compared with the previous year.

The gold content of the bullion is estimated at 168,487 oz., valued at £1,279,893.

The estimated gold-production for the past eight years has been as follows :—

Year.	Oz.	Year.	Oz.
1930	120,931	1934	160,248
1931	129,861	1935	165,277
1932	166,354	1936	164,575
1933	161,755	1937	168,487

It will be noted that for the year under review there has been an increase in gold-production over the previous year amounting to 3,912 oz.

I am also pleased to point out that the production for 1937 is the largest recorded in the past eighteen years.

As in the previous year, quartz-mining and alluvial-mining both showed appreciable decreases, the reductions being 3,062 oz. and 6,476 oz. respectively.

On the other hand, dredge-mining was responsible for a substantial increase of 13,450 oz.

The gold output of the Martha Mine was 54,552 oz., an increase of 1,444 oz., while for the Waihi Grand Junction and the Golden Dawn Mines reductions of 2,896 oz. and 1,680 oz. respectively were recorded. The principal quartz mine in the South Island, the Blackwater Mine, also showed a decrease of 720 oz.

The substantial drop in the returns from alluvial mining was due to the following three factors—the closing of the King Solomon Mine, the extremely dry summer in Otago and Southland, and the heavy reduction in the number of prospectors engaged under the Labour Department's schemes.

Twenty-two dredges operated in New Zealand during 1937, as compared with only seven in 1933.

During the present year four new, modern dredges, all of which are substantially larger than any dredge ever yet erected in New Zealand, should come into production. A fifth machine of similar capacity is also under construction. I therefore look forward with confidence to the annual output of gold from dredging being doubled within the next year or two.

In my last statement I made reference to the action taken by the Government to provide ample electric power for industrial and domestic purposes on the West Coast of the South Island, and the importance of the work from the point of view of the gold-mining industry. I am happy to record that a Diesel plant has now been erected by the Public Works Department at Dobson and has been in operation for some time. The erection of the transmission line from the Lake Coleridge Hydro-electric-power Station is also well advanced.

The following statement shows the quantity and value of bullion-production, the dividends paid by registered companies, and the number of productive claims and gold-dredges during 1937 and 1936 :—

Class of Gold-mining.	Production of Bullion.				Dividends paid by Registered Companies.		Number of Productive Claims and Dredges.	
	1937.		1936.		1937.	1936.	1937.	1936.
	Oz.	£	Oz.	£	£	£		
Quartz	534,424	710,421	526,661	732,869	126,088	151,336	77	77
Alluvial	27,142	200,024	33,618	244,640	14,683	16,436	2,753	2,928
Dredging	50,902	409,298	37,269	295,078	55,533	62,335	22	21
Totals	612,468	1,319,743	597,548	1,272,587	196,304	230,107	2,852	3,026

MINING LEGISLATION.

During the year the Mining Amendment Act, 1937, was passed by Parliament. Suggestions for improvements to the existing law were invited from all affected parties. These suggestions were then reviewed by a conference at which all mining interests and the Department were represented. The recommendations of the conference were incorporated in a Bill, which I am gratified to record was given an excellent reception. The measure as passed comprises forty-two sections, a number of which are merely for the purpose of clarifying the existing law and removing minor administrative difficulties.

The Act, however, also contains many new provisions designed to improve the safety and welfare of the miners. The following summary sets out the more important matters of this nature dealt with :—

Daily supervision of mines and batteries is now required of all mine-managers and battery superintendents.

Youths under the age of eighteen years must not be employed underground. The care of detonators in the mine is restricted to one member only of each group or party of workmen.

Winding-engines with only screw-operated brakes must now have adequate brakes of other types installed.

Tests of detaching-hooks by actual overwinds are not required as frequently as they were, but all detaching-hooks in use must be disassembled and examined at intervals not exceeding three months.

Where drilling is done by hand an adequate spray must be provided, and where blasting is done a spray must operate in that place for at least half an hour after the firing has been done.

Engine-rooms must be sufficiently heated, and if a trucker or a miner works alone in a level there must be at least one other person in another place off that level.

Tests of the mine air must be made as often and at such places as is required by the Inspector to ascertain the number and size of the dust-particles per cubic centimetre which the mine air contains.

GOLDFIELDS REVENUE AND GOLD DUTY.

The amount of goldfields revenue received and credited to the accounts of local bodies during the year ended 31st March, 1938, was £19,505 3s. 4d., a decrease of £3,437 11s. 8d. compared with the previous year. During the same period the total of the three duties on exported gold amounted to £114,694 13s. 3d., of which £6,918 19s. 4d. was credited to the accounts of local bodies under section 12 of the Gold Duty Act, 1908. The special export duty of 12s. 6d. per ounce amounted to £105,412 8s. 7d., which sum was paid into the Consolidated Fund.

MINING PRIVILEGES.

Interest is still being maintained in the mining industry, although the number of licenses granted has decreased. During the year ended 31st March, 1938, 743 licenses for mining privileges were granted under the provisions of the Mining Act, 1926, as compared with 938 for the previous year. Out of this number, 146 were licenses for claims authorizing the holders to mine for gold. For the same period 187 mining privileges, including 78 licenses for claims, were struck off the registers under the provisions of section 188 of the Act.

PETROLEUM OIL.

No boring for petroleum was carried out in 1937.

From the Nos. 1, 2, and 4 wells of Moturoa Oilfields, Ltd., at Moturoa, Taranaki, 132,972 gallons of crude petroleum oil was obtained.

From the Kotuku field on the West Coast of the South Island 1,487 gallons was recovered.

The Dominion's total production of crude petroleum oil to 31st December, 1937, is estimated at 2,765,796 gallons.

In my last statement I announced that a comprehensive Bill designed to encourage the search for petroleum had been prepared by my Department. That Bill was duly submitted to Parliament and passed as the Petroleum Act, 1937. It marks the commencement of a new era in oil search in New Zealand. The most important section in the Act provides that all oil existing in its natural condition in the Dominion is declared to be the property of the Crown. In this respect the legislation follows British and Australian precedents.

This provision removes the major obstacles which have debarred any really exhaustive search in the past. It is now possible for strong organizations to obtain

prospecting-rights over areas sufficiently large to justify substantial expenditure on what, from a financial point of view, can as yet only be regarded as a venture of a most hazardous nature. In the event of oil being discovered in commercial quantities the Act provides that the requirements of the Dominion must be satisfied before any oil is exported.

Since the Act came into force I have received seventy-eight applications for petroleum-prospecting licenses covering several thousand square miles of country. Many of these applications overlapped one another, and, after very careful investigation, I recently announced my decisions as to the allotment of specific areas amongst various applicants.

I am very pleased to be able to state that already definite action has been taken by one group of important interests. Scientific and technical personnel have arrived in the Dominion, preliminary work in the nature of roading and housing has been undertaken, and a drilling-plant of the most modern and efficient type has been landed and is about to be erected in the Poverty Bay District.

COAL-MINING.

There were 172 coal-mines operating in the Dominion in 1937. Eighty-two of these mines are situated on freehold property and produced 993,853 tons or 44 per cent. of the total output. The remaining 90 mines are situated on Crown lands and produced 1,283,946 tons, or 56 per cent. of the total output of 2,277,799 tons. The annual production of coal since 1930 has been as follows :—

Year.		Tons.	Year.		Tons.
1930	..	2,542,092	1934	..	2,060,315
1931	..	2,157,756	1935	..	2,115,184
1932	..	1,842,022	1936	..	2,140,217
1933	..	1,821,258	1937	..	2,277,799

The increase in output for 1937 is 6.43 per cent. above the figure for 1936, and since 1933 a recovery of over 25 per cent. has taken place.

The quantity of coal imported into New Zealand in 1937 was 116,499 tons.

I am gratified that our local output has shown an increase for the fourth year in succession, and I am also pleased to point out that in only four years in the country's history have our mines produced more coal than in 1937, these years being 1927, 1928, 1929, and 1930. The position must be regarded as very satisfactory in view of the inroads of competitive forms of power into the industrial field during the past ten years. I want, of course, to see the position of the coal-mining industry still further improved, and I again appeal to gasmaking concerns, which are the principal consumers of imported coal, to do their utmost to help our local industry.

The output of the several classes of coal mined in each inspection district is summarized as follows :—

Class of Coal.	Output of Coal during 1937.				Total Output to the End of 1937.
	Northern District (North Island).	West Coast District (South Island).	Southern District (South Island).	Total.	
	Tons.	Tons.	Tons.	Tons.	Tons.
Bituminous and sub-bituminous	41,694	928,290	..	969,984	50,806,570
Brown	736,804	45,598	403,918	1,186,320	32,178,779
Lignite	..	1,340	120,155	121,495	5,269,993
Totals for 1937 ..	778,498	975,228	524,073	2,277,799	88,255,342
Totals for 1936 ..	795,837	844,570	499,810	2,140,217	85,977,543

It will be noticed from the above tabulation that a very substantial increase in output was obtained from the West Coast mines. In 1937 the West Coast supplied 222,867 tons of coal in excess of the figure for 1935, representing an increase of nearly 30 per cent. in two years

WASTAGE OF COAL.

Since I took office I am pleased to say that the problem of wastage of slack coal has undergone a complete transformation. In both the Waikato and Southland districts, where the position was most acute, the coal-mining companies, in response to my personal appeals, have entered into voluntary arrangements for controlling the sizes of screens. I wish to express to the companies my appreciation of their co-operation. Recent geological reports as to the limited extent of the coal resources of the country serve to strengthen my conviction and resolve that, so long as I remain in office, everything reasonably possible must be done to conserve those resources.

NEW AVENUES OF COAL-UTILIZATION.

My Department continues to keep in intimate touch with the latest developments abroad in hydrogenation and other processes for the extraction of oil from coal.

Further work has been undertaken on the survey of our coal resources.

The past year's operations have been mainly devoted to the Greymouth field, but the Geological Survey Department, which is controlled by my colleague, the Hon. the Minister in Charge of Scientific and Industrial Research, reports a serious shortage of suitable officers in New Zealand for such work. The investigations, which have so far been made, seem to indicate that the reserves of bituminous coal which can be economically worked are less than previously estimated.

The recent decision of the Government to establish an iron and steel industry makes the early completion of the survey of our bituminous fields a matter of imperative importance.

COAL-MINING LEGISLATION.

On my assumption of office I decided upon a thorough overhaul of all mining legislation. I do not desire my decision to be taken as an indication that I did not have a high regard for the existing statutes. I have always believed the Coal-mines Act of 1925 to be one of the finest pieces of legislation of its kind in the world. But conditions are continually changing, and we must advance with the times. Coal-mines Amendment Bills were therefore submitted to Parliament in both the years 1936 and 1937, and passed. The 1936 Amendment is a short measure of six sections only, but the 1937 Amendment comprises thirty-two sections, the more important requirements of which are set out in the following summary:

No person can now be appointed as manager, underviewer, or fireman-deputy until he is twenty-three years of age, and all underviewers and firemen-deputies must be re-examined every five years in gas-testing. The minimum age of employment underground in a coal-mine has been raised from fourteen years to sixteen years.

Except where in the opinion of the Minister of Mines it would be unreasonable to require it, a weighbridge must be installed at every mine where the wages of the miners are computed according to the weight of coal got by them. Where it is agreed that payment shall still be by measure or gauge, the method of measuring or gauging is to be decided by an Inspector of Weights and Measures.

Plans must now be made of all coal-mines with underground workings. Previously it was only necessary to have proper plans of mines where more than six men were employed.

Previously only the stoppings between the main intake and the main return airways were required to be built of non-inflammable material. An Inspector can now require the stoppings between the intake and return airways in any ventilating district to be built of non-inflammable material, and he has power to state the material of which they are to be constructed and their design.

To ascertain the percentage of inflammable gas normally present in the air of a coal-mine, an Inspector must take six samples. Previously these samples had to be taken at intervals of not less than a fortnight, but by the amending Act a sample can now be taken twenty-four hours after the previous one has been taken.

Tests of detaching-hooks by actual overwinds are not required as frequently as they were, but all detaching-hooks in use must be completely dissembled and examined at intervals not exceeding three months.

Except at mines specially exempted by the Minister, the use underground of forks, riddles, harps, or other arrangements for sizing and screening coal is prohibited.

A copy of every report made by an official underground must now be sent to the surface immediately.

All workmen's Inspectors must now hold certificates stating they are able to test for inflammable gas.

The workmen employed in the mines have a right to appoint a workmen's National Inspector to inspect any New Zealand coal-mine on their behalf.

The percentage of fire-damp in the general body of the air in a working-place when the men have to be withdrawn therefrom is reduced from $2\frac{1}{2}$ to 2.

Instead of requiring housing-accommodation for the workmen, the Minister, if he so desires, can require the owner of a coal-mine to contribute towards the cost of conveying the men to and from the mine.

Power is also given to make regulations requiring the workmen to use helmets, eye-goggles, and other equipment of a protective nature.

From the above summary it will be appreciated that special consideration has been given to the problem of greater safety for the mine-workers.

RESCUE-STATIONS.

The Coal-mines Amendment Act, 1936, made provision for the establishment of rescue-stations where considered desirable, and also empowered the Minister of Mines to impose a levy, not exceeding 1d. per ton, on the output of coal from the mines served by any particular station to meet the cost of its upkeep. The Grey-mouth area was decided upon as the district in which a rescue-station was most urgently required. A site was chosen in the Township of Dobson, which is strategically located to serve the principal mines. Plans and specifications were drawn up and a contract let for the erection of the station. The work is now well in hand, and the building should be completed in the next few months. All the necessary equipment has been obtained from Great Britain, and a special rescue motor-truck has been designed and built locally. Training classes in rescue-work have been continued at the Liverpool State Mine.

SOCIAL AMENITIES IN MINING TOWNSHIPS.

The recreation facilities provided at mining townships and referred to in previous statements continue to be used extensively by the miners and their families.

During the year new recreation facilities were made available at a number of townships, and it is pleasing to record that liberal support for their provision and for the maintenance of those already in existence was received from the coal-mine owners.

I have continued to make available small grants to libraries in mining centres for the purchase of educational and recreational books.

CARBONIZING AND BRIQUETTING.

The low - temperature coal - carbonizing and briquetting plant of Waikato Carbonization, Ltd., at Rotowaro, operated for ten months during 1937.

The following figures show the production during that period :—

Raw coal carbonized	..	..	..	38,888 tons.
Carbonized coal produced	..	..	..	19,033 tons.
Average percentage of carbonized coal to raw coal				49 per cent.
Carbonettes manufactured	..	..	..	22,913 tons.
Oil treated	..	..	..	335,068 gals.
Pitch produced	..	..	..	946 tons.
Light oil produced	..	..	..	62,605 gals.
Heavy oils	..	..	..	85,270 gals.

I am gratified that, compared with 1936, over 8,000 tons of additional slack was carbonized, thus assisting in the problem of the disposal of slack coal in the Waikato area.

The briquetting plant of Briquettes Ltd., at Onchunga, produced 2,070 tons of briquettes during 1937.

For the twelve months ended 31st December, 1937, Smokeless Fuel and Briquettes (Canterbury), Ltd., produced 6,100 tons of briquettes at its works at Sockburn.

LABORATORY INVESTIGATIONS.

The Dominion Laboratory has carried out investigations and analyses on mineral samples, mine gases, coal samples, &c.

Prospectors' samples have been assayed for gold and silver and occasionally for other metals, notably tungsten.

During the year the physical and chemical survey of the coal resources of the Dominion has been proceeded with. The Laboratory is now fitted up and is working in conjunction with a geological field staff.

A report on the Blackburn area with two maps has been included in the annual report of the Geological Survey.

The field staff has commenced work in the Greymouth area with headquarters at Rewanui. Systematic and accurate sampling of the area is undertaken in conjunction with geological and survey work and the sealed samples forwarded to the Laboratory for complete analyses.

It is hoped to extend the activities of the work of the survey to assist the Mines Department in finding new areas for co-operative mining and in locating supplies of coal suitable for the proposed iron and steel industry.

PERSONS EMPLOYED IN OR ABOUT MINES AND STONE-QUARRIES.

The following table shows the number of persons employed in each inspection district during 1937 and 1936 :—

Classification.	Inspection District.			Totals.		
	Northern (North Island).	West Coast (of South Island).	Southern (rest of South Island).	1937.	1936.	Increase or Decrease.
Gold, silver, and tungsten ore	1,024	1,894	992	3,910	5,183	Dec. 1,273
Coal	1,478	1,956	983	4,417	4,257	Inc. 160
Stone-quarries under the Stone-quarries Act	1,602	92	423	2,117	1,981	Inc. 136
Oil	3	1	..	4	6	Dec. 2
Cinnabar	2	..	..	2	..	Inc. 2
Iron ore	1	..	..	1	..	Inc. 1
Totals	4,110	3,943	2,398	10,451	11,427	Dec. 976

The heavy drop shown in the number of persons employed in metalliferous mines is due principally to the diversion to other occupations of a large number of subsidized prospectors. It will be noted that the coal-mining industry found work for an additional 160 men during the year.

MINING AND QUARRY ACCIDENTS.

In metalliferous mines, at which 3,913 men were ordinarily employed, two persons were killed and nine persons seriously injured.

At stone-quarries under the Stone-quarries Act, employing 2,117 men, there was one fatal accident and four serious accidents.

In coal-mines, where 4,417 persons were ordinarily employed, six persons were killed and twenty-six persons seriously injured.

CO-OPERATIVE MINING, STATE COAL RESERVE.

Nineteen co-operative parties working portions of the State Coal Reserve near Greymouth produced, during the year 1937, 109,052 tons, the number of men employed being 182. During the previous year twenty parties produced 101,619 tons, there being an increase this year of 7,433 tons.

The institution of the co-operative mining ventures on the State Coal Reserve has been a most successful experiment, and has been of great value to the State.

Up to the end of 1937 these parties have produced a grand total of 1,233,230 tons of coal, and have in the same period paid royalties to the State amounting to £58,975. A number of small isolated blocks of coal have been worked which could not have been profitably mined by a major organization, and if the co-operative system had not been developed much of this coal would probably have been left unmined for all time.

STATE COAL-MINES.

The outputs from both the Liverpool Colliery and the James Colliery showed increases for the year.

The net profit for the year ended 31st March, 1938, after making provision for interest and depreciation, amounted to £13,168, a decrease of £1,390 compared with the previous year. A sum of £9,524 was transferred to the sinking fund, leaving a net surplus for the year of £3,644.

A vigorous sales policy was carried out by the Department during the year. A thorough canvass of consuming units was made and a well-planned advertising campaign conducted. The results were entirely satisfactory, and business has been well maintained.

The Liverpool Colliery worked 200 days 3 hours during the year, an increase of 6 days 3 hours compared with the previous year. At the James Colliery work was carried out on 240 days, an increase of 17½ days compared with the previous year.

The following increases in wages have been granted to employees since 1936 :—

- (1) 1st July, 1936 : Restoration of wages to the 1931 rates in force prior to the operation of the cuts.
- (2) 14th September, 1936 : Ten-per-cent. increase to all day-wage men, to compensate for the forty-hour week.
- (3) 27th March, 1937 : Five-per-cent. increase for all day-wage employees and youths and 1s. per shift increase for shiftmen, truckers, and adult screen workers.
- (4) A maximum of ten days holiday on full pay in 1938 to all employees. This is equivalent to a further increase of approximately 5 per cent. in wages.

In addition to the above, increases have been made in the wages of other weekly workers and mine officials, such as underviewers and firemen-deputies.

OUTPUT AND SALES.

Liverpool Colliery.—The gross output for the year was 137,806 tons, as compared with 132,966 tons for the previous year, an increase of 4,840 tons.

James Colliery.—The gross output for the year was 42,608 tons, as compared with 40,690 tons for the previous year, an increase of 1,918 tons.

A comparative statement for the two years is shown hereunder :—

Mine.	Output, in Tons, 1937-38.		Output, in Tons, 1936-37.	
	Gross.	Net.	Gross.	Net.
Liverpool	137,806	132,144	132,966	126,810
James	42,608	41,099	40,690	39,044

NOTE.—The difference between the gross and the net output is the allowance for mine consumption and waste. In addition to the above, 1,378 tons of coal was purchased for resale, of which 976 tons was purchased from co-operative parties on the West Coast.

The disposal, inclusive of stock on hand at the beginning of the year, was as follows: Supplied to—Depots, 50,782 tons; railways, 35,421 tons; other Government Departments, 7,817 tons; shipping, 5,048 tons; gasworks, 59,741 tons; other consumers, 6,167 tons: total, 164,976 tons.

The total sales of State coal from the Liverpool Mine for the year amounted to 128,793 tons, value £165,752* as compared with 128,290 tons, value £149,416* for the previous year—an increase of 503 tons, with an increase in value of £16,336.

The average price realized by the mine on the total sales for the year was £1 5s. 8·9d.,* an increase of 2s. 5·4d. on the previous year's average.

The total sales of State coal from the James Mine for the year amounted to 36,889 tons, value £46,538,* as compared with 39,594 tons, value £46,817,* for the previous year—a decrease of 2,705 tons, with a decrease in value of £279.

The average price realized by the mine on the total sales for the year was £1 5s. 2·7d.* per ton, an increase of 1s. 7d. on the previous year's average.

The sales of coal, &c., through the medium of the depots totalled 117,821 tons, value £199,343,* as against 118,587 tons, value £179,843,* for the previous year.

ITEMS FROM ANNUAL ACCOUNTS AND BALANCE-SHEET.

The following details extracted from the audited accounts will enable honourable members to appraise the financial position of the Department's trading venture:—

	£
The payments for interest totalled	2,856
The cost of sea carriage of coal amounted to	51,420
The cost of railway haulage amounted to	33,567
The total wages paid for coal-winning were	109,098
The cost of management and office salaries (Head Office and mines) totalled	4,278
The gross capital expenditure on the whole undertaking to the 31st March, 1938, was	761,620
The total depreciation written off to 31st March, 1938 (equal to 72·36 per cent. of the gross capital expenditure) amounted to	551,117
The amount written off for depreciation for the year was	10,928
The present book value of permanent or fixed assets is	210,502
The loan capital as at 31st March, 1938, stood at	69,243
The net profits of the State Coal-mines Account from inception to 31st March, 1938, after charging the special depreciation of Colliery Development Accounts and after crediting interest on Sinking Fund investments, were	220,108
The net profit for the year ended 31st March, 1938, was	13,168
The Sinking Fund as at 31st March, 1938, was in credit	9,526
The amount taken out of the Sinking Fund during the year and applied in reduction of loan capital was	9,180
General Reserve as at 31st March, 1938, stood at	206,938
The amount at credit of Profit and Loss as at 31st March, 1938, was	3,644
Realization of investments of the State Coal-mines Account as at 31st March, 1938, to meet expenditure in opening up and developing the new mine amounted to	62,800
The cash in hand and in the Public Account as at 31st March, 1938, was (last year £27,602)	11,956

* These values include sales made c.i.f. and f.o.b. as well as f.o.r.

The total wages paid for coal-winning at both collieries during the year amounted to the sum of £109,098. These wages were distributed amongst 377 men and 26 youths, and represent an average income per employee of £271. For the previous year the average income per employee was £239, the total sum paid in wages for coal-winning being £93,828 and the number of employees being 367 men and 27 youths.

In the financial year 1934-35, immediately prior to the commencement of the present Government's term of office, the total wages paid amounted to £63,353. This sum was distributed amongst 373 men and 26 youths, and represented an average income of £159. The increase in the individual worker's earnings has been over 70 per cent. within three years.

DEVELOPMENT OF NEW MINE: NINE-MILE CREEK AREA.

The James Colliery, which at present supplies practically the whole of the requirements of the State coal business for the household trade, is rapidly reaching the stage at which it will be impossible to operate economically as a unit for the production of coal in substantial quantities. About two years ago boring on the Nine-mile Creek area was completed and steps were taken to open up and develop a proved field of coal to replace the James Colliery.

Very good progress has been made with the work, which is estimated to cost £182,000 when completed.

The principal work undertaken during the year consisted of driving a series of tunnels for the main haulage road. Contracts were let by tender for these jobs to parties of experienced miners working on a co-operative basis. A total of approximately 49 chains was driven.

The erection of up-to-date workshops and a store for materials was completed, and a start made with the foundations for the bathhouse and boiler-house.

An order was placed with an English manufacturer for a modern screening-plant and storage-bin, and it is considered that this unit will be the best of its kind in the Dominion.

The supply of plant and rolling-stock is well under way, and under normal circumstances it is expected that coal-production will commence before the end of 1938.

A substantial part of the cost of the development of the new mine is being financed by the State Coal-mines Account itself.

HOUSING.

Forty-one loans, including six during the year under review, have been granted to miners and other workmen under the Department's housing scheme to enable them to erect and own their own houses. The loans, which range from £250 to £450, are repayable, together with interest, by fortnightly payments over a term of twenty years. I am pleased to state that a sum of £6,000 is being provided on the current year's estimates of the State Coal-mines Account to enable further loans to be made.

GEOLOGICAL SURVEY.

During the 1937-38 field season geological mapping was carried out in five districts—Dannevirke, Reefton, Greymouth, Moeraki, and Glenorchy. In addition, officers paid visits to the Ohura, Green Island, and Ohai coalfields, explored the coast south from Martin Bay to Madagascar Beach where oil seepages occur, and reported on other deposits of possible economic value.

The western part of the Dannevirke Subdivision was explored. There is clear evidence of the presence of petroleum farther east, but the chances of oil being found in the area mapped this season are poor.

The detailed study of the vein-bearing rocks of the Reefton district was completed this year, the Alexander River and Kirwan Hill areas being mapped in detail. In the latter the blocks of richly auriferous quartz and the loose quartziferous rubble profitably crushed many years ago is part of the detritus of a huge slip from higher lode country brought down by some severe pre-European earthquake, of which there is abundant other evidence in the region.

Geophysical work also was carried on in the Reefton district north of the Blackwater Mine. Between Merrijigs and Waiuta, along the main run of quartz veins, there is a seven-mile gap in which no profitable lode has yet been found. Moraine and thick terrace gravels cover much of this area, and it is here that geological and geophysical work may be able to direct prospecting to advantage.

Another geophysical party has been at work throughout the season in the Moana district. The sub-surface structure of the petroliferous strata at Kotuku was determined and the depth to solid rock in the gravel-filled valley of the Orangipuku ascertained.

A decided shortage of suitable officers greatly hampered the re-examination of the Greymouth Coalfield. The most valuable coking coals of the Dominion are in this district, and, in view of the essential requirements of the iron-works, closer estimates of the amounts of coal available are necessary.

The Moeraki Subdivision, in eastern Otago, was mapped this year. The district contains coal-seams, which have been worked at Shag Point and Herbert for many years, as well as deposits of limestone largely quarried for cement-making. Sands smelling strongly of oil have lately been rediscovered on the Moeraki Beach, but the geological structure of the district is not favourable to the presence of oil in commercial amount.

The mapping of the Glenorchy Subdivision at the head of Lake Wakatipu was begun. In addition to a considerable amount of gold, the quartz-veins of this district have yielded over 1,200 tons of scheelite concentrates worth more than £160,000.

The geologists at Glenorchy paid a visit to the oil seepages reported two years ago as occurring on the beach between Martin Bay and Milford Sound. The amount of oil escaping from the seepages is very small, and, unfortunately, the geological conditions are distinctly unfavourable.

SCHOOLS OF MINES.

Six scholarships are offered annually by the Department for competition by students attending the various Schools of Mines within the Dominion. Three candidates sat for the annual Scholarship Examinations held in November, 1937, and of these candidates, one from the Thames School was successful in gaining a scholarship, which is tenable for four years at the University of Otago.

The expenditure on Schools of Mines for the year ended 31st March, 1938, was £3,910, as compared with £4,035 for the previous year.

MINERS' PENSIONS.

The Pensions Act, 1926, as amended, provides for payment of pensions to miners seriously and permanently incapacitated by miners' phthisis or totally incapacitated by other occupational disease or heart-disease contracted while mining in New Zealand. The rate of pension for a miner is 25s. a week, with 10s. a week added for his wife, if he is married, and a maximum of 10s. a week for each dependent child under fifteen, subject to a limit of £4 5s. a week for the family.

The widow of a miner who dies while in receipt of a pension is entitled to receive 17s. 6d. a week while she remains a widow.

The scheme, which originated in the Miners' Phthisis Act, 1915, is administered by the Pensions Department, and the following summary of operations for the year ended 31st March, 1938, has been supplied by the Commissioner of Pensions:—

Payments made from 1st November, 1915, to 31st March,	£
1937	903,458
Payments 1937-38	88,167
	£991,625
Number of new grants for year 1937-38—	
Miners	76
Widows	33
	109
Annual value of new grants	£8,369
Number of pensions in force at 31st March, 1938—	
Miners	869
Widows	191
	1,060
Annual value of pensions in force at 31st March, 1938 ..	£86,537
Average pension per annum	£81 12s. 9d.
Number of pensions granted to 31st March, 1938 ..	2,767
Dissection of pensions in force at 31st March, 1938—	
Unmarried miners	243
Married miners	626
Miners' widows	191
	1,060

COAL-MINERS' RELIEF FUND.

The Coal-miners' Sick and Accident Funds having been abolished as from the 1st April, 1926, and incorporated in the Coal-miners' Relief Fund, all accident relief payments are now made from the latter fund, which is administered by the Public Trustee.

The rate of interest allowed on the fund was decreased from 4 per cent. to 3½ per cent. as from the 1st April, 1933.

The interest earned for the twelve months ended 31st March, 1938, was £930 16s. 11d., as against £911 0s. 9d. for the previous year, while for the same periods the receipts from the ½d. per ton contributions were £4,596 17s. 4d. and £4,373 8s. 2d. respectively.

The total expenditure for the year ended 31st March, 1938, amounted to £5,300 18s. 1d., as against £4,307 19s. 3d. for the previous year.

The amount standing to the credit of the fund at the 31st March, 1938, was £26,828 14s. 10d., as against £26,601 18s. 8d. at the 31st March, 1937.

STATE AID TO MINING.

(a) MINES DEPARTMENT.

As in previous years, considerable use was made of the Government prospecting drills. They were hired by five parties, and a total of 14,029 ft. was drilled.

The sum of £16,390 was voted for expenditure for assistance towards prospecting. The balance of unexpended authorities at the 31st March, 1937, and those issued during the year, less cancellations, amounted to £9,712 16s. 10d. Of this amount, £4,329 14s. 4d. was expended by way of actual subsidies during the year, leaving a balance of £5,383 2s. 6d. authorized but not spent at the 31st March, 1938. The number of men given employment through the subsidies granted by the Mines Department was 82.

The increased amounts available during the past two years enabled the Department to arrange with the Labour Department to prospect areas in the Reefton and South Westland Districts. This prospecting is now being carried out by parties of men under skilled direction. The cost is being shared by the two Departments, and

the sum of £6,070 3s. 7d., in addition to the amount of £9,712 16s. 10d. authorized by way of subsidies, was set aside out of the Mines Department's vote, of which £4,525 4s. 1d. came to charge during the year. The number of prospectors in these parties is thirty-eight.

Provision totalling £16,630, including £15,630 in the Public Works Fund, was made for expenditure by way of direct grants and subsidies for roads and tracks. The balance of the unexpended authorities at the 31st March, 1937, and those issued during the year, amount to £16,952 7s. 11d. Of this amount, the sum of £16,869 2s. 7d. was expended.

The expenditure on Schools of Mines amounted to £3,910.

(b) LABOUR DEPARTMENT.

Expenditure for the year ended the 31st March, 1938, from the Employment Promotion Fund in connection with assistance granted to individual gold-prospectors and the gold-mining industry generally amounted to £100,526, which includes all payments made in respect of subsidies, wages, supervisors, purchase of equipment, &c. Included in this amount is £1,000 paid to mining companies and syndicates by way of subsidy under Scheme No. 8B.

The number of men engaged in gold-prospecting activities under the Department's gold-prospecting scheme has fallen off considerably, and, whereas an average of 1,873 subsidized men, excluding those employed by companies and syndicates, were so engaged during the previous twelve months, the average for the year at present under review was only 887. This decrease is accounted for largely by the fact that other full-time employment has become available and a large number of the men have been taken on to public works or absorbed into private industry.

The amount of gold won during the twelve months ended the 31st March, 1938, by subsidized prospectors, excluding that won by subsidized companies and syndicates, was approximately 4,500 oz., making the total gold-production from the inception of the gold-prospecting scheme to the 31st March, 1938, approximately 39,500 oz.

Towards the end of 1936, £8,000 was made available for the purpose of organizing special prospecting parties to investigate certain remote areas in the South Westland District and for the purpose of carrying out a programme of investigation and developmental work in the Reefton Goldfields, the Mines and Labour Departments each contributing equally to the cost. The special parties completed their work in South Westland during the current year after thoroughly prospecting areas at Paringa, Weheka, and Haast. Operations are being continued in the Reefton Goldfields, and a further £7,000 has been made available for this purpose, the two Departments again bearing equally the additional cost.

Owing to the decreased activities under the gold-prospecting scheme, the number of supervisors and technical officers employed by the Department has been considerably reduced, and at 31st March, 1938, there were eight technical officers, including engineers, geologists, &c., and thirty-eight supervisors.

Applications for subsidies under Scheme No. 8B made by companies and syndicates are thoroughly investigated by the Mines Department, and reports and recommendations are submitted to the Labour Department to assist in the consideration of such applications. Ordinarily, assistance to companies and syndicates is arranged by way of subsidy on the wages of registered and eligible unemployed men actually in receipt of relief assistance taken from the unemployment register by the company or syndicate concerned, but in certain special cases this condition is varied to allow the payment of a subsidy on the wages of men already employed, or a subsidy on a footage basis in respect of driving, tunnelling, &c., or for any further approved developmental expansion.

STAFF.

I desire to place on record my sincere thanks to the officers of the Department for their loyal co-operation and ready assistance at all times during the past year.

TABLES TO ACCOMPANY MINES STATEMENT.

No. 1.

TABLE SHOWING THE QUANTITY AND VALUE OF GOLD AND OTHER MINERALS AND ALLIED SUBSTANCES EXPORTED DURING THE YEARS ENDED THE 31ST DECEMBER, 1937 AND 1936, AND THE TOTAL VALUE SINCE THE 1ST JANUARY, 1853. THE COAL-OUTPUT IS ALSO INCLUDED.

Name of Metal or Mineral.	For Year ended the 31st December, 1937.		For Year ended the 31st December, 1936.		Total from the 1st January, 1853, to the 31st December, 1937.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Precious metals—	Oz.	£	Oz.	£	Oz.	£
Gold*	170,715	1,423,348	166,210	1,385,003	25,051,866	102,682,874
Silver	438,637	48,087	476,939	55,574	30,551,203	3,505,558
Total gold and silver ..	609,352	1,471,435	643,149	1,440,577	55,603,069	106,188,432
Mineral produce, including kauri- gum—	Tons.	£	Tons.	£	Tons.	£
Copper-ore	..	..	..	..	1,504	19,390
Chrome-ore	..	..	..	..	5,869	38,002
Antimony-ore	..	..	..	..	3,785 ⁹ / ₂₀	55,081
Manganese-ore	1	.. 10	..	..	19,387 ¹¹ / ₂₀	62,021
Hæmatite-ore	..	..	..	..	77	469
Tungsten-ore	30 ¹ / ₂₀	7,248	40 ¹³ / ₂₀	5,563	2,637 ¹⁰ / ₂₀	337,361
Sulphur (crude)	..	..	..	..	4,927	13,241
Mixed minerals	2,934†	8,078	3,242	8,881	106,395 ³ / ₂₀	419,635
Coal (New Zealand) exported	113,116	61,540	44,872	55,217	6,754,309	7,496,292
Coke exported	3	17	6	20	17,777	28,292
Coal, output of mines in Do- minion (less exports)	2,164,683	2,216,259	2,095,345	2,085,000	81,509,033	61,671,089
Oil-shale	..	..	..	..	14,444	7,236
Kauri-gum	3,226	151,589	3,237	96,161	437,881	23,513,752
Pig iron	..	..	..	..	1,614	6,615
Quicksilver	lb.	..	lb.	..	lb.	..
	..	..	..	..	87,993	19,024
Total value of minerals ..	..	2,444,741	..	2,250,842	..	93,687,500
Value of gold and silver, as above	..	1,471,435	..	1,440,577	..	106,188,432
Total value of minerals, including gold and silver	..	3,916,176	..	3,691,419	..	199,875,932

*In respect of gold, ounces of the fineness of 20 carats and upwards. † Includes pumice-sand and stone, 2,931 tons, value, £8,057, and iron-ore, 3 tons, value £21.

NOTE.—The gold and silver recorded in this table are the products of the mines of the Dominion and do not include jewellers' sweepings or old jewellery.

No. 2.

TABLE SHOWING THE QUANTITY AND VALUE OF GOLD EXPORTED FROM NEW ZEALAND FOR THE YEARS ENDED THE 31ST DECEMBER, 1937 AND 1936, AND THE TOTAL QUANTITY AND VALUE FROM 1857 TO THE 31ST DECEMBER, 1937.

District and County or Borough.	Year ended 31st December, 1937.		Year ended 31st December, 1936.		Total Quantity and Value from January, 1857, to 31st December, 1937.	
	Quantity.	Value.	Quantity.	Value.		
AUCKLAND—	Oz.	£	Oz.	£	Oz.	£
County of Ohinemuri ..	6,491	47,915	8,837	64,051		
County of Coromandel ..	269	2,056	443	3,240		
County of Thames ..	537	4,073	1,375	10,335		
Borough of Waihi ..	59,369	516,619	60,824	526,083		
Borough of Thames ..	297	2,251	671	4,909		
	66,963	572,914	72,150	608,618	8,159,694	33,536,799
WELLINGTON ..	..	..	..	..	188	706
MARLBOROUGH—						
County of Marlborough ..	187	1,532	493	4,083		
County of Sounds ..	2	17	..	..		
	189	1,549	493	4,083	118,001	483,389
NELSON—						
County of Collingwood ..	3	27	148	1,201		
County of Murchison ..	6,416	50,800	6,731	55,734		
County of Waimea ..	456	3,713	711	5,929		
	6,875	54,540	7,590	62,864	1,779,502	7,193,348
WEST COAST—						
County of Grey ..	14,461	118,316	13,393	110,937		
County of Buller ..	3,695	30,750	1,819	14,894		
County of Inangahua ..	23,883	193,473	22,915	185,781		
County of Westland ..	27,129	225,005	24,195	202,814		
	69,168	567,544	62,322	514,426	7,032,377	29,250,281
CANTERBURY—						
County of Ashburton ..	..	..	..	..		
	..	..	..	..	165	669
OTAGO—						
County of Taieri ..	6	50	125	1,018		
County of Tuapeka ..	1,918	15,873	2,101	17,389		
County of Vincent ..	9,202	75,934	2,510	20,652		
County of Maniototo ..	2,066	16,566	2,149	17,636		
County of Waitaki ..	513	4,238	675	5,668		
County of Lake ..	3,560	29,098	3,654	30,381		
County of Wallace ..	2,467	20,387	2,594	21,370		
County of Southland ..	5,618	46,827	7,664	62,748		
County of Waihemo ..	1,967	16,185	1,791	15,048		
County of Bruce ..	145	1,154	107	875		
County of Clutha ..	19	157	..	..		
County of Waikouaiti ..	..	..	5	40		
	27,481	226,469	23,375	192,825	7,948,551	32,162,011
Unknown ..	39	332	280	2,187	13,388	55,671
Totals ..	170,715	1,423,348	166,210	1,385,003	25,051,866	102,682,874

NOTE.—The gold recorded in this table is the product of the mines of the Dominion and does not include jewellers' sweepings or old jewellery.

No. 3.

TABLE SHOWING QUANTITY OF GOLD EXPORTED ANNUALLY FROM NEW ZEALAND FROM 1857 TO 1937.

Year.	Quantity. Oz.	Year.	Quantity. Oz.	Year.	Quantity. Oz.	Year.	Quantity. Oz.
1857	.. 10,437	1878	.. 310,486	1898	.. 280,175	1918	.. 11,987
1858	.. 13,534	1879	.. 287,464	1899	.. 389,558	1919	.. 320,210
1859	.. 7,336	1880	.. 305,248	1900	.. 373,616	1920	.. 212,973
1860	.. 4,538	1881	.. 270,561	1901	.. 455,561	1921	.. 149,595
1861	.. 194,031	1882	.. 251,204	1902	.. 508,045	1922	.. 131,848
1862	.. 410,862	1883	.. 248,374	1903	.. 533,314	1923	.. 169,512
1863	.. 628,450	1884	.. 229,946	1904	.. 520,320	1924	.. 133,631
1864	.. 480,171	1885	.. 237,371	1905	.. 520,486	1925	.. 114,696
1865	.. 574,574	1886	.. 227,079	1906	.. 563,843	1926	.. 125,777
1866	.. 735,376	1887	.. 203,869	1907	.. 508,210	1927	.. 130,171
1867	.. 686,905	1888	.. 201,219	1908	.. 506,423	1928	.. 118,722
1868	.. 637,474	1889	.. 203,211	1909	.. 506,371	1929	.. 116,848
1869	.. 614,281	1890	.. 193,193	1910	.. 478,288	1930	.. 133,749
1870	.. 544,880	1891	.. 251,996	1911	.. 455,226	1931	.. 139,974
1871	.. 730,029	1892	.. 238,079	1912	.. 343,163	1932	.. 167,784
1872	.. 445,370	1893	.. 226,811	1913	.. 376,161	1933	.. 164,998
1873	.. 505,337	1894	.. 221,615	1914	.. 227,954	1934	.. 157,375
1874	.. 376,388	1895	.. 293,491	1915	.. 422,825	1935	.. 168,756
1875	.. 355,322	1896	.. 263,694	1916	.. 292,620	1936	.. 166,210
1876	.. 322,016	1897	.. 251,645	1917	.. 218,624	1937	.. 170,715
1877	.. 371,685						

No. 4.

TABLE SHOWING THE OUTPUT OF COAL FROM THE VARIOUS COALFIELDS, AND THE COMPARATIVE INCREASE AND DECREASE, FOR THE YEARS 1937 AND 1936, TOGETHER WITH THE TOTAL APPROXIMATE QUANTITY OF COAL PRODUCED SINCE THE MINES WERE OPENED.

Name of Coalfield.	Output.		Increase.	Decrease.	Approximate Total Output up to 31st December, 1937.
	1937.	1936.			
	Tons.	Tons.	Tons.	Tons.	Tons.
North Auckland	41,694	62,094	..	20,400	5,854,668
Waikato (including Taranaki) ..	736,804	733,743	3,061	..	16,220,643
Nelson	17,505	27,483	..	9,978	650,560
Buller	432,378	349,268	83,110	..	25,042,911
Reefton	44,077	45,999	..	1,922	1,009,443
Grey	481,268	421,820	59,448	..	17,254,954
Canterbury	22,580	20,490	2,090	..	1,099,543
Otago	209,540	198,910	10,630	..	13,592,058
Southland	291,953	280,410	11,543	..	7,530,562
Totals	2,277,799*	2,140,217	..	..	88,255,342

* Increase, 137,582 tons.

No. 5.

TABLE SHOWING THE OUTPUT OF DIFFERENT CLASSES OF COAL.

Class of Coal.	Output.		Increase.	Decrease.	Approximate Total Output to the 31st December, 1937.
	1937.	1936.			
	Tons.	Tons.	Tons.	Tons.	Tons.
Bituminous and sub-bituminous ..	969,984	858,857	111,127	..	50,806,570
Brown	1,186,320	1,150,071	36,249	..	32,178,779
Lignite	121,495	131,289	..	9,794	5,269,993
Totals	2,277,799	2,140,217	..	..	88,255,342

No. 6.

TABLE SHOWING THE INCREASE OR DECREASE IN THE ANNUAL PRODUCTION OF COAL AND OIL-SHALE IN THE DOMINION, AND THE QUANTITY OF COAL IMPORTED SINCE 1878.

Year.	Coal and Shale raised in the Dominion.			Coal imported.		
	Tons.	Yearly Increase or Decrease.		Tons.	Increase over Preceding Year.	Decrease below Preceding Year.
Prior to 1878	709,931	..	..	..	..	..
1878	162,218	..	174,148	..	..	..
1879	231,218	Inc. 69,000	158,076	..	16,072	..
1880	299,923	" 68,705	123,298	..	34,778	..
1881	337,262	" 37,339	129,962	6,664	..	..
1882	378,272	" 41,010	129,582	..	380	..
1883	421,764	" 43,492	123,540	..	6,042	..
1884	480,831	" 59,069	148,444	24,904	..	..
1885	511,063	" 30,232	130,202	..	18,242	..
1886	534,353	" 23,290	119,873	..	10,329	..
1887	558,620	" 24,267	107,230	..	12,643	..
1888	613,895	" 55,275	101,341	..	5,889	..
1889	586,445	Dec. 27,450	128,063	26,722	..	..
1890	637,397	Inc. 50,952	110,939	..	17,124	..
1891	668,794	" 31,397	125,318	14,379	..	..
1892	673,315	" 4,521	125,453	135	..	..
1893	691,548	" 18,233	117,444	..	8,009	..
1894	719,546	" 27,998	112,961	..	4,483	..
1895	726,654	" 7,108	108,198	..	4,763	..
1896	792,851	" 66,197	101,756	..	6,442	..
1897	840,713	" 47,862	110,907	9,151	..	..
1898	907,033	" 66,320	115,427	4,520	..	..
1899	975,234	" 68,201	99,655	..	15,772	..
1900	1,093,990	" 118,756	124,033	24,378	..	..
1901	1,239,686	" 145,696	149,764	25,731	..	..
1902	1,365,040	" 125,354	127,853	..	21,911	..
1903	1,420,229	" 55,189	163,923	36,070	..	..
1904	1,537,838	" 117,609	147,196	..	16,727	..
1905	1,585,756	" 47,918	169,046	21,850	..	..
1906	1,729,536	" 143,780	207,567	38,521	..	..
1907	1,831,009	" 101,473	220,749	13,182	..	..
1908	1,860,975	" 29,966	287,808	67,059	..	..
1909	1,911,247	" 50,272	258,185	..	29,623	..
1910	2,197,362	" 286,115	232,378	..	25,807	..
1911	2,066,073	Dec. 131,289	188,068	..	44,310	..
1912	2,177,615	Inc. 111,542	364,359	176,291	..	..
1913	1,888,005	Dec. 289,610	468,940	104,581	..	..
1914	2,275,614	Inc. 387,609	518,070	49,130	..	..
1915	2,208,624	Dec. 66,990	353,471	..	164,599	..
1916	2,257,135	Inc. 48,511	293,956	..	59,515	..
1917	2,068,419	Dec. 188,716	291,597	..	2,359	..
1918	2,034,250	" 34,169	255,332	..	36,265	..
1919	1,847,848	" 186,402	391,434	136,102	..	..
1920	1,843,705	" 4,143	476,343	84,909	..	..
1921	1,809,095	" 34,610	822,459	346,116	..	..
1922	1,857,819	Inc. 48,724	501,478	..	320,981	..
1923	1,969,834	" 112,015	445,792	..	55,686	..
1924	2,083,207	" 113,373	674,483	228,691	..	..
1925	2,114,995	" 31,788	572,573	..	101,910	..
1926	2,239,999	" 125,004	483,918	..	88,655	..
1927	2,366,740	" 126,741	378,090	..	105,828	..
1928	2,436,753	" 70,013	247,861	..	130,229	..
1929	2,535,864	" 99,111	215,656	..	32,205	..
1930	2,542,092	" 6,228	157,943	..	57,713	..
1931	2,157,756	Dec. 384,336	179,060	21,117	..	..
1932	1,842,022	" 315,734	103,531	..	75,529	..
1933	1,821,258	" 20,764	99,272	..	4,259	..
1934	2,060,315	Inc. 239,057	100,715	1,443	..	..
1935	2,115,184	" 54,869	97,398	..	3,317	..
1936	2,140,217	" 25,033	111,078	13,680	..	..
1937	2,277,799	" 137,582	116,499	5,421	..	..

No. 7.

TABLE SHOWING THE TOTAL QUANTITY AND VALUE OF COAL IMPORTED INTO AND EXPORTED FROM NEW ZEALAND FROM AND TO EACH COUNTRY DURING THE CALENDAR YEAR 1937.

Imports.

Country whence imported.				Tons.	Value.
					£
United Kingdom	..	..	..	15	66
Australia	..	..	..	116,484	111,909
Totals	..	..	..	116,499	111,975

Exports : Bunkers.

Produce of New Zealand.		Produce of other Countries.	
Tons.	Value.	Tons.	Value.
113,096	£ 61,450	..	..

Exports : Cargo.

Country to which exported.	Produce of New Zealand.		Produce of other Countries.	
	Tons.	Value.	Tons.	Value.
Fiji	18	£ 84	..	..
Western Samoa	2	6	..	..
Totals	20	90	..	..

No. 8.

NUMBER OF PERSONS ORDINARILY EMPLOYED AT OR ABOUT MINES OTHER THAN COAL-MINES
DURING THE YEAR ENDED 31ST DECEMBER, 1937.

County or Borough.	Number of Persons ordinarily employed at				Total.	
	Gold-quartz Mines.	Gold Alluvial Mines.	Gold- dredges.	Mines other than Gold and Coal.	1937.	1936.
NORTHERN INSPECTION DISTRICT.						
County of Piako	6	..	..	..	6	3
„ Thames	85	..	..	..	85	60
„ Ohinemuri	183	..	..	..	183	197
„ Coromandel	60	..	..	..	60	87
„ Whangarei	..	..	..	3	3	..
Borough of Thames	60	..	..	..	60	83
„ Waihi	629	..	..	..	629	638
Great Barrier Island	1	..	..	..	1	..
County of Taranaki	..	..	..	3*	3	3
WEST COAST INSPECTION DISTRICT.						
County of Marlborough	8	77	..	..	85	147
„ Waimea	..	24	..	..	24	51
„ Takaka	..	57	..	..	57	119
„ Collingwood	..	81	..	..	81	141
„ Murchison	..	263	32	..	295	371
„ Buller	4	141	..	..	145	278
„ Inangahua	277	96	25	..	398	472
„ Grey	..	365	128	1*	494	651
„ Westland	6	227	83	..	316	425
SOUTHERN INSPECTION DISTRICT.						
County of Taieri	..	9	..	..	9	9
„ Ashburton	..	5	..	..	5	4
„ Tuapeka	..	102	..	1	103	203
„ Vincent	7	219	54	..	280	414
„ Maniototo	1	121	..	..	122	185
„ Waihemo	24	18	..	2	44	50
„ Waitaki	..	32	..	..	32	46
„ Lake	7	146	11	30	194	263
„ Wallace	..	82	..	..	82	95
„ Southland	..	92	18	..	110	173
„ Waikouaiti	..	3	..	..	3	6
„ Bruce	..	5	..	..	5	7
„ Clutha	..	2	..	..	2	3
„ Fiord	..	1	..	..	1	5
Totals	1,358	2,168	351	40	3,917	5,189

* Employed in oil-boring operations.

Summary of Persons ordinarily employed in or about New Zealand Mines during 1937 and 1936.

—		1937.	1936.	Increase or Decrease.
Gold, silver, and tungsten mines	..	3,910	5,183	Dec. 1,273
Other metalliferous mines	..	7*	6*	Inc. 1
Coal-mines	..	4,417	4,257	Inc. 160
Totals	..	8,334	9,446	Dec. 1,112

* Includes four persons employed in oil-boring operations.

APPENDICES TO THE MINES STATEMENT.

APPENDIX A.

REPORTS RELATING TO METALLIFEROUS MINES AND
STONE-QUARRIES.

THE INSPECTING ENGINEER OF MINES to the UNDER-SECRETARY OF MINES.

SIR,—

Wellington, 1st June, 1938.

I have the honour to present my report on metalliferous mines and stone-quarries, together with statistical information, for the year ended 31st December, 1937.

In accordance with the usual practice, the tables showing expenditure on roads, bridges, tracks, prospecting operations, &c., are for the period covered by the financial year—viz., from the 1st April, 1937, to the 31st March, 1938.

The reports, &c., are divided into the following sections: I. Minerals produced and exported. II. Persons employed. III. Accidents. IV. Gold-mining—(1) Quartz-mining; (2) Dredge Mining; (3) Alluvial Mining. V. Minerals other than Gold. VI. Stone-quarry Inspection and Statistics. VII. State Aid to Mining—(1) Subsidized Prospecting; (2) Government Prospecting-drills; (3) Subsidized Roads on Goldfields; (4) Legislation affecting Metalliferous Mines.

Annexures: (A) Summary of Reports by Inspectors of Mines. (B) Summary of Report by Inspector of Quarries. (C) Mining Statistics.

I. MINERALS PRODUCED AND EXPORTED.

The following statement shows the quantity and value of the production from metal-mines and of the value of production from stone-quarries under the Stone-quarries Act during 1937 and 1936:—

Mineral.	1937.		1936.	
	Quantity.	Value.	Quantity.	Value.
	Oz. dwt.	£	Oz. dwt.	£
Gold and silver (estimated)	612,468 0	1,319,743	597,548 0	1,272,587
Platinum	55 4	423	29 11	187
	Tons cwt.		Tons cwt.	
Iron-ore	571 0	880	..	..
Stone	..	444,837	..	342,861
Pumice	2,931 0	8,057	3,242 0	8,881
Tungsten-ore	23 14	6,468	28 2	3,448
Manganese-ore	5 0	50	..	..
Silica-sand	164 7	236	..	..
	lb.		lb.	
Quicksilver	1,344	336	..	..
Totals	..	1,781,030	..	1,627,964

The following statement shows the value of New Zealand minerals (other than coal and coke) and allied substances exported during 1937 and 1936, and since 1st January, 1853 :—

	1937.	1936.	Increase or Decrease.	Total from the 1st January, 1853, to the 31st December, 1937.
	£	£	£	£
Gold	1,423,348	1,385,003	Inc. 38,345	102,682,874
Silver	48,087	55,574	Dec. 7,487	3,505,558
Tungsten-ore	7,248	5,563	Inc. 1,685	337,361
Kauri-gum	151,589	96,161	„ 55,428	23,513,752
Sand, lime, and building-stone	8,057	8,881	Dec. 793	640,714
Other minerals	31	..		
Totals	1,638,360	1,551,182	Inc. 87,178	130,680,259

II. PERSONS EMPLOYED.

The following statement shows the number of persons ordinarily employed in or about the metalliferous mines* of the Dominion during the year :—

Classification.	Inspection District.			Total, 1937.
	Northern.	West Coast.	Southern.	
Gold, silver, and tungsten	1,024	1,894	992	3,910
Cinnabar	2	..	..	2
Iron-ore	1	..	..	1
Totals for 1937	1,027	1,894	992	3,913
Totals for 1936	1,068	2,652	1,463	5,183

*In addition four persons were employed in oil-boring operations.

III. ACCIDENTS.

During 1937 two fatal and nine serious but non-fatal accidents occurred in or about metalliferous mines, at which 3,913 persons were ordinarily employed.

Cause.	Fatal Accidents.		Serious Non-fatal Accidents.	
	Number of Separate Accidents.	Number of Deaths.	Number of Separate Accidents.	Number of Persons Injured.
Falls of ground	1	1	5	5
Explosives	..	..	..	..
Miscellaneous, on surface	..	..	4	4
Miscellaneous, underground	1	1	..	..
Totals	2	2	9	9

One of the fatal accidents occurred in a Northern District mine and the other in a sluicing claim in the Southern District.

It is pleasing to record the total freedom from fatal accidents in the West Coast mines during 1937.

Accounts of the two fatalities follow :—

On 2nd June, 1937, an old Chinaman named Yew Kui was instantaneously killed in a cutting he had made into a very large block of clay which had been left in old alluvial workings near the bank of the Tuapeka River. The cutting was about 20 ft. in length and 7½ ft. high. Kui had been under-cutting the clay and then levering it down from the top with a fencing-standard. Apparently, while he was undercutting, a mass of the clay came away, for he was found buried to the shoulders by the fall and lying face downwards. He held no title to the land, nor, as far as is known, did he hold a miner's right. His spine was fractured and his chest crushed.

On 27th August, 1937, a shaft-repairer named Milos F. Zenovich was killed by falling down the No. 6 shaft at the Martha Mine, Waihi. He and his mate were installing a new knocker line in the shaft and were using a platform, which had been built on top of the skip to get from one place to another in the shaft. In order to take out a kink in the new knocker line, the deceased climbed up a few feet above the stationary skip and stood with one foot on the centre timber of the shaft and the other on a wall plate. He signalled for the skip to be hauled up to enable him to take out another kink higher up the shaft. His mate then noticed that Zenovich was jammed between the skip and the shaft centre. The skip continued ascending, and when clearing the point where Zenovich was jammed his body fell down the shaft into the sump 115 ft. below. He was dead when picked up, having suffered an extensive fracture of the skull as well as many other injuries to the body. After an examination underground the connections between the new knocker line and the engine-room were examined. It was found that a coach screw had worked loose from adjacent timbers, and it had fouled a buckle, or straining piece, and thus had rendered the knocker line inoperative.

Both the deceased and his mate had neglected to use the body chains which had been provided as required by section 274 (35) of the Mining Act, 1926, and the fatality was due to that neglect. A conviction was recorded against the other workman on 17th November, 1937, for his failure to use the safety chains.

A very unusual fatality, which, however, cannot be classed as a mining fatality, occurred on the sea-coast at Whananaki, in the North Auckland district, on 25th January, 1937. Two Maoris, Mr. N. Toki and Mrs. T. Nehua (sometimes assisted by her thirteen-year-old daughter), had dug a hole 20 ft. deep and 2 ft. wide and 3 ft. long about midway between high- and low-water mark, and the bodies of the man and woman were found in that hole. Earlier that day the child had been instructed to descend into the hole to remove water and gravel while the others remained on the surface. Getting no response to her signals, after a while she climbed out and went to the male Maori's hut and stayed there for some time. Later, becoming anxious at the non-appearance of her mother and Toki, she returned to the shaft and found both of them in the hole and under water. It is surmised that Toki and Nehua returned to the shaft and, finding that water had risen to a height of several feet in it, had become concerned for the child's safety. Toki then dived into the water, and, while he was doing so, Nehua, who weighed 17 stone, fell on top of him and blocked the hole. Neither of the deceased held a miner's right, nor had a mining title been granted to either of them.

IV. GOLD-MINING.

The following statement shows the value of the bullion-production, also the dividends declared, number of persons employed, and the number of gold mines and dredges:—

		Production of Bullion, 1937.* (All Mines.)		Dividends paid, 1937. (By Registered Companies only.)†	Number of Persons ordinarily employed at Productive and Unproductive Mines, 1937.	Number of Productive Quartz- mines, Alluvial Mines, and Dredges, 1937.
		Quantity.	Value.			
		Oz.	£	£		
Quartz-mining	..	534,424	710,421	126,088	1,358	77
Alluvial mining‡	..	27,142	200,024	14,683	2,168	2,753
Dredge mining	..	50,902	409,298	55,533	351	22
Totals, 1937	..	612,468	1,319,743	196,304	3,877	2,852
Totals, 1936	..	597,548	1,272,587	230,107	5,161	3,026

* In addition to the gold produced from the gold-mines, silver was obtained from them, hence the word "bullion" is used in preference to "gold."

† The profits of privately-owned dredges and mines are unobtainable, which renders this statement incomplete.

‡ The bullion-production is from 2,753 alluvial claims, but the dividends are only obtainable from those few that are the property of registered companies.

(1) QUARTZ-MINING.

Inspection District.			Statute Tons of Ore treated.		Value of Bullion.		Dividends paid (by Registered Companies only).	
			1937.	1936.	1937.	1936.	1937.	1936.
					£	£	£	£
Northern	..	..	211,852	213,388	511,585	543,052	106,088	110,087
West Coast	..	..	49,234	48,091	191,807	182,239	20,000	41,249
Southern	..	..	2,097	2,146	7,029	7,578	..	..
Totals	..	..	263,183	263,625	710,421	732,869	126,088	151,336

The average value per ton of ore treated during 1937 amounted to £2 14s., as compared with £2 15s. 7d. during 1936.

At the Martha Mine 183,518 long tons of quartz was mined and treated, from which 54,553 oz. of gold, valued at £383,233, and 412,073 oz. of silver, valued at £36,910, were recovered. The dividends paid during the year, £99,181 18s., were the same as for 1936. The total dividends paid to date from the Martha Mine are £6,486,962 4s. 6d. No development-work was done during the year in the Nos. 10, 12, 13, and 14 levels, but stoping was continued from these levels as well as those above. Some driving was done in the No. 11 level on the Dreadnought, Edward, and Royal lodes. The north branch of the Martha lode was investigated further in the Nos. 3, 6, 7, 8, and 9 levels and the south branch of the Martha lode in the open-cut level. A small lode called the "H branch" was met in Nos. 4 and 5 levels and driven on in both levels. It was found to be payable for 86 ft. in the No. 5 level, but unpayable in the No. 4 level.

From the Waihi Grand Junction Mine, worked by the Martha Gold-mining Co., 16,797 long tons of ore was mined, from which 4,723 oz. of gold, valued at £33,178, and 16,603 oz. of silver, valued at £1,487, were recovered. £6,906 5s. 4d. was paid in dividends in 1937. In the Martha Co.'s No. 8 level exploratory work was done on the Royal lode. Stoping was done from that level also, as well as in the Grand Junction Nos. 6, 7, 8, 9, and 10 levels.

At the Golden Dawn Mine, at Owaharoa, a considerable amount of driving was done in the No. 3 level and in the 70 ft. intermediate level above No. 3, but the results were, in many cases, rather disappointing. However, some driving on the west wall of the wide No. 5 reef gave rather promising results, as well as that done on the narrow No. 4 reef in the crosscut off the north drive. Quartz weighing 7,511 tons was mined and treated for a return of 3,307 oz. of gold, valued at £28,889, and 4,845 oz. of silver, valued at £325.

At the Talisman Dubbo Mine, at Karangahake, driving has been done on the No. 2, the Dubbo, the intermediate above the mouth of No. 1, the No. 4, and the Hauraki (No. 7) levels, and stoping was done in the Dubbo and No. 2 levels as well as the crosscut above the No. 1 level. A new battery is being erected near Karangahake for this company. At the Talisman Dubbo Mine 2,239 tons of ore was mined. It was treated at the Golden Dawn battery and yielded 1,895 oz. of gold, valued at £16,669, and 8,753 oz. of silver, valued at £988.

From about 280 tons of ore from three small mines in the Karangahake district 184 oz. of gold, valued at £1,144, and 778 oz. of silver, worth £54, was recovered.

From two small mines at Tapu 410 oz. of gold was won, worth £2,366.

Sinking was continued in the main north shaft of the Blackwater Mine, and at the end of the year it had reached a depth of 2,478 ft. from the surface, or 128 ft. below the No. 13 level. In the No. 12 level and near the Blackwater shaft a 35-in.-diameter "Sirocco" fan has been installed and the mine ventilating system consequently reversed, so the north shaft, which formerly was the upcast, is now supplied with fresh air. Nearly all the development-work done during the year was in the No. 13 level. To the north it was extended 192 ft. and to the south 509 ft., and the greater portion of the 443 ft. of rising was from that level. A large flotation plant is now being erected near the North Blackwater shaft, and ball and tube mills will replace the forty-head stamp battery. For some years, however, a portion of that battery will be kept in commission. During 1937, 41,333 tons of ore from the Blackwater Mine was crushed, from which 18,304 oz. of gold, valued at £148,735, was recovered.

At the Alexander Mine the No. 6 crosscut was driven 1,046 ft., or approximately to within 600 ft. of where they expect to intersect the lode. From the north end of No. 5 level a winze was sunk 29 ft., and the year's stoping was on the ore-body between Nos. 4 and 5 levels. During 1937, 4,360 tons of ore was crushed and treated, yielding 3,205 oz. of gold, valued at £25, 896.

In the No. 5 north level of the Big River Mine a block of ore about 60 ft. long has been reached, and in the south block a winze was sunk 20 ft. The main shaft is to be retimbered between the Nos. 5 and 6 levels, a depth of 150 ft., and when that work is completed the No. 6 level will then be developed. Stoping has been continued between Nos. 4 and 5 levels, most of the ore being obtained from blocks which had been proved by winzes sunk from No. 4 and connected to rises from No. 5 level. During the year 2,348 tons of ore was treated at the Big River battery for a yield of 2,189 oz. of gold, valued at £16,173.

The Labour and Mines Departments organized prospecting parties to investigate selected areas in South Westland and the Reefton district.

In South Westland one of the parties explored the country between the sea-coast and the high ranges south of the Paringa River down to the Moeraki River. Another party investigated the Waikakapa-Cook Rivers area and then the country to the north of the Haast River.

In the Reefton field nearly 1,000 ft. of driving has been done in the Oriental Nos. 1 and 2 drives and about 350 ft. in the General Gordon drive. The Perseverance crosscut has been extended 183 ft. and has intersected a lode which will be driven on to the north. Testing of bulk samples has also been done at a small experimental plant in Reefton.

(2) DREDGE MINING.

The following is a statement showing the capacity and production of bucket gold dredges and dividends declared by dredging companies during 1937. (NOTE.—The dividends declared by privately-owned dredges are not obtainable for publication.)

Name of Dredge.	Locality.	Capacity of Dredge- buckets, in Cubic Feet.	Number of Buckets discharged per Minute.	Nominal Horse- power of Engines.	D = Diesel, S = Steam, E = Electrical, H = Hydraulic.	Average Depth of Ground dredged	Quantity and Value of Bullion obtained during 1937.		Dividends declared.	
							oz.	£	£	Total to End of 1937.
West Coast.										
Mataki ..	Murchison ..	7	20	120	S	Ft. 11	1,307	9,628	..	7,030
Mataki Junction ..	..	6	21	370	DE	22	3,085	24,637	2,500	2,500
Worksop ..	Antonio's ..	4	12	140	D	14	1,457	11,699	3,200	16,000
Mossy Creek ..	Hukarere ..	4	26	225	E	12	1,466	12,007	2,500	13,750
Argo ..	Blackball ..	4½	18	210	E	26	3,178	23,920	10,000	21,200
Maori Gully ..	Maori Gully ..	4	20	225	E	25	1,797	13,305	..	6,000
New River ..	Dunganville ..	4	15	140	D	10	1,726	12,486	..	..
Nemona ..	Marsden ..	4½	28	255	E	25	2,691	20,225	7,500	10,500
Bundi ..	Camerons ..	10	18	500	S	20	857	6,001	..	..
White's Electric ..	Barrytown ..	4	10	226	E	29	804	5,833	..	..
Barrytown ..	..	12	21	879	E	29	2,985	21,969	..	..
Stafford ..	Stafford ..	8	12	320	E	33	2,185	16,660	..	3,750
Rimu ..	Rimu ..	12	23	922	E	51	13,419	116,745	20,834	119,550
Five-mile Beach ..	Okarito ..	5	10	..	H	21	1,239	9,098	2,333	33,833
Gillespie's Beach ..	Gillespie's Beach ..	5	13	225	E	27	2,464	20,759	5,833	18,083
Otago and Southland.										
Aitken's ..	Maitland ..	6	10	32	S	14	989	7,733	..	..
Nevis Crossing ..	Nevis ..	3½	10	12	S	10	183	1,331	..	..
Goldfield's ..	Big Beach ..	8	18	305	E	23	659	5,076	..	..
Rainbow ..	Waimumu ..	2½	12	38	D	7	101	986	..	173
Waipapa Beach ..	Otara ..	2½	14	70	D	18	689	5,125	833	1,667
Clutha River ..	Clutha River ..	12	12	570	E	65	*6,192	53,664	..	..
Molyneux ..	Molyneux River..	9	12	580	E	30	1,429	10,411	..	..
Totals, 1937 ..	..	..	..	..	..	..	50,902	409,298	55,533	Unknown
Totals, 1936 ..	..	..	..	..	..	..	37,269	295,078	62,335	Unknown

* Includes 205 oz. of silver valued at £20.

As in 1936, fifteen dredges were worked in 1937 on the West Coast district, but the Brian Boru dredge ceased working in December, 1936, and the large dredge at Barrytown was given trial runs in May, 1937, but, owing to lack of power, it did not reach full capacity until about two months later.

The Brian Boru dredge was then sold, transported, and is being rebuilt at German Gully for the Blackball Creek Gold-mining Co. It will soon be at work there.

Three large and powerful all-steel dredges are under construction, one at Ikamatua, another at Kanieri, and the third at Arahura, while preparations are well under way for another such dredge to work Montgomery's Terrace, Ngahere. The Ikamatua dredge will have buckets of 16-cubic-feet capacity, while the other three will have buckets of 18-cubic-feet capacity and be capable of digging from 75 ft. to 85 ft. under water.

In the Southern District there were seven dredges at work during 1937, two of them being new all-steel dredges, one near Alexandra and the other near Clyde.

The Clutha River dredge near Alexandra is equipped with 12-cubic-feet buckets, while the Molyneux dredge, a few feet shorter in length than the Clutha, has 9-cubic-feet buckets.

Between 1st May, 1937, when dredging commenced, and the end of the year, 6,192 oz. of gold was recovered by the Clutha dredge, but operations on the Molyneux dredge were less fortunate for during practically the same period 1,429 oz. of gold was recovered by that dredge.

The Bendigo-Goldlight dredge was not working during the year. Some time in the severe winter the Nevis-Diesel dredge sank, and the greater part of the plant and equipment have since been removed. A large dredge is in course of construction at Lowburn for Austral (N.Z.) Mining, Ltd.

(3) ALLUVIAL MINING.

The following is a statement showing the value of production of, and dividends declared by alluvial gold-mines during 1937:—

Name of Owner.	Estimated Quantity and Value of Gold produced.		Dividends declared.	
			During 1937.	Total to End of 1937
<i>West Coast.</i>	oz.	£	£	£
Diamond's Flat Gold-mining Co., Ltd.	10	66	..	..
Glenroy Gold, Ltd.	48	352	..	..
Addison's Flat Gold-mining Co., Ltd.	872	6,540	1,300	4,095
Waitahu Gold-mining Co., Ltd.	684	5,149	..	..
Hukawai Gold-mining Co., Ltd.	44	363	..	..
Mount David Sluicing Co., Ltd.	63	462	..	..
Moonlight Goldfields, Ltd.	826	8,422	991	991
Deep Lead, Ltd.	18	136	..	500
Golden Sands, Ltd.	760	6,177	1,867	7,167
Addison Exploration, Ltd.	1,172	7,495	..	..
Hohonu Gold-sluicing Co., Ltd.	27	197	..	..
Kumara Goldfields Syndicate	266	2,186	..	..
Lawson's Flat Gold-mining Co., Ltd.	317	2,357	..	..
All other claims ..	6,314	44,902	..	..
<i>Otago and Southland.</i>				
Ben Lomond Gold-mining Co., Ltd...	2	17	..	..
Central Shotover Gold-mining Co., Ltd.	341	2,407	..	..
Fruidburn Sluicing Co., Ltd.	1	10	..	..
Golden Arrow Mining Co., Ltd.	383	2,840	825	2,200
Jones Nevis Sluicing Co., Ltd.	155	1,149	..	813
Kildare Consolidated Gold-mining Co., Ltd.	264	1,899	..	1,000
King Solomon Deep Lead, Ltd.	536	4,030	..	19,500
Macraes Gold-mining Co., Ltd.	1,555	11,439	2,500	7,500
Maerewhenua Goldfields Development Co., Ltd.	110	926	..	..
Mining House Concessions, Ltd.	109	798	..	..
Mountain Terrace Gold-mining Co., Ltd.	32	212	..	..
Nevis Sluicing Claims, Ltd.	240	1,820	..	..
N.Z. Prospecting and Mining, Ltd.	2	12	..	..
New Gabriels Gully Gold-mining Co., Ltd.	219	1,608	..	..
Nokomai Gold-mining Co., Ltd.	1,258	8,810	..	..
Paddy's Point Gold-mining Co., Ltd.	436	3,210	..	2,102
Round Hill Gold-mining Co., Ltd.	1,812	13,911	6,000	15,929
Sailors Gully (Waitahuna) Gold-mining Co., Ltd.	340	2,454	..	13,925
Sea Beach Gold, Ltd.	28	202	..	..
Short and Party, Ltd.	131	938	..	..
Sandhills Gold-mining Co., Ltd.	345	2,413	..	..
Skippers Ltd.	177	1,232	..	..
Try Again Sluicing Claim ..	18	129	..	116
Tuapeka Mouth Gold-mining Co., Ltd.	281	2,077	1,200	1,800
Upper Arrow Sluicing Co., Ltd.	66	470	..	..
Waimumu Sluicing Co., Ltd.	292	2,196	..	..
All other claims ..	6,588	48,011	..	..
Totals, 1937 ..	27,142	200,024	14,683	Unknown
Totals, 1936 ..	33,618	244,640	16,436	Unknown

In the West Coast District there were 800 less men engaged in alluvial mining during 1937 and 527 less in the Southern District than during 1936. Over a quarter of the men in the West Coast were in the Grey district, and the 365 men there produced 4,773 oz. of gold during 1937. In the Murchison district 263 men produced 1,881 oz., and in the Buller district 141 men produced 1,304 oz.

Towards the end of the year the sinking of a three-compartment shaft was commenced at Waikakaho, about 300 ft. from the line of deep lead. A previous attempt to sink it through the alluvium immediately over the lead was unsuccessful, through the large inflow of water.

A drag-line plant was installed on a claim on the bank of the Buller River. It proved efficient in dealing with the large rocks and buried timber, but was not a financial success. The plant is being removed to the Golden Hope area, and will be given a trial there.

At Nokomai ordinary sluicing operations were superseded in May, 1937, by two 12 in. gravel-pumps working in series and mounted on a steel pontoon, elevating the gravels about 40 ft. to the gold-saving boxes. The pumps are direct-coupled to 175 h.p. A.C. motors, and, except for four weeks when work was suspended owing to very severe frosts, they have operated continuously and successfully.

Gravel-pumps are now being used with success at six other claims in the Southern District, and at two of these claims previously worked ground is being reworked by means of the gravel-pumps.

At the King Solomon Mine, near Waikaka, the working of known payable areas was completed in February, 1937.

Some further prospecting was done in the Radford area for about three months, but as the results were very disappointing the mine was closed down and the pumps withdrawn. Later in the year all the plant was sold and the company was then wound up.

Only a very small amount of work was done during 1937 mining the deep lead north of the Kawarau River, but a channel was located beneath the surface alluvials along the south bank and opposite the lower end of Cromwell. Near the south bank but further to the west, what appears to be an old course of the Kawarau River has been located by driving, and a syndicate has been formed to work the claim.

V. MINERALS OTHER THAN GOLD.

IRON.

At Onekaka 150 tons of iron-ore, valued at £37 10s., was quarried in 1937. The limonite was crushed and sold.

At Kamo, Whangarei, 421 tons of limonite, valued at £842, was produced.

ASBESTOS.

From the Upper Takaka field 2,200 lb. of asbestos-bearing rock was got by hand-dressing.

SULPHUR.

No work was done at any of the sulphur deposits during the year.

MANGANESE.

In the Auckland District a total of 5 tons of manganese-ore was mined for testing purposes.

QUICKSILVER.

From approximately 30 tons of ore from the Mercury Mines, Ltd.'s, quicksilver mine 1,344 lb. of mercury, valued at £336, was obtained.

TUNGSTEN.

From the Glenorchy, Macraes, and Waipori districts a little less than 24 tons of scheelite was produced. Much of it has not yet been sold.

SILVER.

Together with the gold recovered, the Clutha dredge showed a return of 205 oz. of silver, valued at £20. In the Northern District the estimated return of silver was 443,776 oz., valued at £39,830.

PLATINUM.

Together with the gold they won, three Southland sluicing companies recovered 55½ oz. of platinum, valued at £423 6s. 4d.

PETROLEUM.

No drilling for petroleum was done in New Zealand during 1937. From Kotuku, 1,487 gallons of crude oil was collected; and from the three producing wells owned by Moturoa Oilfields, Ltd. (Nos. 1, 2, and 4), a total of 132,972 gallons of petroleum was obtained, all of which was treated by New Zealand Refineries, Ltd.

VI. STONE-QUARRY INSPECTION AND STATISTICS.

By section 2 of the Stone-quarries Amendment Act, 1920, the application of the Stone-quarries Act, 1910, was extended to include every place, not being a mine, in which persons work in quarrying stone and any part of which has a face more than 15 ft. deep. The Act also applies to any tunnel in the construction of which explosives are used, but it does not apply to any Government operations, or any road or railway cutting, or excavations for buildings.

The following is a table showing the number of quarries under the Stone-quarries Act, also the number of persons ordinarily employed thereat, and the annual output and value of crude stone during 1937 :—

Provincial District.	Name and Address of Government Inspector of Stone-quarries.	Number of Working Quarries under the Act.	Number of Persons ordinarily employed.	Output of Stone.							
				Stone or Gravel for Macadamizing or Ballast.	Stone for Harbour-works.	Building or Monumental Stone.	Limestone for Agriculture.	Limestone for Cement or Mortar.	Phosphate for Agriculture.	Miscellaneous.	Value at Quarry.
Auckland ..	R. H. Schoen, Mines Dept., Huntly	210	1,069	Tons. 720,684	Tons. 7,086	Tons. 30	Tons. 102,250	Tons. 173,174	Tons. ..	Tons. 39,132	£ 208,441
	E. J. Scoble, Mines Dept., Waihi (Hauraki Mining District only)	19	116	104,681	..	5,094	..	..	..	..	32,440
Hawke's Bay	R. H. Schoen, Mines Dept., Huntly	28	120	49,077	..	..	23,543	..	..	..	9,505
Taranaki ..	Ditto ..	12	94	22,444	..	..	5,972	..	..	800	5,482
Wellington ..	„ ..	39	203	85,593	4,822	10,068	32,724	..	..	20,800	40,195
Nelson ..	G. W. Lowes, Mines Dept., Rcefton	24	92	28,190	17,454	..	11,675	53,218	..	3,976	16,921
Westland ..											
Marlborough	T. McMillan, Mines Dept., Dunedin	46	423	146,207	22,884	20,539	234,606	41,798	..	..	131,853
Canterbury ..											
Otago ..											
Southland ..											
Totals, 1937	..	378	2,117	1,156,876	52,246	35,731	410,770	268,190	..	64,708	444,837
Totals, 1936	..	393	1,981	941,870	49,079	22,818	317,055	241,017	..	80,639	342,861

QUARRY ACCIDENTS.

The following is a summary of serious accidents during 1937 at quarries under the Stone-quarries Act :—

Cause.	Number of Accidents.		Number of Sufferers.	
	Fatal.	Serious.	Killed.	Seriously injured.
Haulage ..	1	..	1	..
Machinery ..	..	1	..	1
Explosives ..	..	2	..	3
Falls of ground ..	..	1	..	1
Miscellaneous ..	..	..	..	..
Totals ..	1	4	1	5

There were no fatal or non-fatal serious accidents in the South Island quarries during 1937. In the North Island quarries there were four serious non-fatal accidents and one fatality.

On 2nd August, 1937, Luke Zidich, twenty-three years of age, was working at the Mount Wellington Bluestone Co.'s quarry at Ellerslie. To get a drink of water he walked from one of the quarry faces to a water-supply kept near a projecting point of rock which had been left unworked between that face and another in which a concrete hopper had been built. Zidich had just reached the projecting rock when a motor-truck, being started there, backed on to him and crushed him against the rock, causing injuries from which he died a few hours later.

VII. STATE AID TO MINING.

(1) SUBSIDIZED PROSPECTING.

Upon subsidized prospecting operations eighty-two persons were intermittently employed during the year. The following is a statement showing the results of prospecting operations as reported by the Inspectors of Mines:—

Name of Prospecting Party.	Number of Prospectors.	Locality of Operations.	Amount of Subsidy granted.*		Amount of Subsidy expended.		Distance driven or sunk.	Nature of Claim.	Character of Operations.	Remarks.	
Northern Inspection District.											
Leach, D.	2	Victoria Claim, Karangahake	£	s. d.	£	s. d.	Ft.	Quartz	Driving	Work unsuccessful.	
Golden Dawn Gold-mines, Ltd.	..	Golden Dawn Mine, Owharoa	..	55 13 0	55	13 0	106	Quartz	Driving, &c.	Operations temporarily suspended.	
Victoria Gold-mining Co.	2	Victoria Claim, Thames	..	1,000 0 0	..	..	212	Quartz	Driving	Work unsuccessful.	
Monowai Gold Development, Ltd.	..	Monowai Mine, Thames	..	161 2 11	161	2 11	..	Quartz	Driving and cross-cutting	Work not yet started.	
Commissioner Claim	4	Thames	..	1,100 0 0	..	..	..	Quartz	Driving	Operations satisfactory and still proceeding.	
School of Mines	..	Thames	..	1,552 19 10	1,263	4 0	742	Quartz	Driving	..	
Heather Bell Gold-mining Co., Ltd.	..	Heather Bell Claim, Whenuakite	..	69 10 0	22	0 0	..	..	Crushing	..	
J. A. McNeill	1	Mount Te Aroha	..	400 0 0	..	..	..	Quartz	Driving and cross-cutting	Work not yet started.	
West Coast Inspection District.											
Antonio's Hydraulic Elevating Co., Ltd.	4	Antonio's, Mawheraiti	..	32 10 0	15	0 0	..	Quartz	Surface-prospecting	Operations abandoned.	
Consolidated Goldfields of New Zealand, Ltd.	4	Globe-Progress Area	..	200 0 0	17	7 0	491	Alluvial	Driving tunnel	Operations suspended.	
Golden Valley Syndicate	4	Gow's Creek	..	2,955 17 10	950	13 4	1,165	Quartz	Diamond drilling	Work in progress.	
Mikoni Prospecting Syndicate	4	Mikoni River	..	350 0 0	350	0 0	..	Alluvial	Claim-development	Mining operations in progress.	
Mount David Shining Co., Ltd.	4	Blackwater	..	100 0 0	47	5 10	112	Alluvial	Drilling	Work abandoned.	
Waimihini Steatite Syndicate	1	Waimihini	..	250 0 0	139	5 0	..	Alluvial	Claim-development	Work in progress.	
Southern Inspection District.											
Bendigo Rise and Shine Gold-mining Co., Ltd.	8	Bendigo	..	25 0 0	..	..	..	Mineral	Trenching	Subsidy not yet taken up.	
F. Moore	3	Preservation Inlet	..	720 0 0	70	0 0	..	Reefing	Driving and winzuing	Company now in liquidation.	
J. Cairns	2	Matakamui	..	125 0 0	48	10 0	97	Reefing	Driving	Balance of subsidy now cancelled.	
S. C. Fachie	9	Nevis	..	10 4 6	..	..	17	Reefing	Driving and sinking	Work still to be completed.	
King Solomon Deep Lead, Ltd.	30	Waikaia	..	883 11 11	814	13 3	..	Dredging	Moving dredge	Work still in progress.	
							..	Deep lead	Driving	Mine abandoned during year.	
							4,329 14 4†				

* Includes authorizations in previous years. The total of the subsidies granted, less cancellations, during the year ended 31st March, 1938, amounted to £12,227 14s. 4d. The amounts authorized for prospecting, in conjunction with the Labour Department (Employment Division), in South Westland and in the Reefton district are not included in this total. † In addition, the Mines Department is paying—(a) Half of the cost of an investigation of areas in South Westland, the other half being paid by the Labour Department (Employment Division); fourteen prospectors are employed, and £1,063 1s. 4d. has been expended by the Department during the year. (b) Half of the cost of the prospecting of the Globe and Merrifys area, Reefton district, the other half being paid by the Labour Department (Employment Division); twenty-two prospectors are engaged on this scheme, and the Department's expenditure during the year amounted to £3,522 2s. 9d.

(2) GOVERNMENT PROSPECTING DRILLS.

The following table gives details of the drilling done and the results obtained for twelve months ended 31st December, 1937 :—

Drills used : Diamond and Keystone drills. Percussion and Hand-placer drills.

Number of Holes drilled.	Total Depth.	Diameter of Hole.	Mineral sought.	Character of Country drilled through.	To whom lent.	Cost per Foot of Drilling.	Cost per Foot of Transport.	Cost per Foot of Carbons' Wear.	Remarks.
58	Ft. 4,546	In. 6	Gold	Gravel ..	Clutha River Gold-dredging Co., Ltd.	s. d.	s. d.	..	In progress.
39	600	6	Gold	Soil and gravel ..	Labour Department (Employment Division)	6 1	2 1	..	..
57	3,890	6	Gold	Clay and gravels	Labour Department (Employment Division)	..	..	..	..
29	555	6	Gold	Clay and gravels	Labour Department (Employment Division)	13 5*	..	..	..
8	369	6	Gold	Gravel ..	Labour Department (Employment Division)	22 8·7	0 7·2	..	..
19	752	4	Gold	Gravel ..	Labour Department (Employment Division)	..	..	..	In progress.
6	409	6	Gold	Gravels ..	Labour Department (Employment Division)	10 0·6	0 11·2	..	..
1	850	2½	Coal	Sandstone, clay-stone, &c.	Puponga Coal-mines, Ltd.	14 8·62	0 10·03	..	..
1	402	2¼	Gold	Andesite ..	Sylvia Gold, Silver, and Base Metal Mines (N.Z.)	..	..	..	In progress.
36	1,656	6	Gold	Gravels ..	Tronoh (N.Z.), Ltd.	15 6	7 5	..	..
254	14,029								

* Includes cost of transport.

(3) SUBSIDIZED ROADS ON GOLDFIELDS.

The expenditure in the form of subsidies and direct grants upon roads on goldfields amounted to £16,869 2s. 7d., as compared with £3,132 11s. during the previous year.

(4) LEGISLATION AFFECTING METALLIFEROUS MINES.

Many alterations to the Mining Act, 1926, were made by the amending Act of 1937. Some simply clarify existing provisions and remove small administrative difficulties, while others, particularly the amendments to section 274 of the principal Act, deal more intimately with matters pertaining to the safety and welfare of the miners.

Daily supervision of mines and batteries is now required of all mine-managers and battery superintendents.

Youths under the age of eighteen years must not be employed underground.

The care of detonators in the mine is restricted to one member only of each group or party of workmen.

Winding-engines with only screw-operated brakes must now have adequate brakes of other types installed.

Tests of detaching-hooks by actual overwinds are not required as frequently as they were, but all detaching-hooks in use must be dissembled and examined at intervals not exceeding three months.

Where drilling is done by hand, an adequate spray must be provided, and where blasting is done, a spray must operate in that place for at least half an hour after the firing has been done.

Engine-rooms must be sufficiently heated, and if a trucker or a miner works alone in a level there must be at least one other person in another place off that level.

Tests of the mine air must be made as often and at such places as is required by the Inspector, to ascertain the number and size of the dust particles per cubic centimetre which the mine air contains.

I desire again to acknowledge the efficient help and co-operation which I have received during the year from the District Inspectors of Mines.

I have, &c.,
GEORGE DUGGAN,
Inspecting Engineer of Mines.

ANNEXURE A.

SUMMARY OF REPORTS BY INSPECTORS OF MINES.

NORTHERN INSPECTION DISTRICT (E. J. SCOBLE, Inspector of Mines).

QUARTZ-MINING.

Martha Gold-mining Co. (Waihi), Ltd. (W. Morrison, Manager).—No. 14 level: Ore was drawn from Trout block, on the Edward lode, and Gin block, on the Martha lode. No. 13 level: About 10,000 tons were drawn from Cow block, on the Martha lode. No. 12 level: Shrinkage stoping is in operation on the Ulster lode, and broken ore was drawn from this, also the Bath-Fahy block, on the Empire lode. No. 11 (55 ft.) sub-level: The Dreadnought lode was driven on for 128 ft. to the west and 100 ft. to the east. It was found to be comparatively small, but a stope, Bomb block, 77 ft. in length is to be opened up. No. 11 level: The east branch of the Edward lode, also the Royal lode, were further explored, but proved to be of poor grade. No. 11 (71 ft.) sub-level: Investigation of the downward continuation of the big pay-shoot at the southern end of the Edward lode was made by means of an intermediate level at 71 ft. above No. 11 level. This was driven 119 ft. north from Pike rise and 97 ft. southward. Development-work on this intermediate has opened up a block of ore called Pike block, calculated to contain about 9,000 tons, of a stoping value of £1 10s. 1d. per ton. No. 10 level: Broken ore was drawn from Ulster and Edward lodes. No. 9 level: Stoping is in operation in Iris block, Welcome lode. Ore is being drawn from Foal block, on the Martha lode. Further exploration of the north branch of the Martha lode was made. Starting at Foal north crosscut a drive was continued for 179 ft., at which point it connected to the drive westward from Murphy N.W. crosscut. The lode averaged about 2½ ft. in width. It was also driven on westward for a distance of 126 ft., but is too small to work at a profit. An intermediate level has been opened up at 70½ ft. above No. 9 level, for the purpose of facilitating development-work in the caving area of the Martha lode. Python block, on the Royal lode, was tested and found payable for a length of 133 ft., and shrinkage stoping is to be commenced on same. No. 8 level: Extensive driving and crosscutting were carried out on the Martha lode westward from No. 6 shaft preliminary to caving-work being undertaken. A total of 53,311 short wet tons was won from this section of the mine during the year. The drive on the west branch of the Edward lode was extended to 282½ ft. A good strong body of quartz was disclosed, but it assayed, in general, only a few shillings per ton, and driving was stopped. Alpha rise, put up at 21 ft. south, has been taken to a height of 110 ft. It showed quartz ranging in width from 2 ft. to 4 ft. and averaging £2 3s. 3d. per ton. Work is being continued. No. 7 (105 ft. and 80 ft.) sub-levels: Ore was won from the Venus and Jim arches in the Martha lode caving-area. About 12,000 tons of stone has also been obtained from Wyatt and Hamilton arches by square sets and caving. No. 7 (60 ft.) sub-level: The caving-area at Posterson, Deer, Kangaroo, Nos. 4 and 5 crosscuts, Venus, Wyatt, Jim, and Hamilton arches and drives has produced a total of 53,311 tons for the year. No. 7 level: A block of ore, calculated to contain 4,600 tons, was opened up on the north branch of the Royal lode, west and east of Cobra north crosscut. Edward lode, west branch: Following up the explorations at No. 8 level, investigation of this branch at No. 7 level has been put in hand. Communication with this lode was made by constructing a dip on the east side of the Edward filling-pass, then connecting with the Edward east-wall gangway, and projecting a crosscut, known as Roach N.W. crosscut, for 63 ft. It was found that the west branch comprised four parts. Starting at 52 ft. in Roach crosscut, a total distance of 130 ft. was driven south-westward, at which point driving was suspended owing to the dangerous state of the roof. The reef averaged about 3½ ft. in width and £2 2s. 3d. per ton in value. At the 38 ft. mark a drive was started on the low-grade quartz which represented the eastern part of the West branch, and same was extended for 112 ft. south-west. Between the 43 ft. and 100 ft. marks the quartz averaged about 4 ft. in width and £1 10s. per ton in value. North branch of Martha lode: Giddens south rise, situated 244 ft. west of a point 318 ft. west of No. 2 shaft N.W. crosscut, was risen 116 ft. and later connected by winze from No. 6 level. At 50 ft. up this rise an intermediate level was driven westward for 98½ ft. Preparations are now in hand for stoping a block (to be known as Whittaker block) above the intermediate, and extending east and west of Giddens south rise. The reef is small, but assays well. No. 6 level: Driving westward on the main north branch of the Martha lode, which was stopped in January, 1935, was resumed and continued to 862 ft. From 485 ft. to 589 ft. west the reef was narrow, but of good value. At 490 ft. Denby winze was sunk 86½ ft. and connected to the rise from No. 7 level. Ore was drawn from Payne and Munro blocks. A sub-level is being driven at 46 ft. down Giddens winze. Giddens south crosscut was projected a total of 180 ft., measuring from the north branch of the Martha at Munro block. Several veins were met, but were not payable. A shrinkage stope has been opened up on the Royal lode, extending from 86 ft. east of Princess south crosscut to 273 ft. No. 5 level: Lovett south-east crosscut was extended from 70 ft. to 173 ft. and several narrow veins were intersected. A reef met at 99 ft., called H. branch lode, was driven on eastward for 93 ft. From 0 ft. to 86 ft. it is payable, and about 3 ft. in width. A shrinkage block called Lovett block is now in operation at 63 ft. up on this lode. Two other small lodes—viz., at 52 ft. and 59 ft.—were driven on and some payable ore was disclosed. No. 4 level: Lovett south-east crosscut was commenced at a point 158 ft. south-west of No. 2 shaft and driven a total distance of 217 ft. It is exploring the same block of ground as the crosscut of the same name at No. 5 level. This block is traversed by a great number of leaders and small reefs, some of which contain ore of very good grade, but they are too narrow to be worked at a profit. At 141 ft. a branch of the H. reef was driven on for 46 ft., but it proved unpayable. Lovett north-west crosscut was projected 35 ft., and connected to Edward filling-pass. Broken ore was drawn from Roach block, Edward lode, and Fallon east block on a north branch of the Martha lode. No. 3 level: On the Edward lode a prospecting crosscut, heading southward, was started at 40 ft. in No. 2 shaft S.E. crosscut, and at 14 ft. met the east part of the Edward lode. The latter was driven on for 311 ft. From 54 ft. to 279 ft. the ore is payable and about 3 ft. wide. No. 2 level: Breaking of ore was completed in the north part of Trout block, on the Edward lode, and most of the broken ore has been drawn off from the south part of the same block. A north branch of the Martha lode, situated 64 ft. in Brown N.W. crosscut, was driven on westward for a total of 324 ft. The greater part of the lode was narrow and unpayable, and driving was stopped. Potts rise, situated 116 ft. west, was put up 68½ ft. on the payable north part of the lode. Driving east and west was carried out on a reef met in Haigson south crosscut, but values were low. Opencut level: Rill stoping was stopped at 75 ft. up in Dix block, Martha lode, owing to values falling. West of Edward filling-pass north crosscut, a drive was advanced to 364½ ft. on the south branch of the Martha lode. Ore payable and about 2½ ft. in width. The south branch of the Martha lode, east of Haigson south crosscut, was driven on for 187 ft. The reef varies from 1½ ft. to 4½ ft. in width and contains payable values from 100 ft. to 173 ft. Walker north crosscut, situated 46 ft. east of Haigson crosscut, was extended 82 ft., and will be continued to the intersection with the north section of the Martha lode, which is expected at 110 ft. The work of testing the country north-west of the Martha north branch lode by diamond drilling was completed. Output: A

total of 183,518 long tons of quartz was mined and treated, from which gold and silver to the value of £420,143 was obtained. The gold recovered amounted to 54,552 oz. 13 dwt., valued at £383,233, and the silver to 412,022 oz. 11 dwt., valued at £36,910. Dividends were paid during the year to the amount of £99,181 8s. The average number of men employed was 598. The total yield of bullion (gold and silver) since the beginning of operations (including that won by the Waihi Gold-mining Co., Ltd.) is 27,372,469 oz. 2 dwt. 11 gr., valued at £19,375,005 13s. 10d.

Waihi Grand Junction Gold-mining Co., Ltd. (W. Morrison, Manager).—The Martha Gold-mining Co. (Waihi), Ltd., continued the working of this mine. No. 10 level: All broken ore was drawn from Faby and Ellis blocks in the Martha Co.'s No. 13 level, Empire lode. No. 9 level: Ore was drawn from Nos. 9 and 6 pass blocks on the Empire lode. No. 8 level: On the Royal lode 214 short wet tons of broken ore were drawn from No. 4 pass block. All available ore was drawn from Lowrie block, but owing to the flatness of the stope a good deal of broken ore on the footwall cannot be obtained. No. 7 level: All the broken ore that could be got with safety was taken from Chalker block, on the Royal lode, and from Wells and Nos. 11 and 12 pass blocks, on the Empire lode. No. 7 (63 ft.) up level: Shrinkage stoping was done up to the floor of No. 6 level in No. 18 pass block, on the Empire lode, and all broken ore was drawn off. No. 7 (59 ft. and 80 ft.) up levels: Shrinkage stoping completed and all broken ore has been trucked from Ward block, on the George lode. No. 6 level: About 2,000 tons of ore was obtained from Gibbons, Dye, and Nos. 3 and 10 pass blocks, on the Royal lode. Martha Co.'s No. 10 level: All the available broken ore was drawn from Ulster block, on the lode of the same name. Martha Co.'s No. 8 level: East of footwall gangway a north crosscut was driven from 238½ ft. to 396 ft. on the Royal lode, when driving was stopped owing to very low values. At 304 ft. a crosscut was put out north for 21 ft. on payable stone. No. 7 pass shrinkage block from 250 ft. to the 370 ft. point was worked up to 47 ft. above the level, and stopped owing to the sulphide ore pinching out and giving place to calcite. No. 3 pass shrinkage block, from 76 ft. to 166 ft. east, is being worked and is now 54 ft. above the level. Some 386 short wet tons were obtained, and there are now 504 tons of broken ore lying in the block. The diamond-drilling programme referred to in last year's report was completed. Output: The ore won from the mine amounted to 16,797 long tons, which yielded gold and silver to the value of £34,665. The gold amounted to 4,722 oz. 17 dwt., valued at £33,178, and the silver to 16,602 oz. 17 dwt., valued at £1,487. Dividends to the amount of £6,906 5s. 4d. were paid. The average number of men employed was thirty. The total value of the bullion won from the mine since the commencement of operations is £2,737,190 3s.

Golden Dawn Gold-mines, Ltd., Owharoa (J. H. Benney, Manager).—No. 3 level: The crosscut west off No. 1 reef north has been extended to a total of 840 ft. Up to within 100 ft. of the face the country rock was of a fair class, but from that point onwards it became broken, and driving was stopped. A drive north on a branch of No. 1 reef has been advanced to 219 ft. Reef unpayable. A crosscut west off this drive was put in for 30 ft., at which point the No. 2 reef was cut and found to be 15 in. in width and of very fair value. This reef was driven on for 129 ft. north and 121 ft. south. A crosscut put out from the drive north was advanced to 239 ft. Small reefs were cut at 27 ft., 72 ft., and 92 ft., and at 202 ft. a reef 20 ft. in width was encountered. The lode met at 27 ft., now called No. 4 reef, was driven on north for 96 ft. and south for 146 ft. It averages 11 in. in width and is of good value. Driving north and south was also carried out on the reefs cut at 72 ft. and 92 ft., but these proved unpayable. A drive was put in for 60 ft. on the west wall of the wide reef (No. 5) cut at 202 ft. This portion of the reef averages 5 ft. in width and looks very well. Bottom intermediate level (70 ft. above No. 3): The crosscut east off No. 3 reef south was put in for 127 ft. in country rock of a good class for carrying reefs, but none were found. Stopping operations were carried out on both the levels named on the west wall branch of No. 1 reef, and on Nos. 2 and 4 reefs. The average number of men employed was 110. Output: For the year, 7,511 tons of quartz was mined and treated for a return of 3,307 oz. 5 dwt. of gold, valued at £28,889 7s. 5d., and 4,844 oz. 12 dwt. of silver, worth £324 16s. 10d. No dividends were paid. The company's battery also treated ore for outside suppliers to the total of 2,297 tons, which yielded 1,960 oz. of gold, valued at £17,126, and 9,415 oz. of silver, worth £1,047. The total yield from the Golden Dawn mine since the beginning of operations is 86,904 oz. 5 dwt. 15 gr. of bullion, valued at £229,954 12s. 2d.

Talisman-Dubbo Gold-mines, Ltd., Karangahake (W. J. McConachie, Manager).—No. 2 level: The drive south was advanced to 1,143 ft. from the main crosscut. From 950 ft. to 1,000 ft. the drive continued in good-grade ore, but from that point onwards the lode was very irregular and poor in value. Crosscuts were put out at intervals from the drive, but with unsatisfactory results. Stopping was done from 750 ft. to 1,000 ft. south. From 935 ft. to 1,000 ft. values cut out: the lode practically disappeared 12 ft. below No. 1 level also. Dubbo level: A drive was advanced on the hanging-wall section of the lode from the main rise to 52 ft. north, at which point the reef junctioned with the footwall section. Stopping was carried out in the eastern section of the lode from 638 ft. to 664 ft. north, and also on the hanging-wall section on quartz of good value. Intermediate level: At 22 ft. above the mouth of No. 1 level a crosscut was driven to intersect the Maria lode. The level was extended north for 10 ft. and south for 90 ft. Values were low. A winze sunk to determine the nature of the lode underfoot did not yield encouraging results. Stopping on this level produced 122 tons of ore of fair value. No. 4 level: The opening-up of this level was commenced early in the year, with the object of reaching a portion of the Maria lode which was not worked by previous companies. The face is now in 767 ft. south of the main crosscut. Hauraki (No. 7) level: This level has been cleaned out and repaired for a distance of 930 ft., the intention being to continue the driving of same into virgin country. The erection of the company's battery is still in hand. Thirty-two men were employed. For the year the company mined 2,239 tons of ore, which was treated at the Golden Dawn battery, for a yield of 1,895 oz. 7 dwt. of gold, valued at £16,668 15s. 1d., and 8,752 oz. 14 dwt. of silver, worth £988 1s. 8d. No dividends were paid. The total yield of bullion since the commencement of operations is 55,602 oz. 17 dwt. 5 gr., valued at £80,802 7s.

Star Claim, Karangahake (H. A. Meagher, Owner).—No. 2 level was driven a further 20 ft. on the reef, but the country became very hard and this work was stopped. An effort is now being made to locate the Rhoderic Dhu reef in No. 1 level, where report states it was lost many years ago. From a small parcel of ore 4 oz. 16 dwt. of gold, valued at £18 19s. 2d., was obtained. This is the total production since the commencement of operations.

New Talisman Claim, Karangahake (C. Waines and E. Schulzki, Owners).—Operations consisted of driving, crosscutting, and sinking in order to test a supposed continuation of the Shepherd line of reef. Eleven tons of ore was treated for a return of 20 oz. 7 dwt. of gold, valued at £143 13s. 9d., and 469 oz. 18 dwt. of silver, valued at £42 4s. 7d. The total yield since the beginning of operations is 1,059 oz. 7 dwt. of bullion, valued at £729 2s. 7d.

Waiawa Claim, Karangahake (J. B. Morris, Owner).—Stopping operations in this mine have produced 264 tons of quartz for the year, which, on treatment in the owner's battery, yielded 159 oz. of gold, valued at £981 13s. 6d., and 208 oz. 10 dwt. of silver, valued at £11 13s. 7d. The total production since the commencement of operations is 759 oz. of bullion, worth £2,358 9s. 4d.

Victoria Claim, Karangahake (D. Leach, Owner).—The prospecting drive commenced in the previous year was extended to the western boundary of the claim, a distance of over 400 ft., but nothing of importance was met with, and all work on the area was abandoned.

Golden Spur Claim, Maratoto (A. Duke, Owner).—A short drive was put in 25 ft. below an outcrop which is located north of the Ohinemuri Co.'s tramline. A reef 3 ft. in width was driven on for 112 ft., at which point it junctioned with what is known as the main lode. Additional driving would have resulted in the surface being reached, and work was suspended. Further driving and crosscutting was done at a lower horizon with unsatisfactory results in one case and partially profitable ones in the other. A small tonnage of ore treated at the Golden Dawn battery yielded 4 oz. 13 dwt. of gold, valued at £32 14s. 11d., and 104 oz. of silver, worth £9 3s. The total output since the beginning of operations is 190 oz. 7 dwt. of bullion, valued at £65 11s. 11d.

Golden Crown Gold-mining Co. (N.L.), Komata (A. A. Adams, Manager).—The principal work done for the year consisted of repairing the main pass between Nos. 1 and 4 levels. It is now in good order down to No. 8 level. A leading stope is being opened out on the Golden Crown level. On the No. 1 level a crosscut was driven west from the main pass to No. 2 reef, and a start has been made to get this block ready for stoping. No. 2 level on the same reef

is now being picked up and re-timbered. Repairs have been completed in the low level. The average number of men employed was twenty-three. During the year 42 tons of quartz was treated for a return of 61 oz. 17 dwt. of bullion, valued at £230 5s. The total production since the commencement of operations is 198 oz. 16 dwt. of bullion, valued at £754 18s. 8d.

Graceville Syndicate, Neavesville.—In the Golden Belt Extended section a level was re-timbered for a length of 100 ft. with the object of locating a reef said to have been intersected therein and from which good ore was stacked on the tip. This proved, however, to have come from loose boulders, and driving-work was suspended. It is intended to resume operations in an endeavour to find another reef system 250 ft. westward. A large formation in the Remuera section on which little work had previously been done was opened up. This carries small leaders for about 20 ft. in the footwall portion, and it is reported that trial crushings taken out for a width of 15 ft. were highly payable. The company has a ten-head battery in which crushing was commenced in November, but operations suffer from lack of a regular supply of water. A dam is now being built to remedy this. Eighteen men were employed. During the year 279 tons of stone was treated for a return of 152 oz. 5 dwt. of bullion, valued at £671 14s. 3d. The total output since the commencement of operations is 731 oz. 7 dwt. of bullion, valued at £3,402 6s. 2d.

Kernick's Freehold, Tapu.—A small amount of work was carried on in No. 1 level. The north rise was taken up for 40 ft. and the other two for lesser distances. Stopping from the rises showed regular values. No. 2 level: Driving on the reef was continued north from the point of intersection in the branch drive for a distance of 45 ft. with fairly regular values. A rise was put up 12 ft. north from the same point, and from this (No. 2) and the south rise (No. 1) the reef was stoped out between the levels. A total of 29 tons of ore was crushed for a yield of 273 oz. 4 dwt. of gold, valued at £1,593 10s. 2d. The total output since the commencement of operations is 880 oz. 6 dwt. of bullion, valued at £5,159 8s. 9d.

Shannon Claim, Tapu (J. Matthews and H. Hemara, Owners).—A total of 130 ft. of driving was done on a narrow reef. Stopping on same resulted in 7 tons of ore being produced, which yielded 137 oz. 13 dwt. of gold, valued at £772 12s. 2d. This is the total output since the commencement of operations.

Gem Claim, Tairua (Shea, Hastie, and party).—Some driving and crosscutting was done, and several months were occupied in constructing hoppers and erecting an aerial in connection with the conveyance of ore from the mine to the State mill. The production for the year amounted to 26 tons of quartz, which yielded 17 oz. 10 dwt. of gold, valued at £82 7s. 10d. This is also the total output since the commencement of operations.

Wealth of Nations Mining Syndicate, Tairua.—The erection of the ten-stamp mill referred to in last year's report was completed early in 1937. A tramway was laid to the mine entrance, and renovating-work in Nos. 1 and 2 levels was put in hand. Work was suspended during the latter part of the year. The average number of men employed was four. No ore was broken in the mine, but some 40 tons of sweepings, which were obtained in cleaning out No. 2 level, was treated at the battery for a recovery of 11 oz. 16 dwt. of bullion, valued at £49 15s. 10d., which is also the total production since the commencement of operations by the syndicate.

Western Claim, Tairua (G. Taylor and party, Owners).—Work consisted chiefly of repairing a road, and constructing an aerial, &c., in connection with the conveyance of ore from the mine to the State mill. Some 27 tons of ore, with a yield of 7 oz. 11 dwt. of bullion, worth £44 14s. 8d., was produced from the property during the year. The total output since the commencement of operations is 16 oz. 2 dwt. of bullion, valued at £64 3s.

Monowai Gold Development, Ltd., Waionio.—Two men were engaged at surface prospecting on this area for a part of the year. Underground work was suspended for the whole period.

Mountain King Claim, Puhōi, Thames (Pereiha and Te Moananui).—Stopping operations on a narrow but rich reef yielded 20 tons of quartz from which 66 oz. 14 dwt. of gold, valued at £377 9s. 11d., was obtained. This is the total output since the beginning of operations.

Hector McDonald Claim, Puhōi (McFetridge Bros. and Hemara).—A fair amount of driving and rising was carried out on a reef about 6 in. in width, and 28 oz. 8 dwt. of gold, valued at £196 0s. 1d. was obtained from 17½ tons of quartz. This is the total output since the commencement of operations.

Jameson's Claim, Puru (Jameson and Loudon).—A low level with about 40 ft. of "backs" was driven to cut a reef system from which two parcels of ore were treated. On intersecting the main reef the drive was continued for the purpose of cutting a promising cross reef and the construction of a short rise. Some 29½ tons of quartz was treated for a recovery of 8 oz. 5 dwt. of gold, valued at £42 17s. 3d., which is the total output since the beginning of operations.

Puru Gold Reefs, Ltd., Puru.—It is proposed to erect a small ball mill, amalgamating table, &c., on this company's property (formerly the Golden Ridge claim held by Messrs. Codd and Harold) during the coming year. A total of 21 tons 15 cwt. of ore was treated at the Thames School of Mines battery for a yield of 25 oz. 10 dwt., valued at £136 18s. 3d., which is the total output since the commencement of operations.

Waitangi Claim, Thames (Armstead and Kendall, Owners).—Operations consisted principally of renovating No. 3 level and erecting a stamp battery. The latter comprises a stone-crusher, five stamps, self-feeder, amalgamating and Wilfley tables, three berdans, two 45 ton cyanide tanks, five solution tanks, two precipitation boxes, &c., together with a 75 h.p. gas-producer engine. The production for the year amounted to 201 tons of quartz, which was treated in the owner's battery, and which yielded 15 oz. 3 dwt. of bullion, valued at £36 18s. 8d. This is the total output since the commencement of operations.

Virginia Claim, Thames (W. F. Smith and party).—The connection with the winze referred to in last year's report was obtained and the ventilation is now satisfactory. Prospecting by driving, &c., was continued, and 53 tons of ore was produced as a result of this work, the yield being 87 oz. 10 dwt. of bullion, valued at £239 10s. 3d., which is the total output since the commencement of operations.

Sylvia Gold, Silver, and Base Metals, Ltd., Thames.—The drilling programme mentioned in last report was commenced in August with the Government C. N. Sullivan diamond drill. No ore was produced during the year.

Lucky Shot Claim, Thames (E. S. Keven and party, Owners).—Several small parties operated on different and separate portions of this property, with moderate success in one or two cases. The quartz produced and treated amounted to 40 tons, from which 65 oz. 11 dwt. of gold, valued at £330 0s. 1d., was obtained. This is the total output since the beginning of operations by the present owners.

Progress Claim, Thames (H. W. Lloyd and party).—The main reef has been worked, and driving operations extended to 126 ft. thereon. A block of stone 30 ft. in length was made ready for stoping, and an intermediate level was driven for 54 ft. from a point 25 ft. below the brace on a winze sunk under the stope referred to. During the year 50 tons of quartz was treated for a return of 47 oz. 4 dwt. of gold, valued at £236 14s. 7d. The total output since the beginning of operations is 381 oz. 17 dwt. of bullion, valued at £1,943 15s. 8d.

Victoria Gold-mining Co., Ltd., Thames.—The crosscut, begun in the previous year, was advanced to the western boundary of the claim, a distance of 422 ft., with nothing to report in the way of discoveries. The claim was idle for the latter part of the year, and the probabilities are that the company will be dissolved in the near future.

Commissioner Claim, Thames.—A crosscut 742 ft. in length was constructed, with the object of intersecting the Waiotahi-Cambria line of reef on which some work was done a good many years ago. The point aimed at was reached at the end of the year, and it is now proposed to recondition the old levels, &c., in order to extract several blocks of ore which should be of payable value. The ventilation is on the dull side, and it will be necessary to install a power-driven fan to overcome this difficulty.

Hauraki Mines Consolidated, Ltd., Coromandel.—The only work done was carried out by a party of tributers, who won 6 oz. of bullion, valued at £34 3s. 11d. The total output since the commencement of operations is 703 oz. 16 dwt. of gold, valued at £2,559 2s.

Coromandel Gold-mines, Ltd., Coromandel.—No. 1 bore, of the drilling programme commenced last year, has reached a depth of 410 ft. from the surface. Work was interrupted for some months owing to the drill having to be returned to its owners, the Hikurangi Coal Co., which was desirous of sinking bores on its own property.

Reynold and Party's Claim, Coromandel.—This party have won a small tonnage of ore from a reef with erratic widths and values. The production figures are 19 oz. 2 dwt. of gold, worth £105 13s. The total output since the beginning of operations is 33 oz. 16 dwt. of gold, valued at £186 16s. 2d.

New Royal Oak Claim, Coromandel (H. W. Chipman and party). A limited amount of driving, sinking, and rising was done, and the low level was restored for a length of 450 ft. Three and a half tons of stone was treated for a return of 184 oz. 10 dwt., valued at £796 18s. 6d. Approximately half of the bullion was got from 210 lb. of picked ore. The total output since the commencement of operations is 333 oz. 13 dwt., valued at £1,584 12s. 11d.

Lone Hand Claim, Waikoromiko (W. J. Pearce, Owner).—The intermediate level was advanced a further 52 ft. on a leader about 5 in. in width. The face is now in 150 ft. from the portal of the drive. The bullion won amounted to 8 oz. 12 dwt., worth £46 7s. 5d. The total output since the commencement of operations is 130 oz. 5 dwt. of bullion, valued at £677 17s. 10d.

Waikoromiko Sluicing Co., Waikoromiko.—Sluicing proper was started at the beginning of the year, but the results were not satisfactory and the claim was closed down. Eight men were employed while it was in operation, and 4 oz. 3 dwt. of bullion, valued at £22 2s. 11d., was won therefrom. The total amount of bullion won by the company is 24 oz. 14 dwt., worth £140 5s. 2d.

Northcote Claim, Waikoromiko (Boswell and party).—Two intermediate levels were driven for distances of 20 ft. on the Cuirassier and Four-in-Hand reefs respectively. The Boswell level was also advanced for 60 ft. Approximately 1 cwt. of picked stone was crushed for a yield of 15 oz. 1 dwt. of gold, worth £82 11s. 8d. The total output since the beginning of operations is 111 oz. 19 dwt. of gold, valued at £620 8s.

Rezman Mines, Ltd., Opiotoni.—This company is operating on freehold property which was worked many years ago by Kauri Freehold Gold Estates, Ltd. Operations were chiefly confined to surface prospecting and the erection of a five-stamp battery. It is intended to recondition some old levels, with the object of stopping several blocks of ore said to have been left behind by the previous company. The average number of men employed was six.

Hardy's Mines, Waiorongomai (M. Y. Hardy, Owner).—Sampling underground by means of a power drill comprised practically the only work done. This was carried out on behalf of an option-holder and occupied a period of several months, during which time about six men were employed.

Chain Mines Nos. 1, 2, and 3, Great Barrier Island.—A small amount of work in the way of opening up roadways and clearing the portals of adit levels was carried out on these areas by Rezman Mines, Ltd.

PROSPECTING.

As in previous years, the greater part of the prospecting-work done was carried out at Thames and Coromandel under the Labour Department's schemes. The number of men so employed decreased during the year, some of those whose prospects were not encouraging preferring to transfer to other work. On an average sixty-five men were employed in the Thames district and thirty men in the Coromandel area. The subsidized men at Thames won 638 oz. of gold, valued at £3,145 7s. 9d., while those at Coromandel produced 241 oz. of gold, worth £1,106 7s. 11d.

PRODUCTION FROM OIL-WELLS.

Moturoa Oilfields, Ltd. (K. E. Pedersen, Manager).—Operations were confined to repairs and maintenance in connection with the production of Nos. 1, 2, and 4 wells. Three men were employed. The wells named produced 7,651 gallons, 91,548 gallons, and 33,773 gallons respectively, the total value of the oil being £2,493 4s. 6d.

N.Z. Oil Refineries, Ltd. (W. Fossey, Manager).—Three employees. This company purchases and refines the output from the wells operated by Moturoa Oilfields, Ltd. During the year 136,719 gallons of crude oil was stillied with the following recoveries: Petrol, 27,750 gallons; distillate, 8,220 gallons; power kerosene, 20,700 gallons; heavy kerosene, 16,798 gallons; Diesel oil, 20,255 gallons; residue oil, 34,891 gallons; loss, 8,105 gallons.

QUICKSILVER AND SULPHUR MINES.

Mercury Mines (N.Z.), Ltd., Pahipuhi.—A small production was obtained by this company from the New Zealand Quicksilver mine. The figures are as follows: From approximately 30 tons of ore treated, 1,314 lb. of mercury, valued at £336, was obtained. Two men were employed.

No work was done on any of the sulphur deposits during the year.

ACCIDENTS.

One fatality occurred at the mines in this district during the year, the victim being Mr. M. F. Zenovich, widower, aged 57. The deceased, an employee of the Martha Gold-mining Co. (Waihi), Ltd., was engaged, on 27th August, at installing a new knocker line in No. 6 shaft. He apparently miscalculated when endeavouring to step from a wall-plate on to the top of the cage (where he and his mate travelled), and, missing same, fell to the bottom of the shaft, a distance of 75 ft., with the result stated. A verdict of accidental death was returned at the subsequent inquest.

NOTE.—Two Maoris, named Mr. Nehua Toki and Mrs. Tutu Nehua respectively, met their deaths by drowning on the 25th January while sinking a small shaft below high-water mark at the Whananaki sea-beach, North Auckland, with the mistaken object of finding gold. The fatalities occurred outside the mining district, neither of the deceased had a miner's right nor possessed a mining title of any description, and the fact of their being engaged in the work described was altogether unknown to the Department. There were no witnesses to the accident. An inquest was held, at which the Coroner returned a finding of death by drowning.

No serious non-fatal accidents occurred in the mines in this district during the year.

PROSECUTIONS.

A miner was convicted, without penalty, on 17th November, for a breach of section 274 (35) of the Mining Act, 1926.

WEST COAST INSPECTION DISTRICT (G. W. LOWES and A. W. TURNER, Inspectors of Mines.)

QUARTZ-MINING.

Marlborough County.

Smile of Fortune Mine, Wakamarina (Luigi Iada, Manager).—No gold or scheelite was won from this mine during the year; operations were confined to sinking 30 ft. on an outcropping lode 5 ft. in width and driving and crosscutting 150 ft. to prove the lode on which the winze was sunk. The low-grade ore encountered did not warrant the erection of treatment plant, and work was discontinued.

Golden Bar Mine, Wakamarina.—After driving 50 ft. on the south end of this lode on No. 2 adit level, the grade of ore encountered did not encourage further development. The distance driven proved an ore-body 5 ft. to 7 ft. in width and enclosed between hard walls. After the cessation of underground operations, attention was turned to the treatment of a heap of mill tailings containing low gold-values and a high percentage of scheelite. A Frue vanner and small Wilfley were installed and 1 ton of concentrates produced. The product has been shipped, but the amount realized is not yet known.

An average of four men were employed throughout the year under the management of Mr. Luigi Tada, who in addition to the above-mentioned work, carried out some surface prospecting east of the Smile of Fortune and sank 50 ft. on a 12 in. lode which assayed up to 8 dwt. per ton. This find has not been exploited, on account of transport difficulties between lode and treatment plant at the Golden Bar Mine.

A considerable number of prospecting licenses were held over an area extending from Camp Creek, Wakamarina, to the Pelorus Sound for the purpose of exploring a wide mineralized shear zone.

A Wellington syndicate, assisted by the Labour Department, carried out systematic crosscutting and rising on the Kaituna side of the divide between Kaituna and Wakamarina watersheds, but their efforts proved that the ore body was low grade when the sulphides were reached, although samples from oxidized parts of the lode at outcrop gave encouraging assays. Work on the area has been abandoned, and practically none of the prospecting licenses have been renewed.

Buller County.

Mokihinui District.—Nearly 1,000 ft. of driving and crosscutting was completed in this area during the year under review. A considerable portion of work was on reef which after careful sampling and assaying proved to be unpayable. The Lady Agnes, Red Queen, and Anderson lodes received the major part of attention, and the results achieved were convincing enough to justify the cessation of operations on all except the Red Queen Mine, as their low-level drive had not reached a point where the downward continuation of a lode profitably worked in the upper levels may be expected at the lower level.

Karamoa District. Prospecting operations on the Orion Reef have not been resumed since their cessation in 1936.

On the Nile Creek, old lode workings were cleaned out and a small amount of driving carried out; this work, in conjunction with surface prospecting, proved that the claim had only a slender chance of being brought to the producing stage, and the men were withdrawn from the area.

Waimangaroa District.—Three hundred and sixteen feet (316 ft.) of driving and crosscutting was completed on this area between sea-level and the Britannia Mine. The work was confined to prospecting likely looking outcrops and reef tracks, but the results were not encouraging; in most cases values were low, and in others the lodes and enclosing country were broken and faulted to an extent that made profitable exploitation of the higher-grade ore impracticable.

In a search for the Beaconsfield lode on the side of the Waimangaroa River 67 ft. of crosscutting and 372 ft. of driving were completed. An ore-channel was followed for a considerable distance without encountering anything of consequence, and work on this claim was abandoned.

Lyell District.—A total of 1,432 ft. of driving and crosscutting was completed in this mining district in addition to a considerable footage of cleaning out and retimbering of old levels, the latter work being carried out for the purpose of giving access to workings abandoned many years ago.

The outstanding feature in this area has been the discovery of what is termed Reid's lode. An outcrop was located a short distance west of Zalatown, and an adit driven below the outcrop developed an ore-body varying in width from 3 in. to 30 in. and values from a few grains to 2 oz. per ton over a length of 130 ft. in the top level; the No. 2 adit is now being driven on the lode channel, and the prospects of developing a payable block of ore are good.

No. 7 and No. 10 levels of the Alpine Mine are being repaired, with the object of carrying out exploratory work in connection with the search for the North Block, which was profitably worked from No. 6 to the surface prior to being cut off by a fault that displaced the ore-body between No. 6 and No. 7 levels.

All lode-prospecting in the Buller County was carried out by the Labour Department (Employment Division), which gave regular employment during the year to a considerable number of men. Systematic sampling of all ore-bodies was carried out, and the subsequent assays left no doubt as to the accurate value of all the reefs that were tested during surface prospecting operations or development in drives, with the result that a considerable amount of information is now available regarding the value of quartz lodes in the Buller County. Six hundred and forty (640) samples were taken during the period, and the assays were recorded on plans of the respective mines in the district.

Inangahua County.

Blackwater Mine (T. R. Hogg, Manager).—This mine employed an average of 205 men; development completed during the year totalled 1,836 ft. of driving, crosscutting, rising, and winzing, in addition to sinking the main north shaft 128 ft. below No. 13 level. On No. 10 intermediate level 55½ ft. were driven, 19½ ft. being on reef averaging 27.8 in. in width and 14.22 dwt. in value. No. 12 north drive was extended 5 ft., and with the 12 ft. driven south the reef averaged 20 in. and 23.5 dwt. No. 13 north drive was advanced 192 ft., 170 ft. being on reef averaging 26.8 in. in width and 13.73 dwt.; the south end of this level was driven 509 ft., 498 ft. being on reef averaging 33.2 in. and 15.41 dwt. Four hundred and forty-three feet of rising was carried out, the major portion being from No. 13 level to winzes sunk from No. 12 level; 392½ ft. were on reef of widths varying from 16.2 in. to 42 in. and values of 9.35 dwt. to 18.79 dwt. Winzing footages amounted to 345½ ft.; 287½ ft. of this distance were sunk on reef, the widths varying from 13.5 in. to 37.8 in. and values averaging from 11.76 dwt. to 23.5 dwt. Prospecting crosscuts and miscellaneous excavations for magazines, &c., amounted to 274 ft. The total amount of proved and probable ore developed during the period totalled 84,877 tons; 41,333 tons were mined and treated for a recovery of 14,281 oz. 17 dwt. by amalgamation, 2,557 oz. 13 dwt. 19 gr. by cyanidation, and 1,464 oz. 18 dwt. 5 gr. from concentration of subsequent roasting. £148,735 8s. 9d. was realized for the gold won, making a total of £2,675,996 17s. 3d. received for 557,096 oz. 19 dwt. of gold won since the commencement of operations. Dividends paid during the year amounted to £12,499 12s., which brings the amount of distributed profits up to £362,487 10s. An exhaust Sirocco fan driven by a 30 h.p. electric motor was installed on No. 12 level close to the Blackwater shaft and the mine ventilation improved to an appreciable degree. The ventilation plant, operating twenty-four hours per day and seven days per week, has substantially reduced the temperature in the lowest levels, and the conditions existing therein will compare favourably with most mines at the same depth. Experimental work in connection with the oil-flotation process as applied to the treatment of ore won from the Blackwater Mine has proceeded steadily during the year and a stage reached that ensures an economical extraction of gold by methods radically different from those now employed in this field. A new milling-plant will be erected close to the north shaft and will be put into commission during 1938.

Alexander Mine (W. J. Hall, Manager).—An average of thirty-eight men were employed by the company to carry out their mining and treatment operations. Stopping was confined to the ore-body between No. 4 and No. 5 levels on ore of an average width and value, when a comparison is made with the preceding year's return. Ore reserves were appreciably reduced during the year, the block between No. 4 intermediate and the main level being practically exhausted, but the pillar between No. 5 and the intermediate is estimated to contain enough ore to supply battery feed until the development of a new level, 150 ft. below No. 5, is completed. Development included the sinking of a winze, 29 ft. deep, from the floor of No. 5 level at the north end of ore-body. The winze was commenced on a section of lode 7 ft. in width, and was discontinued on account of drainage difficulties. The major development by the company consisted of driving No. 6 crosscut a distance of 1,046 ft., leaving approximately 600 ft. to drive and cut the lode which is exposed on the floor of No. 5 for a considerable distance and pitching at an unusual angle to the north. The crosscut bearing was laid off to avoid, if possible, the delay that was experienced in development of No. 5 level due to the northerly trend of the ore-body. During the period 4,360 tons of ore was mined and treated for a return of 2,130 oz. 14 dwt. of gold recovered by amalgamation, valued at £17,531 18s. 10d.; cyanided sands yielded 712 oz. 8 dwt. of bullion valued at £5,261 5s.; and 362 oz. 8 dwt., worth

£3,103 2s. 6d., were recovered from concentrates. The total yield from all departments of treatment plant amounting to 3,205 oz. 10 dwt., which realized £25,896 6s. 4d., brought the amount of gold won since commencement of operations up to 32,283 oz. 5 dwt., of a stated value of £206,267 18s. 6d. Dividends paid during the year amounted to £7,500, making a total of £48,750 paid by the company since its inception.

Big River Mine (H. de Lantour, Manager).—This company employed twenty-eight men in their mining and milling operations, and during the period carried out the following development and production: Stoping was carried out between No. 4 and No. 5 levels on the blocks of ore proved by three winzes sunk from No. 4 and connected with No. 5 by rises put up through the ore-bodies. To facilitate production an intermediate was driven midway between the main levels, and this enabled the company to double up the labour engaged in stopes that were limited in length and separated by barren lode material. Stopes in the south end of No. 5 yielded most of the tonnage milled, but subsequent development of No. 5 north disclosed a block of ore 60 ft. long and averaging 3 ft. 6 in. in width but of lower grade than the south block. Realizing that the mine reserves of proved ore remaining in stopes above No. 5 are limited as to quantity, development has been commenced with the object of making No. 6 level available in the near future. A winze was started in the south block and is down a depth of 20 ft.; preparations are being made to retimber the main shaft between No. 5 and No. 6, a distance of 150 ft., and on the completion of these two jobs development of No. 6 level will be advanced as rapidly as possible to forestall the probability of a shortage of ore for despatch to treatment plant. During the period 2,348 tons of ore was mined and treated for a return of 2,028 oz. 17 dwt. by amalgamation, value of product being £15,210 15s. 11d.; cyanided sands yielded 159 oz. 18 dwt., valued at £962 1s. 3d. The recovered concentrates from the above tonnage were not sold. The total yield and value of gold since the reconstruction of the company are 6,401 oz. 16 dwt. and £19,875 1s. 7d. respectively.

Homar Mine, South Blackwater (D. Absalom, Manager).—The manager and two employees advanced the low level No. 3 crosscut a distance of 99 ft. and intersected the lode at 225 ft. from the portal. The lode channel was followed south for 74 ft. on lode averaging 18 in. in width and value stated to be 15 dwt. per ton. The ore-body in this mine has been developed on three levels and a considerable quantity of ore made available for stoping. Negotiations are now in hand to procure and erect treatment and air-compressing plants, and it is anticipated that the mine will reach the producing stage in 1938. No ore was treated during the year under review, and the total amount of gold won from this mine stands at its former figure—namely, 162 oz. 3 dwt. 9 gr., valued at £791 3s. 6d.

Lunkey's Creek.—Watts and party consistently worked their claim during the year and extracted 581 tons of cemented gravel, chiefly from development-work, which yielded 81 oz. 7 dwt. 4 gr. of gold, valued at £587 19s. 4d. An air-compressor was installed, and rock drills are now in use. The installation of a Diesel engine is under consideration, owing to the supply of water for power purposes being inadequate during periods of low rainfall. Production for the year was restricted, due to a power shortage for operating their five-head battery and air-compressor. The party received substantial financial assistance from the Employment Division of the Labour Department, and subsequent results fully justified the expenditure.

Murray Creek Mine.—During the year work has been confined to repair work on the surface levels with three men employed at intervals. Additional machinery has been purchased, with a view to dewatering the workings, sinking the shaft at least one lift deeper, and developing the Victoria block of ore prior to prospecting the Inglewood and Phoenix blocks.

State-controlled Prospecting on Reefton Goldfield.—The prospecting policy instituted on lines following the recommendations made after extensive geological and geophysical investigation has been steadily pursued and a considerable part of the programme completed.

Work on the Merrifries area was principally confined to surface trenching and sampling of known ore-bodies. The Globe-Progress area, containing a section of main ore-channel which had received a very small amount of attention since the "seventies," has been extensively prospected from the Oriental No. 1 and No. 2 drives in the north end and General Gordon drive on the south end. Driving and crosscutting in the Oriental drives amounted to 992 ft., and in the General Gordon to 352½ ft., in addition to winzing 40 ft. below in the Gordon adit. Following the geological and geophysical work, trenching on the lines disclosed by the investigation revealed some strong outcrops which in several cases were sampled and gave encouraging assays. After completing most of the surface prospecting it was decided to investigate the surface discoveries by extending the Gordon tunnel north, and the same ore-channel of a width 50 ft. at the north end of the area was closely prospected and sampled by drives and crosscuts driven from the two Oriental tunnels situated between the Ballarat and Globe A shafts. This work has not yet been finalized, consequently a clear-cut decision on the values of the area cannot be submitted until the original programme is further advanced.

Work on the Murray Creek section of the Reefton field has been confined to the Perseverance and Golden Treasure Mines. In the former the crosscut was extended a distance of 183 ft., and what is presumed to be the Perseverance ore-channel was cut; preparations are being made to drive north on the channel. Trenching on the Golden Treasure leases disclosed a large low-grade ore-body containing an appreciable amount of stibnite, which may be given further attention, but from a low-level drive that will serve the purpose of prospecting country extending from the Perseverance to the Golden Treasure.

In conjunction with the prospecting operations carried out on the Reefton field, bulk testing of samples was carried out in a small treatment plant erected at Reefton. Samples of auriferous ore containing stibnite were despatched to England and experimental work carried out on the ore by the Mining Metallurgy Technical Service of Imperial Chemical Industries, Ltd., and a comprehensive report was submitted by their experts on the treatment of a refractory type of ore that has given considerable trouble to mill-managers on the West Coast. Surveys have been made of new and old workings and records kept of all sampling and assaying, and the net result to date is that there is an accumulation of useful data concerning this field. The foregoing work on State prospecting employed an average of twenty-two men on wages and contract and represented a considerable sum expended on mining in the district.

Diamond-drilling.—The Consolidated Goldfields of New Zealand, Ltd., drilled No. 1 hole to a depth of 1,165 ft. through difficult country. The objective was not reached, owing to the drill penetrating fissured strata that allowed the circulating water to escape. All efforts to seal off the fissure failed, and the drill will be removed to a fresh site to commence the boring of No. 2 hole when the casing has been withdrawn from No. 1.

Grey County.

Lode mining in this county has been restricted to prospecting operations at Moonlight Creek, Garden Gully, and Langdon's Creek, all in the Paparoa Ranges. In the Moonlight area two crosscuts 707 ft. and 629 ft. respectively were completed without intercepting any reefs of economic value. The first crosscut was driven in a south-westerly direction from a point in the valley of the right-hand branch of the Moonlight Creek (also known as Cape's Creek), about 18 chains from the confluence of this creek and the Middle Branch Creek. The second crosscut was driven in a south-westerly direction from the same valley but about 86 chains further upstream. In the Garden Gully area the old Garden Gully No. 2 level was continued both northwards and southwards, but after disclosing only disjointed leaders and one quartz cross-vein of poor value work was discontinued. At Langdon's Creek driving and crosscutting disclosed disjointed leaders in very disturbed country, but so far no definite body of quartz has been located. In addition to the above, surface prospecting was carried out in the Waikiki and Trent Rivers districts, tributaries of the Upper Ahaura River.

Westland County.

Bierwirth's Gold Reefs, Ltd., Mount Greenland (W. O. Bierwirth, Manager).—Six men were engaged during the first half of the year, 72 tons of ore being mined and treated in the battery for a recovery by amalgamation of 28 oz. 10 dwt. 2 gr. of gold, which realized £197 2s. 6d. The total quantity of gold won from this mine since the commencement of operations by the present company amounts to 2,104 oz. 9 dwt. 11 gr., valued at £10,768 6s. 2d., making the amount produced

from the mine since 1917 (when it was operated by the Mount Greenland Gold Quartz Mining Co., Ltd.) 4,135 oz., 3 dwt. 16 gr., valued at £18,876 5s. 6d. Operations were confined to the block of quartz above the No. 2 level, and were suspended at the end of May, 1937. During the latter half of the year the mine was closed down, and an attempt was made to complete the arrangements for a new company to take over and work the mine on a larger scale.

Lode-prospecting.—During the year two special prospecting parties organized by the Mines and Labour Departments were engaged in the examination of selected areas in South Westland. The first party commenced field operations towards the end of the previous year and carried on until May, 1937; it confined its activities to the country between the Main Alpine Range and the western coast-line, from the drainage basin of the Paringa River southward to the Moeraki or Blue River.

The second party commenced field operations in January, 1937, in the Omoeroa-Waikukupa-Cook Rivers district and carried on its investigations until May, when it was transferred to the Bullock Creek-Bald Hill-Copper Creek areas, a few miles north of the Haast River. Field operations in the latter area were concluded in October. Each party was in charge of a geologist, the average number of prospectors under his control being seven. The parties traversed large areas of difficult country and succeeded in locating many occurrences of quartz marked on earlier maps by the explorer Mr. Charles Douglas, but these, together with other outcrops located by the parties, did not reveal any mineralization of economic importance.

During the year various other parties carried out reef-prospecting in the Taipo Valley, the Totara Valley, and at Ross.

DREDGE MINING.

Mataki Dredge, Murchison County (T. B. Gillooly, jun., Dredgemaster).—The dredge operated throughout the year in the Mataki River, the average number of men employed being fifteen: 425,202 cubic yards was dredged for a return of 1,306 oz. 12 dwt. of gold, which realized £9,627 18s. 1d. The quantity of gold won to date amounts to 7,197 oz. 0 dwt. 1 gr., and the total value £52,356 1s. 3d. No dividends were paid during the year, but dividends paid since the commencement of operations amount to £7,029 13s. 10d. The dredge is steam-powered, with 7 cubic feet buckets; the average depth of ground dredged during the year was 11 ft.

Mataki Junction Dredge, Murchison County (F. McFelin, Dredgemaster).—During the year the dredge worked an area of approximately 27 acres and treated 989,500 cubic yards for a recovery of 3,385 oz. 0 dwt. 23 gr. of smelted gold, valued at £24,637 3s. 7d. The total weight and value of the gold obtained since the inception of operations is 5,611 oz. 19 dwt. 8 gr., and £43,293 11s. 11d. respectively. During the year the average number of men employed was seventeen: the sum of £2,590 was paid in dividends. The dredge is driven by Diesel electric power, and has 6 cubic feet buckets. The average depth of ground was 22 ft.

Workshop Dredge, Inangahua County (N. Curnow, Dredgemaster).—This dredge is equipped with 4 cubic feet buckets and is driven by a Diesel engine. The dredge operated steadily throughout the year, an average of thirteen men being employed; 453,200 cubic yards was treated which yielded 1,456 oz. 18 dwt. of alluvial gold, valued at £11,699 7s. 9d. The total value of the gold won since the commencement of operations is £50,975 17s. 7d., from 6,477 oz. 3 dwt. 17 gr. During the year dividends amounting to £3,200 were paid, making a total of £16,000 since the inception of the company; the original capital of the company has now been returned in full. The average depth of the ground dredged was 14 ft.

Mossy Creek Dredge, Inangahua County (A. Keith, Dredgemaster).—During the year this electrically driven 4 cubic feet bucket dredge treated 395,462 cubic yards which yielded 1,465 oz. 12 dwt. 23 gr. of alluvial gold, valued at £12,007 5s. 2d., out of which £2,500 were paid in dividends. Since the commencement of operations 5,552 oz. 7 dwt. 22 gr. of gold has been won, valued at £45,580 5s. 10d.; dividends totalled £13,750. The average number of men employed during the year was twelve. The average depth of ground was 12 ft.

Argo Dredge, Grey County (A. Fischer, Dredgemaster).—The electrically driven 4½ cubic feet bucket dredge worked continually throughout the year and treated 545,500 cubic yards for a yield of 3,178 oz. 5 dwt. of alluvial gold, valued at £23,920 8s. 11d. Dividends amounting to £10,000 were paid during the year. Since the commencement of operations 6,834 oz. 19 dwt. of gold has been won, valued at £54,195 6s. 5d., out of which £21,200 has been paid in dividends. The average number of men employed during the year was thirteen. The average depth of ground dredged was 26 ft.

Maori Gully Dredge, Grey County (D. Cuthness, Dredgemaster).—During the year this electrically operated 4 cubic feet bucket dredge treated 565,300 cubic yards for a yield of 1,797 oz. 2 dwt. 10 gr. of alluvial gold, valued at £13,304 12s. 6d. Since the commencement of operations 4,826 oz. 9 dwt. 7 gr. has been won, valued at £35,632 5s. 3d. The average number of men employed during the year was ten. No dividends were paid, but the dividends since the commencement of operations total £6,000. The dredge has worked up the Stillwater Creek towards the confluence of Wainea and Maori Creeks. The depth of ground has varied considerably, the average being approximately 25 ft.

New River Dredge, Grey County (J. A. Anderson, Dredgemaster).—This Diesel-powered dredge, with 4 cubic feet buckets, operated on the New River immediately below Dunganville; 444,500 cubic yards was treated for a yield of 1,725 oz. 15 dwt. of alluvial gold, valued at £12,485 12s. 8d. Since the commencement of operations 1,938 oz. 11 dwt. of gold, valued at £13,916 11s. 3d., has been won. An average of eleven men have been employed. The average depth of ground dredged was 10 ft.

Nemona Dredge, Grey County (A. Holden, Dredgemaster).—This electrically driven dredge with 4½ cubic feet buckets operated continuously throughout the year, an average of twelve men being employed; 639,950 cubic yards was treated for a yield of 2,690 oz. 16 dwt. of alluvial gold, valued at £20,224 17s. 1d. Since the commencement of operations 3,677 oz. 14 dwt. 3 gr. of gold has been won, valued at £28,194 3s. 4d. During the year £7,500 was paid in dividends, making a total of £10,500 since the dredge commenced operations in June, 1936. Approximately 23 acres of ground has been dredged; the depth of ground varies considerably, ranging from 14 ft. to 32 ft., the average depth being 25 ft. During the year a combination stone chute was added to the dredge at the screen discharge to facilitate the control of pond-water level; this chute also relieves the stacker-elevator of much work. At the end of the year two auxiliary pontoons were added to the main pontoon, to improve the buoyancy and trim of the dredge while digging shallow ground. The dredge operates in Cockeye Creek, a tributary of the New River, near Marsden.

Bundi Dredge, Grey County (R. Murray, Dredgemaster).—During the year this steam-driven 10 cubic feet bucket dredge employed an average of thirty men, and treated 266,124 cubic yards of gravel which yielded 857 oz. 4 dwt. 10 gr. of alluvial gold, valued at £6,000 11s. 6d. Since the commencement of operations 6,078 oz. 1 dwt. 2 gr. of gold has been obtained, valued at £44,925 11s. 6d. At the latter end of the year the dredge operated at Chinaman Terrace, about two miles from Camerons, in the New River Valley. At the conclusion of last year's operations the dredge was approaching Two Mile Creek. It had to proceed up this creek to reach Chinaman Terrace, and met with considerable difficulty owing to the rise in the "blue reef" bottom. At times 18 ft. of this bottom had to be dug; the tailings chutes were so arranged that the tailings could be stacked in a series of dams.

White's Electric Dredge, Grey County (H. J. Werner, Dredgemaster).—This dredge was closed down for approximately five months while alterations to the tables were carried out. The steel sluice-boxes with plush matting were discarded in favour of broad wooden tables with slotted rubber matting. Several of the head tables were equipped with vibrating mechanism. The average number of men employed during the year was fourteen; 182,316 cubic yards was treated for a return of 804 oz. 3 dwt. of gold, valued at £5,832 19s. 4d. Since the commencement of operations 949 oz. 7 dwt. of gold have been won, valued at £6,887 16s. 10d.

Burrytown Dredge, Grey County (T. B. Gillooly, sen., Dredgemaster).—Construction work was completed during the year and the dredge was given trial runs early in May, but, owing to the shortage of electric power, operations were only possible during the off-peak periods between 12 midnight and 8 a.m. A supplementary power-supply was made available by the end of July, and full working time was possible from that date until the end of the year. Since the commencement of operations 834,000 cubic yards has been treated for a return of 2,984 oz. 16 dwt. 9 gr. of alluvial gold, valued at £21,969 7s. The average number of men employed was thirty-eight. The average depth of ground dredged was 29.41 ft. The dredge is equipped with eighteen Bendelari jigs, with hematite ragging; the blacksand and gold spigot product is passed over plush-lined tables, the concentrates from which are treated in amalgamation barrels. The jigs are arranged in two banks (of nine each), one on each side of the dredge. The dredge strips the overburden ahead of the auriferous sands and gravels, the earthy and decayed vegetable matter being bye-passed astern and placed on top of tailings. The dredge is equipped with 12 cubic yard buckets; the total connected horse-power of the electric motors is 879.

Stafford Dredge, Westland County (D. McRae, Dredgemaster).—This electrically driven 8 cubic feet bucket dredge operated throughout the year and treated 419,562 cubic yards for 2,185 oz. 5 dwt. 1 gr. of alluvial gold, valued at £16,660. Since the commencement of operations 6,207 oz. 11 dwt. 2 gr. of gold, valued at £48,684 10s. 10d., has been won, and the sum of £3,750 paid in dividends. The average number of men employed during the year was sixteen. The average depth of ground dredged was 33 ft.

Rimu Dredge, Westland County (F. B. Lewis, Dredgemaster).—During the year this electrically operated 12 cubic feet bucket dredge operated consistently and treated 2,590,990 cubic yards which yielded 13,419 oz. of alluvial gold, the estimated value being £116,745. Since the commencement of operations 201,363 oz. of gold, valued at £1,136,633, has been won. The amount paid in dividends during the year was £20,834, making a total of £119,550 since the commencement of operations. During the year the average number of men employed was forty-three. The dredge worked a superficial area of 31.627 acres to an average depth of 51 ft. The total operating-time was 6,538 hours 3 minutes, or 88 per cent. of the possible: 396 cubic yards per hour were excavated and treated. The dredge worked steadily up the flat towards Rimu Township and encountered coarser and more tightly compacted gravels. The total connected horse-power of the electric motors is 922.

Okarito Five Mile Beach Dredge, Westland County (D. A. Mitchell, Dredgemaster).—During the year the dredge employed an average of nine men and treated 294,000 cubic yards for 1,239 oz. of alluvial gold, valued at £9,098: the sum of £2,333 6s. 8d. was paid in dividends. Since the year 1931, 13,776 oz. 9 dwt. of gold, valued at £89,862 6s. 3d., has been won, and £33,833 6s. 8d. paid in dividends. The dredge is operated by water-power: the built-up buckets have all been replaced with 5 cubic feet one-piece buckets with manganese-steel lips. During the year the bucket-well was punctured and the consequent influx of water resulted in the dredge sinking. The refloating of the dredge and repairs to both the hull and the digging ladder, which was badly damaged when the dredge sank, was responsible for a loss of eight weeks' dredging-time. The average depth of the ground dredged during the year was 21 ft.

Gillespie's Beach Dredge, Westland County (Geo. Pettigrew, Dredgemaster).—During the year this 5 cubic feet bucket dredge treated 548,911 cubic yards and recovered 2,463 oz. 16 dwt. of gold, valued at £20,758 12s. 3d. The amount paid in dividends during the year was £5,833 6s. 8d. Since the commencement of operations 8,536 oz. 13 dwt. of gold, valued at £67,440 0s. 10d., has been won, and the sum of £18,083 8s. 11d. has been paid in dividends. The average number of men employed during the year was fifteen. The dredge is electrically operated, power being supplied by the company's own hydro-electric plant. The average depth of ground was 27 ft. The construction of a new road to replace the pack-track from the Cook River Road to Gillespie's Beach (a distance of approximately 7½ miles) was commenced during the year, and will be completed in the autumn of 1938.

DREDGE-CONSTRUCTION.

Grey River Dredge, Inangahua County (Grey River Dredging Co., Ltd.).—During the year construction of this company's dredge was commenced at Ikamatua. The dredge is to be of all-steel construction, and will operate on one spud only. The pontoon dimensions are: Length, 147½ ft.; width, 65 ft.; depth, 11 ft. The buckets are 16 cubic feet capacity, and the maximum digging depth will be 40 ft. below water-level. The dredge is to be electrically driven, and is designed to handle 4,500,000 cubic yards per year. An erection site and pond were prepared, and the construction of the pontoon began in September: twenty men were engaged on this latter work until the end of the year.

Ngahere Dredge, Grey County (Ngahere Gold Dredging, Ltd.).—During the year this company prepared a site for the erection of its dredge at Montgomery's Terrace, and also a road to the site about half a mile from the Moonlight Road. Four men were engaged in this work, using various hydraulic and mechanized equipment. Contracts have been let for the design and fabrication of the dredge, and fabrication of the pontoons had commenced by the end of the year. The dredge will be an all-steel electric dredge, operated with spuds, the pontoon dimensions being: Length, 170 ft.; width, 72 ft.; depth, 12 ft. The total weight will be approximately 2,600 tons. Bucket capacity will be 18 cubic feet, and the dredge is designed to dig 75 ft. under water and carry 25 ft. bank.

Blackball Creek Dredge, Grey County (Blackball Creek Gold Dredging Co., Ltd.).—During the year this company purchased the Brian Boru Dredge at German Gully and let a contract for dismantling and re-erection at an area near the confluence of Ford's and Blackball Creeks. The machinery and superstructure of the Brian Boru Dredge, but only portions of the pontoons, were used in the construction of the Blackball Creek dredge, the remainder of the pontoons being new. The overall dimensions of the wooden pontoons are: Length, 118 ft. 6 in.; width, 36 ft. 6 in.; depth, 8 ft. 6 in. The close-connected buckets are 5 cubic feet "Hadfields" manganese steel, and weigh ¾ ton each. Separate motors are provided for the bucket-line and ladder hoist, being of 155 h.p. and 55 h.p. respectively. The winch and screen are both operated by 30 h.p. motors. The remaining motors are: Stacker, 25 h.p.; high-pressure pump, 55 h.p.; low-pressure pumps, 20 h.p., and 15 h.p.; barge-pump 3 h.p. The total connected horse-power is 383. Power is being obtained from the Grey reticulation at 11,000 volts, and stepped down to 400 volts by a 250 kv.a transformer situated on shore. The bucket speed will be approximately twenty per minute, and the dredge will be head-line operated. The construction work was well advanced by the end of the year, and the dredge was scheduled to begin operating in March, 1938. From June, 1937, an average of fifteen men were employed by the contractor on this work.

Kanieri Dredge, Westland County (Kanieri Gold Dredging, Ltd.).—In June, 1937, work commenced on the construction of this dredge at Kanieri, and the pontoons were well advanced by the end of the year. The dredge is of all-steel construction, with 18 cubic feet buckets, and is designed to dig 85 ft. below water-level in addition to carrying a face of 30 ft. above water-level. The dimensions of the pontoons are: Length, 186 ft. 8 in.; beam, 72 ft.; depth, 11 ft. aft and 12 ft. bow. There are 107 buckets at 3 ft. 5 in. pitch in the bucket-line. The revolving screen will be 54 ft. long by 9 ft. diameter and set at a slope of 1¼ in. to the foot. Gold recovery will be by Bendelari jigs and riffles. The dredge will be electrically driven and spud operated. The average number of men employed on dredge-construction was thirty-eight: during the first half of the year fifteen men were employed on excavating the dredge pit and preparing the site for construction.

Arakura Dredge, Westland County (Arakura Gold Dredging, Ltd.).—Towards the end of the year the construction of this dredge was begun at the Arakura Valley. The dredge is a sister-ship to the Kanieri Dredge, and the same dimensions apply. The capacity of the dredge is estimated to be 4,800,000 cubic yards per annum. The men employed on construction work numbered twenty-five: in addition to these, twelve men were employed in the preparation of the dredge pit and construction site.

ALLUVIAL MINING.

Marlborough County.

Alluvial mining in this county is restricted to that carried out by men subsidized by the Employment Division of the Labour Department. Work of this class is chiefly confined to the Deep Creek and Wakamarina River beds during periods of water shortage and on the terraces when the races are carrying their normal flow.

Sparkes and party working from a shaft 70 ft. deep at the head of the Mahakipawa Valley are meeting with fair success in driving out the lead left between the King Solomon and Hibernian mines.

Seventy-seven men were employed in the county and won 213 oz. 9 dwt. 15 gr., valued at £1,498 10s. 3d. *Waikakaho Deep Lead Gold Mining Co.* (R. C. Ruffin, Manager). The company commenced sinking operations towards the end of the year through schist rock on the eastern side of the stream and approximately 300 ft. from the gold-bearing gutter. An attempt to sink over the lead and through alluvial cover was not successful owing to an influx of water, but no difficulty should be experienced in reaching the gutter from the rock shaft now under construction, and the crosscut from shaft to gutter will be for most of its distance in rock, consequently pumping will be reduced to a minimum. A three compartment shaft 11 ft. 8 in. by 4 ft. 6 in. is down 50 ft., and the head gear and winding-plant will be erected early in the ensuing year.

Collingwood County.

Diamond's Flat Gold-mining Co., Ltd. (W. G. Mouat, Manager).—Early in the year this company acquired the mining privileges and extensive water rights held by Mouat and Sons, also their mining-plant and pipe-line. The necessary race diversion was effected, and a pipe-line laid on the upper end of the claim prior to commencing hydraulic elevating from the old buried channel of Slate River. An average number of four men was employed, and 9 oz. 18 dwt. 12 gr. of gold valued at £66 1s. 3d., was recovered.

The major portion of gold won in this county was by subsidized miners. The total number of men employed in this branch of the industry numbered eighty-one, who produced 233 oz. 17 dwt. 19 gr., valued at £1,548 8s. 6d. The Diamond's Flat Co.'s employees and gold return are included in these figures.

Takaka County.

Glover's Flat Gold Syndicate.—Manoy Bros., who are now the sole proprietors of the claim, employed three men ground sluicing. The claim is connected with the Anatoki River by a tail-race which drains the paddock and carries the lighter debris. Mechanical appliances are required to lift the heavier material out of the paddock.

Alluvial minces in the county numbered fifty-seven, and they produced 117 oz. 12 dwt. 22 gr., valued at £764 7s. 8d.

Waimea County.

The number of alluvial miners in this county has decreased, and now only twenty-four men are employed on small claims on the Wangapeka and Baton Rivers. They produced 92 oz. 3 dwt. 20 gr., worth £681 7s. 7d.

Murchison County.

Glenroy Gold, Ltd. (Thornton and Sons, Tributors).—Three tributors worked this claim and recovered 48 oz. 3 dwt. 7 grs., worth £351 18s. 6d., making the total amount produced since the commencement of operations 462 oz. 7 dwt. 4 gr., valued at £3,537 14s. 11d. It is stated that further capital is being raised to resume operations on a larger scale after constructing a new race through which the tailings will be transported to the Glenroy River.

Gold-bearing areas in the Maud and Louis Creeks are being actively worked, and a considerable amount of prospecting by drives, shafts, and boreholes has been carried out, with the object of locating new deposits in the area and maintaining the field's output, which, in the past four years, has been substantial.

The drag-line plant at Narrow Neck, Buller River, patented by Mr. E. W. Tait, and financed by a Nelson syndicate, assisted by the Mines Department, commenced digging operations late in the year and proved conclusively its efficiency as a digging unit. Buried timber was considered a serious obstacle to successful working, but the winches and gear were found equal to the task of removing tree-trunks and rocks of considerable weight. Under such conditions, the yardage dug was gratifying, and the plant was severely tested for strength and reliability.

Two hundred and sixty-three men were employed in the county, and they won 1,881 oz. 6 dwt. 5 gr. of gold, valued at £13,570 19s. 11d. These figures exclude dredge returns, but include those of Glenroy Gold, Ltd.

Buller County.

Addison's Flat Gold-mining Co. (J. M. Powell, Manager).—This company employed ten men in hydraulic sluicing and elevating a cemented wash, and during the period worked 12 acres of ground of an average depth of 9 ft. and recovered therefrom 871 oz. 17 dwt. 12 gr. of gold, valued at £6,540 5s. Shortage of water during the year seriously affected the output and profit of the company. Since commencing operations the company has produced 2,723 oz. 7 dwt. 8 gr., valued at £20,541 1s. 3d. Dividends paid during the year amounted to £1,300, making a total of £4,095 distributed to the end of the year.

J. H. Powell and Sons sluicing on the Charleston Flats recovered 9 oz. 3 dwt. 7 gr. of gold, valued at £70 6s. 8d. Most of the partners' time was taken up in repairing damage to dams and tail-races by floods.

Totara Gold-mining Co., Ltd. (D. Harthill, Manager).—This company is preparing to work a sluicing claim near the mouth of Totara River, and employed seven men on construction work.

Alluvial mining in this county continues to decline, and the number of men now employed is reduced to 141, who produced 1,304 oz. 11 dwt. 23 gr., valued at £9,611 13s. 9d. These figures include all alluvial gold won and men employed in the county.

Inangahua County.

Waitahu Gold-mining Co. (P. P. Thomas, Manager).—Notwithstanding a shortage of water during the latter part of the year, the company employed nine men and mined 3 acres of ground from Nos. 12, 13, and 14 paddocks for a yardage of 312,000 cubic yards, which yielded 683 oz. 12 dwt. 4 gr. of gold, valued at £5,149 5s. 7d. The total amount of gold won since the commencement of operations is 2,810 oz. 3 dwt. 1 gr., valued at £20,860 19s. 10d.

Mount David Sluicing Co. (W. G. Baird, Manager).—This company employed an average of four men and produced 62 oz. 11 dwt. 3 gr. of gold, valued at £461 16s. 5d., making the totals since the commencement of operations 561 oz. 16 dwt. 7 gr., valued at £3,867 0s. 7d. During the year 620 ft. of race-tunnel was driven to replace sections of open ditch that had become unserviceable, in addition to carrying out repairs to race in various parts. When this work was completed, shortage of water from the Big River further curtailed operations.

Hukawai Gold-mining Co. (H. Mills, Manager).—This company was formed for the purpose of exploiting a sluicing claim on the north side of Snowy River near the Hukawai Township. A 10 in. Kelly-Lewis gravel-pump driven by a 60 h.p. motor was installed to elevate the alluvial mass from paddock sump to sluice-boxes containing gold-mining appliances. A 9 in. high-pressure Kelly-Lewis pump with a capacity of 100,000 gallons per hour supplied water to the hydraulic monitor, and it absorbed the output of a 100 h.p. motor when under a full load. Power was supplied by the Blackwater Gold-mining Co. from the hydro-electric plant situated a short distance below the Blackwater battery. After operating for a short time the company closed down: during the period worked, 44 oz. 2 dwt. 15 gr. of gold was recovered, which realized £363 4s. 10d.

During the year ninety-six men were engaged in alluvial mining in the Inangahua County, and the production was 1,204 oz. 9 dwt. 13 gr. of gold, valued at £8,964 5s. 9d. These figures include all the small alluvial claims, together with the production from the Waitahu Gold-mining Co., the Mount David Co., and the Hukawai Co., but not the dredges.

Grey County.

Deep Lead Elevating Claim, Nelson Creek (H. Lowther, Manager).—This company operated for approximately one month at the beginning of the year and treated 7,800 cubic yards for a yield of 17 oz. 17 dwt. 9 gr. of alluvial gold, valued at £135 15s. 8d. The total yield of gold from this claim since the commencement of operations amounts to 1,259 oz. 16 dwt. 2 gr., valued at £8,968 9s. 10d. One dividend amounting to £500 has been paid since the inception of operations. The claim was worked by sluicing and elevating with dredge buckets driven by an electric motor. The company is considering a different method of working.

Golden Valley Syndicate, Gow's Creek (Thos. Donnellan, Manager).—This syndicate completed its development-work, and commenced operating at the end of the year, obtaining 16 oz. 2 dwt. of alluvial gold, for a return of £112 1s. 9d. The average number of men employed while sluicing was three.

Golden Sands Sluicing Claim (J. M. Denny, Manager).—This company, operating a hydraulic sluicing and elevating plant on a beach-lead deposit near Barrytown, treated 100,320 cubic yards which yielded 759 oz. 16 dwt. of alluvial gold, valued at £6,176 11s. 4d., and paid £1,866 13s. 4d. in dividends. Since the commencement of operations the company has won 3,564 oz. 4 dwt. 13 gr. of gold, valued at £28,191 2s. 4d., and has paid £7,166 13s. 4d. in dividends. The average number of men employed was ten. The company worked consistently throughout the year and used extensive suction-pipes, which did not necessitate the shifting of the gold-saving tables.

Moonlight Goldfields Sluicing Claim (R. C. Bell, Manager).—During the year this claim, which is situated at Healey's Gully has operated continuously and treated 177,000 cubic yards for a return of 825 oz. 13 dwt. of alluvial gold, valued at £8,421 17s. 4d. Since the commencement of operations gold to the value of £15,911 8s. 6d. has been won. The average number of men employed during the year was seventeen, with two faces in operation. The company paid £990 14s. in dividends during the year.

Welshman's Claim, Addison Exploration, Ltd. (A. J. M. Millar, Manager). This claim, which is situated near the old Marsden Road, is worked by a 1 cubic yard "Osgood" shovel, diesel-driven, the spoil from which is hauled to a washing-plant by steam locomotive and compressed-air dumped wagons of 8 cubic yard capacity. During the year 179,315 cubic yards was treated for a return of 1,171 oz. 14 dwt. of alluvial gold, valued at £7,495 9s. Since the commencement of operations this company has won 1,695 oz. 5 dwt. of gold, valued at approximately £11,000. The average number of men employed during the year was twenty-three. The average depth of ground was 15 ft.

Hohonu Sluicing Claim.—During the year this claim was sold by the Hohonu Gold Sluicing Co., Ltd. (in liquidation), to private interests. Before handing over, about the middle of the year, 26 oz. 19 dwt. 14 gr. of alluvial gold was produced, and this realized £196 11s. 7d., making a total of £17,848 14s. 1d. since the commencement of operations.

Kumara Goldfields Syndicate (A. E. Langham, Manager).—Sluicing operations have been carried out continuously during the year at Payne's Gully, with some sluicing during the first half of the year at Quinn's Creek. The average number of men employed during the year was eight. During the period 266 oz. 7 dwt. 10 gr. of gold, valued at £2,186 1s. 7d. was produced, making the total since the commencement of operations 290 oz. 5 dwt. 2 gr. of alluvial gold, valued at £2,365 17s. 8d.

The total number of men engaged in alluvial mining in the Grey County was 365, and the production was 4,875 oz. 13 dwt. 22 gr. of gold, valued at £37,331 0s. 9d. These figures include all small alluvial claims, and are inclusive of the yields from the Deep Lead, Golden Valley, Golden Sands, Moonlight Goldfields, Welshman's, Hohonu, and Kumara Goldfields Claims, but not the dredges.

Westland County.

Lawson's Flat Sluicing Claim (N. Lowther, Manager).—During the year this claim has been worked under tribute by Westland Power, Ltd., and has produced 316 oz. 11 dwt. 22 gr. of alluvial gold, valued at £2,356 18s. 11d. The average number of men employed during the year was thirteen. Since the commencement of operations a total of 2,807 oz. 11 dwt. 7 gr. of gold has been won, valued at £16,300 3s. 8d.

McIntosh, Hyndman, and party (S. Hyndman, Manager). During the year six men were employed in this claim, and the work was mainly confined to stripping barren material and opening up a new face near the old Jerk Claim.

The total number of men engaged in alluvial mining in the Westland County was 227, and the production was 1,500 oz. 1 dwt. 22 gr. of alluvial gold, valued at £10,832 14s. 6d. These figures include all the small alluvial claims, together with the yield from Lawson's Flat Sluicing Claim, McIntosh, Hyndman and party's Sluicing Claim, but not the dredges.

MINERALS OTHER THAN GOLD.

Onakaka Iron and Steel Co., Ltd. (In Liquidation).—During 1937 this company produced 150 tons of iron-ore, valued at £37 10s., and employed five men for a short period to quarry this amount. The product was crushed and iron oxide sold; no smelting was carried out.

Petroleum.—No drilling was carried out during the period. The Kotuku field produced 1,487 gallons of oil from oil-wells put down in former years. Of the above amount, Maoriland Oilfields, Ltd., produced 1,287 gallons, and N.Z. Oil Concessions, Ltd., produced 200 gallons. The former company transferred its interests to the latter company in November, 1937.

Asbestos.—The Hume Pipe Co. (Aust.), Ltd., holding a mineral license in Upper Takaka, produced 2,200 lb. of asbestos-bearing rock from the deposits which they are prospecting. It was transported by pack-horse team, and shipped to Sydney for experimental purposes.

PROSPECTING.

During the year 1937 many areas throughout the West Coast Inspection District were prospected for reefs, the investigation work consisting of both surface and underground operations. The principal areas dealt with by organized surface parties were Paringa, Bullock, and Copper Creeks, Waikukupa and Cook Rivers, all in South Westland, the Waikiti area in the Upper Ahaura district, and the Wakamarina district. Both surface and underground prospecting were carried out in the Reefton, Lyell, and Mokihini districts, and also at Moonlight Valley, Taipo Valley, and Totara Valley, Ross, and at Wakamarina. The South Westland special prospecting parties and the Reefton goldfields prospecting operations were carried out under the joint control of the Mines and Labour Departments. Practically the whole of the other reef-prospecting work throughout the districts mentioned above was carried out by the Labour Department.

The prospecting of alluvial areas by dredging and other interests was actively pursued throughout the year, a total of 728 boreholes being put down on thirty-one areas. While this represents a reduction of 52 per cent. in the number of boreholes and a reduction of 44 per cent. in the number of areas when compared with the previous year, the dredging industry is in a strong position as a result of bores in earlier years. One new dredge commenced operations during the year, and construction was commenced on four others, while the fabrication of the steel for a fifth dredge was commenced.

The investigation of alluvial areas which might be worked by hydraulic or mechanical means other than dredging received attention by various interests, unfortunately without any pronounced measure of success.

ACCIDENTS.

There were no fatal accidents during the year.

On the 11th January, Otto Hansen, a subsidized miner working under the gold-prospecting scheme, Westport, was injured by a fall of gravel in his claim at Coal Creek, near Westport. Hansen was engaged in widening the tail-race by undercutting the bank with a pick, and then falling it from the top by crowbar. He undercut one slab deeply and this slab fell without warning, partially burying him, and rendering him unconscious for a short time. He sustained a fractured collarbone and lacerations of the head.

On the 18th February, Eric Gray, a miner employed by the Addison's Flat Gold-mining Co., Ltd., suffered a broken bone in the foot as a result of a fall of clay which occurred at the claim.

On the 19th June, Robert J. Murray, dredgemaster of the Bundi Dredge, Camerons, met with a serious accident which resulted in a compound fracture of one leg, two broken ribs, and a scalp wound. Murray was in the act of jumping from the gangway on to the bank when the latter subsided, precipitating him sideways on to the buckets which were in motion. A second fall of the bank caught him before he could get clear, and he was dragged through the debris for four bucket lengths before the bucket drive could be stopped.

On the 16th July, E. Lines, employed by the Blackwater Mines, Ltd., at the Waitata Battery, met with an accident whilst using a circular saw. He suffered the loss of the ring-finger of his left hand, and had two others cut.

On the 5th August, R. Duncan, a labourer employed by W. C. McKay, Ltd., dredge-contractors, sustained injuries, consisting of a fractured lower jaw and face wounds, through being struck by a windlass handle whilst engaged in dismantling the Brian Boru Dredge.

On the 17th August, Norman Winter, a miner working in an alluvial claim at Kanieri Forks, Westland, was crushed by a fall of gravel. Winter sustained a fractured pelvis on the left side.

On the 14th December, S. May, employed by the Department of Labour (Employment Division) at Lyell, sustained a broken nose. May was erecting a set of timber and was taking down some loose rock on the wall of the drive to make room for the cap piece when a piece of rock weighing about 90 lb. slipped off and caught him on the bridge of the nose.

On the 20th December, John Thomas, an employee of the Blackwater Mines, Ltd., sustained fractures of the tibia and fibula of one of his legs. Thomas was employed in a stope between Nos. 11 and 12 levels. On the afternoon shift of Friday the 17th, Thomas and party fired a round of holes prior to knocking off at midnight, and the place was left undisturbed over the week-end. The accident occurred just above the 15th floor, No. 12 level, where Thomas was cleaning down quartz into a branch pass, when a slab of rock fell out of the hanging wall from the 16th stope.

GENERAL REMARKS.—MINING.

Gold won from alluvial mining (other than dredging) during the year amounted to 11,421 oz. 7 dwt. 17 gr., valued at £84,803 19s. 8d., which represents a decrease of 2,206 oz. 2 dwt. 9 gr., valued at £14,344 19s. 10d., when compared with the preceding year's figures. The number of men engaged in this branch of the industry decreased by 800 to 1,331. Most of the men who have left this class of mining were engaged on unprofitable claims; there has been an increase in the number of small claims which have been brought into production after a prolonged period of development.

Dredging returns have shown a further increase, and for the year the value of the gold won from this class of mining was greater than the total obtained from both quartz-mines and alluvial mines. The gold won by the dredges amounted to 40,659 oz. 7 dwt. 4 gr., valued at £324,971 15s. 10d., which represents an increase of 6,579 oz. 0 dwt. 17 gr., valued at £53,174 19s. 11d., over last year's production. During the year one new dredge (Barrytown) began operating, and the construction of three new dredges (Grey River, Kanieri, and Arahura), together with the fabrication of the steel for a fourth dredge (Ngahere), was commenced. One dredge (Brian Boru) which ceased operations in 1936 was dismantled, removed, and partially rebuilt on another area (Blackball Creek). The number of men engaged in active dredging operations was 268, which shows an increase of twenty-nine over the previous year; the number of men engaged on dredge-construction work at the end of the year was 102.

Gold won from quartz-mines during the year amounted to 23,837 oz. 9 dwt. 5 gr., valued at £191,867 6s. 11d. These figures show an increase over those of the previous year of 1,235 oz. 12 dwt. 21 gr., valued at £9,567 18s. 3d. The number of men employed in this branch of the industry was 295, an increase of thirteen over the previous year.

The total quantity won from all branches of mining was 75,918 oz. 4 dwt. 2 gr., valued at £601,583 2s. 5d. This represents an increase of 5,608 oz. 11 dwt. 1 gr., valued at £48,397 18s. 4d. when compared with the previous year's figures.

The total number of men employed in actual mining operations decreased by 758, due principally to the decline in the number of alluvial miners who remained on the subsidy scheme controlled by the Employment Division of the Department of Labour. In addition to the 102 engaged on dredge-construction at the end of the year, there was an undetermined number of men employed on alluvial boring work and other prospecting operations.

BORING.

A schedule showing the activities of each of the various companies and syndicates engaged in this work is set out hereunder:—

N.Z. Prospecting and Mining, Ltd.

(1) *Kohinoor (Mikonoa), Ross*.—Situation: On various O.P.L.'s held by the company in Block I, Totara Survey District. Operations on this area commenced in 1935, were carried on throughout the latter part of 1936, and during the whole of 1937. Various drills were used, the sizes of the cutting-shoes being 7½ in. and 7¾ in., with casing of 6 in. diameter throughout; eighty-two holes were drilled during 1937, making a total of approximately 120 holes drilled by the company on this area. Operations were still in progress at the close of the year.

(2) *Kawhaka*.—Situation: Freehold of H. Olderog in Block III, Kanieri Survey District, and various O.P.L.'s in the locality. With a Keystone No. 8 machine, with 6 in. casing and a 7¾ in. shoe, ten holes were drilled during 1937, making a total of thirty-five holes drilled on the area by this company. Operations were still in progress at the close of the year.

(3) *North Barrytown*.—Situation: On a special dredging claim, O.P.L.'s, and freehold land situated in Block I, Punakaiki Survey District, and Block I, Waiwhero Survey District. The company continued operations from 1936, completing a further 236 holes, making a total of 393 holes drilled on this area. The figures quoted for 1936 were shown as 122 instead of 157 holes. The equipment consisted of Keystone Drills using 5 in. casing and 5 in. to 6½ in. cutting-shoes.

(4) *Mawheraiti*.—Situation: On O.P.L. 8601 held by the company and on Neil McVicar's freehold land in Block IV, Mawheraiti Survey District. Some boring was carried out on this area by the company in 1936. During 1937 a No. 4 drill with 5 in. casing and a 6½ in. shoe was used to put down fifteen holes.

(5) *Taipo*.—Situation: O.P.L.'s held by W. C. Guy in Block VIII, Turiwhate Survey District, and Block V, Otago Survey District. Continuing operations which were begun late in 1936, the company put down a further five holes, making a total of six holes drilled on the area. The casing used was 5 in. diameter with a 6½ in. cutting-shoe.

(6) *Nelson Creek*.—Situation: On O.P.L.'s 8807 and 8808, held by Thos. Donnellan, and Special Claim No. 7912, held by Deep Lead, Ltd. in Block VIII, Mawheranui Survey District. A Keystone No. 6 machine with 6 in. casing and 7½ in. and 7¾ in. cutting-shoes was used to drill nine holes.

(7) *Hukarere*.—Situation: Near Mossy Creek, on O.P.L. No. 8479, held by Janet M. Sullivan, in Blocks XII and XVI, Mawheraiti Survey District. A Keystone No. 6 machine with 6 in. casing and a 7¾ in. cutting-shoe was used to drill seven holes.

(8) *Kumara*.—Situation: Near the Borough of Kumara, Westland, on O.P.L. No. 2487, held by D. B. Jellie. The company's No. 3 machine, with 6 in. casing and a 7¾ in. shoe, was used to drill two holes.

(9) *Okarito*.—Situation: On O.P.L.'s Nos. 3402, 3382, and 3386, on the banks of the Okarito River, in Block XII, Okarito Survey District. A No. 1 machine with 6 in. casing and a 7¾ in. shoe was used to drill twelve holes.

(10) *Red Jacks*.—Situation: On Donaldson's Freehold and on O.P.L.'s in Block VII, Mawheranui Survey District. Machine Nos. 5 and 6 with 6 in. casing and 7¾ in. and 7½ in. cutting-shoes were used to bore seventy-one holes. Operations were still in progress at the end of the year.

Austral Malay Tin, Ltd.

(1) *Burke's Creek*.—Situation: On Claim (Mineral) License No. 8279, held by C. J. Willis, in Block X, Reefton Survey District. At the end of 1936 the company was sinking No. 3 hole. This was completed in 1937, and No. 4 hole was bored. The equipment used was a hand-rig with 3¼ in. casing and a 4¼ in. shoe.

(2) *Kangaroo Creek*.—Situation: Near Ngahere, Grey County, on O.P.L. No. 8616, held by A. Dalziel, in Block VII, Mawheranui Survey District. A No. 1 Keystone machine with 6 in. casing and a 7½ in. shoe was used to drill eight holes.

(3) *Arahura*.—Situation: Between Kawhaka Creek and Fox's Creek, in Blocks III and IV, Kanieri Survey District. A No. 1 Keystone and a No. 2 Dodge machine, both with 6 in. casing and 7½ in. shoes, were used to drill twenty-eight holes.

(4) *Greenstone Area.*—Situation: Two lines of bores were run across the Big Hohonu River, in Blocks IX, X, and XIV, Hohonu Survey District. The Keystone No. 1 machine with 6 in. casing and a 7½ in. shoe was used to drill thirteen holes.

(5) *Cape Terrace.* Situation: On O.P.L.'s Nos. 82 to 86, held by the company, in Block VIII, Waimea Survey District. Operations commenced late in the year with a Dodge plant having 6 in. casing and a 7½ in. shoe. One hole had been drilled at the close of 1937, and operations were to be continued.

Burma-Malay Tin, Ltd.

(1) *Pine Creek.*—Situation: Freehold of Wm. Perry, in Block IV, Mahinapua Survey District. Continuing operations from December, 1936, the company used a Brown Boring Co.'s machine with 6 in. casing and a 7½ in. shoe to complete a further three holes, making a total of fourteen holes drilled on this area.

Rimu Gold-Dredging Co., Ltd.

(1) *Rimu Flat.*—Situation: Ahead of the company's dredge operating on Rimu Flat, Westland. In connection with these operations a Keystone drill using 6 in. casing and a 7½ in. shoe was used to bore thirty-four holes during the year.

(2) *Mawheraiti and Blackwater.*—Situation: Near Huanatua, Inangahua County. Towards the end of 1936 the number of drills working on this combined area was gradually reduced to one. During 1937 only two holes were put down on the Blackwater property and ten holes on the Mawheraiti property. Several shafts were also sunk. The total footage drilled since the commencement of operations totalled 9,497 ft. on the Mawheraiti property and 12,682 ft. on the Blackwater property; together with the 78 ft. of shafting this makes a total of 22,257 ft. sunk on these properties, which have been taken over by a subsidiary company, Grey River Dredging Co., Ltd.

Tronoh (N.Z.), Ltd.

(1) *Butler's Freehold, Ross.*—Situation: In Blocks XI, XIV, and XV, Mahinapua Survey District. Keystone Nos. 1 and 2 machines with 6 in. casing and 7½ in. and 7¾ in. shoes were used to bore thirty-six holes.

(2) *Mahakipawa Valley.*—Situation: On areas in the Mahakipawa Valley and Pelorus Foreshore, Linkwater Survey District. Using a Keystone drill with 6 in. casing, 7½ in. and 7¾ in. shoes, the company drilled thirteen holes in the Mahakipawa Valley and one hole on the Pelorus Foreshore in 1937. Operations were still in progress at the end of the year.

Department of Labour.

(1) *Wakanarua Valley.* Situation: In Blocks XIV, Wakanarua Survey District, and I, Onamahutu Survey District. On this area a machine equipped with 4 in. casing and a 5¼ in. shoe was used to drill eighteen holes during the year. Operations were still in progress at the end of the year.

(2) *Deep Lead Area.*—Situation: Nelson Creek. Operations on this area were carried out with the Government No. 5 drill using 6 in. casing and a 7½ in. shoe. Eight holes were drilled.

(3) *Blackwater Creek.*—Situation: On Special Alluvial Claim No. 8102, held by G. B. McInroe, near Waimunga. The Government No. 5 drill, using 6 in. casing and a 7½ in. shoe, was used to drill six holes.

(4) *Maggie Creek.*—Situation: Block XI, Howard Survey District, Golden Hope Goldfield. The Government No. 5 drill, with 6 in. casing and a 7½ in. shoe, was operated to continue work which was begun late in 1936. Twenty-seven holes were drilled in 1937, making a total of twenty-nine holes for the area.

Miscellaneous.

(1) *Gillespie's Beach.*—Situation: On the Gillespie's Beach Gold-dredging Co.'s special dredging claim, near Wehaka, South Westland, a hand-boring rig with 3 in. casing and a 4 in. shoe was used to drill eight holes.

(2) *Capleston.*—Situation: Near Cronadun, Inangahua Valley; on Special Alluvial Claim No. 8237, held by Boatman's Hydraulic, Ltd., Block XI, Reefton Survey District. The Brown Boring Co., using a machine with 4¾ in. casing and a 5½ in. shoe, drilled eighteen holes.

(3) *Queen Charlotte Sounds.*—Situation: In Blocks IX and X, Linkwater Survey District. The Hollybush Trust, Ltd., London, carried out operations on three areas in this district. The machine used was a Keystone drill with 6 in. casing and a 7½ in. shoe. At Dumeau's Valley, on Freehold Sections 55 and 56, Block X, Linkwater Survey District, nine holes were drilled; on the foreshore of Pelorus Sound in Freehold Section 26, Block IX, Linkwater Survey District, one hole was drilled; and at Mahakipawa Valley, on Freehold Section 63, Block IX, Linkwater Survey District, one hole was drilled, making a total of eleven holes put down by the company.

(4) *Mikonui River.*—Situation: Block X, Totara Survey District, Westland. On an O.P.L. in this locality the Mikonui Syndicate drilled three holes.

(5) *New River.*—Situation: Immediately above the confluence of Maori Creek with New River, in Block II, Hohonu Survey District. A bandwheel plant, operated by the Brown Boring Co., with 6 in. casing and a 7½ in. shoe, drilled sixteen holes.

(6) *Barrytown.*—Situation: Barrytown Flat, Block V, Waiwhero Survey District. Barrytown Gold Dredging, Limited, put down four holes on Special Dredging Claim No. 232/34; A Keystone type drill with 5 in. casing and shoe employed.

(7) *Cameron's.*—Block III, Waimea Survey District, on part Special Dredging Claim No. 76/34 held by Bundi Tin Dredging Company, N.Z. The Maori Gully (Kokiri) Gold Dredging Company, Limited, put down nine holes with a Keystone type drill using 6 in. casing and 7 in. shoe. Drilling was still in progress at the end of the year.

DIAMOND DRILLING.

Consolidated Goldfields of N.Z., Ltd.

During the year operations were continued on hole No. 1, which had been commenced towards the end of 1936.

SUMMARY OF AREAS.

Name of Company.	Number of Areas bored.	Number of Holes bored in 1937.
N.Z. Prospecting and Mining, Ltd.	10	449
Austral Malay Tin, Ltd.	5	52
Burma-Malay Tin, Ltd.	1	3
Rimu Gold-dredging Co., Ltd.	2	46
Tronoh (N.Z.), Ltd.	2	50
Department of Labour	4	59
Miscellaneous	7	69
Consolidated Goldfields of N.Z., Ltd. (diamond drilling)	1	1
Totals	32	729

During the year 1937 the number of boreholes drilled in this inspection district decreased to the extent of 52 per cent. compared with the work done in the previous year, while the number of areas bored decreased by 43 per cent.

SOUTHERN INSPECTION DISTRICT (T. McMILLAN, Inspector of Mines).

QUARTZ AND ALLUVIAL MINING.

Waitaki County.

The Ben Ledi Sluicing Co. worked for only a short period, and operations were then discontinued and the plant and equipment sold.

Maerewhenua Goldfields Development Co., Ltd.—During the year activities were confined to sluicing in two claims on the east side of Golden Gully. The first claim at Roberts' Hill occupied them several months, but had to be abandoned on account of the low values, together with the fact that a very large amount of sandstone came into the face, making it too expensive to handle. Activities were then commenced about a quarter of a mile farther down the gully, and, whilst the first two returns were very promising, the better values quickly ran out, and very poor values were encountered. In November the company arranged with Mr. A. Adams, of Livingstone, to work the claim on a tribute basis, and the claims are now being worked under this arrangement. During the major portion of the year the water-supply has been reasonably good and no difficulty has been encountered in dealing with the tailings, which have been leaving Golden Gully through the tail-race tunnel. There were eight men employed, and the gold won amounted to 109 oz. 13 dwt. 5 gr., valued at £926 4s. 8d.

Mining House Concessions, Ltd. (C. E. Adams, Manager).—Mining operations have been carried on when water was available. Two men have been employed, and the gold won amounted to 108 oz. 16 dwt., valued at £798 4s. 2d.

There were thirty-two men, including the companies, employed in the Waitaki County during the year, and the gold won amounted to 320 oz. 12 dwt. 8 gr., valued at £2,427 7s. 5d.

Waihemo County.

Golden Point Gold and Scheelite Co., Ltd., Deep Dell, Macrae's.—This mine was opened up on option by the New Zealand Mining Investments, Ltd., at the beginning of June, and the Macrae's Flat Gold and Scheelite Co., Ltd., was registered on 25th August. D. McBeath, Superintendent, and seven men employed. The diesel power unit was reconditioned, the plant and mine were overhauled, and the mine put into working-order. Mining operations were resumed on the Home Reef by driving and stoping between the top of the Home Raise and the old dip workings. The treatment plant resumed operations in September, and 584 tons was treated up to the 31st December, yielding 135 oz. 2 dwt. 18 gr. of gold, valued at £771 16s. 9d.

Gallery and Bradbrook, Round Hill Mine, alongside the Macrae's—Golden Point Road. Stoping operations were carried on steadily during the year until the ore in the present mine was exhausted. Prospecting operations were then carried out in other unworked sections of the claim, and a low level is being driven to open up a virgin section of the reef. There were four men employed, and 661 tons of ore was treated at the battery during the year.

Galli Gold-mining Co. (J. Phelan, Manager).—There were two men employed. The main shaft was sunk to 130 ft. Driving and stoping operations were carried out on and above the 70 ft. and 100 ft. levels. An electric-lighting plant was installed during the year. There were 48 tons of ore treated at the battery, which is situated near the Macrae's—Dunback Road in Tipperary Gully.

Macrae's Gold-mining Co. (R. T. McKenzie, Manager).—The two gravel-pumping plants were operated steadily during the year, treating 155,540 cubic yards for a return of 1,555 oz. 8 dwt. 9 gr. There were ten men employed. A few shifts were lost during the winter months on account of abnormally heavy frosts. The value of the gold won was £11,438 17s. 11d.

There were eighteen men employed, inclusive of the companies, in alluvial mining in the Waihemo County during the year, winning 1,582 oz. 7 dwt. 22 gr., valued at £11,628 9s. 5d.

Maniototo County.

The Golden Progress Quartz-mining Co., Oturchua, went into liquidation, and the plant and equipment was sold.

The Earl Mining Party, Ophir (S. Earl, Manager).—There were two men employed. Prospecting and mining operations were carried on during the year. A small electrical pumping-plant was installed for use at the main shaft. There were 99 tons of ore treated at the battery during the year.

Kildare Consolidated Gold-mining Co. (W. J. Wade, Manager).—Sluicing operations have been carried on steadily during the year in Redmiles Gully, near St. Bathans. There were seven men employed, and the gold won amounted to 263 oz. 18 dwt. 12 gr., valued at £1,898 17s. 4d.

Patearoa Hydraulic Sluicing Co., Patearoa (E. Carr, Manager).—There were three men employed during the year, and fair returns were obtained.

The various privately owned alluvial mines in the Cambrians, Vinegar Hill, St. Bathans, Kyeburn, Naseby, and Patearoa districts have worked during the year when weather conditions were suitable, and the chief producers were Moses and J. H. D. Brown, Kyeburn Diggings; Neil Nicholson, Vinegar Hill, Cambrians; and Roche and George, Naseby.

There were 121 men employed (inclusive of the companies) in the Maniototo County during the year, winning 1,801 oz. 7 dwt. 4 gr., valued at £13,035 16s.

Tuapeka County.

New Gabriel's Gully Sluicing Co. (D. Boyes, Manager).—Sluicing and elevating operations have been continued in the hard block of conglomerate remaining at the head of Gabriel's Gully. The latter months of the year were dry, and the water-supply, as a consequence, was short in part of October, November, and December. There were seven men employed, winning 218 oz. 11 dwt. 13 gr. of gold, valued at £1,608 6s. 1d.

R. S. Thompson, Wetherstones (I. D. Walker, Manager).—There were four men employed. Sluicing and elevating operations were steadily carried on when weather conditions were favourable.

Paddy's Point Gold-mining Co., Waitakuna (R. Webb, Manager).—Sluicing and elevating operations were carried on steadily, whenever weather conditions were suitable, in the area behind the Waitakuna Township. During the year Mr. Webb resigned in order to take up an appointment in the East, and was succeeded as manager by Mr. J. Homer. There were seven men employed, and the gold won amounted to 436 oz., valued at £3,210.

Sailors Gully Sluicing Co., Ltd., Waitakuna Gully (A. W. Eaton, Manager).—Sluicing and elevating work has been carried on steadily during the year. In the first four months of the year 2½ acres of alluvial ground, with an average depth of 10 ft., was worked. During the remainder of the year about 2 acres, with a depth of 40 ft., of the cement was worked. Seven men were employed, winning 121 oz. of gold from the alluvials and 219 oz. 6 dwt. from the cements, or a total of 340 oz. 6 dwt., valued at £2,453 11s. 11d.

Tuapeka Mouth Sluicing Co., Ltd. (J. Cartwright, Manager).—Sluicing and elevating operations were carried on steadily until the end of September, when mining operations had to be closed down on account of a shortage of water for operating the low-pressure water-turbine. There were four men employed, winning 281 oz. 8 dwt. 10 gr., valued at £2,077 9s. 7d.

Fifty-five Gold-mine, Ltd., Tuapeka Mouth.—During the latter part of the year Mr. J. W. Smith, of Invercargill, obtained an option over this area, and in August a commencement was made by altering and overhauling the suction-gas plant. A new 8 in. Gwynne Invincible pump was installed. This pump is belt-driven by one of the 70 h.p. suction-gas engines, and a 13 in. pipe-line has been laid to the lower end of the claim. A 50 kw. generator has also been installed in the power-house. This is belt-driven by the No. 2 suction-gas engine. The electric power is transmitted by an overhead line to the claim to provide power for operating an 8 in. Thompson's gravel-pump. This gravel-pump is belt-driven by a 50 h.p. electric motor. C. Taylor, manager, and six men were employed in installation and opening-out work.

Fruidburn Sluicing Co.—Very little work has been done on the area during the year. The gold won amounted to 1 oz. 9 dwt. 15 gr., valued at £9 16s. 1d.

The Molyneux Deep Lead Co., Coal Creek, Roxburgh.—This company has gone into liquidation, and the plant has been sold for removal.

Mining operations have been carried on by subsidized and other miners in various parts of the county, the chief producers being R. S. Thompson and M. J. Fahey, Lawrence, and H. M. Quilter, Waitahuna.

There were 102 men employed (inclusive of the companies) in the Tuapeka County during the year, producing 1,762 oz. 5 dwt. 23 gr., valued at £12,786 4s. 4d.

Bruce County.

Foord's Mine, Adams Flat (E. G. M. Foord, Owner and Manager).—Gravel-pump operations have been carried on steadily when weather conditions were suitable, and a considerable area of old workings on this flat has been reworked successfully by gravel-pumping methods. Two men have been employed.

The Glenore Mining Syndicate.—Gravel-pump operations have been continued on the eastern creek flats of the Tokomairiro Creek between Glenore and Mount Stuart. Here, again, previously worked ground is being reworked by means of the gravel-pump. There were two men employed.

There were five men employed in the Bruce County during the year, winning 211 oz. 4 dwt. 22 gr., valued at £1,458 12s.

Clutha County.

There were two men employed in the Clutha County during the year, winning 4 oz. 3 dwt. 16 gr., valued at £29 8s.

Taieri County.

There were nine men employed in the Taieri County during the year, winning 10 oz. 0 dwt. 14 gr., valued at £70 1s. 4d.

Waikouaiti County.

There were three men employed in the Waikouaiti County during the year, winning 12 oz. 19 dwt. 15 gr., valued at £90 17s. 3d.

Southland County.

Nokomai Gold Mining Co., Ltd. (C. Sew Hoy, Manager).—Sluicing and elevating operations were carried on during the month of January and 121 oz. 9 dwt. of gold was won. Active mining operations were then suspended and the gravel-pumps were installed. These pumps were put into commission in the middle of May and have operated steadily since that time, with the exception of four weeks in mid-winter, when mining operations had to cease on account of the abnormal frosts experienced in the high country of Central Otago. The gold won by the gravel-pump method amounted to 1,136 oz. 9 dwt. The auriferous gravels are now elevated to a height of about 40 ft. and pass through the gold-saving boxes and are delivered to the 12 in. gravel-pump, which delivers the alluvials, sluice water, and seepage to the second 12 in. gravel-pump. This second pump forces the solids and water to the surface boxes. The two 12 in. gravel-pumps are operated in series and are direct coupled to 175 h.p. electric motors and are mounted on a steel pontoon, together with their starting gear and transformers. A total of twenty-six men was employed, seventeen men at the mine and nine men on the water-races. The gold won amounted to 1,257 oz. 18 dwt., valued at £8,810 9s. 3d.

King Solomon Deep Lead, Ltd. (R. C. Ruffin, Manager).—Blocking-out work was continued during January and February, when the known auriferous sections were exhausted. Prospecting operations with subsidy assistance were continued in part of February, March, and April in the Radford section of the mine. Nothing of importance was located, and prospecting operations ceased at the beginning of May. The underground plant was then removed to the surface, and the mine abandoned. The company has been wound up and the plant sold. The gold won during the working period amounted to 536 oz. 5 dwt. 11 gr., valued at £4,029 12s. 6d. and there were thirty men employed until the end of April.

A. Mutch, Happy Valley, Waikaia.—Active sluicing and elevating operations have been carried on in the Happy Valley during the year. A new type of hydraulic monitor is used. It is built up of steel plate, instead of heavy castings, and, as a consequence, is much lighter and easier to handle when shifting plant. There were six men employed.

Dome Creek Syndicate, Dome Creek, Waikaia.—The alluvial mine is situated on the right-hand terrace of the Dome Creek, in Mr. Sutton's run. Very little work has been done during the year.

Union Mining Syndicate.—This alluvial mine is situated in the bed of the Upper Waikaia River, just above the junction of the two branches of the river. Very little work has been done, and operations are now at a standstill.

Winding Creek Sluicing Party.—This party commenced work in September. There were two men employed sluicing the tailings on the King Solomon Dump.

Waimumu Sluicing Co., Ltd., Waimumu, downstream from the Gore Hedgehope Road Bridge (F. Soper, Manager).—The operations of this company were delayed during the early months of the year through the late arrival of a Blackstone gravel-pump. This pump was installed, and commenced to operate towards the middle of April. Some trouble was then experienced with the gold-saving appliances, and further delay was experienced while adjustments were made. Work then proceeded steadily until December, when the shortage of water necessitated the suspension of operations. A considerable amount of pug clay was encountered, but the horizontal gravel-pump has been able to deal effectively with this. There were eight men employed, and the gold won amounted to 291 oz. 10 dwt. 19 gr., valued at £2,195 12s. 7d.

Stewart Gold Co., Little Waikaka (R. T. Stewart, Engineer and General Manager; W. G. Stewart, Resident Manager).—Sluicing and gravel-pumping operations were carried on steadily until the month of October. Sluicing operations were somewhat retarded from that time, on account of the long-continued spell of dry weather. In order to maintain at the face the full quantity of water required for sluicing, an auxiliary Booster, consisting of a 4 in. Thompson's sluicing-pump driven by a 25 h.p. motor, was put in to intercept 750 gallons

per minute of the used water at the end of the tail-race and return it into the main pipe-line under the full pressure to be used again at the face. A further addition to the working plant has been the installation of a petrol-driven set of friction winches to operate an overhead wire-rope transport for dealing with the clay overburden. The whole of the ground treated during the year had been previously worked by the early miners. There were nine men employed during the year.

There were ninety-two men employed (inclusive of the companies) during the year in the Southland County, winning 3,541 oz. 12 dwt. 13 gr., valued at £26,266 2s. 8d.

Wallace County.

Round Hill Gold-mining Co., Ltd.—Active sluicing and elevating operations have been carried on during the year and approximately 8 acres have been sluiced to a depth of 40 ft., and 4 acres of this area have reached bottom. A second elevator lift of another 30 ft. will be necessary in order to bottom the remaining 4 acres. The new gold-saving tables were put into commission early in the year and a new paddock was opened up. The tailings from the No. 2 paddock are being deposited in No. 1 paddock. As the latter months of the year were very dry, the mine suffered from a shortage of water and, as the main elevator has to elevate 74 ft., there was a resultant loss of output. There were eighteen men employed, and the gold won amounted to 1,812 oz. 2 dwt. 19 gr., valued at £13,910 19s. 7d., and the platinum to 27 oz. 16 dwt., valued at £160 8s. 2d.

Try Again Sluicing Claim, Old Township Diggings, Orepuki.—Sluicing operations in partially worked ground and island blocks have been continued during the year. Two men have been employed.

Orepuki Mining Syndicate, Old Township Diggings, Orepuki.—Three men continued to sluice away ground which had previously been driven by the early miners.

Shaw and Braid.—Two men have resumed sluicing operations near the old workings in Prospectors' Gully, on the right-hand terrace of the Taunoa Stream. A sluicing-plant has been installed, and active mining operations have been carried on.

Sea Beach Gold, Ltd. (C. W. Thomson, Manager).—The self-propelled caterpillar gravel-pumping plant was purchased from the Coastal Mining Co., who had been operating on the Haldane Beach until the auriferous deposits were exhausted. The plant was dismantled and removed to the Orepuki Beach, where it was reassembled with the addition of a revolving screen. Operations were carried on for some time, but various difficulties were encountered, and operations finally ceased in November, and the company has gone into liquidation. There were six men employed, and the gold won amounted to 27 oz. 11 dwt. 21 gr., valued at £202 9s. 5d.

There were eighty-two men employed (inclusive of the companies) in the Wallace County during the year, winning 2,441 oz. 15 dwt. 17 gr., valued at £18,435 8s. 11d.

Fiord County.

There was one man employed in the Fiord County during the year, winning 9 oz. 18 dwt. 2 gr., valued at £69 13s. 5d.

Lake County.

Glenorchy Scheelite-mining Co., Ltd. (D. Wylie, Manager).—During the first months of the year the men were employed in cleaning and enlarging the water-race, installing a Pelton driven compressor, and erecting a pipe-line from the compressor at the battery site to the mine. Mining operations commenced in June, and jackhammers are now used for drilling purposes. Six men have been employed at the mine and two men at the battery, and 4 tons 12 cwt. of scheelite concentrates, valued at £1,427, has been produced, as well as 10½ oz. of gold, valued at £100 4s. Scheelite-ore has been treated at the battery on behalf of other parties of scheelite-miners.

Tungsten Minerals, Ltd. (G. Reid, Manager).—A syndicate has been formed for the purpose of testing out an area to the east of the Glenorchy scheelite-mine, and another area at the Twelve-mile. At the Glenorchy claim six men were employed trenching, open-cutting, and driving. (D. McKenzie, Mine-foreman.) There were four men employed at the Twelve-mile driving and stoping. (G. Paulin, Mine-foreman.)

Rees Valley.—Prospecting operations have been carried out in the Muddy Terrace area on the left-hand or eastern terrace section of the Upper Rees Valley, and some promising scheelite-ore has been located in the slipped material lying on this terrace. Gold-prospecting operations have also been carried out to the north of the old Invincible Mine.

Oxburn or Twelve-mile.—Driving operations are still being carried out by M. Petersen, and subsidized miners are employed in scheelite-mining.

Bucklerburn, Glenorchy.—Subsidized and other miners are employed in prospecting and working the bed and banks of this stream in various places for gold and scheelite.

Elliot Bros., Sunshine Mine, situated on the north-western slopes of Mount Judah.—On account of the faulted nature of the country a large amount of development-work has been carried out. Five men were employed, and the work has been carried out in a workmanlike manner.

Cameron and Wylie continued operations at the *Heather Jock Mine*. This mine is situated on the slopes of Mount Judah, overlooking the Bucklerburn, and is at an elevation of over 4,000 ft. Two levels have been driven and a small syndicate, known as *Wylie Bros. and Thompson*, has been formed. (J. Wylie, Manager.) Five men were employed during the working season in the latter part of the year.

There has been considerable activity in the district, and there are scheelite-mines operated by small parties of subsidized and other miners on the slopes of Mount Judah, Mount Larkins, Mount McIntosh, Black Peak, and the Upper Rees Valley.

The small treatment plant erected by the Black Peak Syndicate (which is now extinct) has been purchased by W. McLaren, and removed to the mid-section of Long Gully, on the southern slopes of Mount McIntosh. The total production of CaWO_4 concentrates, excluding the return from the Glenorchy Scheelite-mining Co., was 19 tons 2 cwt. 1 qr.

Mining operations have ceased at the *Twenty-five-mile Creek*, but operations are being continued at the *Five-mile, Seven-mile, and Twelve-mile Creeks* by subsidized and other miners. A sluicing-plant is being installed at the *Twelve-mile*.

Moke Creek.—Prospecting and sluicing operations were continued in the bed and banks of the creek. A sluicing-plant was installed near to the junction of the MacConnachie's Creek, but the latter part of the season was very dry and operations had to be suspended on account of a shortage of water.

Moonlight Creek.—Prospecting operations were continued on the right-hand terraces of the creek. The Moonlight Mining Syndicate's interests were purchased by the Minerva Mining Syndicate, which continued operations at the Dead Horse Creek area. This new syndicate also purchased the interests of the Moonlight No. 2 Mining Co., and interested Australian companies in the area—namely, Morobe Alluvials and New Morobe Alluvials—who took an option over the combined areas.

A new company, *Moonlight Valley Gold No-liability* was formed, and work was resumed on the reconstruction of the Upper Moonlight water-race. The tracks from Arthur's Point to the Upper Moonlight were reconditioned, and the construction of a new access lorry road, via the Five-mile and Moke Lake, was commenced from the end of the county road at the head of the Moke Creek Gorge to the Moonlight Terraces. The water-race at No. 1 mine in the Dead Horse Creek area has also been reconditioned. E. T. Anderson, Manager, F. Carter, Engineer; and there were forty-four men employed since the 6th September.

Ben Lomond Gold Mining Co.—Very little work has been done on this area. The latter period of the year was very dry, and water for sluicing purposes was in short supply.

Oxenbridge Shotover Gold, Ltd.—All the work carried out on this area has been done by the tributers—Messrs. Drysdale and Weddell. When the dam in Moke Creek filled with gravel, on account of the wearing-out of the gravel valve, operations had to be suspended. Some of the plant was then removed to the MacConnachie's Creek section of the Moke Creek, held by the tributers. This plant was installed, but the water-supply failed before any extensive work could be carried out.

The *Wheeler Party* continued to operate near the entrance to the Shotover Gorge, above Arthur's Point, but suffered from the general shortage of water.

Arthur's Point Sluicing Co.—This area has been worked on tribute during the year by James McMullan. (J. Harber, Mine-foreman.) There were three men employed.

Sandhills Gold-mining Co., Ltd. (A. E. Smith, Manager).—Active sluicing and elevating operations were carried on in the dewatered section of the bed of the Shotover River until the area below the dam was exhausted. The plant and equipment was then removed upstream. The pipe-lines were also moved upstream, and the dam wall was removed in order to lower the upstream level of the river, and operations were commenced in the bed and beaches of the river upstream from the dam site. There were four men employed, and the gold won amounted to 345 oz. 6 dwt. 13 gr., valued at £2,413 7s. 4d.

Short and Party, Ltd.—Sluicing and elevating operations were continued in the bed of the Shotover River at the big bend below the junction of Ballarat Creek, and the claim was taken over by Short and Party, Ltd., in August. There were four men employed, and the gold won by the company amounted to 130 oz. 14 dwt. 20 gr., valued at £937 14s. 5d.

Skippers Ltd., Maori Point and Skippers (R. D. Climie, Manager).—The pipe-line from Skippers Creek and the hydro-electric plant were completed during the early part of the year. This plant has been installed on the right-hand or western bank of the Shotover River, a few chains upstream from the Skippers Suspension Bridge. The necessary power-lines were erected between the power-house and the Maori Point Beach. Sluicing and elevating were continued at the Maori Point Beach until August, when operations were discontinued, and plant was removed to the right-hand side of the river-bed, upstream from the power-house. It was possible to use gravity water from the hydro-electric pipe-line, a T piece having been placed in the line for this purpose. Mr. Climie relinquished his position as manager in December, and Mr. Joseph Stephens was appointed to fill the position. There were twenty men employed, and the gold won amounted to 177 oz. 1 dwt. 20 gr., valued at £1,232 0s. 2d.

Mountain Terrace Sluicing Co., Skippers Creek (R. McDonald, Manager).—Sluicing and stripping operations were carried out during the working season of the year, and three men were employed. The gold won amounted to 31 oz. 13 dwt. 22 gr., valued at £212 9s. 2d.

Skippers Sluicing Co., Skippers.—Mining operations were continued during the year whenever weather conditions were suitable.

Central Shotover Gold-mining Co., Ltd., Deep Creek, Shotover River (G. Vernon, Manager).—Sluicing and elevating operations were continued in the bed of the Shotover River whenever river and weather conditions were suitable. A Stephens type split-jet high-pressure elevator is being used, and it is proving to be very satisfactory for river-work. The work has been carried out upstream from the junction of the Deep Creek. There were nine men employed, and the gold won amounted to 341 oz. 5 dwt. 8 gr., valued at £2,407 6s. 3d.

Crystal Mine, Head of Sawyers Gully, Skippers (F. A. Tripp, Manager).—Stopeing operations were continued until all the ore was removed from the stopes above the top level. These stopes were all filled. An underhand stope, 8 ft. in depth, was then taken below the top level, timbered with stulls, and filled with mullock. A low-level adit was then commenced at a vertical depth of 70 ft. below the top level, with an estimated length of 230 ft., and about 100 ft. of this adit had been completed at the end of the year. In order to speed up rock driving a compressor has been installed and all the holes are drilled with a jackhammer drill. The amount of ore treated at the battery for the year was 510 tons, yielding 399 oz. 5 dwt. 16 gr. of gold, valued at £2,947 15s. There were six men employed at the mine and battery.

Ballarat Syndicate.—No work has been done on this area in the Upper Sandhills Creek basin.

No work has been done at the *Tipperary, Garibaldi, Maryborough, Homeward Bound*, or *Swansea Reefs* in the Macetown reefing area. A little surface prospecting has been done on the reefs in Scanlans Gully by *Anderson and Party*, but no deep level development work has taken place on any reef in the Macetown field.

Beale and Son have continued sluicing operations during the working season in the old alluvial workings on the terraces above the old township.

Upper Arrow Sluicing Co., Ltd.—Very little work was done on this area, and active operations were not resumed on the opening of the working season in September.

Shaft-sinking operations were continued on the right or western bank of the Billy Creek. Driving operations were also continued on the left-hand or eastern side of the Arrow River, a short distance below the Billy Creek Junction. Subsidized and other miners have also been prospecting in the Macetown and Arrow River areas.

The *Hannah-Anderson Party* is sluicing and elevating in the bed of the Arrow River, midway between the Macetown Township and the Billy Creek Junction.

The *Hamilton Party* has continued sluicing and elevating operations in the bed of the Arrow River, first of all above Scoles Bend, in the narrow section of the river, under difficult conditions. The plant was then removed to the wider section of the river below the bend. The depth to bottom varies from 6 ft. to 36 ft., and the water-supply for this and the Golden Arrow Claim is obtained from the Arrow irrigation pipe-line. This supply provides for a twenty-four hour service, essential for successful river-bed work. There were seven men employed.

The *Golden Arrow Gold Mining Co., Ltd.* (J. Hansen, Manager).—Active mining operations have been carried out during the year, whenever river conditions were suitable, in the bed of the Arrow River above the Arrowtown Township. There were six men employed, and the gold won amounted to 383 oz. 0 dwt. 21 gr., valued at £2,840 3s.

The *Junction Reward Gold-mining Co., Ltd., Bush Creek, near Arrowtown.*—Operations have been continued during the working season by tributers. Water is obtained from the Public Works Department's Arrow River irrigation pipe-line.

The drilling operations by the Employment Division of the Labour Department in the Branch Creek area of the Cardrona Valley were discontinued, and the drill was removed to the Galloway district, in Vincent County. Very little work has been done in the Matatapu River during the year.

There were 146 men employed (inclusive of the companies) in Lake County during the year, and the gold won amounted to 2,446 oz. 10 dwt. 9 gr., valued at £17,430 14s. 4d.

Vincent County.

Kawarau River.—Subsidized and other miners have been employed on the river terraces from Gibbston to its junction with the Clutha River. A party of subsidized miners driving on the right-hand river-bank, opposite the lower end of Cromwell Township, located a channel of the Kawarau River beneath the surface alluvial workings. This area was driven out. Another party operating upstream, opposite the upper end of the Cromwell Township, also located what appeared to have been the old course of the Kawarau River. Driving operations have been continued in order to prove a suitable area, and the *Achor Syndicate* has been formed to work the claim. It is the intention of this syndicate to procure a pumping-plant for the purpose of sluicing the area.

Bell Hooper Cromwell Gold, Ltd. (W. Murray, Caretaker).—No work was carried out in the No. 2 mine, and only a small amount of work was done by tributers in the No. 1 mine. A small amount of prospecting work was carried out by W. Murray in a shaft at the back of the Ounce Mine.

Very little work was done during the year by the *Cairnmuir Sluicing Co.* Prospecting and driving work was continued in the Cairnmuir area by subsidized miners.

In the Upper Nevis goldfield the *Deegan-Williamson Party* continued their mining operations in the Cameron Gully section during the working season. Four men were employed.

The Jones Nevis Sluicing Co., Ltd. (F. Jones, Manager).—Mining operations have been continued in the Whittons Creek area of the Upper Nevis. At the beginning of the year operations were being carried on at the downstream end of the area, where apparently a huge slide from the hills had swept out the auriferous alluvials. After testing this area it was decided to remove the plant to the upstream end of the claim, and operations have been carried out in this section during the balance of the working season. There were seven men employed and the gold won amounted to 155 oz. 7 dwt., valued at £1,148 10s. 6d.

McLean Bros. have continued to operate by sluicing and elevating methods during the working season in the old workings upstream from the Nevis Township.

D. and J. Adie have been employed on the high-level terraces above the old township workings during the working season.

Nevis Sluicing Claims, Ltd. (J. A. Johnston, Manager).—This claim is situated on the high left-hand terrace of the Schoolhouse Creek, and the plentiful supply of water is used to advantage in a heavy deposit. Six men have been employed during the working season, and the gold won amounted to 240 oz. 1 dwt. 6 gr., valued at £1,819 10s. 9d.

Sutherland and Party continued to work the shallow ground remaining in the old workings to the north of the Nevis sluicing claim until the end of the autumn season. They then transferred their interest to Mr. Murrell, who commenced operations in the latter part of the year.

Reward Gold-mining Co.—Mining operations have been carried on during the year in this alluvial mine alongside the Alexandra-Roxburgh Road, to the east of Gorge Creek. Two men have been employed whenever water was available during the year.

Matakanui Sluicing Co., Donnelly's Gully, Matakanui.—Sluicing operations were continued during the year.

Bendigo Rise and Shine Gold-mining Co., Ltd. (L. E. Autridge, Manager).—Development-work was continued on the 60 ft. level during the early part of the year. Financial difficulties arose, and operations were suspended in April, and the company is now in liquidation. The interests of this company have been taken over by a Southland syndicate, but no further mining or development work has yet been carried out.

No work has been done at the tunnel of the *New Bendigo Gold-mining Co.*

Subsidized and other miners have been working on the Earnsclough Flats, Blackman's Gully, Conroy's Gully, Manorburn, Galloway, Matakanui, and Devonshire areas, and on the banks and terraces of the Clutha and Manuherikia Rivers.

There were 219 men employed (inclusive of the companies) in alluvial mining in the Vincent County during the year, and the gold won amounted to 1,537 oz. 7 dwt. 7 gr., valued at £11,217 10s. 6d.

Canterbury-Ashburton County.

There were five men employed during the year, and the gold won from the Rakaiia River mouth beach and other areas amounted to 39 oz. 2 dwt. 1 gr., valued at £273 7s. 1d.

Dredge Mining.

Goldfields Dredging Co., Ltd., Big Beach, near Arthurs Point, Lake County (J. S. Ritchie, Dredgemaster).—Dredging operations were continued on the Big Beach, and the dredging depth varied from 15 ft. to 25 ft. There were eleven men employed, and the gold recovered amounted to 658 oz. 11 dwt., valued at £5,075 14s. 9d. The dredge is electrically driven, and the company's power-station is situated at the Wye Creek.

Nevis Crossing Dredge, Lower Nevis, Vincent County (S. C. Fache, Dredgemaster and Owner).—After a short period of dredging in the unworked section of the Lower Nevis it was found that the payable deposits had been exhausted. Steps were then taken to dredge upstream to another claim. This work occupied the balance of the working season. This dredge is operated by steam, and the owner has opened up a coal-seam where two men are employed. There were seven men also employed on the dredge.

Nevis Diesel Electric Dredging Co., Ltd., Upper Nevis.—The negotiations with the Auckland syndicate mentioned in my report for 1936 were not finalized, and this dredge sank in the dredge paddock during the very severe winter weather. The company has now gone into liquidation, and the major portion of the plant and equipment has been sold to various purchasers.

Bendigo Goldlight Dredging Co., Ltd., Bendigo Flat.—Some repair work was carried out on the dredge during the year, but no dredging has been done.

The Molyneux Gold-dredging Co., Ltd. (R. P. Opie, Manager; S. Chapman, Dredgemaster).—The description of this dredge is as follows: The Molyneux Dredge is electrically operated, taking its power from the Otago Central Electric-power Board by means of a cable running astern of the dredge to a special carrier across the river. The dredge is of modern design, and is of steel and iron construction throughout, manganese steel being used for some of the heaviest wearing parts, such as buckets, tumblers, &c. The buckets have a capacity of 9 cubic feet, and the dredge a normal operating-capacity of 85,000 cubic yards per month, digging to a depth of 60 ft. below water-level. The length of the pontoon is 156 ft. 5 in., width 44 ft., and depth at sides 11 ft. 2 in., and, in addition, there is a platform extending forward for a further 28 ft. to facilitate work on the lower tumbler under difficult river conditions. The ladder is 117 ft. in length and carries an open-connected bucket band, consisting of forty-five buckets and forty-five trays. The approximate weight of the bucket band complete is 102 tons, and that of the ladder, ladder rollers, and lower tumbler 106 tons, the weight of the dredge complete being about 1,100 tons. The treatment is an improved but reasonably orthodox system. The material from the buckets is dumped into a drop-chute and thence passes into a revolving screen, the oversize passing through the screen and being deposited in the river at the stern. The remaining material passing through the screen perforations, enters a boil box, or distribution box, and from there to the cross boxes, or gold-tables, then into the discharge chutes to the stern of the dredge. The spillings from the buckets collect in a save-all sump in the wellway and are pumped from there into the screen. Regarding the power equipment on the dredge, the total installed horse-power is approximately 580 b.h.p., the motor particulars being as follows: Main drive motor, 200 b.h.p.; sparge pump motor, 62 b.h.p.; tables pump motor, 12 b.h.p.; service pump motor, 6 b.h.p.; ladder winch motor, 120 b.h.p.; mooring-winch motor, 15 b.h.p.; two headline winch motors, 50 b.h.p.; screen motor, 40 b.h.p.; save-all pump motor, 12 b.h.p.; cable winch, 3 b.h.p.; workshop motor, 12 b.h.p. In addition to the above electrical equipment, there is also a 200 h.p. Diesel generating plant for use as a stand-by unit in case of power failures, &c. During the first quarter of the year the dredge was still under construction; then, on 1st April, a complete run of the entire plant took place, using the main power-supply, which is derived from the Roaring Meg Power-station. Various

trials were carried out near the launching site: then, on 21st April, the dredge was moved downstream to its initial dredging position, 5 chains above Clyde Bridge. Dredging activities officially began on 26th April, with one shift in operation. Two shifts were brought into operation on 28th April, and, finally, full-time, three-shift operations began at 8 a.m. on Monday, 3rd May. Since the commencement the dredge, which was designed by Messrs. F. W. Payne, has operated in a very efficient manner, and no serious mechanical difficulties whatsoever have been experienced. Dredging operations have been carried out consistently since the commencement on approximately the first mile of the river above Clyde Bridge. Latterly, the values were not too satisfactory, and, in the light of information gained during operations to the end of November, it was decided to move the dredge a distance of approximately 70 chains farther up the river, at which point dredging operations are at present in progress. The aforementioned move was completed, and dredging operations resumed on Monday, 20th December. Dredging conditions up to the time of the move had been comparatively easy throughout, the maximum depth having been from 55 ft. to 58 ft. below water, but this occurred at only a very few points, and over the major portion of the area the maximum depth was very much less. The material dredged throughout this section has been fairly fine, and heavy wash, carrying numerous large boulders, has, on the whole, been conspicuous by its absence. This, no doubt, has been influenced by the terraced formation on both sides of the river which is characteristic of this section. As a matter of interest, it is mentioned that the concentrates obtained usually carry quite an appreciable quantity of small lead shot, rifle and revolver bullets, amounting in some instances to several pounds weight in one wash-up. This factor makes the use of amalgamation quite unsuitable as a direct means of gold recovery. There were seventeen men employed, and the gold won amounted to 1,428 oz. 14 dwt. 21 gr., valued at £10,410 17s. 8d.

Clutha River Gold-dredging, Ltd. (W. Culphey, Manager; A. E. Newick, Dredgemaster).—The Clutha River Dredge is electrically operated, taking its power from the Otago Central Electric-power Board by means of a cable running astern of the dredge to a special carrier across the river. The dredge is of modern design, and is of steel and iron construction throughout, manganese steel being used for some of the heaviest wearing parts, such as buckets, tumblers, &c. The buckets have a capacity of 12 cubic feet and are open connected. The length of the pontoons is 164 ft., width 44 ft., and depth 11 ft. 6 in., and, in addition, there is a steel platform at the bow to facilitate work on the bottom tumbler under difficult river conditions. The ladder is 125 ft. between centres, and the dredging depth is 65 ft. The material from the buckets is dumped into a drop chute and thence passes into a revolving screen, the oversize passing through the screen and being deposited in the river at the stern. The remaining material passing through the screen perforation enters a distribution box, and thence to the cross boxes or gold-tables. Regarding the power equipment on the dredge, the installed horse-power is approximately 570 h.p., the motor particulars being as follows: Main drive motor, 200 h.p.; ladder winch, 120 h.p.; two head river winch motors, at 50 h.p.; screen pump motor, 65 h.p.; tables pump motor, 12 h.p.; bilge pump, 8 h.p.; mooring winch, 25 h.p.; screen motor, 40 h.p. In addition to the above electrical equipment, there is also a 300 h.p. Diesel generating-plant for use as a stand-by unit in case of power failure or other emergencies. This dredge was completed early in the year and tested ready for work, but owing to the low state of the river it was impossible to move it downstream to the starting-point (approximately three miles below Alexandra) until about the middle of April. On the 1st May dredging operations commenced, and since then the dredge has worked continuously and satisfactorily, and has treated approximately one mile of the river. Most of the ground worked has been very rough, containing many huge boulders. In one part of the river there was an old sunken dredge, and in another place two strings of old dredge buckets were dug up, causing some delay, but generally these obstructions caused very little inconvenience. On account of its strong construction the dredge is able to treat the rough ground very well, and although this area was dredged several times previously it is able to recover a fair amount of gold by treating ground which was too heavy and rough for the older and lighter dredges. The digging depth reached 65 ft. in portions of the area dredged. This company is also engaged in drilling two areas—one on the Earnsclough and one on the Alexandra side of the river. A total of 6,192 oz. 0 dwt. 9 gr. of gold was won, valued at £53,664 4s. 3d. There were thirty men employed.

The Austral New Zealand Mining, Ltd. (F. Blackie, Superintendent).—This company was formed to work by dredging the area between Cromwell and Lowburn, drilled and tested by Austral Malay Tin, Ltd. Preparations for dredge-construction were commenced on the 24th April, when the excavation of the dredge paddock was begun under contract by Mr. T. Pheloung, of Christchurch, who used an Osgood $\frac{3}{4}$ yard excavator, mounted on a caterpillar, and steam-operated. A paddock, 220 ft. by 220 ft. by 12 ft., below the water-line, together with a platform on which to erect the hull, 220 ft. by 100 ft., sloping from 1 ft. above water-level at the water edge to 6 ft. above at the landward side, were excavated. In all, 24,000 cubic yards of material was excavated, and the work occupied three months. The contractors for the erection of the hull were Messrs. A. and T. Burt, and they, together with the Dunedin Engineering and Steel Co., arrived on the site early in June and commenced erecting workshops, store sheds, and dwellings, employing from six to eight men. On 22nd September the work of constructing the hull was commenced, and work has gone on steadily since then, although some difficulty has been experienced in the late delivery of certain steel. At the beginning of April, 1938, there were thirty-six men employed by the contractors on erection work, and four men employed by the company, who are themselves responsible for the launching of the hull.

Aitken's Dredge, Maitland, Waikaka Valley, Southland County (R. L. Smail, Dredgemaster).—This dredge is working on freehold land close to the Little Waikaka Road, on the eastern side of the valley. The unworked area to the westward of this road was finished during the year, and the dredge worked its way through the road-line to the eastern side of the road, where it is now working. Average digging depth, 16 ft. There were eight men employed. The dredge is steam-operated.

Rainbow Gold-dredging Co., Ltd., Wainumu, Southland County (A. Cook, Dredgemaster).—This dredge is also operating on freehold land to the westward of the Gore-Hedgehope Road. It is Diesel-operated, and two men are employed. Average dredging depth, 7 ft. The gold won amounted to 101 oz. 5 dwt. 23 gr., valued at £985 11s. 10d.

Waipapa Beach Gold-dredging Co., Ltd., Waipapa Stream, near Otara, Southland County (N. Matheson, Dredgemaster).—This dredge is Diesel-operated, and nine men were employed until dredging operations were terminated in November on account of the exhaustion of the payable auriferous beach deposits. The dredge operated in the Waipapa Creek basin until the 24th May, and then dredged its way to the Waipapa Beach to the westward of the stream, and operated there until work ceased. The digging depth varies from 7 ft. to 21 ft., and the gold won amounted to 689 oz. 4 dwt., valued at £5,124 18s. 11d. There were eight men employed.

There was a total of eighty-three men employed on the working dredges during the year, and the gold won amounted to 10,241 oz. 18 dwt. 17 gr., valued at £84,325 19s. 8d.

MINERALS OTHER THAN GOLD.

The *platinum* obtained during the year amounted to 55 oz. 4 dwt., valued at £423 6s. 4d. The output was obtained by the Round Hill Gold-mining Co., Waipapa Beach Dredge, the Sea Beach Gold Co., and the Orepuki Syndicate.

Silver.—The Clutha River Gold-dredging Co. won 294 oz. 14 dwt. of silver, valued at £19 14s. 8d.

Silica.—The Blackburn Coal Co. produced 164 tons 7 cwt. of silica sand from their open-cast mine near Mount Somers, Canterbury, valued at £236 8s. 7d.

Tungsten.—The total yield of scheelite concentrates from the Glenorchy, Macrae's, and Waipori districts during the year amounted to 23 tons 14 cwt. 1 qr. The total value of this output cannot be given, as a considerable quantity has not yet been disposed of. There has been renewed activity in the scheelite-mines in the Glenorchy district, but the total output from all the scheelite-fields shows a decrease compared with the output for the previous year. This can be accounted for by the exhaustion of the easily mined deposits, and the necessity for a considerable amount of development-work at many of the mines now being operated.

FATAL ACCIDENTS.

There was one fatal accident during the year, as follows:—

On the 2nd June a Chinese, Yew Kui, of Lawrence, was killed by being crushed by a fall of clay while fossicking for gold. The cause of the accident was the slipping of a body of clay from the face where deceased was working and which he had undermined.

NON-FATAL ACCIDENTS.

There was one non-fatal accident during the year, as follows:—

On the 2nd April, Cyril Sew Hoy, manager of the alluvial mine of the Nokomai Gold Mining Co., Ltd., at Nokomai, fractured the radius bone of his right arm. While superintending the lifting of some plant he fell, and, in trying to break his fall, fractured his arm.

BORING OPERATIONS.

Southland County.

The *Waipapa Beach Gold-dredging Co., Ltd.*, had forty-three holes drilled on the Waipapa Beach area and sixteen at Lake Brunton. All bores were less than 15 ft. in depth, consequently no details were by law required to be supplied.

Tuapeka County.

J. M. Stewart bored five holes, of a total depth of 562 ft., for the Paddy's Point Gold-mining Co., Ltd., with his steam Keystone plant, using 6 in. casing. The area bored was on S.A.C. 1642, on the Waitahuna Mining Reserve, Waitahuna East Survey District.

Lake County.

The *Labour Department (Employment Division)*, using the Government No. 4 alluvial drill with 6 in. casing, completed operations at Branch Creek, Cardrona. One hundred and forty-eight holes were bored, to a total depth of 1,780 ft. The area concerned was on Run 340B, Block II, Cardrona Survey District. W. H. Gibson was Drill Superintendent.

Vincent County.

The *Labour Department (Employment Division)* completed boring operations at Devonshire, on Run 2230, Block VIII, Lauder Survey District. The No. 7 alluvial machine with 4 in. casing was used, and twenty-one holes were drilled, to a total depth of 1,225 ft. B. P. Bowden was Drill Superintendent.

The *Labour Department (Employment Division)* commenced boring at Galloway, on Runs 220H and 220I, Blocks VI and XIX, Tiger Hill Survey District. The Government No. 4 drill with 6 in. casing is being used, and during the year thirty-eight holes have been put down. W. H. Gibson is Drill Superintendent.

Austral Malay Tin, Ltd., continued operations at Lowburn, on Sections 2 and 3, Block IV, Wakefield Survey District. The No. 1 Keystone machine with 6 in. casing is being used. Sixteen holes, of a total depth of 893 ft., were drilled. Operations were suspended in March, and up to the end of the year had not been recommenced. D. Brigstocke was Drill Superintendent.

Clutha River Gold-dredging, Ltd., continued an extensive boring programme at Alexandra, Earnscliffe, and Clyde Flat. Three machines, Nos. 15 and 16, and the Government No. 6 alluvial, all with 6 in. casing, are being used. The total number of holes put down to the end of 1937 was 220, the aggregate depth bored being 19,309 ft. A. Williamson is Drill Superintendent.

GENERAL REMARKS.

Drilling operations were continued in the Southland, Tuapeka, Lake, and Vincent Counties. Operations were suspended in the Southland, Tuapeka, and Lake Counties, as the results obtained did not warrant further drilling. Operations are being continued in the Vincent County, where the Labour Department (Employment Division) is drilling at Galloway, and the Clutha River Dredging Co. is actively engaged in systematically drilling the Earnscliffe, Alexandra, and Clyde Flats.

Quartz-mining.—The gold won from quartz-mining during the year amounted to 999 oz. 10 dwt. 2 gr., valued at £7,028 19s. 1d., this being a decrease of 46 oz. 13 dwt. 21 gr. in quantity and of £548 17s. 11d. in value as compared with last year. The number of men employed increased by two.

In the alluvial field there was an abundant water-supply until the end of August. The later months of the year were very dry and many alluvial claims were adversely affected. The electrically operated gravel-pumps have continued to assist in alluvial gold-production, and the Waimumu and Nokomai plants have come into operation during the year. The gold produced by the alluvial mines amounted to 15,721 oz. 5 dwt. 5 gr., valued at £115,219 12s. 8d., this being a decrease of 4,269 oz. 12 dwt. 7 gr. in quantity and of £30,271 5s. 6d. in value. The number of men employed decreased by 527. The closing-down of the King Solomon Mine, the shrinking of the returns obtained from many alluvial mines, the dry weather during the latter part of the year, and the decrease in the number of men employed have all played a part in the decrease recorded in the alluvial output.

The amount of gold obtained from dredge mining during the year amounted to 10,241 oz. 18 dwt. 17 gr., valued at £84,325 19s. 8d., this being an increase of 7,074 oz. 8 dwt. 14 gr. in quantity and of £61,046 10s. 4d. in value. The number of men employed increased by forty-three. The increase in the gold-dredging returns may be accounted for by the operations of the two large dredges on the Clutha River.

The number of men employed on subsidized mining schemes has decreased very considerably, and many areas have been eliminated, and operations have been suspended in the Branch Creek and Luggate areas. Special parties have been employed in the Skippers, Oturehua, and Barewood reefing areas. Work is being continued in the Oturehua and Barewood areas, and further tests will be carried out in the Skippers Creek reefing area. A party of subsidized miners located an old channel of the Kawarau River opposite the Township of Cromwell, and some parties of subsidized scheelite-miners have also been successful in locating payable deposits.

PROSECUTIONS.

There have been no prosecutions during the year.

ANNEXURE B.

STONE QUARRIES.

SUMMARY OF REPORT BY INSPECTOR OF QUARRIES FOR THE NORTH ISLAND.

(R. H. SCHOEN.)

The following is my report for the year ending 31st December, 1937, covering quarries worked under the Stone Quarries Act, 1910, with statement showing number of men employed, output of various classes of stone, quarries worked, value of stone at quarry, &c.

OUTPUT OF STONE.

Improvement of roading throughout the North Island has been particularly noticeable throughout 1937, and this is reflected in the outputs of roading materials from quarries, the comparative figures being—1936, 700,851 tons; 1937, 877,798 tons; an increase of 176,947 tons.

Limestone for cement, 173,174 tons for 1937, shows an increase of 7,499 tons over 1936, while limestone for the manufacture of agricultural lime, with a total output of 164,489 tons, shows an increase over the previous year of 31,713 tons.

Stone for miscellaneous purposes, which includes soft stone for brickmaking, shows an increase of 14,032 tons.

Decreased totals of 8,700 tons and 2,944 tons respectively are shown in stone for building and harbour works compared with the 1936 outputs.

The total tonnage of stone produced during the year was 1,298,199, valued at £263,623 at the quarry. The 1936 total was 1,079,652, valued at £206,501.

QUARRIES WORKED AND MEN EMPLOYED.

Quarries worked during 1937 totalled 289, this being 25 fewer than in 1936. The number of men employed, however, increased by 104 to 1,486.

Cheaper and more efficient methods of work by improving plant, removal of overburden by mechanical means, and the use of better blasting methods have resulted in a much better output per man employed.

Due attention has been paid to safe working, and quarry-owners and foremen generally seem to be well aware of the advantage of maintaining good working-conditions.

ACCIDENTS.

The following accidents occurred in quarries during 1937 :—

Fatal Accident.

On 2nd August, Luke Zidich, employed at Mount Wellington Bluestone Quarry, Panorama Road, Ellerslie, was fatally injured by being crushed between a motor-lorry and a rock face.

Serious Non-fatal Accidents.

On the 19th April, Andy Tataurangi, L.S.D. Lime Quarry, Pahiatua, while shifting a winch at crusher, slipped and fell 20 ft. into a hopper, striking a tie rod and sustaining a compressed fracture of the lower spine.

On 4th November, Frederick Ferdinand Wind, a certificated quarryman employed at a Wellington City Council quarry at Sutherland Crescent, received injuries to his face and eyes when a shot was fired prematurely.

On 18th November, Peter Kriskovich, employed by Te Kawa Quarry, suffered a compound fracture of the left leg, due to being caught between two blocks of stone while barring the face after a shot.

On 14th July, while charging a previously "bulled" hole with blasting-powder, Victor Quarterman, foreman of the Wanganui Harbour Board's Kaiwaiki Quarry, was badly burnt in the face and both hands, due to a premature explosion, and Alexander Mutrie, who was working on the bench with Quarterman, received a wound in the right thigh from a flying piece of stone.

ANNEXURE C.

MINING STATISTICS.

Table I.

STATEMENT SHOWING THE QUANTITY OF QUARTZ CRUSHED AND BULLION OBTAINED IN THE
NORTHERN INSPECTION DISTRICT FOR THE YEAR ENDED 31ST DECEMBER, 1937.

Locality and Name of Mine.	Average Number of Men employed.	Quartz crushed.	Bullion obtained by		Value.	
			Amalgamation.	Cyanidation.		
WAIHI BOROUGH.						
Waihi—		Tons cwt. qr. lb.	Oz. dwt. gr.	Oz. dwt. gr.	£	s. d.
Martha	598	183,518 0 0 0	..	466,575 4 0	420,143	0 0
Grand Junction	30	16,797 0 0 0	..	21,325 14 0	34,665	0 0
Silverton Battery Site	1	..	9 4 0	..	17	0 0
	629	200,315 0 0 0	9 4 0	487,900 18 0	454,825	0 0
OHINEMURI COUNTY.						
Karangahake—						
Talisman-Dubbo	32	2,239 15 0 0	..	10,648 1 0	17,656	16 9
New Talisman	2	11 0 0 0	..	490 5 0	185	18 4
The Brothers	1	14 9 0 0	..	24 8 0	100	5 6
Talisman Battery Site	2	130 0 0 0	96 0 0	..	355	15 5
Waiawa	5	264 0 0 0	..	367 10 0	993	7 1
New Talisman Extended	..	2 14 0 0	..	16 7 0	10	12 11
Star	1	1 0 0 0	4 16 0	..	18	19 2
Waitekauri—						
New Maoriland	2	6 0 0 0	25 7 0	..	97	14 1
Alpha	..	5 17 0 0	..	9 18 0	7	15 2
Owharoa—						
Golden Dawn	110	7,511 0 0 0	..	8,151 17 0	29,214	4 3
Komata—						
Te Ao Marama	23	42 0 0 0	61 17 0	..	230	5 0
Maratoto—						
Golden Spur	2	3 9 0 0	..	108 13 0	41	17 11
Prospectors	1	..	1 9 0	..	6	15 4
	181	10,231 4 0 0	189 9 0	19,816 19 0	48,920	6 11
THAMES COUNTY.						
Neavesville—						
Golden Belt	18	279 0 0 0	152 5 0	..	671	14 3
Tapu—						
Kernick's	4	29 0 0 0	273 4 0	..	1,593	10 2
Shannon	2	7 0 0 0	137 13 0	..	772	12 2
Tararu—						
Waitangi	4	201 0 0 0	15 3 0	..	36	18 8
Virginia	4	53 0 0 0	..	87 10 0	239	10 3
Puru —						
Golden Ridge	2	21 15 0 0	25 10 0	..	136	18 3
Jameson's	3	29 10 0 0	8 5 0	..	42	17 3
Puhoi—						
Mountain King	2	20 0 0 0	66 14 0	..	377	9 11
Hector McDonald	2	17 10 0 0	28 8 0	..	196	0 1
Tairua—						
Western	4	27 0 0 0	7 11 0	..	44	14 8
Tairua	4	40 0 0 0	11 16 0	..	49	15 10
Coric Bell	2	2 10 0 0	4 7 0	..	20	8 0
Gem	4	26 0 0 0	17 10 0	..	82	7 10
Prospectors	14	29 10 0 0	47 4 0	..	210	18 0
	69	782 15 0 0	795 10 0	87 10 0	4,475	15 4
THAMES BOROUGH.						
Thames—						
Lucky Shot	12	40 0 0 0	65 11 0	..	330	0 1
Progress	4	50 0 0 0	47 4 0	..	236	14 7
Little Horseshoe	2	3 10 0 0	15 5 0	..	76	8 2
Cambria	3	3 0 0 0	2 17 0	..	15	6 4
Lap	1	..	11 1 0	..	43	4 10
New Waiotahi	2	5 0 0 0	19 1 0	..	100	7 5
Hopeful	2	10 0 0 0	16 1 0	..	85	2 8
Relief	4	10 0 0 0	19 18 0	..	96	12 1
Commissioner	4	2 10 0 0	10 4 0	..	46	17 6
Anniversary	7	40 0 0 0	50 12 0	..	243	14 9
Dauntless	2	7 10 0 0	33 5 0	..	161	18 5
Golden Hills	2	5 0 0 0	2 6 0	..	12	8 9
Thames Occidental	1	2 10 0 0	1 5 0	..	6	7 10
New Shotover	2	293 0 0 0	86 16 0	..	41	17 1
Little Willie	1	7 10 0 0	9 2 0	..	48	6 10
Prospectors	4	12 10 0 0	10 2 0	..	52	19 9
School of Mines	..	..	8 13 0	..	30	17 1
Collections	..	..	19 11 0	..	98	10 5
	53	492 0 0 0	428 14 0	..	1,727	14 7

Table I—continued.

STATEMENT SHOWING THE QUANTITY OF QUARTZ CRUSHED AND BULLION OBTAINED IN THE NORTHERN INSPECTION DISTRICT FOR THE YEAR ENDED 31ST DECEMBER, 1937—continued.

Locality and Name of Mine.	Average Number of Men employed.	Quartz crushed.	Bullion obtained by		Value.
			Amalgamation.	Cyanidation.	
COROMANDEL COUNTY.					
Coromandel—		Tons cwt. qr. lb.	Oz. dwt. gr.	Oz. dwt. gr.	£ s. d.
Hauraki	3	0 15 0 0	6 0 0	..	34 3 11
Reyland's	3	11 0 0 0	19 2 0	..	105 13 0
New Albion	2	..	2 2 0	..	11 16 10
Tokatea—					
New Royal Oak	6	3 10 0 0	184 10 0	..	796 18 6
Gem	2	4 3 0 0	2 17 0	..	15 3 4
Waikoromiko—					
Lone Hand	1	1 10 0 0	8 12 0	..	46 7 5
Waikoromiko Sluicing Co.	8	..	4 3 0	..	22 2 11
Northcote	3	0 1 0 0	15 1 0	..	82 11 8
Tiki—					
Pukewhau	2	4 7 0 0	31 5 0	..	172 11 0
Progress - Castle Rock	4	0 1 0 0	8 13 0	..	44 5 10
Prospectors	8	4 5 0 0	74 9 0	..	298 9 5
	42	29 12 0 0	356 14 0	..	1,630 3 10
PIAKO COUNTY.					
Waiorongomai—					
Hardy's	4	1 3 0 0	..	2 2 0	6 5 1
	4	1 3 0 0	..	2 2 0	6 5 1
SUMMARY.					
Waihi Borough	629	200,315 0 0 0	9 4 0	487,900 18 0	454,825 0 0
Ohinemuri County	181	10,231 4 0 0	189 9 0	19,816 19 0	48,920 6 11
Thames County	69	782 15 0 0	795 10 0	87 10 0	4,475 15 4
Thames Borough	53	492 0 0 0	428 14 0	..	1,727 14 7
Coromandel County	42	29 12 0 0	356 14 0	..	1,630 3 10
Piako County	4	1 3 0 0	..	2 2 0	6 5 1
Totals, 1937	978	211,851 14 0 0	1,779 11 0	507,807 9 0	511,585 5 9
Totals, 1936	1,013	213,387 15 0 0	3,794 3 0	499,218 10 0	543,051 12 6

Table I—continued.

STATEMENT SHOWING THE QUANTITY OF QUARTZ CRUSHED AND BULLION OBTAINED IN THE WEST COAST INSPECTION DISTRICT FOR THE YEAR ENDED 31ST DECEMBER, 1937.

Locality and Name of Mine.	Average Number of Men employed.	Quartz crushed.	Bullion obtained by			Value.
			Amalgamation.	Cyanidation and Concentration.		
INANGAHUA COUNTY.						
Alexander River—		Tons cwt. gr.	Oz. dwt. gr.	Oz. dwt. gr.	£	s. d.
Alexander	38	4,360 0 0	2,130 14 0	1,074 16 0	25,896	6 4
Big River—						
Big River	28	2,348 0 0	2,028 17 0	159 18 0	16,172	17 2
Crushington—						
Lankey's Creek (Watts and Party)	3	581 0 0	81 7 4	..	587	10 4
Waiuta—						
Blackwater	205	41,333 0 0	14,281 17 0	4,022 12 0	148,735	8 9
BULLER COUNTY.						
Westport—						
Gillow's Terrace	4	540 0 0	..	28 17 23	218	1 10
ROSS BOROUGH.						
Ross—						
Mount Greenland	6	72 0 0	28 10 2	..	197	2 6
Totals, 1937	284	49,234 0 0	18,551 5 6	5,286 3 23	191,807	6 11
Totals, 1936	279	48,091 0 0	17,535 2 8	5,066 14 0	182,239	8 8

STATEMENT SHOWING THE QUANTITY OF QUARTZ CRUSHED AND BULLION OBTAINED IN THE SOUTHERN INSPECTION DISTRICT FOR THE YEAR ENDED 31ST DECEMBER, 1937.

Locality and Name of Mine.	Average Number of Men Employed.	Quartz crushed.	Bullion obtained by		Value.
			Amalgamation.	Concentration.	
LAKE COUNTY.					
Skippers—		Tons cwt. gr.	Oz. dwt. gr.	Oz. dwt. gr.	£ s. d.
J. R. Tripp	6	510 0 0	399 5 16	..	2,947 15 0
Glenorchy—					
Glenorchy Scheelite Mining Co., Ltd.	1	50 0 0	10 10 0	..	100 4 0
VINCENT COUNTY.					
Bendigo—					
Bendigo Rise and Shine	2	30 0 0	17 3 2	..	119 6 3
Ophir—					
A. Earl	3	115 0 0	32 2 9	..	211 17 1
Earl and Brown	2	99 0 0	33 1 10	..	209 3 4
MANIOTOTO COUNTY.					
Oturehua—					
W. Smith	1	..	33 17 0	..	227 18 3
WAIHEMO COUNTY.					
Macrae's Flat					
Callery and Bradbrook	4	661 0 0	225 1 19	..	1,603 3 1
L. C. Galli	3	48 0 0	106 12 0	..	798 3 8
Golden Point Gold and Scheelite Co., Ltd.	6	292 0 0	67 11 8	..	367 17 0
Macrae's Flat Gold and Scheelite Co., Ltd.	10	292 0 0	67 11 10	..	403 19 9
E. Guinan	1	..	6 14 0	..	39 11 8
Totals, 1937	39	2,097 0 0	999 10 2	..	7,028 19 1
Totals, 1936	37	2,146 0 0	1,046 3 23	..	7,577 17 0

SUMMARY OF INSPECTION DISTRICTS.

Inspection District.	Average Number of Men employed.	Quartz crushed.	Bullic
		Statute Tons.	Oz. c.
Northern (North Island)	978	211,852	509,587 0 c
West Coast (South Island)	284	49,234	23,837 9 5
Southern (Otago and Southland)	39	2,097	999 10 2
Totals, 1937	1,301	263,183	534,423 19 7
Totals, 1936	1,329	263,625	526,660 13 7
			732,

In addition 57 persons were employed at unproductive quartz-mining.

Table 2.

STATEMENT OF AFFAIRS OF MINING COMPANIES.

Company.	Date of Registration.	Subscribed Capital.	Amount of Capital actually paid up in Cash.	Value of Scrip given to Shareholders on which no Cash paid.	Number of Shares allotted.	Amount called up per Share.	Arrears of Calls.	Number of Shareholders at present.	Number of Men employed.	Quantity and Value of Gold and Silver produced since Registration.		Total Expenditure since Registration.	Total Amount of Dividends paid.	Amount of Debts owing by Company.
										Oz.	£				Quantity.	Value.
AUCKLAND DISTRICT.														
Caledonian (1934),	23/11/34	£ 2,578	£ 2,128	£ 450	51,575	1/-	Nil	102	Nil	14	72	£ 3,210	£ Nil	£ 484
Waiau Flats Development, Ltd.	30/1/34	1,756	1,316	440	1,756	£1	Nil	103	Nil	Nil	Nil	1,781	Nil	17
Mercury Deposits, Ltd.	21/12/36	3,000	200	2,800	3,000	£1	Nil	5	Nil	Nil	Nil	3,000	Nil	Nil
Rangitoto Mining Co., Ltd.	3/2/36	1,000	1,000	Nil	1,000	£1	Nil	2	Nil	15	29	4,864	Nil	3,864
Tararua Prospecting Co., Ltd.	25/8/36	1,500	675	500	1,500	Various	Nil	3	Nil	Nil	Nil	770	Nil	Nil
Gold Recovery, Ltd.	24/7/36	1,500	975	200	1,500	15/-	Nil	21	Nil	Nil	Nil	1,155	Nil	Nil
Puru Gold, Ltd.	7/12/35	1,525	975	500	8,525	2/6 and £1	50	28	3	Nil	Nil	720	Nil	367
Golden Crown Gold-mining Co., Ltd.	12/10/32	20,000	14,285	4,000	200,000	1/- and 2/-	Nil	266	23	196	754	25,386	Nil	Nil
Mineral Concentrator Co., Ltd.	27/5/31	10,000	6,530	3,455	3,075	£1	Nil	41	Nil	Nil	Nil	3,033	Nil	552
Mirandite Products, Ltd.	24/12/34	2,800	1,549	735	2,800	15/-	Nil	49	2	Nil	Nil	1,724	Nil	97
Monowai Gold Development, Ltd.	2/3/37	3,500	7	Nil	7	£1	Nil	7	2	Nil	Nil	73	Nil	41
Tairua Gold-mining Co., Ltd.	18/4/35	3,730	1,123	2,500	3,730	Various	Nil	26	Nil	Nil	Nil	1,135	Nil	38
Opitonui Developments, Ltd.	11/5/33	5,302	3,302	2,000	5,302	£1	Nil	59	Nil	Nil	Nil	5,448	Nil	238
Rexnann Mines, Ltd.	29/7/36	7,000	Nil	7,000	280	£25	Nil	64	6	Nil	Nil	12,035	Nil	6,254
Long Trail Gold-mining Co., Ltd.	30/6/32	15,237	4,387	10,850	152,376	2/-	Nil	280	Nil	28	162	3,051	Nil	3,109
Waikoroniko Sluicing Co., Ltd.	22/11/34	16,827	2,827	14,000	22,340	2/-	Nil	315	8	29	173	5,100	Nil	232
Ahumata Gold and Silver Mining Co., Ltd.	15/9/32	4,500	1,900	2,600	4,500	£1	Nil	25	Nil	Nil	Nil	2,764	Nil	683
Mercury Mines (N.Z.), Ltd.	31/5/34	5,150	2,650	2,500	5,150	£1	Nil	24	Nil	*	..	6,334	Nil	223
Coromandel Gold-mines, Ltd.	7/6/33	18,043	9,233	8,500	180,430	2/-	Nil	261	4	13	70	23,379	Nil	172
Victoria Gold-mining Co., Ltd.	15/5/34	8,000	4,306	3,000	80,000	1/9	Nil	117	Nil	Nil	Nil	4,531	Nil	88
N.Z. Mining Estates, Ltd.	29/11/34	625	428	Nil	6,257	1/6	41	11	Nil	Nil	Nil	457	Nil	28
*Produced 715 lb. of mercury, valued at £180.														
NELSON DISTRICT (INCLUDING WEST COAST).														
Deep Lead, Ltd.	9/3/32	6,000	5,600	400	120,000	1/-	Nil	67	4	1,221	8,957	14,741	500	595
Orion Gold Reefs Syndicate, Ltd.	9/11/31	2,700	2,000	700	270	£10	Nil	35	Nil	Nil	Nil	2,140	Nil	187
Mataki Gold-dredging, Ltd.	15/1/32	33,740	24,340	9,400	337,409	2/-	Nil	527	15	7,197	52,356	67,274	7,029	655
Mossy Creek Gold-dredging Co., Ltd.	3/1/34	15,000	11,400	3,600	300,000	1/-	Nil	181	12	5,552	34,780	35,722	13,750	185
Larry's Consolidated Gold-mining Co., Ltd.	30/9/35	2,000	Nil	2,000	2,000	£1	Nil	2	Nil	Nil	Nil	Nil	Nil	Nil
Westland Developments, Ltd. (In Voluntary Liquidation)	24/1/35	8,775	2,143	Nil	175,500	3d.	50	33	Nil	Nil	Nil	2,118	Nil	176
Maori Gully (Kokiri) Gold-dredging Co., Ltd.	27/10/33	24,000	18,000	6,000	480,000	1/-	Nil	644	10	4,826	35,632	43,909	6,000	358
Waikahu Gold-mining Co., Ltd.	17/3/32	40,000	34,000	6,000	160,000	5/-	Nil	319	9	2,776	20,861	53,685	Nil	276
Okarito Five-mile Beach Gold-dredging Co., Ltd.	29/10/28	35,000	30,500	4,500	140,000	5/-	Nil	423	9	13,642	89,145	91,177	33,833	188
Gillespie's Beach Gold-dredging Co., Ltd.	10/2/32	35,000	29,250	5,750	700,000	1/-	Nil	785	15	8,536	67,439	71,174	18,083	2,651
Mineral Investments, Ltd.	29/11/35	300	50	250	300	£1	Nil	2	Nil	Nil	Nil	300	Nil	Nil
Kanieri Gold-dredging, Ltd.	30/11/35	205,000	155,000	Nil	300,000	1/- and 15/-	Nil	300	8	Nil	Nil	171,585	Nil	1,391
Mahakipawa Goldfields, Ltd. (In Liquidation)	12/10/23	*23,914	33,362	15,603	856,089	6d. and 1/-	Nil	1,000	Nil	7,717	47,364	96,426	Nil	2,522
Moonlight Goldfields Co., Ltd.	21/11/33	20,582	11,343	8,737	617,476	8d.	501	200	19	1,689	15,911	44,074	990	216
Totara Gold-mining Co., Ltd.	19/12/36	8,237	4,969	2,750	8,237	Various	236	39	Nil	Nil	Nil	12,180	Nil	4,549
Workshop Extended Gold-dredging Co., Ltd.	8/9/33	16,000	9,060	7,000	320,000	1/-	Nil	220	13	6,700	50,975	31,051	16,000	777

Table 2—continued.
STATEMENT OF AFFAIRS OF MINING COMPANIES—continued.

Name of Company.	Date of Registration.	Subscribed Capital.	Amount of Capital actually paid up in Cash.	Value of Scrip given to Shareholders on which no Cash paid.	Number of Shares allotted.	Amount called up per Share.	Arrears of Calls.	Number of Shareholders at present.	Number of Men employed.	Quantity and Value of Gold and Silver produced since Registration.		Total Expenditure since Registration.	Total Amount of Dividends paid.	Amount of Debts owing by Company.
										Quantity.	Value.			
OTAGO DISTRICT.														
Macrae's Gold-mining Co., Ltd. ... Talaburn Hydraulic Sluicing Co., Ltd. (In Liquidation)	14/10/31 3/12/04	5,000 1,200	3,400 600	1,600 600	5,000 12	£1 £100	Nil Nil	15 6	11 Nil	Oz. 3,758	£ 14,202	£ 34,701 15,908	£ 7,500 1,380	£ 487 Nil
Riverside Sluicing Co., Ltd. Nevis Diesel Electric Dredging Co., Ltd. (In Liquidation)	6/3/34 2/6/33	2,000 39,000	1,500 39,000	500 Nil	2,000 780,000	£1 1/-	Nil Nil	16 877	Nil Nil	124 72	870 482	£ 4,139 44,567	Nil Nil	1,262 3,553
Round Hill Gold-mining Co., Ltd. Sandhills Gold-mining Co., Ltd. Lammerlaw Reefs, Ltd. Ben Lomond Gold-mining Co., Ltd. Coastal Mining Co., Ltd. (In Liquidation) Wetherstones Gold-mining Co., Ltd. Sailors' Gully (Waitahuna) Gold-mining Co., Ltd. Jones Nevis Sluicing Co., Ltd. Central Shotover Gold-mining Co., Ltd. Bendigo Goldlight Dredging Co., Ltd. Waipapa Beach Gold-dredging Co., Ltd. Paddy's Point Gold-mining Co., Ltd. Glenorchy Scheelite Mining Co., Ltd. Sea Beach Gold, Ltd. Nokomai Gold-mining Co., Ltd. Austral New Zealand Mining, Ltd. Kildare Consolidated Gold-mining Co., Ltd. Arthur's Point Sluicing Co., Ltd. Vinegar Hill Hydraulic Sluicing Co., Ltd. Upper Arrow Sluicing Co., Ltd. New Bendigo Gold-mining Co., Ltd. Golden Point Gold and Scheelite Co., Ltd. Macrae's Flat Gold and Scheelite Co., Ltd. Oxenbridge Shotover Gold, Ltd. New Gabriel's Gully Gold-mining Co., Ltd. Mountain Terrace Gold-mining Co., Ltd. Goldfields Dredging Co., Ltd. Waimumu Sluicing Co., Ltd. King Solomon Deep Lead, Ltd. (In Liquidation) Tuapeka Mouth Gold-mining Co., Ltd. Skippers Ltd. Mining House Concessions, Ltd. Nevis Sluicing Claims, Ltd. Amalgamated Kawarau Gold-mining Co., Ltd. Soho Mining Co., Ltd. Bell Hooper Cromwell Gold, Ltd.	30/10/32 21/9/33 10/8/34 22/8/33 2/10/33 5/10/32 3/6/1896 30/11/33 13/3/33 22/8/33 12/7/34 4/8/28 6/12/11 20/4/37 17/3/32 4/6/36 19/6/28 27/3/34 23/9/1900 12/9/34 27/2/33 6/8/30 25/8/37 14/7/33 16/9/33 3/5/34 -/5/33 7/12/33 14/11/29 4/10/26 23/9/33 24/3/33 28/2/34 30/6/31 14/6/33 7/3/33	60,000 24,000 892 1,085 2,875 55,000 8,400 16,257 11,000 25,000 10,000 14,010 11,100 1,500 62,053 206,750 8,000 5,500 6,000 1,200 4,393 1,072 17,991 12,500 16,800 4,000 31,000 11,835 13,000 1,200 77,792 25,000 6,500 Nil 36,000	12,500 17,000 262 785 2,875 42,000 6,200 16,257 9,000 19,400 8,200 11,500 775 1,500 42,053 135,000 4,000 5,490 6,000 1,037 4,335 17,991 6,993 1,031 8,300 7,105 3,006 31,000 10,335 10,238 600 59,792 25,000 5,500 Nil 21,500	£ 1,600 600 500 Nil 47,500 7,000 630 300 Nil 13,000 2,200 Nil 2,000 5,600 1,800 2,500 10,325 1,500 248,215 5,000 240,000 4,000 Nil 110,000 6,000 24,000 17,575 680,025 21,451 250,000 67,200 4,000 620,000 236,700 2,762 260,000 1,200 1,555,840 18,000 Nil 1,000 96,308 4,500 14,500	5,000 12 2,000 780,000 60,000 480,000 3,570 1,085 2,875 220,000 8,400 325,150 220,000 500,000 200,000 56,040 11,025 1,500 248,215 5,000 240,000 80,000 110,000 6,000 24,000 17,575 680,025 21,451 250,000 67,200 4,000 620,000 236,700 2,762 260,000 1,200 1,555,840 18,000 Nil 1,000 96,308 4,500 14,500	£1 £100 £1 1/- £1 5/- £1 5/- £1 1/- 1/- 5/- £1 £1 5/- 1/- and 13/- 2/- 1/- £1 1/- 5/- Various 1/- 4/6 £1 1/- 1/- 1/- 1/- 1/- £1 1/- 1/- 1/- 1/- 1/- 1/-	Nil 							

* Also produced 23 oz. 10 dwt. platinum, valued at £233 6s. 3d.

† Also produced 629 tons scheelite, valued at £101,352.

‡ Property worked on tribute.

Table 2—continued.
STATEMENT OF AFFAIRS OF MINING COMPANIES—continued.

Name of Company.	Date of Registration.	Subscribed Capital.	Amount of Capital actually paid up in Cash.	Value of Scrip holders on which no Cash paid.	Number of Shares allotted.	Amount called up per Share.	Arrears of Calls.	Number of Shareholders at present.	Number of Men employed.	Quantity and Value of Gold and Silver produced since Registration.		Total Expenditure since Registration.	Total Amount of Dividends paid.	Amount of Debts owing by Company.
										Quantity.	Value.			
OTAGO DISTRICT—continued.														
St. Bathan's Channel Co., Ltd. . .	4/1/82	£ 4,590	£ 4,590	Nil	81	Various	£	2	Nil	Oz.	£	£	£	£
Dominion Mineral Prospecting Co. (No Liability)	12/3/37	622	467	Nil	12,457	9d.	Nil	24	Nil	1,507	5,817	11,201	Nil	Nil
Golden Arrow Mining Co., Ltd. . .	4/11/32	1,100	1,000	100	11,000	2/-	Nil	32	6	1,407	9,959	10,030	2,200	85
Upper Ahaura Gold-dredging Co., Ltd. . .	26/3/34	22,800	8,483	5,833	478,966	6d.	Nil	188	Nil	Nil	Nil	14,897	Nil	276

FOREIGN COMPANIES.

Name of Company.	Date of Registration or Office in Dominion.	Subscribed Capital.	Amount of Capital actually paid up in Dominion.	Value of Scrip holders on which no Cash paid.	Number of Shares on Dominion Register.	Amount called up per Share, Dominion Register.	Arrears of Calls, Dominion Register.	Number of Shareholders on Dominion Register.	Number of Men employed in Dominion.	Quantity and Value of Gold and Silver produced since Registration.		Total Expenditure since Registration.	Total Amount of Dividends paid in Dominion.	Amount of Liabilities of Company in New Zealand.
										Quantity.	Value.			
Austral Malay Tin, Ltd. . .	13/11/34	£ 100,000	£	£	Nil	Nil	£	Nil	8	Oz.	£	£	£	£
Bundi Tin-dredging Co. (No Liability)	16/7/34	119,911	Nil	8,925	Nil	Nil	Nil	Nil	30	Nil	Nil	33,191	Nil	Nil
Waihi Grand Junction Gold Co., Ltd. . .	22/12/97	41,437	40,494	112,500	208,991	2/-	Nil	884	1	6,078	49,705	98,727	Nil	2,091
Martha Gold-mining Co. (Waihi), Ltd. . .	24/4/35	247,953	Nil	247,951	315,619	5/-	Nil	1,563	598	(Mine leased)	2,357,818	2,357,818	178,321	1,941
										*1,604,906	1,447,244	1,079,301	73,558	121,911

* Waihi Gold-mining Co., Ltd., transferred their undertaking to Martha Gold-mining Co. (Waihi), Ltd., on 24th April, 1935. Since that date production on behalf of Martha company has been 1,465,079 oz. of bullion, valued at £1,336,578.

APPENDIX B.

REPORTS RELATING TO THE INSPECTION OF COAL-MINES.

THE INSPECTING ENGINEER AND CHIEF INSPECTOR OF COAL-MINES TO THE UNDER-SECRETARY OF MINES.

SIR,—
Wellington, 25th May, 1938.
I have the honour to present my annual report, together with statistical information, in regard to coal-mines of the Dominion for the year ended 31st December, 1937, in accordance with section 42 of the Coal-mines Act, 1925. The report is divided into the following sections:—

- I. Output.
- II. Persons employed.
- III. Accidents.
- IV. Working of the Coal-mines Act—(a) Permitted Explosives; (b) List of Mines at which Permitted Explosives are used; (c) List of Mines required by Law to use Safety-lamps; (d) Dangerous Occurrences; (e) Electricity at Collieries; (f) Prosecutions.
- V. Legislation affecting Coal-mining.

- Annexures—
- A. Summary of Annual Reports by Inspectors of Mines.
 - B. Colliery Statistics.

SECTION I.—OUTPUT.

The output of the several classes of coal mined in each inspection district is summarized as follows:—

Class of Coal.	Output of Coal during 1937.				Total Output to the End of 1937.
	Northern District (North Island).	West Coast District (South Island).	Southern District (South Island).	Totals.	
	Tons.	Tons.	Tons.	Tons.	Tons.
Bituminous and sub-bituminous	41,694	928,290	..	969,984	50,806,570
Brown	736,804	45,598	403,918	1,186,320	32,178,779
Lignite	..	1,340	120,155	121,495	5,269,993
Totals for 1937 ..	778,498	975,228	524,073	2,277,799	88,255,342
Totals for 1936 ..	795,837	844,570	499,810	2,140,217	85,977,543

The following is a table showing the annual production of coal and the quantity of coal imported since 1912:—

Year.	Coal produced.	Coal imported.	Total Quantity of Coal produced and imported.	Year.	Coal produced.	Coal imported.	Total Quantity of Coal produced and imported.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1912 ..	2,177,615	364,359	2,541,974	1925 ..	2,114,995	572,573	2,687,568
1913 ..	1,888,005	468,940	2,356,945	1926 ..	2,239,999	483,918	2,723,917
1914 ..	2,275,614*	518,070	2,793,684*	1927 ..	2,366,740	378,090	2,744,830
1915 ..	2,208,624	353,471	2,562,095	1928 ..	2,436,753	247,861	2,684,614
1916 ..	2,257,135	293,956	2,551,091	1929 ..	2,535,864	215,656	2,751,520
1917 ..	2,068,419	291,597	2,360,016	1930 ..	2,542,092	157,943	2,700,035
1918 ..	2,034,250	255,332	2,289,582	1931 ..	2,157,756	179,060	2,336,816
1919 ..	1,847,848	391,434	2,239,282	1932 ..	1,842,022	103,531	1,945,553
1920 ..	1,843,705	476,343	2,320,048	1933 ..	1,821,258	99,272	1,920,530
1921 ..	1,809,095	822,459	2,631,554	1934 ..	2,060,315	100,715	2,161,030
1922 ..	1,857,819	501,478	2,359,297	1935 ..	2,115,184	97,398	2,212,582
1923 ..	1,969,834	445,792	2,415,626	1936 ..	2,140,217	111,078	2,251,295
1924 ..	2,083,207	674,483	2,757,690	1937 ..	2,277,799	116,499	2,394,298

* Includes 21 tons shale.

For the fourth year in succession it is pleasing to record an increase in the total output from New Zealand coal-mines, for during 1937 2,277,799 tons of coal were produced, which is an increase of 137,582 tons over the 1936 output. From the Northern District mines there was a decrease of 17,339 tons, and from the South District an increase of 24,263 tons. From the West Coast mines, however, the output is rapidly approaching 1,000,000 tons a year.

In all districts more men were employed at the mines than in 1936, but in the Northern District the increase was only nine men. In the Southern District mines forty-five more men were employed. In the West Coast coal-mines the increase was 106 employees, and the output per man, 498 tons, is 42 tons per man more than during 1936. In the Northern District the output per man decreased by 15 tons per annum, and in the Southern District by 1 ton.

The agreement entered into in 1936 by all the major Waikato colliery companies not to screen kitchen coal through a larger mesh than $\frac{3}{4}$ in. square is still in effect, and a steadily increasing demand for Waikato slack has resulted in the elimination of its waste.

The output of carbonettes from the Rotowaro plant again shows a substantial increase, for during 1937 5,841 tons more were produced than in 1936, an increase of 34 per cent.

At the Sockburn plant 6,100 tons of briquettes were produced during 1937; and from Messrs. Briquettes Ltd.'s plant at Auckland 2,070 tons were produced during the year.

The very heavy rainfall at Hikurangi early in July, 1937, resulted in the two main dip drives, and the small area of workings commanded by them, being flooded. Assistance had to be rendered to the Hikurangi Coal Co. by the Departments of Labour and Mines to unwater the workings, and after a borehole had been drilled from the surface, a few chains south of View Road, the extension of the No. 1 drive was resumed, but at a much steeper grade than it had previously been driven. It is anticipated that it will be near the end of the present year before that dip will pierce the seam. Meanwhile the coal, to fire the boilers and a little for the market, is being won from some workings at a somewhat lower horizon than the main dip drive.

At the Kamo Mine the old workings under the main railway-line were unwatered by places which were driven towards an area north of Station Road. After some litigation, an agreement was entered into by the Kamo Collieries, Ltd., and New Zealand Railways to have all the old workings immediately underneath the railway-line, and to a sufficient distance east and west of it, filled in completely with sand and clay. That work is approaching completion, and it should remove any fear of the railway subsiding thereabouts.

To work an area of proved coal south-east of the other workings, a stone drive was commenced, to dip at a grade of 1 in 3. Of the estimated distance of 900 ft. required to reach the seam, by the end of 1937 680 ft. had been driven, and the return airway (at a grade of 1 to 1) has been commenced from the surface.

Except for two stoppages, each lasting a week, at two of the Waikato collieries and six others of one day, production from the major collieries in that coalfield continued throughout the year without interruption, but, as I have already stated, the output was lower than that for 1936.

No new area was opened up in any of these mines, but exploratory work was done at the Wilton Colliery on an area to the east of the present workings.

At the Egmont Tatu Colliery no further work was done in the No. 1 Section, where the large slip occurred in 1936, but development proceeded apace in the No. 2 Section, about 20 chains to the north of the No. 1. The new aerial ropeway, $3\frac{3}{4}$ miles in length, from the mine to Mangaparo was completed in April, and since then has been continuously in use conveying about 120 tons of coal per day of eight hours.

At most of the West Coast collieries the main mining-places continue to be advanced. At the Nine-mile area on the State Coal Reserve near Greymouth the main stone drive, to open up the virgin coalfield there, and the other stone drives along its endless-rope haulage-road are being extended as rapidly as possible. It is anticipated that coal will be produced from the new mine before the end of 1938.

Boring operations to the south-west of the present Blackball Mine workings were completed in 1937, and tenders have been called for the driving of two dip places to open up the field of coal to the dip of the old No. 2 Section.

There is nothing of particular interest to record concerning the year's work in Canterbury, North Otago, and Central Otago coal-mines. At the Green Island mines work was practically confined to pillar extraction.

Recent development at the Kaitangata Mine has been chiefly in the Samson Seam, a section of which was worked some seventy years ago near the entrance to the old Kaitangata No. 1 Colliery. Prospecting is now being done in the vicinity of the Summerhill Mine and near the highway from Kaitangata to the sea-coast at Kai Point. There a dip is being driven in stone at a grade of 1 in 3 to intersect, beyond the large upthrow fault, the main seams worked in the No. 2 Mine.

The comments of Inspector Hughes in his annual report that the development work in the Ohai field is not keeping pace with the extraction of proven coal is a fair summing up of the position, but the results of recent boring done by the Wairaki and Mossbank Coal companies has modified the position somewhat since Mr. Hughes's report was written.

The Wairaki Co. should soon be driving across the downthrow fault, which cut off their eastern workings, to work the 27 ft. of coal which the borehole proved; and the Mossbank Co. will be making arrangements to put down dip drives from the surface to work the 20 ft. seam met in the borehole recently put down about 10 chains north of the abandoned No. 3 Mossbank Mine.

Conferences between representatives of the management, the miners, and the inspection staff were held during the year at Nightcaps and Dobson. The Nightcaps conference was to formulate, if possible, a better system of working the high pillar coal in some of the Ohai mines than that in

operation. It was agreed to give the “double-storey” method (with some modifications) better support than it had had. It is satisfactory to record that, wherever it is practicable to do so, that method is now being followed.

The conference at Dobson was to discuss the possibility of extending the use of electricity further inbye the Dobson Mine than was agreed to at the conference held there in 1927. After a lengthy discussion the inspection staff and the miners’ representatives agreed to allow the company, if it so desired, to put down a bore from the surface to a selected site for a substation on the No. 3 level and to install in that borehole a cable conveying current to the substation.

The use of hard hats is steadily increasing throughout New Zealand, but the miners in some of the larger mines, particularly those in South Otago, are very reluctant to adopt their use.

However, it is very pleasing to record that practically all the miners working high “top” coal in the Millerton Colliery now wear hard hats. If all other miners working high coal voluntarily agreed to wear them there will be no need to give consideration to the suggestion made by one of the Inspectors of Coal-mines that it should be made compulsory for men working in such places to wear them.

At the State Collieries a shipment of hard hats, each equipped with a plate of thin transparent material which can be pulled down in front of the wearer’s eyes when so required and pushed back into a recess in the hat when not required, have just arrived from England. It is hoped their use will prove a success in solving the problem of providing a suitable alternative to the customary piece of gauze wire worn on the face to prevent eye accidents to miners hewing coal.

The production from and the number of persons employed at the collieries of the Dominion are shown in the following table:—

Name of Colliery.	Locality.	Class of Coal.	Output for 1937.	Total Output to 31st December, 1937.	Total Number of Persons ordinarily employed.
<i>Northern District.</i>			Tons.	Tons.	
New Kamo	Kamo	Sub-bituminous	23,204	72,179	60
Rotowaro	Rotowaro	Brown ..	158,288	2,461,230	275
Pukemiro	Pukemiro	” ..	112,036	2,602,015	202
Wilton	Glen Massey	” ..	87,929	560,079	167
Glen Afton	Glen Afton	” ..	79,072	1,776,654	149
MacDonald	Waikokowai	” ..	144,229	858,822	236
Renown	”	” ..	114,893	873,317	189
Egmont	Tatu	” ..	14,122	52,514	49
<i>West Coast District.</i>					
Westport-Stockton	Ngakawau	Bituminous ..	143,201	3,561,466	250
Charming Creek	”	” ..	25,449	128,145	40
Millerton	Millerton	” ..	66,468	8,460,478	97
Denniston	Denniston	” ..	157,225	10,842,799	328
Cascade	Cascade Creek	” ..	19,680	171,251	20
Hydro	Seddonville	” ..	10,775	11,912	11
Burke’s Creek	Reefton	Brown ..	21,667	292,285	37
Paparoa	Roa	Semi-bituminous	33,437	846,903	68
Blackball	Blackball	Bituminous ..	38,427	4,107,876	88
Blackball Creek	”	” ..	12,788	110,474	18
Liverpool (State)	Rewanui	” ..	133,930	2,957,318	321
James (State)	Rapahoe	Sub-bituminous	40,819	504,826	91
Dobson	Dobson	Bituminous ..	58,142	823,210	150
Wallsend	Brunnerton	” ..	51,066	670,398	112
<i>Southern District.</i>					
Kaitangata	Kaitangata	Brown ..	136,538	5,571,366	285
Linton (2 collieries)	Ohai	” ..	111,324	1,325,688	188
Wairaki	”	” ..	23,894	491,755	58
Mossbank	”	” ..	50,488	613,843	78
Birehwood	”	” ..	22,555	208,476	53
Black Lion	”	” ..	16,082	180,831	20
144 other collieries	All coalfields	Various ..	370,071	9,521,573	777
Collieries abandoned or suspended, &c.	Various	” ..	..	27,595,659	..
Totals .. .. .	.. .. .	.. .. .	2,277,799	88,255,342	4,417

SECTION II.—PERSONS EMPLOYED.

Inspection District.				Average Number of Persons employed during 1937.		
				Above Ground.	Below Ground.	Total.
Southern .. .. .	.. .. .	.. .. .	.. .. .	272	711	983
West Coast .. .. .	.. .. .	.. .. .	.. .. .	526	1,430	1,956
Northern .. .. .	.. .. .	.. .. .	.. .. .	331	1,147	1,478
Totals, 1937 .. .. .	.. .. .	.. .. .	.. .. .	1,129	3,288	4,417
Totals, 1936 .. .. .	.. .. .	.. .. .	.. .. .	1,103	3,154	4,257

The following statement shows the tons of coal raised, persons employed, lives lost by accidents in or about collieries, &c., to 1937 :—

Year.	Output, in Statute Tons.	Persons ordinarily employed.			Tons raised per each Person employed below Ground.	Lives lost by Accidents in or about Collieries.		
		Above Ground.	Below Ground.	Total.		Per Million Tons produced.	Per Thousand Persons employed.	Number of Lives lost.
Prior to 1900	13,444,437	*	*	*	*	*	*	165
1900 ..	1,093,990	617	1,843	2,460	593	3.65	1.62	4
1901 ..	1,239,686	688	2,066	2,754	600	2.42	1.09	3
1902 ..	1,365,040	803	2,082	2,885	655	1.46	0.69	2
1903 ..	1,420,229	717	2,135	2,852	665	2.81	1.40	4
1904 ..	1,537,838	763	2,525	3,288	609	2.60	1.21	4
1905 ..	1,585,756	833	2,436	3,269	651	3.78	1.83	6
1906 ..	1,729,536	1,174	2,518	3,692	687	3.46	1.62	6
1907 ..	1,831,009	1,143	2,767	3,910	662	6.55	3.07	12
1908 ..	1,860,975	992	2,902	3,894	641	2.68	1.28	5
1909 ..	1,911,247	1,159	3,032	4,191	630	3.66	1.67	7
1910 ..	2,197,362	1,136	3,463	4,599	634	7.28	3.48	16
1911 ..	2,066,073	1,365	2,925	4,290	706	6.77	3.26	14
1912 ..	2,177,615	1,130	3,198	4,328	681	4.13	2.08	9
1913 ..	1,888,005	1,053	3,197	4,250	590	3.18	1.41	6
1914 ..	2,275,614	1,176	3,558	4,734	639	21.53	10.35	49†
1915 ..	2,208,624	1,050	3,106	4,156	711	4.07	2.16	9
1916 ..	2,257,135	988	3,000	3,988	752	2.65	1.50	6
1917 ..	2,068,419	1,090	2,893	3,983	715	1.93	1.00	4
1918 ..	2,034,250	1,102	2,892	3,994	703	2.95	1.50	6
1919 ..	1,847,848	1,095	2,849	3,944	648	5.41	2.53	10
1920 ..	1,843,705	1,152	2,926	4,078	630	0.54	0.24	1
1921 ..	1,809,095	1,218	3,149	4,367	574	5.52	2.28	10
1922 ..	1,857,819	1,191	3,365	4,556	552	3.23	1.31	6
1923 ..	1,969,834	1,353	3,647	5,000	540	2.53	1.00	5
1924 ..	2,083,207	1,364	3,505	4,869	594	4.80	2.05	10
1925 ..	2,114,995	1,288	3,489	4,777	606	3.78	1.67	8
1926 ..	2,239,999	1,336	3,823	5,159	586	6.69	2.90	15
1927 ..	2,366,740	1,386	3,988	5,374	593	4.23	1.86	10
1928 ..	2,436,753	1,366	4,010	5,376	608	3.69	1.67	9
1929 ..	2,535,864	1,370	4,127	5,497	614	4.73	2.18	12
1930 ..	2,542,092	1,437	4,430	5,867	574	5.50	2.38	14
1931 ..	2,157,756	1,414	4,331	5,745	498	1.85	0.69	4
1932 ..	1,842,022	1,257	3,379	4,636	545	6.51	2.59	12
1933 ..	1,821,258	1,192	3,194	4,386	570	3.84	1.59	7
1934 ..	2,060,315	1,229	3,249	4,478	634	3.88	1.78	8
1935 ..	2,115,184	1,127	3,104	4,231	681	0.94	0.47	2
1936 ..	2,140,217	1,103	3,154	4,257	678	1.87	0.94	4
1937 ..	2,277,799	1,129	3,288	4,417	693	2.64	1.36	6
Totals ..	88,255,342	..	..	..	..	..	..	490

* For returns for previous years see page 32, Mines Statement, 1921.

† Year of Ralph's (Huntly) explosion.

SECTION III.—ACCIDENTS.

The following is a summary of accidents in and about coal-mines during 1937, with their causes :—

	Fatal Accidents.		Serious Non-fatal Accidents.	
	Number of Separate Fatal Accidents.	Number of Deaths.	Number of Separate Non-fatal Accidents.	Number of Persons injured, including those injured by Accidents which proved Fatal to their Companions.
Explosions of fire-damp or coal-dust	..	..	..	..
Falls of ground	4	5	14	14
Explosives	..	..	..	..
Haulage	1	1	7	7
Miscellaneous—Underground	..	..	4	4
On surface	..	..	1	1
Totals	5	6	26	26

In 1937 the fatal accidents in New Zealand coal-mines were at the rate of 1.36 per thousand persons employed, and at the rate of 2.64 per million tons of coal produced.

In the Northern District coal-mines one fatal accident occurred in 1937, three in West Coast mines, and one in the Southern District. Of these five accidents, four were caused by falls of coal in working-places.

In their reports the District Inspectors refer to the fatalities, but the following are short statements concerning them :—

Sydney Lowery, a brakeman employed on the Stockton electric loco. haulage system, was thrown beneath a rake of full tubs (each carrying 30 cwt.) on 18th January, 1937, and was killed instantly. In some manner the brake-van became derailed, and it is thought that a loose piece of metal lying alongside the centre-rail was struck by the “ Fell ” brake.

Two miners, T. W. Thomsen and P. Johnson, were killed in the Linton No. 1 Mine on 3rd March, 1937, by a fall of top coal in their working-place. The coal had been loosened by a shot in a nearby place and fell as the miners were returning to their work.

John Jack, a miner working in the Stockton Colliery, received a fractured pelvis and bladder injuries on 3rd August, 1937, by a fall of “ tops ” in his working-place. He died from the injuries eleven days later.

While picking up bottom coal in his pillar place in the Pukemiro Colliery, Alexander Robertson was fatally injured on 31st August, 1937, by a fall of about 10 tons of coal and stone from the roof. He and his mate had worked the lift to a height of 10 ft., but, unfortunately, only 9 in. of coal was left on under the soft, faulty fireclay roof. The fall occurred without giving any warning, and if a prop had been set within 9 ft. of the face, that prop was displaced by the fall.

Richard Smith was instantly killed on 8th November, 1937, by a fall of coal in his working-place in the Fifth West Section of the Millerton Colliery. He and his mate had commenced to fill top coal brought down by a shot which had been fired in their working-place. They noticed a little coal falling on the trucking-road behind the truck they were filling. Smith got a pricker bar and was getting the loose coal down with it, when a piece, weighing from 12 cwt. to 16 cwt., fell from a height of about 12 ft. and struck him.

Twenty-six serious non-fatal accidents were reported to the District Inspectors during 1937. Nineteen of them occurred in the West Coast District, and of that number twelve were caused either directly or indirectly by falls of coal or stone. Two of the three serious accidents reported in the Southern District were due to falls of coal also. Three serious accidents were caused by runaway tubs, and one man was injured by being caught between a full tub and a prop.

SECTION IV.—WORKING OF THE COAL-MINES ACT.

(a) PERMITTED EXPLOSIVES.

(Regulations 233 to 237 inclusive.)

The following is a table showing the quantity of permitted explosives used and the number of shots fired in New Zealand coal-mines during 1937 :—

Inspection District.	Quantity of Per- mitted Explosives used (lb.).		Number of Shots fired.	Number of Misfired Shots.					Approximate Quantity of Coal produced.
	A2 Monohel.	Sansomite.		By Defective Explosive.	By Defective Detonators.	By Defective Leads.	Other Causes.	Total.	
Northern (i.e., North Island) ..	110,431	..	147,852	2	22	19	..	43	Tons. 635,879
West Coast (of South Island) ..	121,509	127,231	295,976	3	98	115	..	216	1,210,577
Southern (i.e., Canterbury, Otago, and Southland)	..	81,475	123,305	..	5	4	..	9	326,898
Totals	231,940	208,706	567,133	5	125	138	..	268	2,173,354

(b) LIST OF MINES AT WHICH PERMITTED EXPLOSIVES ARE USED.

The following is a list of mines as at the 31st December, 1937, at which permitted explosives are used :—

Northern Inspection District.

- Pukemiro, Pukemiro—Throughout North and South Mine.
- Rotowaro, Rotowaro—Throughout No. 1 and No. 3 Mines.
- Glen Afton, Glen Afton—All sections of the mine.
- MacDonald, Waikokowai—Throughout all sections of the mine.
- Waikato Extended Colliery, Huntly—All sections.
- Renown, Renown—All sections.
- Wilton, Glen Massey—All sections.

West Coast Inspection District.

Wynndale, Murchison.	Kaye's, Ten Mile.
Mount Burnett, Collingwood.	Bellbird, Ten Mile.
Puponga, Puponga.	Hunter's, Ten Mile.
Owen, Owen River.	Briandale, Ten Mile.
Brighton, Brighton.	Cliffside (Moore's), Nine Mile.
Cardiff, Seddonville.	Bellvue, Rapahoe.
Charming Creek, Ngakawau.	Cain's, Rapahoe.
Cascade, Burnett's Face.	Jubilee, Rapahoe.
Coal Creek, Seddonville.	Baddeley's, Dunollie.
Hydro, Seddonville.	Braehead, Dunollie.
Glencrag, Buller Gorge.	Castlepoint, Dunollie.
Westport Coal Co.'s Denniston mines.	Hunter's, Dunollie.
Westport Coal Co.'s Millerton mines.	Moody Creek, Dunollie.
Westport-Stockton, Ngakawau.	New Point Elizabeth, Dunollie.
Archer's, Capleston.	Fiery Cross, Dunollie.
Clele, Merrijigs.	Smith's, Dunollie.
Coghlan's, Capleston.	Duggan's, Rewanui.
Collins, Murray Creek.	Old Runanga, Rewanui.
Morrisvale, Reefton.	Spark's, Rewanui.
Defiance, Reefton.	State Collieries (Liverpool and James).
Burke's Creek, Reefton.	Goldlight, Rewanui.
Waitahu Colliery, Reefton.	Blackball, Blackball.
Burnwell (Honey's), (Times Street), Reefton.	Blackball Creek, Blackball.
White Rose, Reefton.	Paparoa, Roa.
Schultz Creek, Twelve Mile.	Dobson, Dobson.
Hilltop, Ten Mile.	Wallsend, Brunnerton.

Southern Inspection District.

Kaitangata, Kaitangata.	Black Diamond, Ohai.
Wairaki, Ohai.	Black Lion, Ohai.
Birchwood, Ohai.	Star, Ohai.
Linton, Ohai.	

(c) LIST OF MINES REQUIRED BY LAW TO USE SAFETY-LAMPS.

The following is a list of the mines as at the 31st December, 1937, required by law to use safety-lamps.

Northern Inspection District.

Pukemiro, Pukemiro—Throughout South mine section.
 Rotowaro, Rotowaro—Throughout No. 1 and No. 3 Mines.
 Glen Afton, Glen Afton—Main headings.
 Renown, Renown—Nos. 1, 2, 3, and 4 North Sections.

West Coast Inspection District.

Dobson, Dobson.	Paparoa, Roa.
Spark's, Rewanui.	Wallsend, Brunnerton.
State Mine (Liverpool No. 2), Rewanui.	Millerton (Old Dip Section), Millerton.
Moody Creek, Dunollie.	Owen, Owen River.
Old Runanga (No. 2 Section), Rewanui.	

Southern Inspection District.

Kaitangata, Kaitangata.	Black Diamond, Ohai.
Wairaki, Ohai.	Black Lion, Ohai.
Birchwood, Ohai.	Star, Ohai.
Linton, Ohai.	

(d) DANGEROUS OCCURRENCES REPORTED.

(Regulation 82.)

Of the twenty-seven dangerous occurrences reported during 1937 to the Inspectors of Coal-mines, eighteen were of actual fires or of heating in the underground workings. Five of them were in the Denniston Mines, four in the Linton Mines, and three in Millerton Mine workings.

Two accumulations of firedamp and one of carbon dioxide compelled the withdrawal of workmen.

Inrushes of water were reported on three occasions, and one inrush of sand and water. Workmen had to be withdrawn from sections of two mines through heavy crushing movements.

(e) ELECTRICITY AT COLLIERIES.

(Regulation 243.)

The following is a summary of the annual returns, in accordance with Regulation 243 (c), regarding electrical apparatus at collieries :—

Number of collieries at which electrical apparatus is installed	..	..	65
Number of continuous-current installations	..	..	29
Number of alternating-current installations	..	..	59
Number of collieries electrically lighted	..	..	40
Number of collieries using electrical ventilating-machines	..	..	49
Number of collieries using electrical pumping plants	..	..	38
Number of collieries using electrical haulage plants	..	..	51
Number of collieries using electrical screening plants	..	..	31
Number of collieries using electrical coal-cutting machines	..	..	4
Number of collieries using electrical miscellaneous plants	..	..	27
Number of collieries using electrical locomotives	..	..	1
Total horse-power employed from motors on surface	..	..	8,048
Total horse-power employed from motors below ground	..	..	4,536

(f) PROSECUTIONS.

Eleven informations were laid during 1937 by the Inspectors of Coal-mines for breaches of the Coal-mines Act and the regulations thereunder. Eight of the prosecutions were against mine-managers, two against shotfirers, and one against an underviewer. Convictions were recorded in all the cases.

Accounts of the individual prosecutions are given in the reports of the District Inspectors (Annexure A).

SECTION V.—LEGISLATION AFFECTING COAL-MINES.

Many important amendments to the Coal-mines Act, 1925, were made by the amending Act of 1937, which consisted of thirty-two sections.

No person can now be appointed as manager, underviewer, or fireman-deputy until he is twenty-three years of age, and all underviewers and firemen-deputies must be re-examined every five years in gas-testing.

The minimum age of employment underground in a coal-mine has been raised from fourteen years to sixteen years.

Except where, in the opinion of the Minister of Mines, it would be unreasonable to require it, a weighbridge must be installed at every mine where the wages of the miners are computed according to the weight of coal got by them. Where it is agreed that payment shall still be by measure or gauge, the method of measuring or gauging is to be decided by an Inspector of Weights and Measures.

Plans must now be made of all coal-mines with underground workings. Previously it was only necessary to have proper plans of mines where more than six men were employed.

Previously only the stoppings between the main intake and the main return airways were required to be built of non-inflammable material. An Inspector can now require the stoppings between the intake and return airways in any ventilating district to be built of non-inflammable material, and he has power to state the material of which they are to be constructed and their design.

To ascertain the percentage of inflammable gas normally present in the air of a coal-mine, an Inspector must take six samples. Previously these samples had to be taken at intervals of not less than a fortnight, but, by the amending Act, a sample can now be taken twenty-four hours after the previous one has been taken.

Tests of detaching hooks by actual overwinds are not required as frequently as they were, but all detaching hooks in use must be completely dissembled and examined at intervals not exceeding three months.

Except at mines specially exempted by the Minister, the use underground of forks, riddles, harps, or other arrangements for sizing and screening coal is prohibited.

A copy of every report made by an official underground must now be sent to the surface immediately.

All workmen's Inspectors must now hold certificates stating they are able to test for inflammable gas.

The workmen employed in the mines have a right to appoint a workmen's National Inspector to inspect any New Zealand coal-mine on their behalf.

The percentage of firedamp in the general body of the air in a working-place when the men have to be withdrawn therefrom is reduced from $2\frac{1}{2}$ to 2.

Instead of requiring housing-accommodation for the workmen, the Minister, if he so desires, can require the owner of a coal-mine to contribute towards the cost of conveying the men to and from the mine.

Power is also given to make regulations requiring the workmen to use helmets, eye-goggles, and other equipment of a protective nature.

I desire to acknowledge the efficient help and co-operation which I have received from the District Inspectors.

I have, &c.,

GEORGE DUGGAN,

Inspecting Engineer and Chief Inspector of Coal-mines.

ANNEXURE A.

SUMMARY OF REPORTS BY INSPECTORS OF MINES.

NORTHERN INSPECTION DISTRICT (WILLIAM BARCLAY, Inspector of Coal-mines).

In compliance with the Coal-mines Act, I have the honour to submit the following report:—

OUTPUT OF COAL.

The total output from the mines in the Northern District for the year ending 31st December, 1937, was 778,498 tons. Compared with the previous year, this return shows a decrease of 17,339 tons. The Waikato mines produced 716,765 tons (712,391 tons for the year 1936); North Auckland, 41,694 tons (62,094 tons for the year 1936); and the Taranaki mines, 20,039 tons (21,352 tons for the year 1936).

The total number of mines in operation during the year 1937 was eleven less than for the year 1936. This reduction can be accounted for by the fact that a number of the small coal-mines in the Hīkuraangi District have ceased operations, due to the thinness of the remaining coal-seams.

The tonnage of coal won and disposed of per person for the year 1937 was 526, against 541 for the year 1936, the number of persons ordinarily employed being 1,478 and 1,469 respectively.

Mine development was maintained ahead of actual requirements, and during the year extensive stone driving was carried out at the Waro and Rotowaro Mines.

No slack coal was dumped during the year, and the screening arrangements made for the conservation of the national coal deposits have been effective, and the coal companies have enjoyed the accrued benefits.

Thirteen hundred miners are now engaged in the Waikato mining industry. In the early days of mining, operations were confined to the coal deposit lying under the Town of Huntly and adjacent lakes. Owing to the subaqueous roof cover, which precluded the extraction of the coal pillars, and as the roadways were being extended beyond economic limits, it was deemed advisable to abandon the Huntly Coalfield and re-establish mines in the proved shallow coal areas lying to the west of Huntly, where five large coal-mines have been developed during the past decade in production of an average annual output of 700,000 tons.

Five villages, inhabited by workmen engaged in the mines, have also been established at the respective mines, and, although some of the villages are served by halls and sound films, few facilities for the encouragement of sports and recreation have been provided. In this connection the social isolation of these workmen and their families should be relieved by the projected improvement to the main highway passing through four of the villages, and their living-conditions could be further improved by the construction of bowling-greens, football-grounds, and swimming-baths.

Ambulance rooms for the exclusive use of first-aid treatment have been provided at some of the main collieries. Numerous complaints of the pilfering of the contents of the mine ambulance boxes have been reported, and it is indeed deplorable that these necessary appliances are not respected by a small minority of the workmen.

The miners suffered little through slack time during the year, and the principal stoppages were caused by a shortage of railway wagons.

SUMMARY OF OPERATIONS OF EACH COLLIERY FOR THE YEAR 1937.

North Auckland District.

Waro Coal-mines (Hikurangi Coal Co., Ltd., Owners).—Operations on this coalfield have been confined to the development of the southern end of the coalfield, by the driving of two stone dips, and subsidiary ones set away at steeper grades, in an endeavour to intersect the coal-seam on a workable grade.

No. 1 main dip was down 941 ft. at 1 in 4, and No. 2 return airway dip, set away at 1 in 2½, was stopped at 816 ft., from which point a connection was made through the limestone to No. 1 drive to provide ventilation.

During the month of July heavy rains in the district caused a cessation of mining operations by water entering the low-lying mine entrances and flooding the drives. To prevent a similar occurrence protective walls of reinforced concrete were erected around the mine entrances.

Numerous faults have been encountered in the subsidiary dips, and no extent of workable coal was proved to exist between the faults.

A borehole, known as No. 5, drilled in close proximity to View Road, and at a point 560 ft. south of the face of No. 1 main stone dip, located 8 ft. 3 in. of coal at 507 ft., and preparations are being made to extend No. 1 main stone dip to the located seam.

The inflow of water is 20,000 gallons per hour, and is discharged from the workings by electrically driven pumps from power generated at the mine.

Hikurangi No. 2A Coal-mine (Lease from Hikurangi Coal Co., Ltd.: Lawson and Party).—A party of four miners continued to win a small output from the pillars formed in a first working of an isolated portion of Section 39. The seam is 5 ft. to 6 ft. thick, and due care is exercised in the work of extracting the pillars.

The Rocks Area.

Fearnley's Coal-mine (Rocks Area).—A party of four miners is engaged in winning coal and fireclay from pillars abandoned by a former working. The coal-seam is 3 ft. thick, and 2 ft. of marketable fireclay is mined in conjunction with the coal.

Orr and Party (Rocks Area).—This mine was closed down.

Jones and Party (Tauranga Block).—Mining operations are being continued in a seam 5 ft. thick. Bords of earlier working are being passed through, and the seam continues to improve in height and quality.

Silverdale Colliery (Crown Lease: S. Foot).—The mine remained closed throughout the year.

McInnes's Coal-mine (Crown Lease: Tunstall and Party).—Operations at this mine were discontinued, and no output was produced for the year 1937.

McInnes's Coal-mine (Crown Lease: Mackie and Party).—Three miners have been engaged in driving a heading in a faulty coal-seam towards workings abandoned by the Northern Coal Co., Ltd. (in liquidation). The coal-seam, which is 5 ft. thick, contains many stone bands, and only 14 in. of clean coal is mineable.

Glen Nell Coal-mine (Crown Lease: H. Tipton and Party).—During the year the coal lease to McIntyre and party was determined and the mine was subsequently taken over by a co-operative party of twelve miners under the leadership of H. Tipton. The pillars are still being extracted over an area of first workings carried out by the previous management, and the party is also engaged in reopening a small area abandoned by Muir and party.

Phoenix Colliery (Crown Lease: McKinlay and Party).—The working-seam in this coal-mine is only 20 in. thick and is being followed along the top of a hill at shallow depth. Four to five pillars remain for extraction.

New Kamo Coal-mine (Kamo Collieries, Ltd., Owners).—No. 1 mine section, lying to the south of Kamo Railway-station, was abandoned, due to the exhaustion of the working coal. No pillars were extracted near the boundaries of the railway reserve, and wooden chocks were erected in the crosscuts passing under the railway in prevention of subsidence.

Operations in No. 2 mine section were discontinued following an unsuccessful attempt to locate a workable area of coal in the direction of Section 80, on Crown Land.

No. 3 stone dip, set away at 1 in 3 in development of an extensive area of coal proved to the south-east of Kamo Station, has been driven a distance of 680 ft., leaving 220 ft. yet to be driven to reach the coal-seam. A drift at 1 in 1 has been commenced from the surface to provide a return airway.

During the year No. 4 stone dip intersected the old Kamo Mine workings lying under the railway reserve and to the east thereof, including the workings formed forty-five years ago in the vicinity of the old winding-shaft.

A portion of the old workings collapsed under the railway during the year 1892, and subsequent fires caused their abandonment.

An examination of the old workings under the railway revealed that the remaining pillars were in a crushed condition. There were also many cavities and excavations unaffected by the previous crushing movement, and in order to make the foundations of the railway permanently secure the open roadways are being stowed and packed with stone.

Ruatangata Colliery.—This small coal-mine is operating on rise ground to the west of the railway at Kamo and the old Kamo winding-shaft. During the process of sinking a return airway shaft to a depth of 110 ft. a top seam, 5 ft. thick, was located, and mining operations are now confined to this seam, which is easily mined. Seven miners are employed at the coal-faces, and the output is carted to the works near the Ruatangata Railway-station, where the bulk of it is used for the manufacture of bricks and fireclay products.

Wharecoru Coal-mine (Foot and Fox, Owners). No operations were carried on at this mine during the last six months.

Avoca Coal-mine.—A small output was obtained from opencast mining, and preparations are now being made to open an area of proved coal lying to the west and to the dip of the outcrop.

Turnbull and Party.—A small coal-mine has been opened out in a thin seam remaining from a former working of the area carried out by the Hikurangi Coal Co., Ltd. The coal-seam is soft, with indications of outcropping. Another drive is to be commenced for the purpose of reaching another isolated area of coal proved by boring.

Whau Valley Mine (R. Fox and Party).—Fox and party have been engaged in driving prospecting dips into a coal-seam worked fifty years ago, but no plans of the previous workings are available. The roof cover is of a soft nature, and close timbering is required to support the exposed stone. An elevated tramway of 2 chains to 3 chains has been erected over a depression of the surface, and connects the mine to a motor road.

Waikato District.

Rotowaro Collieries (Taupiri Coal-mines, Ltd., Owners).—The company's collieries are situated some miles by rail from Huntly, and are well served by road and rail, including a mile of privately owned railway.

The area of the coalfield is extensive, and a long mine life is proved by the exploratory work carried out to the south of the mine entrances.

Two seams are being worked, and their thicknesses vary from 10 ft. to 20 ft. The first working is generally taken to a height of 9 ft., and the remaining coal is worked back as "tops" following the extraction of the pillars. Bord-and-pillar is the system employed in working both seams. The workings are laid out in panels, and, when necessary, the numerous fires resulting from the extraction of the pillars can be quickly sealed at two entrances to the panels.

The mine skips are of steel construction, the parts being imported from Great Britain and assembled at the mine. Electricity is used throughout for lighting, haulage, drainage, and for operating two coal-cutting machines.

An output of 800 tons per eight-hour day can be maintained from the two mine sections. This output could be doubled by the employment of two separate shifts.

Ventilation is produced by two electrically driven fans, each being capable of drawing 60,000 cubic feet of air per minute through the workings.

Mine-development consisted of the extension of the south-eastern drive in the bottom seam and the driving of a return airway in stone from the bottom seam to the surface at the eastern end of No. 1 mine section.

A commodious bathhouse and an ambulance-room fitted for first-aid treatment are provided.

Electric safety-lamps of the cap type are used throughout the mine workings, with the exception of the flame safety-lamps used by the examining officials.

Pukemiro Colliery (Pukemiro Collieries, Ltd., Owners).—This colliery continues to produce an output of 500 tons of coal per day. The area of the holding is limited, and operations during the past four years have been confined to the extraction of the pillars remaining from a first working carried to the boundaries.

The seam varies from 10 ft. to 14 ft. in thickness, and includes numerous "backs" of soft coal which increases the yield of slack.

Two separate mine sections were developed, and in the north section the pillars have been removed over at least 60 per cent. of the first workings.

In the south section, where operations have been suspended for a period of five years, the workings have been cleared of falls and reworked for the extraction of the pillars remaining over an extensive area. In this section underground fires have been troublesome, and several panels have been sealed off pending later extraction by sustained regular attacks upon the pillars.

The coal is won by hand mining, and the soft jointy fireclay roof-stone must be supported by props and bars set close up to the working-faces.

Electricity is used throughout the mine for haulage, drainage, and ventilation purposes. Electric safety-lamps are in use in the south section, and open lights in the north section.

The underground haulage system is of endless ropes delivering the outputs from both mine sections to within 2 chains of the surface screening-plant.

Glen Afton No. 1 Colliery (Glen Afton Collieries, Ltd., Owners).—This colliery is situated twelve miles by rail from Huntly. Production of coal started early in the year 1921, and has continued without interruption to the present day under favourable conditions as regards the safety of the workmen.

Pillars were removed from K2 and K4 sections during the year, and preparations are being made for an attack upon the pillars remaining in E section.

Heatings of the coal-seam near the roof in the travelling road and main return at F section caused the management to strengthen the concrete walls erected to seal off previous indications of spontaneous combustion.

The seam averages 12 ft. thick. The bord-and-pillar method is adopted, and bords and crosscuts are usually 14 ft wide with pillars 1 chain square.

Modern plant and equipment are employed throughout, and a high standard of ventilation is maintained, especially at the faces, where it is required for the comfort of the workmen.

Endless ropes of a total length of four miles are used underground for the transport of the coal from the laybys. Face haulage is conducted by horses stabled each night at the surface.

Electric power is generated at the colliery, but advantage is taken of the bulk supplies connected to the mine by the Central Electric-power Board.

Two separate screening-plants are established at the terminus of the Government railway, and the endless haulage ropes deliver 1,000 tons to 1,200 tons of coal from the company's No. 1 and No. 2 mines in each working shift of eight hours.

Glen Afton No. 2 Colliery (MacDonald State Coal-mine Reserve under Lease to the Glen Afton Collieries, Ltd.)—This important colliery has been sufficiently developed for the production of 1,000 tons of coal per day, but owing to its remoteness and distance from its screening-plant an average daily output of 750 tons is being produced by one shift.

Numerous inspections made throughout the year revealed satisfactory working-conditions. The developing headings have been extended and maintained well ahead of the requirement for working sections, and the pillars are extracted within the panels immediately following the cessation of the first working to the determined boundaries.

Electric power for operating the pumps, haulages, and coal-cutting machines is taken into the mine from a bulk supply obtained from the Central Electric-power Board.

This colliery is bounded to the south by the Glen Afton No. 1 Colliery, and both mines are connected so as to provide a third escape for the workmen in each colliery. This connection simplifies the problem of ventilation of some of the workings in the Glen Afton No. 1 Colliery.

In common with other Waikato collieries, the coal is liable to spontaneous combustion, especially in the goafs. All indications of heating are treated in the same manner as major happenings, by the erection of stoppings to seal off the affected areas.

Additional bathing-accommodation was provided during the year.

Graham Colliery.—The pillars are still being removed from the inbye workings. The stone haulage road has been abandoned, and a new road formed over the top of the drive, in order to provide access to the east pillars. The seam is 6 ft. thick, and only narrow splits and lifts are taken through the remaining pillars.

Waikato Extended Colliery (Roose Shipping Co., Owners).—This small coal-mine, situated three miles south of Huntly, on the west bank of the Waikato River, is in operation for supplying bunker coal to the fleet of river steamers owned by the Roose Shipping Co., Ltd. Mining operations consist of the extraction of pillars from old workings left by a former working. The seam is 14 ft. to 18 ft. thick. Blackdamp appeared at cracks in the ribs of coal left along the line of the old workings, and brick stoppings have been erected for the purpose of isolating them.

Huntly Brickworks.—An opencast fireclay face, situated in Huntly, has been safely worked for the production of fireclay used for the manufacture of bricks and tiles on the property.

Taipiri East Coal-mine (Crown Lease: J. T. Holland).—The workings are proceeding in the Crown lease which was obtained for purposes of reaching an isolated area of University College land over which the mining party has acquired mining rights. Bords and connecting crosscuts are being advanced to the west of the main dip. Square pillars of 40 ft. are being formed between the headings and crosscuts. Boreholes are being drilled at intervals in the roof for the purpose of testing the thickness of coal remaining in the roof of the working-places lying under the bed of the Kimihia Lake.

Campbell Coal-mine (Crown Lease: Whatawhata).—Production is still being maintained from the workings of a Crown lease situated three miles west of Whatawhata. The seam is very faulty as the workings approach the rise area abandoned ten years ago. The bord-and-pillar method of extraction is adopted, and only two pillars have as yet been extracted.

Renown Colliery (Renown Collieries, Ltd., Owners).—This well-established colliery produced 114,893 tons during the year, mainly from bords of a first working within the formed panels. Development to the north has been arrested by the increased costs of face haulage. As an accumulation of firedamp was discovered in a cavity (occasioned by a fall of roof-stone) to the upper seam the use of safety-lamps became necessary and operations are suspended there until the lamps are procured.

Access has again been effected, by the reroading of the back South No. 1 heading, to the shallow extensive deposits of coal lying to the east of the field. Development in this direction is being vigorously pursued.

In No. 3 south section the main headings were stopped for no apparent reason, and the bords of an intermediate section have been extended beyond the main headings.

The pillars were extracted in only one section during the year, and the reserves of pillar coal have been materially increased. This is not good mining practice, as the pillars should be removed following the completion of the panels and before the timber has time to decay and falls occur in disused roadways.

Modern means of haulage have been applied in the mine, and 80 per cent. of the working-faces are machine-mined.

A high standard of ventilation has been maintained, and the temperature of the mine air has been reduced by the provision of a secondary inlet effected near the faces in No. 1 and No. 2 east sections.

The seam varies from 8 ft. to 14 ft. thick, and the bord-and-pillar method of working is in vogue with bords 14 ft. wide by 9 ft. in height, and 1 chain square pillars are formed between the roadways within the panels, each of which is 6 acres to 7 acres in extent.

Wilton Colliery (Wilton Collieries, Ltd., Owners).—The output was derived from pillars remaining within the panels formed by a first working of the seam conveniently situated within working-limits of the haulage roads.

The seam varies in thickness from 4 ft. to 8 ft., and on the dip side of the workings the jointy fireclay roof-stone is affected by seepage of water from the surface, consequently, the management has to enforce special timbering rules there, including the use of laths and catch props, for the support of the roof at the faces. Generally, the roof is of a soft nature, and three rows of props, set at intervals of 4 ft. and 5 ft. between the rows, are maintained in the ordinary working-places.

Boring operations have been carried out on Holmes's Estate with satisfactory results, and preparations are being made to open out another mine section on the proved area lying to the west of the screening-plant, a distance of 18 chains.

Exploratory work has also been carried out in Kemp's area, lying to the east of the existing workings, and should the prospecting operations prove the existence of another extensive area of workable coal it will be developed to maintain the output after the pillars in No. 1 mine section have been extracted.

Rangitoto Coal-mine (Native Lease, Tahia).—Mining operations at this small coal-mine were suspended at the end of the year and the mine closed down, as the coal was of inferior quality and the expenses of mining and marketing the output were unduly high.

Relief Coal-mine (Auckland University Council Endowment Lease).—This mine was opened out two years ago, primarily for the purpose of affording relief to unemployed miners and to supply them with cheap coal. Following a resumption of normal mining operations in the Waikato mines, and owing to the fact that there was a shortage of experienced miners, the Employment Division of the Labour Department decided to withdraw its support to the undertaking, and the mine, in consequence, was abandoned.

Taranaki District.

Old Stockman Coal-mine, Mokau.—This mine is situated on the west bank of the Mokau River, at a point twenty-five miles upstream from the Mokau Harbour. Operations during the year were confined to workings in the Stockman area, and to a prospect located lower down the river, where a new drive has been commenced.

Paparata Coal-mine (Crown Lease: Taranaki Coal Mining Co., Ltd.).—Coal-mining ceased on the lease on the 22nd December, 1936, and no work has been done on this property since that date. The lease was determined owing to the failure of the company to comply with the conditions of the lease.

Egmont Tatu Colliery (Crown Lease: Egmont Collieries, Ltd., Owners).—No. 1 mine section was abandoned owing to the access drives being damaged by a slip from the overlying hillside.

The manager subsequently developed another area to the north, and situated conveniently to an aerial ropeway then in process of construction from Mangaparo Station, three miles and three-quarters in a straight line from the No. 2 mine section. The ropeway was completed in April. It has a carrying-capacity of 200 tons of coal in eight hours, and its efficiency has been tested by six months continuous running without stoppages.

The seam being worked is 7 ft. thick. It is of good quality, and comparatively free from stones. It lies at a dip of 1 in 15 to the south. Bords and headings are driven 10 ft. to 12 ft. wide with 1 chain square pillars between the roadways.

The miners have to ascend the hill to the mine entrance by a narrow track over clayey land, and the transport of heavy material such as mine machinery is very difficult. A good traffic road to the mine is urgently required.

Mangapechi Coal-mine (Mangapechi Coal-mining Co., Ltd.: Wayleave from Crown).—Three headings with requisite crosscuts comprise the whole of the workings, and they are driven to widths of 12 ft. in accordance with the conditions of the mining rights over the area.

The intervening fault, which was encountered in the main dip heading, has been pierced, and proved to be only an upward roll of the floor. The dip was continued through the trouble, and the seam recovered at a grade of 1 in 3.

The main heading has been driven 22 chains from the surface, and the face is still 13 chains distant from the company's freehold area.

Electric power for operating two mine pumps and a ventilating-fan on the surface has been installed at the mine.

An output of 40 tons per day is being got from the limited number of places, and the output is carted about a mile to a siding on Ellis and Burnand's private railway, from where it is loaded into railway wagons.

FATAL ACCIDENTS.

On 31st August, Alexander Robertson, miner of the Pukemiro Colliery, was fatally injured by a fall of coal and fireclay. The coal roof of the working-place had been trimmed over the face to within 9 in. of an undetected stratum of soft jointy fireclay roof-stone. The fall occurred without warning between the face and the last roof-supporting prop while the miner was engaged in lifting floor coal.

SERIOUS NON-FATAL ACCIDENTS.

On 15th March, J. Clout, an employee of the Rotowaro Colliery, suffered a cracked pelvis bone by being struck by a reel of wire rope whilst he was engaged in the operation of unloading the reel from a railway wagon.

On 20th August, James Douglas, miner of the Rotowaro Colliery, lost the sight of his right eye through its being pierced by a fragment of coal flying from the pick point.

On 15th September, Raymond Brooks, a clipper employed at the Rotowaro Colliery, slipped and fell while travelling the haulage road. He sustained a fracture of the left radius.

On 12th October, C. Lewis, miner of the Wilton Colliery, whilst engaged in trimming a wedge with an axe, severed his thumb at the second joint.

DANGEROUS OCCURRENCES (Regulation 82 of the Coal-mines Act, 1925).

On 27th June, in the Glen Afton No. 2 (MacDonald) Colliery, signs of heating were reported in the Sullivan section, middle panel. Stoppings were erected, and the heating suppressed.

On 26th August a heating was discovered in Hogg's Jig section, No. 1 mine, of the Rotowaro Colliery. Stoppings were erected, and the area sealed off.

On 27th October indications of heating were located in the old return airway from No. 3 south level, Renown Colliery. Steps were taken to suppress the heating, and stoppings were subsequently erected.

On 10th December an accumulation of inflammable gas was discovered at the fringe of a fall in No. 4 north section of the Renown Colliery. Mining operations are suspended in the North Mine sections pending the arrival of approved electric safety-lamps for use in the sections.

WEST COAST INSPECTION DISTRICT (J. HADCROFT and W. PARSONAGE, Inspectors of Coal-mines).

In accordance with section 42 of the Coal-mines Act, 1925, we have the honour to submit our annual report on the workings of the coal-mines in the West Coast Inspection District for the year ended 31st December, 1937. The combined output from the Nelson, Buller, Reefton, and Grey districts was 975,228 tons. The following summary shows the changes in output from the previous year in the different sections of the district and in the number of men employed :—

Output.

					1936.	1937.	Increase.	Decrease.
					Tons.	Tons.	Tons.	Tons.
Nelson District	..	..	..	..	27,483	17,505	..	9,978
Buller District	..	..	..	..	349,268	432,378	83,110	..
Reefton District	..	..	..	..	45,999	44,077	..	1,922
Greymouth District	..	..	..	..	421,820	481,268	59,448	..
					844,570	975,228	142,558	11,900

Net increase, 130,658 tons.

Number of Men employed.

					1936.	1937.	Increase.	Decrease.
Nelson District	..	..	..	..	70	50	..	20
Buller District	..	..	..	..	723	770	47	..
Reefton District	..	..	..	..	96	92	..	4
Greymouth District	..	..	..	..	961	1,044	83	..
					1,850	1,956	130	24

Net increase, 106 men.

Nelson District.—The principal cause of the reduced output was due to the section now being worked at the Puponga Mine approaching exhaustion and therefore not having sufficient working-places to maintain the output. This made it necessary to reduce the number of men employed. Coal-production was also stopped for some time at the Mount Burnett Mine whilst prospecting was being done.

Buller District.—The mines in this district worked much better time than for a number of years previously. This will be noted from the increased output of 83,110 tons with only an increase of forty-seven men.

Reefton District.—The only development-work done was the opening of a small area on the Morrisvale lease by the Pyramid Co-operative Party and a little development by the co-operative parties employed on the Waitahu leases. The Surprise and Perfection Mines, which were the source of the largest output from this district, are still closed down.

Grey District.—Apart from the opening of the new State mine, little development-work was done. The bulk of the coal was won by pillar extraction. If the increase in the demand for coal from this district which has been evidenced

during the last two years is to be continuous, it will be necessary for the coal companies to pursue a policy of prospecting and development. It is several years since prospecting and development to any extent have been done in this district.

The interest in safety precautions is well maintained, and noticeable improvements have been made in general ventilation and lighting with the better type of electric head-lamps.

We are pleased to report that there has been a large increase in the use of hard hats by miners, and several cases have been reported to us where serious accidents have been prevented by the use of these hats.

GREYMOUTH DISTRICT.

Liverpool State Colliery, Rewanui.—The bulk of the output during the year was obtained from pillar extraction in the Anderson and Morgan seams. Development-work in the Anderson and Kimbell seams was carried out to the dip. At the bottom of No. 1 dip, Anderson seam, levels were driven in a north-westerly direction for a distance of $5\frac{1}{2}$ chains. At this point the coal became dirty and development-work was stopped. The drive to connect the No. 1 Anderson dip with the Kimbell east level was driven a distance of 7 chains. No. 2 Anderson dip section was extended a further distance of 4 chains. To the north-east of No. 2 dip a pair of levels was driven a total distance of 7 chains during the year. In the Kimbell west section a dip was commenced and driven for a distance of $6\frac{1}{2}$ chains in a north-easterly direction. As the drive approached the main fault the seam began to rise, necessitating a regrading of the haulage-road.

In the Morgan seam the only development-work carried out during the year was in No. 3 bank west. The workings in this section are now approaching the barrier.

On the 3rd September a fire broke out in the Kimbell west level, and stoppings were immediately erected and the fire sealed off.

James State Colliery, Rapahoe.—Coal was won from this mine during the year from both pillar and solid workings. The coal in the sections lying to the west of the main rope-road became thin and unworkable and pillar extraction was commenced. In the Cannel Creek section, the fault having been encountered, pillar extraction was commenced. In the new dip section the main heading was extended for a distance of 5 chains in a north-easterly direction. The coal-seam continued to average 7 ft. in thickness and was of good quality. In the south level section all available pillar coal having been extracted, this section was closed down.

The No. 3 tunnel, which is parallel with the main heading in the new dip section, picked up the coal-seam at a distance of 13 chains from the mine entrance. The coal is 7 ft. in thickness and of good quality.

James Mine Extension (Nine-mile Area): In connection with the development-work of the new area, a start was made to regrade the James Mine haulage-road.

No. 1 Tunnel over the James Mine haulage-road was started, but owing to lack of electric power to drive the compressors this work was suspended. No. 2 tunnel, Cannel Creek to Nine-mile, required to be driven a distance of 27.3 chains, and $16\frac{1}{4}$ chains of this driving was completed at the southern end. At the northern end the tunnel was extended a distance of $2\frac{3}{4}$ chains. No. 4A tunnel on the rope-road was completed. No. 5 tunnel, which is up the Nine-mile Creek, and being driven to intercept the coal-seam, was driven a total distance of 14 chains.

Surface Works: All cuttings on the line of the rope-road were completed. The necessary compressed-air plant was installed, and will be put into operation when electric power is available. The viaduct, spanning the Nine-mile Creek between the mouth of the No. 3 tunnel and rope-road, was also completed. The work on the reinforced-concrete bathhouse was commenced.

Blackball Coal-mines Pty., Ltd., Blackball.—The extraction of coal from the pillars on the old main level was the sole source of output, and these pillars were brought back as far as No. 7 bank.

Prospecting: Boring operations in the Soldier's Creek-Paparoa Creek area to the south-west of the present workings were completed, and arrangements are now in hand for the development of this area.

Blackball Creek Coal Co., Ltd., Blackball.—Operations were confined to pillar extraction in Nos. 2, 3, and 4 sections in the No. 1 seam. There was no development-work during the year.

Briandale Collieries Ltd., Ten-mile.—The surface jig and bins were completed early in the year, and the mine started in the outcrop approximately 1 chain from the jig head. This proved disappointing, as the coal was soft and faulty. A further jig, 1 chain in length, was laid, and a seam of coal, approximately 9 ft. in thickness, was tapped by a short stone-drive.

Wallsend Colliery (Brunner Collieries, Ltd.), Brunner.—The coal was won from this mine partly from the splitting of pillars in the rise panels and partly from the development to the dip of the main haulage-road. The splitting was carried out with good results, the floor heaving well and the roof setting uniformly. The extent of this work is confined to Nos. 1, 2, and 3 panels.

Development in Rope-road Extension: This was mainly in a south-westerly direction, a pair of headings now being driven 26 chains from the point of commencement at the main rope-road. The measures encountered in the rope-road-extension headings were fairly regular, and the heading face is now in advance of the extreme point driven to in the main headings which were abandoned on account of the thinning of the seam. The coal is of good quality, 10 ft. to 12 ft. in thickness, but it is expected that it will thin gradually as it is developed towards the main headings. The first rise panel in this area opened out satisfactorily with five faces operating at the end of the year, and the headings were advanced sufficiently to permit of the opening-out of the second panel to the rise. The haulage from this area is by means of a light endless rope on the main-and-tail system, but eventually the main endless rope will be extended in this direction.

Development in Slant Dip Section: Due to a boiler defect and having to work with a temporary boiler, development in the lower slant dip section could not be undertaken during the latter half of the year on account of shortage of compressed air. To the east at a point 14 chains from this dip a panel was opened out to work the block of coal adjacent to the Taylorville fault, and this work proceeded satisfactorily, while to the west a line of faces also operated in good coal, although, at times, a troublesome roof was encountered. During the year a larger pump to duplicate the "Blake Knowles" 8 in. by 5 in. by 10 in. duplex pump was installed, the former being a Parker duplex of robust construction 10 in. by 6 in. by 12 in.

Dobson Colliery (Grey Valley Collieries), Dobson.—With the exception of a very small percentage, the output was won from the dip workings. The first working being completed in No. 1 west level, this section was completely sealed off by concrete stoppings. At the end of the year only four working-places remained in No. 2 west level, which had been cut off by a fault. An effort was made to locate the coal beyond the fault, but this was abandoned. Cleaning up, retimbering, and grading the No. 2 dip between Nos. 2 and 3 west levels were done so that this road could be used for haulage for the coal from these levels. An endless rope was installed on No. 1 dip for the purpose of hauling the coal from the No. 4 east and west levels. Preparations are in hand for the installation of an endless haulage on No. 4 west level, which has been straightened, graded, and laid with double track. Development from the No. 4 level at the end of the year was being rapidly pushed ahead, the main developing places being worked double shift. A machine-mined panel was being opened up to the dip of No. 4 west level. In order that greater efficiency could be obtained from the air-compressing plant, an 8 in.-diameter pipe-line was commenced from the surface to No. 3 level.

Paparoa Colliery (Paparoa Coal Co., Ltd.), Roa.—This company is operating two seams.

West Level Mine.—Practically all the output from this area was won from pillars to the rise of the main level. A small area was developed to the dip of this level, and a stone-and-coal drive was driven a distance of 3 chains with the object of picking up these lower workings. This drive was advanced to the coal-seam, but stopped temporarily.

Aerial Section: All the output from this area was won from development-work. The main dip was carried down to approximately $13\frac{1}{2}$ chains below the water-free level, where the coal-seam thinned to 3 ft., and operations were discontinued. To the west of the dip, and parallel with it, a downthrow fault was met with, the throw varying from 3 ft. to 10 ft. Owing to the difficulty of crossing this fault in numerous places, a new dip heading was started to the west of the original dip and clear of the faulted country.

United Brunner Mines, Ltd., Brunner.—This mine remained closed during the year.

CO-OPERATIVE MINES IN GREY DISTRICT.

Spark and Party's Mine, Rewanui.—There was no coal-production from this mine during the year, the party having been engaged putting in a stone-drive to tap the seam in a new place previously proved by boring. The drive is on a gradient of 1 in 2½.

Duggan and Party's Mine, Rewanui.—All the coal possible having been won from this mine, it was closed down about the middle of the year.

Duggan and Party's Mine on Moody Creek Lease, Dunollie.—This party worked for a short time on a part of the Moody Creek lease (Simpson and party), but later abandoned the work.

This party also held a lease situated about a mile from Dunollie on which a seam was proved by boring to be 3 ft. 6 in. in thickness. A stone-drive was put in with the object of working this seam, but it has since been abandoned owing to being unprofitable.

Old Runanga Mine (O'Brien and Party), Rewanui.—No. 1 Mine (Top Seam): The coal was won partly from pillars and partly from development-work. The main level was driven 16 chains, but owing to the seam thinning to the rise only 4 chains of workable coal remains to the rise of the main level.

No. 2 Mine (Bottom Seam): Practically all development-work in this mine was completed, and operations were suspended until some pillar extraction is done in No. 1 mine.

Goldlight Colliery (Williams and Party), Rewanui.—All the coal from this mine was won by pillar extraction. No development-work was done during the year.

Moody Creek Mine (Simpson and Party), Dunollie.—The output from this mine was produced from development-work in the area to the rise of the old No. 5 mine. The area of workable coal is limited owing to faults having been encountered.

New Point Elizabeth Mine (Guy and Party), Dunollie.—The coal was won from development-work in an area between two faults. During the year a Sirocco fan, for ventilating the mine, was installed with good results.

Fiery Cross Mine (Currie and Party), Dunollie.—All the coal from this mine was won by pillar extraction, no development-work having been done.

Bend Creek Mine (Baddley and Party), Dunollie.—All the coal was won by pillar extraction. Some prospecting was done, and a 4 ft. seam was located nearer the Rewanui railway-line than the present mine.

Castlepoint Mine, Dunollie.—Approximately half the output from this mine was won from pillar extraction, the remainder being won from the development of the main level section. The main level has been driven a distance of 38 chains, and the seam is 3 ft. 6 in. in thickness.

Hilltop Mine (Armstrong and Party), Ten-mile.—All the coal from this mine was won by pillar extraction, no development-work being done.

Brady and Party's Mine, Ten-mile.—This party continued to work on their lease for the first few months of the year. The mine was then taken over by Hunter and party, who are developing the area in a southerly direction in good-quality coal 10 ft. thick.

Kaye and Party's Mine, Ten-mile.—A water-free level was driven a distance of 6 chains, when a fault was encountered which stopped the level. Development-work is being carried on to the dip in good-quality coal.

Hunter and Party's Mine, Dunollie.—Most of the output from this mine was won by pillar extraction, a little development-work having been done in the dip section, where the coal was only 3 ft. in thickness.

Schultz Creek Mine (Marshall and Party), Twelve-mile.—All the output was won by pillar extraction. A borehole was started to prove the extent of the downthrow fault, met with in the main level, but the hole was stopped, and no further prospecting was done.

Dennehy's Mine, Twelve-mile.—No work was done during the year.

Cain's Mine, Rapahoe.—The bulk of the output was won by pillar extraction. A little driving was done to develop a new area south of the old mine, but on encountering a roll this work was temporarily stopped.

Bellbird Mine (Faith and Party), Ten-mile.—All the coal was won by pillar extraction on the east side of the main dip haulage-road. No development-work was done during the year.

Bellvue Mine (Hadcroft and Party), Rapahoe.—All the coal from this mine was won by pillar extraction, the pillars now being withdrawn to within 3 chains of the head of the main jig. No development-work was done.

Jubilee Mine (Pinn and Party), Rapahoe.—The area of approximately 2½ acres which was being opened up at the beginning of the year was almost exhausted, and at the end of the year a little prospecting was being done in the vicinity of the present mine.

Cliffside Mine (Moore and Party), Nine-mile.—Most of the output was won by pillar extraction in the No. 3 section. This work was completed, and the party intend to develop a block of coal to the dip of the main level in No. 2 section.

Smith and Party's Mine, Dunollie.—All the coal from this mine was won by pillar extraction. No development-work was done during the year.

Bracehead Mine (Boole and Party), Dunollie.—The output from this mine was won partly by pillar extraction in the rise section and by development-work in the dip section. The dip was extended a further 2½ chains, making a total distance of 9 chains of dip heading. Developing levels to the east and west were continued.

Remarks on Co-operative Mines in Grey District.

Practically all the coal from these mines was won by pillar extraction, there being no extensive development-work undertaken during the year. The output shows an increase of 8,154 tons over the output for 1936 from the co-operative mines in the Grey district.

REEFTON DISTRICT.

Archer's Mines, Caplestone.—Development-work in the bottom mine was continued on the north side of the stone-drive in a seam lying at an angle of 60 degrees, the coal being of fair quality.

At the top mine a steam-boiler and winch were installed for the purpose of developing No. 1 seam to the dip of the present workings.

Coghlan's Freehold Mine, Caplestone.—All the output from the top mine was won by pillar extraction.

Operations in the bottom mine have been at a standstill for some years, the main level having encountered a downthrow fault. However, during the year a short stone-drive was constructed through the fault and the coal-seam located.

Waitahu Mine (A. D. Williams), Reefton.—Three parties operated on this property during the year in Nos. 1, 2, and 3 mines. All the output was won from development-work.

Venture Mine (Old Birchwood Mine), (J. and I. Patterson's Lease), Reefton.—In July this mine was dewatered by a party of miners, but was again abandoned. No coal was produced during the year. The mine is closed.

Morrisvale Collieries, Reefton.—Perfection Mine: No coal was produced from this mine during the year. Near the end of the year a fire extended to the underground workings, and the lessee was instructed to seal off the workings.

Surprise Mine: This mine did not operate during the year.

Pyramid Mine: This is a small mine situated on the Morrisvale lease 12 chains north-east of the Perfection Mine workings. A party of miners commenced operations in July, work commencing at the outcrop of coal.

Burke's Creek Collieries, Ltd., Reefton.—The output produced during the year was mined from pillar extraction in No. 2 panel to the rise of the main level on the south-west side of the main dip. This panel was fully exhausted near the end of the year and was sealed off with concrete stoppings. Operations were commenced in No. 3 panel, into which a slant rise heading was driven. Development-work proceeded in coal 12 ft. in thickness which was of variable quality.

A fair quantity of repair work was done towards the end of the year, chiefly cleaning out and enlarging the return airway. The sump was also enlarged to cope with an increased quantity of water. Preparations were being made at the end of the year to extend the main dip.

Peerless Mine (Williams and Party), (Burke's Creek Lease).—All development-work was completed about the middle of the year and pillar extraction was commenced.

Burnwell Mine (Times Street), (H. A. Honey's Lease), Reefton.—The output was won from development-work in No. 4 seam. The coal is somewhat friable, but claims a fair local demand.

Times Street Mine (Old Terrace Mine), (Bennett and Party), Reefton.—No work was done in this mine on the No. 4 seam, but prospecting was carried out for the purpose of locating No. 2 seam. This had not been located at the end of the year.

Phoenix and Venus Mines (N. Collins), Murray Creek.—The output was won from the extraction of a few small pillars of coal left in old workings north of the old mine which was sealed off on account of fire.

Defiance Mine (O'Brien and Party), Murray Creek.—This party extracted from the old mine all pillars that could be safely extracted and are now developing an area east of the old mine. The coal is 5 ft. in thickness and of fair quality.

Clele Mine (Alborn and Party), Merrijigs.—The output for the year was won by pillar extraction in No. 4 mine and development-work in No. 2 mine. During the year the No. 1 mine was fully exhausted and operations are now confined to development-work in No. 2 mine. The coal is of good quality.

White Rose Mine (H. and S. Griggs, late W. Osborn), Merrijigs.—Work in the old mine ceased owing to faults being encountered and the seam thinning. Development-work commenced in another portion of the lease near the old mine.

BULLER DISTRICT.

Mitchell's Mine, Charleston.—Only a few tons of coal were mined from the open-cast workings during the year.

Price's Freehold, Brighton.—No work was done during the year.

Brighton Coal-mines Ltd., Brighton.—During the year the work of constructing the flume on the mainland and loading bins on Seal Island was completed, and the first shipment of 120 tons of coal was loaded during October. Four men were employed at the mine producing coal intermittently.

Rocklands Mine (J. P. Burley), Buller Gorge.—All the coal from this mine was won by pillar extraction.

Glenrag Mine (Forsyth and Party), Buller Gorge.—The coal was won from development-work across the fault to the west of the main level.

Coal Creek Mine (McGuire and Party), Seddonville.—The output was won from the cleaning-up and filling of loose coal along the main level. This work has now been completed to a distance of 31 chains from the mine entrance.

Glasgow Mine (Steele and Party), Seddonville.—No work was done at this mine during the year.

Cardiff Coal Co., Ltd., Mokihini.—The work at this mine is the development of four headings, two in a south-westerly direction towards the borehole, which proved the existence of a seam 12 ft. in thickness, and two headings in an easterly direction parallel with the fault which cut off all development-work to the south.

Hydro Coal-mines Ltd., Seddonville.—Most of the coal was won by pillar extraction. An attempt was made to develop an area on the south-east side of the main drive, but, owing to the coal being very soft and thinning, development-work was stopped and pillar extraction started.

Charming Creek-Westport Coal Co., Ltd., Ngakawau.—During the year development-work was confined to the main headings and No. 1 west panel. No. 1 west panel headings encountered several minor faults, but have advanced 10½ chains from the main headings and are in good-quality coal. No. 2 west panel headings were started. The coal in this area exceeds 20 ft. in thickness and is of excellent quality.

Westport-Main Mine (Westport Gravity Coal Mines, Ltd.) Gravity.—No coal was produced during the year.

Westport-Cascade Mine, Cascade Creek.—Two sections were worked—viz., Moynihan's and Durkin's sections. All the coal was won by pillar extraction. A prospecting-drive was started on the opposite side of Cascade Creek to the present mine, but no workable seam was located.

Westport Coal Co., Ltd., Denniston Mines.—Ironbridge Mine: The major portion of the output was won by pillar extraction in the old mine. Two to three pairs of men were employed in No. 2 section and four to five pairs were engaged in No. 4 section extracting pillars. The solid work in Daylight section was completed during the year and a start was made to extract the pillars. In the latter part of the year some movement was apparent and work was discontinued. Three pairs of men were employed in an attempt to unwater Beardsmore's dip section, but the progress was very slow. A fault was cut, but the bords were either badly fallen or silted up. A stone-drive, about 3 chains long, was started from the top seam to intersect the bottom seam in Young's Drive section which will open up a good section of pillars.

Coalbrookdale Mine: The headings in Old Waterloo section were advanced a further 2 chains when a heavy fall took place and work was stopped in the meantime. Some developing was done in the 13 acre block beyond the present Whareatea Extended workings and a large number of outcrops were exposed. Precautions are in hand for making a tram-road to this area. In Waterloo section four pairs of men were engaged on solid work, but this has now been almost completed. Pillar extraction was carried out in the Steps section, Burchall's section, and Old Waterloo section.

Whareatea Extended Mine: Work was confined to pillar extraction, and 13 pairs of miners were employed at this work.

Cascade Mine: Six pairs of miners were continuously employed extracting pillars. In the latter part of the year the old fire in Wallace's section appeared to become more active, and it was found necessary to seal part of this area off again.

Approximately 10 per cent. of the output from the Denniston mines is machine-mined. During the year about one hundred hard hats were distributed amongst the men, and it is reported that they have been the means of preventing quite a number of accidents.

Westport Coal Co., Ltd., Millerton Mine.—Operations were confined to pillar extraction in the 3rd, 5th, and 6th west sections of the Mine Creek Mine. Owing to spontaneous combustion, panel G was sealed off during the year. This panel caved to the surface, and fire control was out of the question. The only thing left was to strengthen the stoppings around the area so as to allow sufficient water to accumulate behind the stoppings and prevent the fire working downhill towards the 3rd west section. This method proved satisfactory. The work of forming panels artificially by means of concrete stoppings was continued throughout the year. This means that an area of pillars is surrounded by concrete-block stoppings before extraction of pillars is commenced. The steam-engine driving the ventilating-fan was replaced by a 50 h.p. electric motor.

Westport-Stockton Coal Co., Ltd., Ngakawau.—The major portion of the output was won by pillar extraction in the following sections: Old East, South, and Old West areas, and from No. 2 panel in the New East section.

Development: Development was confined to the New East and New West dip areas. Two headings in the New East section were advanced about 8 chains beyond the No. 2 panel forming No. 3 panel. In the west dip beyond the Webb fault headings have been advanced about 8 chains in excellent coal. A new 50 h.p. Becker Anderson main-and-tail haulage engine was put into operation to handle the output from the west dip area. During the year a considerable amount of repair work was done to the tunnel and loco. track, and they are now in much better order than previously.

Watson's Mine, Karamau.—No coal was produced during the year.

NELSON DISTRICT.

Paponga Mine, Paponga.—The whole of the output for the year was derived from pillar extraction. The present section of the mine is fast approaching exhaustion, and, should the present output be maintained, will be fully exhausted in approximately one year and a half. During the year boring was done with the Mines Department's diamond drill for the purpose of proving as to whether workable coal existed north-east of the dip workings of the old mine. The bore-hole was sunk 850 ft., and at 775 ft. from the surface a workable seam was encountered.

Mount Burnett Mine, Collingwood.—Early in the year, as a result of much prospecting, a workable seam was tapped on the south side of the fault which was met with in the old mine. Development-work in this seam continued during the year.

Motupipi Mine (Winter's), Takaka.—This mine is worked opencast on the beach. Stripping has been carried out intermittently during the year, and 134 tons of coal was produced.

Abbotsford Mine (Irvine's), Takaka.—No output was produced during the year.

Owen Colliery, Owen River, Murchison.—This mine is worked by the double-stall system, and the output for the year was won from the extension of stalls to the east and west off No. 2 dip. At the end of the year preparations were being made to allow further sinking of No. 2 dip.

O'Rourke's Mine, Murchison.—The seam of coal in this mine is 2 ft. in thickness and is very steeply inclined. The main level has been driven a distance of 15 chains and pillars formed to the rise of the level.

Wynndale Mine, Murchison.—Bottom Mine: Almost the whole of the output was won from the bottom mine, chiefly from the extraction of pillars on the north side and development-work of a prospecting nature on the south side.

Top Mine: A jig of approximately 10 chains in length was constructed on the surface commencing near the bottom mine entrance and running in an easterly direction for the purpose of opening up a seam of coal 5 ft. in thickness containing a stone band of 1 ft. in thickness. A little prospecting was done in this seam, which thinned to 2 ft. 3 in.

Clarke Mine (S. Harlshorne's), Balon.—For the purpose of providing better means of developing this area, together with improved haulage facilities, a new dip was driven from the surface. This was driven a distance of 1½ chains and a level driven off same. In previous workings there were two seams of coal each 6 ft. in thickness separated by a thick band of fireclay, but at the face of the level the fireclay band thinned to 2 in.

SCHOOLS OF MINES.

During the year the interest in the Schools of Mines, the headquarters of which are Westport, Runanga, and Reefton, was well maintained.

Westport School of Mines.—Mining classes were held at Denniston, Granity, Stockton, and Westport.

Runanga School of Mines.—Classes were held in all branches of mining.

Reefton School of Mines.—Classes were held at Blackball, Waita, Wallsend, and Reefton.

Candidates were prepared for the annual mining examinations at the various schools.

RESCUE-STATION.

Arrangements have been made for the establishing of a central rescue-station for the Grey District to be situated at Dobson. The station is to be maintained by a subscription of 1d. per ton on the coal mined in the Grey District levy area.

During the year training was carried out at the Liverpool Mine, and three brigades have now been trained.

FATAL ACCIDENTS.

Three fatal accidents occurred during the year, as follows:—

On 18th January, 1937, Sydney Lowery, brakeman on the locomotive tram-line at Stockton Colliery between the mine and brakehead, was thrown out underneath a rake of twenty-five trucks in No. A tunnel and killed instantaneously. It was considered that a loose piece of metal from the Fell brake came in contact with the centre-rail, causing it to upend and throw the brake-van and trucks off the line.

On 3rd August, 1937, John Jack, miner, Stockton Colliery, suffered a fractured pelvis and severe injury to bladder as the result of a fall of roof coal while engaged on pillar extraction in the south section. On the 14th August, Jack succumbed to his injuries in the Buller Hospital.

On 8th November, 1937, Richard Smith, miner, Millerton Colliery, was killed instantaneously by a fall of roof coal in the 5th west section. Death was due to severe crushing of the chest, and shock.

SERIOUS NON-FATAL ACCIDENTS.

Nineteen serious accidents occurred during the year:—

On 8th January, 1937, Victor Swallow, horse-driver, Liverpool Colliery, suffered injuries to chest and hips by a runaway truck.

On 25th January, 1937, Roy Orange, miner, Paparoa Mine, received a fractured left leg just above the ankle, caused by a piece of falling roof coal.

On 1st March, 1937, J. Kaye, miner, Kaye and Party's Mine, was caught by a fall of coal from between two props, causing excessive swelling internally, affecting heart action.

On 2nd March, 1937, Robert Scott, miner, Denniston Colliery, was struck by a fall of coal from a sooty back, fracturing a rib.

On 9th March, 1937, H. Pinn, miner, Jubilee Mine (Pinn and party), received a fractured left leg near the ankle when struck by a piece of falling fireclay from the roof.

On 12th April, 1937, Joseph Serson, miner, Wallsend Colliery, was struck on the back by a fall of face coal, causing a fractured pelvis.

On 22nd April, 1937, A. Aims, sen., trucker, Liverpool Colliery, received a fractured right leg above the ankle. An empty truck which was being jiggled, became detached from the rake and ran away, striking two trucks Aims was pushing. The impact knocked Aims down, the buffer of the truck striking his leg.

On 18th May, 1937, M. Walshe, miner, Coalbrookdale Mine, Denniston Colliery, suffered a fractured small bone of the right leg just above the ankle, caused by being struck by a prop which was knocked out by a fall of coal.

On 21st May, 1937, George Young, horse-driver, Stockton Colliery, was caught between a full box and a prop, receiving a fractured pelvis.

On 25th May, 1937, Maurice O'Brien, trucker, Liverpool Colliery, was struck by falling timber and coal knocked out by a runaway truck, and he received hip injuries.

On 28th July, 1937, George Kerr, miner, Castlepoint Co-operative Mine, received a simple fracture of the spine, caused by a fall of roof stone.

On 29th July, 1937, Frank Campbell, miner, Millerton Colliery, suffered a fractured pelvis when struck by a fall of hanging coal.

On 13th August, 1937, Richard Armstrong, miner, Hilltop Mine (Armstrong and party) fractured his shoulder blade as the result of his falling.

On 6th September, 1937, Martin Dague, miner, Stockton Colliery, suffered spine injury by a fall of coal from a "slippery back" in a south section roadway.

On 23rd September, 1937, J. Welsh, miner, Liverpool Colliery, was struck by a fall of roof stone, suffering a fractured transverse process lumbar vertebrae.

On 27th September, 1937, William Rowe, trucker, Wallsend Colliery, was struck by a runaway truck, receiving a fractured transverse process lumbar vertebrae.

On 30th September, 1937, Percival Herniman, miner, Goldlight Co-operative Mine (Williams and party), received a fractured spine and dislocated left shoulder when struck by a fall of roof stone from a concealed back while engaged on pillar extraction.

On 1st October, 1937, Alfred Harris, loco-driver, Stockton Colliery tram-line, was jammed against a rib while in the act of jacking up a derailed loco. He received a simple fracture of the left leg about 4 in. above the ankle.

On 4th October, 1937, Charles McGregor, trucker, Moody Creek Co-operative Mine (Simpson and party), received a fractured spine. He was found lying injured on the flat 12 ft. outbye of the dip top and clear of the track. There were no witnesses to the accident.

DANGEROUS OCCURRENCES IN COAL-MINES (Regulation 82, Coal-mines Act).

Wallsend Colliery.—On 26th January, 1937, the mine-manager notified that an accumulation of gas was found that morning by the examining deputy. It was due to a short circuit to a place going through, and the accumulation was cleared within an hour.

Fiery Cross Mine (Currie and Party).—On 8th February, 1937, the mine-manager notified that at 11 a.m. two workmen bored through to the top drive, thereby releasing a quantity of water, which, after four hours, began to ease off and by the next morning all danger of any large inflow of water had passed.

Millerton Colliery.—On 17th February, 1937, evidence of heating in panel G, 5th west section, Mine Creek Mine, was reported. A slight haze in the goaf was discovered by the deputy on his early morning inspection. Four pairs of miners were given other places, and water was played on.

Morrisvale Mine.—On 21st February it was reported that the fire which had been sealed off in the Perfection Mine (Morrisvale lease) had extended over the stoppings. Operations in this mine had ceased some time previously. On inspection of the outcrop, smoke was found issuing from the fallen ground near the outcrop. Advice was received some weeks later from the owner of the property that water was being played on the fire.

On the 17th December it was reported by the owner that flames were issuing from the air-course above the mine. On inspection it was found that the fire had spread through all the Perfection Mine workings and was burning on the outcrops on the main drive side of the hill in several places and also in the main drive and return air-course, and that no proper attempt was being made to keep it in check. The danger existed of the fire extending to the Surprise Mine workings. At the end of the year nothing had been done by the lessee to effectively deal with the fire.

Denniston Colliery.—On 12th March, 1937, while on inspection of Cascade section, Coalbrookdale Mine, it was found necessary by Inspector Parsonage to withdraw two pairs of miners from their working-places on account of the presence of CO₂. Written instructions were issued to the mine-manager to seal off the old goaf from which CO₂ was given off to prevent the gas from entering the mine air and working-places. The manager stated in reply that the ventilation had been rearranged and that all the places had been kept clear. Two concrete stoppings had also been erected on No. 8 level and preparatory stoppings erected on each of the two haulage-roads so that in the event of this section giving any more trouble it could be quickly and easily sealed off.

Millerton Colliery.—On 14th April, 1937, an outbreak of fire in panel G, 5th west section, Mine Creek Mine, was reported. All material was removed and the work sealed off. Owing to a "cave" to the surface and the consequent flow of roof strata into the worked-out spaces the outbreak could not be dealt with by the ordinary method of spraying water on it.

Denniston Colliery.—On 18th June, 1937, the mine-manager reported that during the previous two days the coal in a working-place in the Whareatea Extended section, Coalbrookdale Mine, had been showing signs of heating, apparently due to a band of fusein approximately 2 ft. thick in the coal. It was later reported that the coal had been filled out and all signs of heating had disappeared.

Denniston Colliery.—On 6th July, 1937, it was reported that signs of heating had developed in a working-place in the Whareatea Extended section of the Coalbrookdale Mine. This particular place was isolated from any other workings, and two stoppings were put in to effectively seal it off. The heating was not in any way connected with that reported on 18th June.

Millerton Colliery.—On 7th July, 1937, the mine-manager notified by telegram that an outbreak of fire had occurred in panel L, 6th west section, Mine Creek Mine, and that sealing-off conditions were satisfactory.

Hilltop Mine.—On 11th September, 1937, the mine-manager reported that smoke was discovered issuing from the topmost stopping in the top level. The existing stopping was immediately repaired, and later another layer of boards and plaster was erected. The actual workings of the mine to the dip section below the barrier were not affected.

Denniston Colliery.—On 14th September, 1937, it was reported by the mine-manager that two pairs of miners were withdrawn from their places in No. 4 section, Ironbridge Mine, due to a heavy crush on the trucking-road on the outbye side.

Liverpool Colliery.—On the 3rd September, 1937, it was reported that a fire had broken out in No. 2 bank, Kimbell west section. All the workmen had been withdrawn from the colliery except those employed on the fire work and recovery of plant. The area was temporarily sealed off that evening, and it was decided that all men should be withdrawn from the mine and nobody be allowed in the mine before an inspection could be made on the following Sunday (5th September, 1937), also that some person be employed to keep check on the return air from the mine at the fan during that period. An inspection on the Sunday proved the fire stoppings to be clear. On Monday (6th September, 1937), on inspection, it was found that blackdamp was accumulating behind two stoppings and there was every evidence that the area was being effectively sealed temporarily. Tests were made regularly with the carbon monoxide detector. It was recommended to the management that, when circumstances permitted, a permanent stopping be built.

Denniston Colliery.—On 11th October, 1937, the mine-manager reported that a considerable amount of water had entered Wiseman's dip section during the week-end from the surface owing to a creek entering through cracks caused by subsidence. An extra pump was installed to recover the pumps which were submerged. Steps were also taken to have the creek diverted from its channel into another watercourse.

Denniston Colliery.—On 16th December, 1937, two pairs of miners were instructed to clean up and withdraw tools from the Daylight section as precautionary measures due to movement taking place in the hill.

PROSECUTIONS UNDER THE COAL-MINES ACT, 1925.

Four informations were laid during the year, convictions being recorded in all cases.

Under Regulation 181 an information was laid against a mine-manager for failing to produce an adequate amount of ventilation into the mine by means of a mechanical ventilating appliance when there were persons in the mine. A conviction and fine of £2 and costs were recorded.

A mine-manager was charged under section 145 (1) for failing to notify the Inspector by telegraph of a serious accident to a miner employed in the mine. The manager was convicted and ordered to pay costs.

Under section 91 (1), for failing to provide an adequate amount of ventilation in the mine to dilute and render harmless inflammable and noxious gases, a mine-manager was convicted and fined £4 and costs 10s.

An underviewer was charged under Regulation 93 with failing to remain underground until the day's work was finished and not seeing that the doors and sheets were closed and all workmen out of the mine. He was convicted and fined £1 and costs 12s.

SOUTHERN INSPECTION DISTRICT (JOB HUGHES, Inspector of Coal-mines).

I have the honour to submit my annual report covering the mining activities in the Southern District for 1937:—

It is again pleasing to report an increased output of 24,263 tons from this district for this year. The variations in output of the several districts are as follows—Canterbury: Increase, 2,090 tons; North Otago: Decrease, 3,081 tons; Central Otago: Decrease, 1,145 tons; South Otago: Increase, 14,856 tons; Southland: Increase, 11,543 tons.

The number of employees engaged at the various mines has increased from 938 men to 983 men, so that it can be said that mining activities were generally accelerated compared with what has been the case for a considerable number of years.

The use of protective headgear in the form of hard hats or helmets has again shown a tendency to increase. The use of these helmets in the Ohai field is fast becoming the general practice, there being only rare occasions when miners working at the coal-faces do not avail themselves of this protection. In the largest Otago mines the use of helmets has not been adopted to the extent that should have been the case. A noticeable feature in connection with the wearing of protective headgear is that the younger section of the mine employees avails itself of this protection more so than do the older employees. I am of the opinion that no miner should be allowed to work in pillar places without protective headgear.

The outlook of the coal position in Southland (which was referred to in my last annual report) is still not satisfactory. There has been a slightly increased amount of development-work undertaken, but the extent of this work still does not keep pace with the rate of extraction of the proven available coal. Three mines are still continuing with pillar extraction and with no other proved coal in view. Unless further development-work is undertaken the result will probably be an ultimate shortage of this class of coal.

A slight improvement has been evident in regard to the preparatory sealing-off of goaf areas in which spontaneous combustion is likely to take place. However, there are some mines in which improvement could be effected in this matter.

The standard of ventilation of the mines has been reasonably well maintained, and the general conditions prevailing in the mines can be said to have been satisfactory.

Pillar extraction in the thick seams of the Ohai field received special attention during the year. Following upon the double fatality at Linton Mine a conference of interested parties was convened to discuss the methods of pillar extraction. It was agreed that, where the thickness of the coal being worked exceeded 25 ft., a double or gallery system of work be adopted. The salient feature of this method of work is that the roof of the working-place, which ultimately becomes the roof of the goaf, is dressed with picks by hand and tested. The roof is afterwards heavily stone-dusted, and this assists a miner, when recommencing work at the beginning of his shift, to observe by examination whether any movement of the roof has taken place during his absence. I am convinced that, whenever possible, the roof overlying the goaf in any pillar place should be trimmed and tested by means of the hand pick. The use of a pricker-bar for proving and testing a roof in pillar places should not, in my opinion, be adopted whenever it is practicable to avoid same. I realize that the latter method is, under certain circumstances, the only one available, but I repeat that it is only under unavoidable circumstances that this method of trimming a roof should be practised.

During the year arrangements were made for commencing mining classes at Ohai. These classes received financial assistance from the Department and were commenced in April and continued until November. Keen interest was taken in the classes, and there are reasonable prospects of this interest continuing during the coming year.

CANTERBURY DISTRICT.

Bonanza Mine.—Development-work has been continued in a south-west direction. All levels in this direction, after proceeding 8 chains to 10 chains, prove the coal to thin as the swamp area is approached. A small amount of pillar extraction was carried out in the higher level, and it would appear that the bulk of future work will be confined to pillar extraction.

Clearview Mine.—The cross measure dip, which was driven to intercept the seam to the dip, was abandoned after being driven approximately 270 ft. This work proved the seam to be faulted to the dip and unworkable. A further dip heading was driven from a point nearer the old mine, and the original seam was intercepted and development of same was commenced. Levels have been broken away in a south-west direction. The lignite is of good quality and is 6 ft. in thickness.

Lucknow Clay Mine.—Clay continued to be won from the south-west level. The intermittent working of the mine caused the clay roof to fret considerably, and roof conditions consequently became more difficult.

Klondyke Mine.—Development work has been continued in a north-easterly direction, levels having been driven a distance of 15 chains. The seam at the face of the lower level is 15 ft. thick and is within 3 chains of a surface swamp. The indications are for the seam to split and thin in this direction. Development-work to the south-west indicates that the seam will fast become unworkable in that direction, due to splitting and thinning. A cross measure drive, which was driven from the lower north-east level, shows the measures at this point to be as follows: Coal, 15 ft. thick; fireclay, 1 ft. 6 in. thick; coal, 8 ft. thick; sandstone, 1 ft. 6 in. thick; coal, 8 ft. thick; making a total thickness of 34 ft., which coincides with the original thickness of the seam. Operations were carried out in a workman-like manner.

Yukon Mine.—All attempts to open up a workable seam of coal at this mine resulted in failure, and operations were temporarily suspended towards the end of the year.

Bush Gully Mine.—The extraction of all available pillar coal was completed early in the year and operations were abandoned.

Honebush Clay and Ganister Mine.—Small quantities of clay have been won from opencast workings, and a limited amount of ganister was also mined from short level drives.

Honebush Coal-mine.—The prospecting cross-measures dip, which was driven to prove the engine seam to the dip of the old workings, was abandoned early in the year. The seam intercepted was 4 ft. 6 in. thick, with a stone band in the centre. The ground was particularly heavy and waterlogged. Whatever coal was won at this mine was produced from the 2 ft. seam and under very adverse conditions.

Sheffield Clay-mine.—Development of this clay-seam to the dip proved it to be split by a band of sandstone. Work was carried on intermittently. However, indications are that the quantity of clay available for winning will be very limited here.

Burnbright Mine (Sheffield).—The development of this coal-seam proved it to be unworkable, and operations were suspended towards the end of the year.

Sundown Mine.—The development of this seam, in the main north-east level proved it to be soft and friable. A dip heading was driven on the coal, and development from this point has been productive of better results. The seam is approximately 8 ft. thick and of reasonable quality, but is very steeply inclined.

Steventon Mine.—The development of this mine has continued throughout the year. The main dip has been advanced and levels continue to be driven to the north-east. The No. 5 level had been driven a distance of 13 chains, thereby proving that the gravel intrusion, which cut off the higher levels, is veering away from the main dip. The seam has maintained its height and quality. The dewatering of the old mine has steadily continued, the water in the old shaft having been lowered to a depth of 90 ft. from the surface. Operations have been continued in a thorough manner, and are worthy of the success which has been met with.

Sunnydale Mine.—A small quantity of clay and sand only has been won during the year, previous attempts to successfully mine coal having failed.

Blackburn Coal-mine.—A small amount of development was carried out to the north and was ultimately suspended after intercepting faulted measures. The position now at this mine is that all attempts to prove a continuation of the seam have failed. Pillar extraction was continued, and a very limited quantity of coal now remains to be recovered.

Mount Somers Coal-mine.—Development is being continued from the main north lower level. This level has now been driven approximately 700 ft. Several places have been driven east and west from various points along the main level. A reasonable area of coal has been developed, and there is now a possibility that access may be gained to an area of unworked coal to the rise and to the north-east of the inbye end of the main level. Natural ventilation continued to prove adequate.

Woodbank Mine, Albury.—Very little development was carried out at this mine. The demand for this coal is still very limited here, thereby leaving little scope for mining activity.

NORTH OTAGO.

Airedale Mine.—Development-work was continued in the dip to the north-west of the main dip. The seam here proved to be very variable in quality, numerous patches of soft coal being encountered. The new south-west dip heading was extended to a distance of approximately 7 chains, and headings were commenced to the north to develop the area lying to the south of the original workings. All development-work to the north-west in this area has encountered soft coal, and it would appear that if any workable coal is to be found in this direction it will require to be prospected for from a point farther up the dip. During the year an agreement was made with the owner of the surface rights to extract the pillars from certain defined areas, and this work will be commenced in the near future.

St. Andrew's Mine.—Very little development-work was carried out during the year. An attempt was made to prove a further block of coal to the dip, but the result was disappointing. Pillar extraction has been continued, and it would appear that the future of this mine will be confined to this class of work.

Ngapara Mine.—No development-work was carried out during the year, the output being obtained from a continuation of pillar extraction in the north-west area.

Shag Point Mine (McLaren's).—The operation of extracting the pillars left by the old company was continued and almost completed. Towards the end of the year prospecting was commenced in a lower seam of 4 ft. in thickness, and the indications are that a reasonable area of workable coal may be proved to exist for winning, this probably being the only point from which the lower seam was not worked.

Shag Point Mine (McLaren's).—The main dip was extended a short distance, and additional levels were driven to the north and south. The coal-seam continues to maintain its thickness, but the area now left for development is becoming very limited. A small amount of pillar extraction was also carried out during the year.

Willett's Mine.—No attempt has been made to further develop the seam, and the output has been obtained solely from pillar extraction.

Rockdale Mine.—A limited amount of development-work has been carried out, chiefly due to the difficulty of access to the mine and the primitive nature of the operations.

OTAGO CENTRAL MINES.

Shepherd's Creek Mine (Bannockburn).—The main dip heading, proceeding approximately west, has been driven a total distance of 12 chains. The higher five levels intercepted stony coal after being driven 200 ft., and work therein has been suspended meantime. A pair of lower levels has been broken away south to prove the seam in this direction at a lower level. Development levels were driven 350 ft. to the north, when considerable heaving of the floor was experienced. As the development in this field proceeds to the dip, strata movements become difficult to control, owing to the pressure of the water-laden fine sands. All places continue to be driven about 8 ft. wide and 6 ft. high.

Cairnmuir Mine.—The work of driving, to what was presumed to be a lower seam, has been abandoned. The result of all driving to this seam was that, immediately the drives reached the river-water level, it became impossible to hold the ground. The top seam has been developed a little during the year, but with poor results. The seam is 5 ft. thick, with the higher 2 ft. very inferior, and with bad roof conditions. Coal-mining operations at this point have, in my opinion, small chance of success.

Nevis Crossing Pit.—A small amount of coal was won during the year from the opencast.

Nevis Pit (Fache's).—Opencast operations were steadily continued. The bulk of the output from this pit goes to supply the steam-operated gold-dredge.

Otarehua Pit.—Work has been suspended at the original pit, and a new opencast pit opened out about 10 chains north-east of the old pit. A small intermittent output has been won therefrom.

Blackstone Hill.—Opencast operations were continued on a small scale and very intermittently.

Idaburn Pit.—Opencast operations were continued on previous lines.

Parfit's Pit.—This lease was renewed during the year, and towards the end of the year a small quantity of coal was won from the opencast.

Cambrian Pit.—Work was confined to an old portion of the pit at the south end of same, but operations were carried out only intermittently.

Coal Creek Mine (Roxburgh). Work has been continued on opencast, the stripping invariably being well in advance of the coal being won.

SOUTH OTAGO.

Freeman's Mine.—The output continued to be obtained from pillar extraction. The coal remaining to be won from the present area is very limited, and unless an attempt is made to make more coal available for mining the operations must soon draw to a close.

Jubilee Mine.—The main dip heading has been driven a total distance of 12 chains, the lower 7 chains proceeding in a south-west direction. The face of the dip heading is now close to the boundary. The coal-seam is inclined to thin in the dip, and the roof is showing signs of being waterlogged. The chief development is to the north, and at present the seam is 9 ft. thick in this direction and of good-quality lignite. Development to the south-west was not so successful, the seam thinning and being split by a stone band. Generally speaking, the development is fairly encouraging, especially to the north, and general conditions can be said to have improved during the year.

Hodson's Mine.—The process of pillar-splitting has been continued and the output of the mine obtained from this source. This work was extended beyond its originally intended limits, with the result that surface subsidence eventuated and a flooding of the lower workings occurred. There often exists a wrong impression that pillar-splitting can be carried to almost any lengths with immunity from surface subsidence, the fact being lost sight of that the small pillars ultimately become incapable of offering any roof support following on the collapse of the surrounding roadways.

Brightglow Mine.—Following the installation of plant and the driving of a stone-drive, no coal was found, and the project was abandoned. This is one more instance of commencing mining operations before proving the area.

McColl's Mine.—The output at this mine was obtained from pillar extraction. A limited amount of this work is being carried out in the north-west corner of the area, the operations being conducted on a small scale.

Saddle Hill Mine.—A very limited quantity of coal and clay was won opencast.

Fairfield Colliery.—The development of this mine was continued during the year in a westerly direction. A series of levels were driven a total distance of 20 chains. The seam commenced to thin at the extremity of these development places, and a commencement was made to split the pillars. No effort was made to develop the lower seam, and unless more enterprise is soon evident in regard to development-work the mine will find it difficult to economically continue for any great length of time.

Willowbank Mine.—Very little development-work has been done during the year, various attempts at dip development having met with faultings or serious fluctuations in the quality of the coal. At present a crosscut dip heading is being driven south from a point 4 chains from the face of the main dip. The bulk of the year's output was obtained from pillar extraction to the south of the main dip and about 10 chains from the mine entrance.

East Taieri Mine.—The work of driving the main dip headings through old workings has been continued throughout the year, and it would appear as if there are now prospects of a virgin area of coal being reached. However, only future development can determine this.

Burnweil Mine.—A small amount of coal was recovered early in the year. Conditions then became such that the operations were condemned, pending certain improvements. Operations were then abandoned.

New Fernhill Mine.—Development-work was continued a distance of 12 chains in a northerly direction per medium of several levels. However, due to the coal-seam thinning, a commencement was made to split the pillars. Future development may be carried out to the dip, and preparations for this work are now being made. However, the dip area will be limited, due to old workings.

Eskvale Mine.—No development-work has been done at this mine, the output having been obtained from pillar extraction, this work having now reached a point approximately 300 ft. from the mine entrance.

Elliotvale Mine.—Development-work was allowed to lapse during the year, and the output was obtained from pillar extraction and the robbing of pillars. The commencement of this work was undoubtedly premature, and the results were spontaneous combustion and loss of coal. The present position is that almost all developed areas have been rendered useless, and further development to the dip will be an essential and urgent matter.

Kai Point Mine.—Development was continued to the north-east and the coal-seam proven to thin in this direction. A deviation was then made to the north-west and old workings encountered. A commencement was made to extract the pillars, and this work was continued throughout the latter portion of the year.

Benhar Mine.—The development-work has been extended to the dip, and additional panels have been formed to the north and south respectively. The total distance of dip development is approximately 1,200 ft., and the coal-seam still maintains its thickness.

Taratu Mine.—No mining operations have been attempted during the year, the company having been content to employ only sufficient staff to keep the mine and plant in reasonable condition, and this position has existed since September, 1936.

Lakeside Mine.—A very limited amount of work has been done at this mine. For some reason or other there seems to be a total inability to procure a sale for this coal, and the operations of the mine have, as a result, been almost at a standstill.

Wangaloa Mine.—Development-work has been continued along lower levels to the east and west for a distance of 10 chains and 5 chains respectively. The seam is maintaining its thickness and quality, and general conditions remain normal.

Kaituna Mine.—Pillar extraction was continued and completed, and mining operations suspended, as no further coal was found for development.

Kaitangata Mine.—The development-work at this mine during the year has been chiefly confined to Samson's seam, and it seems strange that, seventy years after the initial working of a seam of coal, the same seam is now being developed from its higher extremity. At present two dip headings are being driven south-west to prove this area and have proceeded over 500 ft. The quality of the coal is first class, and the seam is lying at a fairly steep gradient. Pillar extraction has been completed in the north rise heading to within 300 ft. of the main level, and work here has been suspended. Pillar extraction in the main rise headings has been almost completed to within 400 ft. of the main level, at which point work will be suspended. In the No. 1 east, No. 2 seam, pillar extraction is proceeding, and the area should be completed in the near future. The No. 1 and No. 2 east sections were persevered with until the seam ultimately became too thin for profitable mining. However, cross-measure drives were driven in both areas to prove a higher seam at these points, and further valuable areas of coal are being developed. The work in the main south dip headings has been confined to pillar extraction, there being unfortunately a large amount of coal left in this area owing to it being of an excessively friable nature, and unsaleable. The coal to the west of this dip was of good quality and 25 ft. thick right on to the fault-line. This fact, coupled with the results being obtained from Samson's seam, would appear to augur well for the unproven area to the west of the fault-line. From surface observations carried out by the management it is now presumed that an upthrow fault exists at a point approximately 1,000 ft. to the south of the present extremity of the main south dips, and that this fault runs approximately east and west through the coalfield. A power-line has been laid on the surface, and it is the intention of the company to carry out further prospecting in this direction. Ventilation arrangements have proved adequate, and the early erection of fire stoppings is carried out. Generally speaking, the operations have proceeded satisfactorily.

SOUTHLAND MINES.

Hakateri Mine.—Development-work has continued along the strike to the north and also towards the outcrop to the east. Operations have remained on a small scale.

Waimumu Pit.—Opencast operations have been continued along lines similar to the previous year.

Otikerama Mine.—A very limited amount of development was continued to the dip, and additional levels were driven north-west and south-east. The width of working-places has continued to be kept within reasonable limits, and previous improvement has been maintained.

Croydon Pit.—Opencast mining has been continued, and the condition of the pit has been only fair.

Beattie Coster Mine.—Opencast mining has been continued, and operations carried out in a satisfactory manner.

Green's Mine.—Pillar-splitting was carried out, to the south of the main dip, in the early part of the year. However, this work was later suspended and development-work again started. There is an area of unworked lignite to the south-west, and towards the end of the year preparations were being made to drive dip development places into same. It is fortunate that pillar-splitting ceased, as this work was certainly premature and unsound.

Boychad Mine.—Owing to a continuation of the lack of demand only a limited amount of development was carried out. The main dip heading was continued a short distance and additional levels driven north and south.

Glenlee Mine.—Development-work has been continued in a northerly direction. The working-conditions have improved as a result of the installation of a ventilation fan. Working-places have also been kept within more reasonable dimensions.

Springfield Pit (Gore).—A limited amount of opencast mining was carried out during the first half of the year.

Otu Creek Pit.—Opencast mining has been carried out intermittently.

Waimumu Terrace Pit.—This is a new pit commenced during the year, and the work is of an opencast nature. Work has been carried out under normal conditions.

Raby Pit.—Opencast operations were continued under new ownership, and the standard of operations showed a slight decline.

Coster's Pit.—Opencast operations were continued on a small scale.

Kea Pit (Mataura).—Opencast operations were continued at this pit, and a reasonable output of lignite was mined therefrom under normal conditions.

Titipua Pit.—A reasonable quantity of lignite was won, the output from this and the Kea Pit being used for power purposes by the local mills.

Landslip Pit.—The pit qualified for its name during the year, when an extensive surface slip took place and caused the temporary suspension of operations.

Argyle Pit.—Opencast work was continued along usual lines.

Diamond Pit.—Work has been continued regularly at this opencast pit, and the condition of the pit was improved towards the end of the year.

Orepuki Pit.—A limited amount of opencast mining was continued near the river-bank. The conditions are unfavourable here, and the operations are on a small scale.

Princhester Creek.—This area is faulted extensively, and the process of operations is simply one of locating and winning small detached blocks of coal. The work is opencast.

Lynwood Pit (Te Anau).—Intermittent operations were carried out during the year, the work being opencast.

Terrace Mine (Kingslon Crossing).—Pillar extraction was continued, more or less indiscriminately, the result being that the mine became in disrepair, the operations were finally condemned, and the mine ceased working during the year.

Star Mine.—Pillar extraction was continued in the dip area, but was suspended during the year. Development-work was commenced by means of a slant dip heading driven north-west and from the original main haulage dip. A series of levels have been driven north from the slant dip, these proceeding towards the Morley Stream. The levels referred to will be driven to a point 1 chain distant from the Morley Stream, and a commencement will then be made to either split or totally extract the pillars. So far, pillar extraction has not caused any material surface breaks, and, in my opinion, the extent of the future life of this mine will depend upon the behaviour of the overlying strata. Surface breaks of any extent will almost surely mean such a quantity of water entering the mine as will make its economical continuation very doubtful.

Birchwood Mine.—Pillar extraction was continued and completed to the east of the main dip heading. Development-work has been extended to the dip, this work having now been pushed ahead a total distance of approximately 14 chains. A faulting was experienced in the main dip, and at present exploratory-work is being carried out in a companion dip to the west. Development levels have been driven east and west from the main dip. However, faulting was met with after driving varying distances up to 10 chains. The No. 1 east levels advanced sufficiently to allow of the development of a panel of work. This is almost completed, and pillar extraction will soon be commenced in this area. A panel will also be developed in No. 2 west. It is regrettable that more surface boring has not been done over this lease, because, as things are at present, nothing is known of the areas beyond any faulting which has been met.

Black Diamond Mine.—The whole of the output from this mine has been obtained from pillar extraction. This work was continued from the No. 5 level for the greater portion of the year, and, later, work has been carried out to the east of the No. 6 level. The work has continued without any untoward circumstances. A regular practice is made of erecting preparatory stoppings around any area of coal which it is proposed to extract so as to ensure the prompt sealing of same before heating becomes troublesome. All stoppings are later sealed by injecting a wet mixture of cement and fine flue dust under pressure from the compressed-air main.

Black Lion Mine.—Pillar extraction only was continued throughout the year. This work was continued in the rise north-east area and is now within a short distance of the main rise heading. Pillar extraction was also commenced adjacent to the outcrop and to the north-west of the main jig. Boring operations failed to find any coal, and there now remains only a continuation of pillar extraction until the completion of operations.

Mossbank No. 1 Mine.—Pillar extraction continued throughout the year, and the position at the end of the year was that only a narrow strip of coal, 10 chains by 3 chains, remains to be recovered. This mine can now employ only a very few miners until the total completion of the mine.

Mossbank No. 3 Mine.—Pillar extraction has also been continued at this mine. The area of coal available for winning here is also becoming very limited. Towards the end of the year arrangements were made to extract as much coal as possible from the barriers. These barriers were left to separate the No. 1 and No. 3 mines. In view of the fact that the end of the mines was drawing near it was deemed advisable to extract as much coal as possible from the barriers before the final cessation of operations, otherwise this coal would be lost. No danger is expected from the removal of this barrier coal.

Wairaki Mine.—Pillar extraction was continued and completed in the levels west of the main haulage dip, these areas having been permanently sealed off. Pillar extraction was also continued in No. 2 east, and the higher portion of this work now adjoins the roadway barrier. Development-work was carried out in the No. 3 east dip section. The dip headings have been advanced 7 chains to the south-west, the quality of coal proved is good, and a reasonable area of first-class coal will be made available for winning here. It is pleasing to report that this company put down two boreholes in their adjoining coal lease with encouraging results. These boreholes are to the south of the fault met in No. 2 east level. In No. 1 bore the main coal-seam was intercepted at a depth of 524 ft., and bore No. 2 intercepted the seam at 442 ft., the seam being 12 ft. and 27 ft. respectively.

Linton No. 2 Mine.—Pillar extraction has been continued as rapidly as possible throughout the year. A reasonable percentage of coal has been recovered, although the conditions prevailing for its recovery have not at times been very favourable. The inbye portion of the operations is now not more than 13 chains from the mine entrance.

Slight trouble was experienced at one stage through the surface fire breaking through to the main haulage-road; however, this was effectively dealt with. The thickness of coal worked in the No. 1 and No. 2 north sections is approximately 40 ft., the total thickness of the seam being 50 ft. in places.

Linton No. 1 Mine.—In the No. 6 section pillar extraction was continued. Heating in the goaf took place, after a protracted period of work, and the area was sealed off and operations resumed outbye of same. Pillar extraction was also continued in No. 3 section. Later a portion of No. 5 section was joined up with No. 3, and the work of extraction was commenced. In No. 8 section pillar extraction was commenced under difficult conditions, the area ultimately heating. The coal in this panel was friable, and this fact, coupled with its liability to spontaneous combustion and the thickness of coal being worked, certainly tends to increase the difficulty of the operations. Development headings are being driven west in the No. 6 and No. 8 sections to develop the area recently acquired from the Birchwood Coal Co. The development of the dip area has proceeded intermittently, this work having advanced 6 chains ahead of the main dip, and the coal is maintaining its thickness and quality. A pair of dip headings were driven north from the No. 7 level. A fault was met after driving 7 chains, and, as a faulting also occurs to the north-east, this area of work will be very limited. Boring operations have been continued throughout the year, and the results being obtained ahead of the dips appear to indicate that the coal-seam may not continue as far in this direction as was anticipated. The work of sealing off the fire area in the old horse level has been continued steadily throughout the year. A strip of coal 14 ft. wide is being extracted for the full thickness of the seam and the void stowed by sluicing in surface clay per medium of a series of shafts to the surface. The outlook for a successful result from this work is reasonably good.

FATAL ACCIDENTS.

Linton No. 1 Mine.—On the 3rd March a regrettable double fatality occurred in the No. 3 panel of the No. 6 pillar section of the above mine, when T. W. Thomsen and Peter Johnson, miners, were killed by a fall of coal in this section. The height of the coal being worked was over 30 ft., and, as is inevitable with pillar extraction in coal of this thickness, the work was fraught with more than the usual element of danger. During an inspection of the place, an hour prior to the fatality, both miners expressed their conviction to me of the safety of the place. It would appear that, during their absence from the place whilst a shot was being fired in an adjoining pillar place, an unusually large "nug" or bump took place in the coal and loosened the coal, which fell on the deceased as they were returning to their working-place. They were thus unaware of a warning movement, which, in this case, probably took place during their temporary absence.

SERIOUS ACCIDENTS.

Kaitangata No. 2 Mine.—On the 16th June, Lee Gardner, a miner, sustained a fractured upper right arm and a fracture of the right leg below the knee. Gardner was engaged in pillar extraction, and the accident was caused by a fall of coal adjacent to the lip of the place. An examination of this place showed that the injured person was preparing to erect additional supports in the lip of his place, but, before doing so, it was necessary to fill a certain amount of loose coal. A study of these circumstances leads me to the conclusion that, at all mines where pillar extraction is taking place, ample supports should be erected to support what is intended to be the new lip of the place before top coal is shot down inbye of this point. Criticism of this practice can, to my mind, take only one form, and that is that these supports will probably be displaced by the shots to be fired inbye. Assuming that this is so, then, say, two additional supports should be erected, and if they are displaced by the shot they would undoubtedly be re-erected sooner than the supports would be put up where the above-mentioned practice is not followed.

Kaitangata No. 2 Mine.—On the 16th August, James Blaney, a miner, sustained a fracture of the left ankle by the fall of a piece of coal. The working-place was particularly well timbered, but the piece of coal, which fell from between two props, evidently came from off a dried parting in the roof. Such an accident would be difficult to foresee.

Wairaki Mine.—On the 30th September, James Lawton, a trucker, sustained a fractured wrist as a result of having his arm jammed between the truck and the rib side close to a flat-sheet. The breaking of a wooden sprag in the wheel of the descending truck was probably the chief factor causing this accident.

LIST OF DANGEROUS OCCURRENCES.

Lakeside Mine.—On the 8th January heating took place in a pillared area, and was effectively sealed by stoppings.

Linton No. 2 Mine.—On the 15th February a fire broke out on the main haulage-road, and the men were withdrawn from the mine. The heated area was dug out and the excavation sealed with concrete.

Fernhill Mine.—On the 9th March a fall took place in the rise workings, causing surface subsidence, and was followed by a slight inrush of sand and water. The debris was cleaned up, and substantial dams erected underground to prevent any possible recurrence.

Linton No. 1 Mine.—On the 19th March heating took place in No. 6 pillared area. Stoppings were erected and the area sealed off.

Linton No. 1 Mine.—On the 10th September heating took place in the No. 8 pillared area, the area being sealed off by stoppings.

Airedale Mine.—On the 11th October indications of heating were experienced to the south of the main dip. The area was sealed off by stoppings.

Black Lion Mine.—Early in November heating in the rise pillared area took place, and the area was sealed off by stoppings.

Linton No. 1 Mine.—On the 3rd December heating took place in the No. 6 pillared section, and the necessary stoppings were erected and the area sealed off.

Hodson's Mine, Fairfield.—On the 17th December a fall took place adjacent to a surface swamp area, and a slight inrush of water was experienced as a result of surface subsidence. The workings were later dewatered, and no material damage was done.

PROSECUTIONS.

During the year the following prosecutions took place:—

On the 8th February a mine-manager was convicted and fined £1 and costs for a breach of Regulation 223 of the Coal-mines Act, 1925.

On the 19th April a mine-manager was convicted and fined £2 and costs for a breach of Regulation 181 (2) of the Coal-mines Act, 1925.

On the 4th May a shot-firer was convicted and fined £1 and costs for a breach of Regulation 228 (4) of the Coal-mines Act, 1925.

On the 26th May a shot-firer was convicted and fined Court costs for a breach of Regulation 234 (b) of the Coal-mines Act, 1925. Owing to injuries received by this person as a result of the breach, no penalty was asked for.

On the 2nd July a mine-manager was convicted and fined £5 and costs for a breach of section 91 of the Coal-mines Act, 1925.

On the 12th July a mine-manager was convicted and fined £5 and costs for a breach of Regulation 223 (2) of the Coal-mines Act, 1925.

And, on the same date, a further mine-manager was convicted and fined £5 and costs for a breach of the same regulation.

ANNEXURE B.

STATISTICS OF WORKINGS IN COAL-MINES, 1937.

Name of Mine and Locality.	Title held (Crown Lease or otherwise).	Name of Mine-manager and Class of Certificate.	Name and Address of Owner.	Number of Years worked.	Classification of Coal (Bituminous, Sub-bituminous, or Lignite).	Number of Seams worked.	Thickness of Coal-seams.	Thickness of coal-seams worked.	System of Under-ground Working.	Depth of Shaft or Length of Stone Drive (if any) to reach Coal-seam.	Total Output for 31st December, 1937.	Total Output to 31st December, 1937.	Number of Persons ordinarily employed.		Means of Ventilation.		
													Above.	Below.		Total.	
NORTHERN INSPECTION DISTRICT.																	
Waro, Hikurangi	Freehold	H. Brady (1st C.)	Waro Coal-mines, Ltd., Auckland	3	Sub-bituminous	1	4' to 8'	All	Bord and pillar	D. 1,000'	3,263	26,671	29,934	14	36	50	Fan.
Phonax III, Hikurangi	Crown lease	G. Cross (2nd C.)	Kamo Potteries, Ltd., Whangarei	17	Bitum.	2	6'	5' to 6"	Bitum.	..	3,257	46,106	49,453	1	5	6	..
Phonax III, Hikurangi	Freehold	W. J. McKinnon (D.)	McKinnon and party, Hikurangi	3	..	1	3'	..	..	..	2,385	7,189	9,574	1	5	6	Natural.
Phonax III, Hikurangi	Crown lease	J. Speirs (D.)	Speirs and party, Hikurangi	9	..	1	1' to 4'	All	..	..	1,377	15,388	16,765	..	3	3	..
Phonax III, Hikurangi	Freehold	H. Tipton (2nd C.)	Tipton and party, Hikurangi	13	..	1	3'	..	..	..	3,178	29,686	32,864	1	9	10	..
Phonax III, Hikurangi	Freehold	R. Fox (1st C.)	Fox and Fox, Hikurangi	1	..	1	5'	..	..	..	5,857	5,857	5,857	..	2	2	..
Phonax III, Hikurangi	Crown lease	J. Hamilton (D.)	J. R. McFarlane and party, Hikurangi	24	..	1	4' to 6"	..	..	..	277	1,159	1,159	..	3	3	..
Phonax III, Hikurangi	Crown lease and freehold	J. Makinson (1st C.)	Kamo Collieries, Ltd., Whangarei	32	..	1	18'	..	..	D. 450'	23,204	48,975	72,179	18	42	60	Fan.
Phonax III, Hikurangi	Freehold	J. Jones (D.)	J. Jones, Hikurangi	34	..	1	2' to 6"	All	..	..	1,264	2,399	3,573	..	4	4	Natural.
Phonax III, Hikurangi	..	W. Robinson (P.)	W. Robinson and party, Hikurangi	25	..	1	1' to 6"	..	..	..	124	7,705	829	..	2	2	..
Phonax III, Hikurangi	..	A. Lawson (P.)	Lawson and party, Hikurangi	24	..	1	2' to 4'	..	..	..	594	1,574	2,078	..	3	3	..
Phonax III, Hikurangi	..	M. C. Turnbull (D.)	Turnbull and party, Hikurangi	1	..	1	2' to 6"	..	..	..	1,561	1,715	3,280	..	3	3	..
Phonax III, Hikurangi	..	R. Fox (1st C.)	R. Fox, Otahere Road, Whangarei	1	..	1	4'	..	..	..	280	280	280	1	3	4	..
Phonax III, Hikurangi	..	W. Tinsell (D.)	S. G. Fox, Hikurangi	8	..	1	8'	..	..	..	954	8,044	8,998	3	..	3	..
Waikato District.																	
Rerowaro, Rerowaro	Crown lease and freehold	J. Smith (1st C.)	Taupiri Coal-mines, Ltd., Auckland	20	Brown	2	7' to 15'	All	Bord and pillar	D. 1,600'	158,288	2,392,942	2,461,230	59	216	275	Fan.
Pukeuro, Pukeuro	Freehold	A. Part (1st C.)	Pukeuro Collieries, Ltd., Auckland	22	..	1	4' to 18'	4' to 14'	..	..	112,036	2,489,979	2,602,015	47	155	202	..
Whitton, Glen Affon	..	T. Geddes (1st C.)	Wilson Collieries, Ltd., Auckland	27	..	1	7' to 12'	5' to 9'	..	..	87,920	472,150	560,079	33	134	167	..
Whitton, Glen Affon	..	J. Henry (1st C.)	Rose Shipping Co., Ltd., Mercer	21	..	1	16' to 12'	10' to 9'	..	..	2,721	107,467	110,188	1	3	4	Natural.
Whitton, Glen Affon	Crown lease and freehold	C. Blackburn (1st C.)	Glen Affon Collieries, Ltd., Auckland	17	..	1	4' to 16'	9'	..	..	79,072	1,697,582	1,776,654	27	122	149	Fan.
Whitton, Glen Affon	..	P. L. Peattie (2nd C.)	..	7	..	1	6' to 20'	9' to 14'	..	..	144,229	714,593	858,822	50	186	236	..
Whitton, Glen Affon	..	A. Pennan (1st C.)	..	16	..	1	10' to 15'	12'	..	..	8,510	26,592	30,102	1	4	5	..
Whitton, Glen Affon	..	C. Hunter (1st C.)	Whakawhata Campbell Coal Co., Ltd., Hamilton	10	..	1	12'	..	..	..	6,071	62,481	68,552	5	5	10	Natural.
Whitton, Glen Affon	Freehold	J. Tweedie (2nd C.)	..	14	..	1	13' to 6"	7' to 9'	..	..	114,893	758,424	878,817	47	142	189	Fan.
Whitton, Glen Affon	Native lease	A. Morgan (P.)	..	11	..	1	2' to 6"	4'	..	..	7,653	125,560	133,214	2	12	14	..
Whitton, Glen Affon	Freehold	J. Howie (P.)	..	14	..	1	5' to 12'	All	Openwest	..	902	3,542	3,744	1	2	3	Natural.
Whitton, Glen Affon	..	J. O'Brien (P.)	..	4 1/2	..	1	4' to 6"	..	Bord and pillar	..	40	715	755	1	2	3	..
Whitton, Glen Affon	..	A. W. Whitteleton	..	3	Brown	1	6' to 10'	All	Bord and pillar	..	14,122	38,392	52,514	14	35	49	Fan.
Whitton, Glen Affon	Freehold	H. Jones (D.)	..	17	..	1	4' to 6"	..	..	..	878	7,684	8,562	1	2	3	Natural.
Whitton, Glen Affon	Crown lease	J. Lamont (1st C.)	..	3 1/2	..	1	14'	..	..	..	5,936	10,672	13,708	1	7	8	Fan.
Whitton, Glen Affon	..	B. Bernsen	..	4 1/2	..	1	4'	All	Openwest	..	3	84	87	1	..	1	Natural.
Outputs of collieries, included in previous statements, at which operations have been abandoned or suspended																	

Outputs of collieries, included in previous statements, at which operations have been abandoned or suspended

STATISTICS OF WORKINGS IN COAL-MINES, 1937—continued.

Name of Mine and Locality.	Title held (Crown Lease or otherwise).	Name of Mine-manager and Class of Certificate.	Name and Address of Owner.	Number of Years worked.	Classification of Coal (Bituminous, Sub-bituminous, or Lignite).	Number of Seams worked.	Thickness of Coal-seams.	Thickness worked.	System of Under-ground Working.	Depth of Shaft or Length of Drive (if any) to reach Coal-seam.	Total Output for 1937.	Total Output to 31st December, 1936.	Number of Persons ordinarily employed.		Means of Ventilation.	
													Above.	Below.		Total.
WEST COAST INSPECTION DISTRICT.																
Nelson District.																
Motupipi, Motupipi	Crown lease	D. Winter (P.)	J. and D. Winter, Motupipi	10	Lignite	2	2' and 3'	Full	Opencast	..	134	1,294	1,428	2	2	Open.
Clarke, Baton	"	S. Hartshorne (P.)	S. Hartshorne, Tapawera	63	Bituminous	2	2' and 4½'	"	Bord and pillar	..	576	1,692	2,268	..	2	Natural.
Coker's, Baton	Freehold	D. Young (D.)	F. J. Coker, Nelson	1	Lignite	1	3'	"	Ditto	..	14	..	14	2	2	"
O'Rourke's, Murchison	"	A. O'Rourke (P.)	A. O'Rourke, Murchison	18	"	1	2'	"	"	..	338	3,553	3,871	2	2	"
Wyndale, Murchison	Crown lease	W. Burchfield (U.)	G. and A. H. Wynn, Murchison	5	Sub-bituminous	1	6'	"	"	..	2,966	11,002	13,968	2	5	"
Mount Burnett, Collingwood	"	W. A. Hansen (D.)	Chambers Bros., Hastings	8	Ditto	1	7'	"	"	..	1,963	28,436	30,389	2	3	"
Puponga, Puponga	"	A. J. McHardy (2nd C.)	Puponga Coal-mine, Ltd., Puponga	34	"	1	5' to 5½'	"	"	..	7,756	381,728	389,484	4	9	Fan.
Owen, Owen River	"	W. Farnworth (2nd C.)	Owen Collieries, Ltd., Nelson	8	"	1	4' to 6'	"	Double-stall	..	3,778	21,695	25,473	3	12	"
Buller District.																
Bowater and Bryan's, Charleston	Crown lease	F. M. Mitchell (P.)	Bowater and Bryan, Ltd., Westport	7½	Lignite	1	1' to 30'	8'	Opencast	..	269	1,648	1,917	1	3	Open.
Brighton, Fox River	"	Andrew Hunter (P.)	Brighton Coal-mines, Ltd., Brighton	5	"	1	12' to 16'	8'	Bord and pillar	..	468	1,280	1,748	1	1	Natural.
Cardiff, Mokihinui	"	J. Simpson (D.)	Cardiff Coal Co., Ltd., Westport	2½	Bituminous	1	8' to 12'	9'	Ditto	..	5,422	7,813	13,235	3	5	Fan.
Cascade, Cascade Creek	"	W. Brown (1st C.)	Cascade-Westport Coal Co., Ltd., Westport	11	"	1	20' to 50'	6'	"	..	19,680	151,571	171,251	11	9	Natural.
Charming Creek, Ngakawau	"	J. McArthur (1st C.)	Charming Creek - Westport Coal Co., Ltd., Westport	10	"	1	8' to 20'	10'	"	..	25,449	102,696	128,145	14	26	Fan.
Coal Creek, Seddonville	"	T. Quinn (D.)	Coal Creek Mining party, Seddonville	20	"	1	30'	7'	"	..	1,749	99,366	101,115	1	3	"
Hydro, Seddonville	"	M. Forsyth (1st C.)	Hydro Coal-mines, Ltd., Westport	2	Lignite	1	5' to 17'	Full	Opencast	..	10,775	1,137	11,912	2	9	Natural.
Mitchell's, Charleston	"	F. M. Mitchell (P.)	F. T. Mitchell, Charleston	13	"	1	30'	8'	"	..	4	655	659	1	1	Open.
Powell's, Charleston	"	D. Tennant (P.)	J. H. Powell, Charleston	9	"	1	30'	7'	"	..	143	137	280	1	1	"
Warne's, Charleston	"	G. N. Warne (P.)	G. N. Warne, Charleston	12	"	1	30'	6'	"	..	4	117	121	1	1	"
Rocklands, Buller Gorge	"	R. Beveridge (P.)	R. P. Burley, Berlin	35	Brown	1	27'	8'	Bord and pillar	..	807	11,376	12,183	..	2	Natural.
Glencrag, Buller Gorge	"	X. Forsyth (2nd C.)	Forsyth and Bateson, Berlin	14	"	1	20' to 40'	10'	Ditto	..	714	3,876	4,590	..	2	"
Denniston, Denniston	"	R. J. Wearn (1st C.)	Westport Coal Co., Ltd., Dunedin	57	Bituminous	7	3' to 30'	Full	"	..	157,225	10,685,574	10,842,799	90	238	Fans.
Millerton, Grantly	"	A. Openshaw (1st C.)	Westport Coal Co., Ltd., Dunedin	46	"	1	4' to 40'	12	"	..	66,468	8,394,010	8,460,478	28	69	Fan.
Westport-Stockton, Ngakawau	"	T. McChie (1st C.)	Westport-Stockton Coal Co., Ltd., Christchurch	29	"	3	4' to 20'	10'	"	..	143,201	3,418,265	3,561,466	90	160	"
Reefton District.																
Archer's, Capeleston	Crown lease and freehold	F. W. Archer (2nd C.)	F. W. Archer, Reefton	42	Brown	2	9' and 12'	9'	Bord and pillar	..	4,799	73,934	78,733	2	8	Natural.
Burke's Creek, Burke's Creek	Crown lease	C. D. Buist (1st C.)	Burke's Creek Colliery, Ltd., Wellington	36	"	1	8' to 12'	9'	Ditto	..	21,667	270,618	292,285	12	25	Fan.
Clele, Merrifries	Freehold	R. Alhorn (2nd C.)	R. Alhorn and party, Reefton	51	"	1	5'	Full	"	..	6,449	60,150	75,589	3	9	Natural.
Cochran's, Capeleston	Crown lease	E. Cohen (U.)	John Cochran, Reefton	40	"	1	12'	8½'	"	..	2,031	32,874	34,586	1	5	"
Collins, Murray Creek	"	N. Collins (P.)	N. Collins, Reefton	45	"	1	10'	6'	"	..	62,463	63,090	63,090	1	5	"
Doonick, Murray Creek	"	G. Turner (2nd C.)	O'Brien and party, Reefton	9	"	1	5'	Full	"	..	2,572	8,042	10,614	2	5	"
Merrifries, Reefton	"	C. D. Buist (2nd C.)	W. J. Morris, Reefton	25	"	1	12'	6'	"	..	1,381	151,896	153,377	2	5	"
Burnwell (Times Street), Reefton	"	D. Hannell (D.)	H. A. Morris, Reefton	9	"	1	30'	9'	"	..	333	4,238	4,371	2	2	"
Waikahu, Reefton	"	A. D. Williams (1st C.)	A. D. Williams, Reefton	28	"	2	5½' and 6'	Full	"	..	4,102	9,588	13,690	..	5	"
White Rose, Merrifries	"	S. Griggs (P.)	H. and S. Griggs, Reefton	14	"	1	4'	"	"	..	146	731	877	..	2	"
Grey District.																
Baddeley's, Bend Creek	State Reserve	R. Barker (U.)	Baddeley and party, Kumanza	17	Sub-bituminous	1	7'	Full	Bord and pillar	..	6,345	60,154	66,499	2	5	Natural.
Belbird, Ten-mile	"	F. Fauth (D.)	Fauth and party, Greytown	10	Ditto	1	10'	"	Ditto	..	4,743	27,505	32,248	1	4	Fan.
Belvue, Rapahoe	"	H. Hadercroft (U.)	Belvue Mines, Ltd., Greytown	11	"	1	6'	"	"	..	5,255	65,777	71,072	1	8	"
Blackball, Blackball	Freehold	J. Quinn (1st C.)	Blackball Coal-mines Pty., Ltd., Christchurch	46	Bituminous	2	17'	"	"	..	38,427	4,069,449	4,107,876	24	64	"

Blackball Creek, Blackball	Freehold	J. Quinn (1st C.)	63	Bituminous	2	17'	15'	Bord and pillar	12,788	97,686	110,474	5	13	18	Fan.
Brady's, Ten-mile	State Reserve	G. Brady (U.)	..	Blackball	..	..	..	..	..	..	..	..	..	..	..
Hunter's, Ten-mile	..	P. Manderson (U.)	..	Sub-bituminous	1	10'	Full	..	..	7,004	9,848	2	7	9	..
Braeburn, Dunollie	..	J. W. Patterson (2nd C.)	..	Ditto	1	7'	..	..	..	96,556	106,248	3	13	16	..
Briandale, Ten-mile	Crown lease	T. Howard (1st C.)	..	..	1	8'	..	..	..	81,900	82,341	3	4	7	Natural.
Wallsend, Brunerton	Crown lease and freehold	G. Smith (1st C.)	..	Bituminous	1	18'	8' to 10'	..	..	619,332	670,398	25	87	112	Fan.
Cain's, Rapahoe	State Reserve	S. Hewison (2nd C.)	..	Sub-bituminous	1	4½'	Full	..	..	9,050	12,034	1	5	6	..
Castlepoint, Dunollie	..	J. Neilson (1st C.)	..	Ditto	1	5½'	..	..	..	70,062	78,073	2	15	17	..
Dobson, Dobson	Crown lease	J. W. Glendenning (1st C.)	..	Bituminous	1	9' to 16'	9'	..	..	58,142	823,210	29	121	150	..
Duggan's, Rewanui	State Reserve	W. Richmond (D.)	..	..	1	3'	Full	..	..	64,537	65,892	2	5	7	..
Perry Cross, Dunollie	..	J. Sharp (U.)	..	Sub-bituminous	1	6'	..	..	..	36,317	42,090	2	7	9	..
Goldlight, Rewanui	..	R. Ewan (U.)	..	Ditto	1	7'	..	..	..	68,189	78,030	1	8	9	..
Hilltop, Ten-mile	..	V. Armstrong (1st C.)	..	..	1	11'	..	..	..	50,900	59,383	2	6	8	..
Kaye's, Ten-mile	..	C. Kaye (D.)	..	..	1	10'	..	..	..	4,614	7,316	1	5	6	..
Hunter's, Rewanui	..	A. L. Smithson (D.)	..	..	1	3½'	..	..	..	86,041	92,511	1	6	7	Natural.
Jubilee, Rapahoe	..	J. Strang (U.)	..	..	1	5½'	..	..	..	30,441	32,660	1	6	7	..
Moody Creek, Dunollie	..	J. Simpson (U.)	..	Sub-bituminous	1	8'	Full	..	..	69,032	74,191	2	8	10	Fan.
Cliffside, Nine-mile	..	J. Gourlay (D.)	..	Ditto	1	13'	9'	..	..	4,806	9,786	3	5	8	Natural.
New Point Elizabeth, Dunollie	..	C. Brazier (2nd C.)	..	..	1	12' to 20'	8'	..	..	79,371	86,803	3	12	15	Fan.
Old Runanga, Rewanui	..	J. W. Smith (2nd C.)	..	Bituminous	2	4½' and 5'	Full	..	..	59,452	66,568	3	12	15	Fans.
Paparoa, Pao	Crown lease	A. O'Donnell (1st C.)	..	..	2	8' to 12'	..	..	..	813,466	846,903	18	50	68	..
Schultz Creek, Two v - mile	..	W. Page (D.)	..	Sub-bituminous	1	2½' to 3'	..	..	..	32,855	36,070	..	7	7	..
Smith's, Dunollie	State Reserve	A. Ferguson (2nd C.)	..	Ditto	1	5½'	..	..	..	82,671	90,221	2	10	12	Fan.
James, Rapahoe	..	R. T. H. Dale (1st C.)	..	..	1	4' to 8'	..	..	..	404,007	504,826	20	71	91	..
Liverpool, Rewanui	..	A. Smith (1st C.)	..	Bituminous	3	8' to 34'	8'	..	..	2,823,388	2,957,318	82	239	321	..
Output of collieries included in previous statements at which operations have been abandoned or surrendered	..	..	..	..	..	..	..	..	..	8,121,384	8,121,384	..	..	..	..

SOUTHERN INSPECTION DISTRICT.

Homebush, Glentunnel	Freehold	W. G. Smith (D.)	64	Brown	1	3'	All	Bord and pillar	422	364,699	365,121	..	2	2	Natural.
Bush Gully, Coalgate	..	E. Charles (D.)	..	..	1	4'	..	..	..	49,769	49,769	..	1	1	..
Clearview, Glenroy	..	P. T. Leeming (D.)	..	..	1	10'	7'	..	..	30,257	31,231	..	3	4	..
Klondyke, Bush Gully	..	M. Fowler, (2nd C.)	..	..	1	20' to 30'	8'	..	..	33,018	33,018	3	14	17	Fan.
Bonanza, Sheffield	..	E. Charles, Coalgate	..	..	1	7'	All	..	..	8,536	10,062	..	6	6	..
Tripp's, Mount Somers	..	M. Menaglio (D.)	..	..	2	9' and 13'	..	..	..	100,529	109,223	1	5	6	Natural.
Blackburn, Mount Somers	Crown lease	R. R. Beckley (D.)	..	..	1	15'	8'	..	..	15,721	18,970	1	6	7	..
Woodbank, Albury	Crown lease under Lands Act	J. H. Smillie (F.)	..	Lignite	1	27'	8'	..	..	9,010	9,880	..	2	2	..
Meadowbank, Waihaio Forks	Crown lease	J. C. Campbell (D.)	..	..	1	20'	8' to 5' to 6'	..	..	3,930	3,958	..	1	1	..
Steventon, Whitecliffs	..	H. J. Robb (D.)	..	Brown	1	6' to 7' 6"	..	..	..	17,156	20,033	1	5	6	Fan.
Sandown, Sheffield	..	D. McQueen (D.)	..	..	1	10'	8'	..	..	21	20,779	1	2	3	Natural.
Yukon, Coalgate	..	A. J. Clark (D.)	..	..	1	5'	All	..	..	596	536	1	3	4	..
Burnbright, Sheffield	..	A. Taylor (D.)	..	..	2	2' and 1' 6"	..	..	..	130	160	..	2	2	..
North Otago District.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alredale, Papakaio	Crown lease	E. Roberts (U.)	..	Lignite	1	10'	6'	..	..	31,785	37,008	1	8	9	Fan.
An Itew's, Papakaio	Freehold	J. H. Nimmo (D.)	..	..	1	4' to 8'	6'	..	..	1,987	83,547	1	3	4	..

STATISTICS OF WORKINGS IN COAL-MINES, 1937—continued.

Name of Mine and Locality.	Title held (Crown Lease or otherwise).	Name of Mine-manager and Class of Certificate.	Name and Address of Owner.	Number of Years worked.	Classification of Coal (Bituminous, Sub-bituminous, or Lignite).	Number of Seams worked.	Thickness of Coal-seams.	Thickness worked.	System of Under-ground Working.	Number of Windings.	Depth of Shaft or Length of Drive (if any) to reach Coal-seam.	Total Output for 31st December, 1937.	Total Output to 31st December, 1937.	Number of Persons ordinarily employed.		Means of Ventilation.
														Above.	Below.		Total.
SOUTHERN INSPECTION DISTRICT—continued.																
North Otago District—continued.																
Willott's, Airdale ..	Freehold and Crown lease	R. McVie (D.) ..	G. H. Willetts, Airdale ..	5	Lignite ..	2	10'	6'	Bord and pillar	..	D. 40'	Tons. 1,104	Tons. 5,858	1	3	4 Natural.
Nzapara, Napara ..	Freehold	W. Nimmo (C.) ..	W. Nimmo, Napara ..	59	"	1	25'	8' to 10'	"	..	D. 50'	659	50,391	1	2	3 Fan.
Shag Point (old mine), Shag Point ..	Crown lease	W. McLaren (D.) ..	W. McLaren, Shag Point ..	23	Brown ..	1	5' 6"	All	"	..	"	2,143	433,440	1	3	3 Natural.
Shag Point, Shag Point ..	Freehold	A. K. McLean (C.) ..	A. K. McLean, Shag Point ..	29	"	1	8'	6'	"	..	D. 500'	2,172	337,619	1	6	7 Fan.
Rockvale, Herbert ..	"	W. Marshall (P.) ..	W. Marshall, Herbert ..	34½	Lignite ..	1	8'	"	"	..	"	359	784	1	2	1 Natural.
Central Otago District.																
Idaburn, Otarehua ..	Freehold	R. Barber (D.) ..	R. Barber, Otarehua ..	67	Lignite ..	1	40'	25'	Opencast	..	"	639	60,984	2	1	2 Open.
Otarehua, Otarehua ..	Crown lease	A. Brown (P.) ..	J. R. and A. Becker, Otarehua ..	43	"	1	7'	All	"	..	"	82	8,639	2	1	1 " "
Cambrian, Cambrian ..	"	C. G. Davies (P.) ..	C. G. Davies, Cambrian ..	76	"	1	12'	"	"	..	"	240	54,706	1	1	1 " "
McPherson's, Coal Creek Flat ..	"	N. Harlwich (P.) ..	N. Harlwich, Coal Creek Flat ..	67	"	1	10'	"	"	..	"	1,081	111,774	2	1	1 " "
Shepherd's Creek, Bannockburn ..	"	J. Hodson (2nd C.) ..	J. Hodson, Bannockburn ..	60	"	2	14' and 20'	14' and 10'	Opencast and bord and pillar	..	D. 100'	1,980	137,593	1	3	4 Open and fan.
South Otago District.																
Facie's, Nevis ..	Freehold	A. J. Graham (P.) ..	S. C. Fachie, Nevis ..	4	"	1	50'	25'	Opencast	..	"	548	1,141	2	1	2 Open.
Cairnmuir, Cromwell ..	Crown lease	G. Garbe (D.) ..	Cairnmuir Coal Co., Ltd., Cromwell ..	2½	"	1	5' 6"	All	Bord and pillar	..	"	211	255	1	1	1 Fan.
Nevis Crossing, Nevis ..	Crown lease	R. Ritchie (P.) ..	R. Ritchie, Nevis ..	33	"	1	60'	"	Opencast	..	"	30	18,420	2	1	2 Open.
Blackstone Hill, Otarehua ..	"	A. W. Morgan (P.) ..	A. W. Morgan and J. Dillon, Otarehua ..	48½	"	1	12'	"	"	..	"	40	4,933	2	1	1 " "
Parlit's, Upper Idaburn ..	"	I. J. Parfit (P.) ..	I. J. Parfit, Naseby ..	10½	"	1	10'	"	"	..	"	6	1,358	1	1	1 " "
South Otago District.																
Freeman's, Abbotstford ..	Freehold	R. Anderson (D.) ..	Freeman's Coal Co., Green Island ..	57	Lignite ..	1	12' to 15'	All	Bord and pillar	..	D. 100'	2,348	636,343	1	2	3 Fan.
Jubilee, Saddle Hill ..	"	F. Barclay (2nd C.) ..	Jubilee Coal Co., Ltd., Dunedin ..	40	"	1	6' to 8'	5' to 6'	Ditto	..	D. 200'	6,716	619,099	4	11	15 " "
New Fernhill, Abbotstford ..	"	D. Kerr (C.) ..	New Fernhill Coal Co., Ltd., Dunedin ..	5	"	1	8' to 14'	6'	"	..	D. 300'	2,959	16,458	1	6	7 " "
Saddle Hill, Saddle Hill ..	"	G. McMaster (P.) ..	G. McMaster, Fairfield ..	7	"	1	12'	8'	Opencast	..	D. 650'	20	3,441	1	1	1 Open.
Fairfield, Fairfield ..	"	M. Welsh (C.) ..	Fairfield Coal-mining Co., Ltd., Dunedin ..	5	"	1	8'	"	Bord and pillar	..	"	3,821	9,179	1	9	10 Fan.
Burnwell, Saddle Hill ..	"	A. Edmond (D.) ..	Burnwell Colliery Co., Dunedin ..	41½	"	1	6'	5'	Ditto	..	D. 132'	115	83,514	1	1	1 Natural.
Brighton, Brighton ..	"	N. McCall (P.) ..	N. McCall, Brighton ..	22	"	1	5'	All	"	..	D. 130'	208	12,241	1	2	2 Fan.
East Tateri, East Tateri ..	"	J. Dunlop (D.) ..	J. Dunlop and A. Birley, East Tateri ..	18	"	1	12'	6'	"	..	D. 100'	2,537	43,124	1	3	3 " "
Whitlowbank, Riccarton ..	"	N. Smith (D.) ..	G. Smith and Co., Ltd., Mosgiel ..	17	"	1	8'	6'	"	..	D. 200'	4,928	70,263	2	6	8 " "
Taratu, Lovell's Flat ..	"	W. Stoddart (D.) ..	Sir P. R. Stoddart, Dunedin ..	36	"	1	8' to 25'	14'	"	..	D. 400'	100	792,649	1	1	1 " "
Eltham, Eltham ..	"	J. Robertson (2nd C.) ..	Eltham Collieries, Ltd., Dunedin ..	7	"	1	28'	7'	"	..	D. 40'	9,692	27,344	3	8	11 " "
Eskaile, Milton ..	"	J. Cooper (D.) ..	J. Cooper and A. Birley, East Tateri ..	7	"	1	14'	All	"	..	"	2,685	14,143	1	3	4 Natural.
Donbar, Stirling ..	"	J. Walls (2nd C.) ..	McKinnim and Son, Ltd., Bonbar ..	74	"	3	14'	10'	"	..	D. 100'	6,976	326,539	1	6	7 Fan.
Lakeside, Kaitangata ..	"	J. Gillick (1st C.) ..	Lakeside Collieries (Kaitangata), Ltd., Dunedin ..	27	"	1	20'	7'	"	..	D. 200'	2,708	16,874	2	4	6 " "
Wanaka, Kaitangata ..	Crown lease	J. Prescott (D.) ..	J. Prescott, Kaitangata ..	15	"	1	12'	7'	"	..	D. 363'	2,520	12,090	1	3	4 Natural.
Kaitangata, Kaitangata ..	Crown lease and Freehold	F. Carson (1st C.) ..	Kaitangata Coal Co., Ltd., Kaitangata ..	61	Brown ..	2	20' and 8'	All	"	..	D. 538'	136,538	5,434,828	80	293	285 Fan.
Kai Point, Kaitangata ..	Freehold	S. Newburn (2nd C.) ..	S. Newburn, Kaitangata ..	10	"	1	20'	"	"	..	D. 180'	485	7,865	1	2	2 Natural.
Kaituma, Kaitangata ..	"	A. Thompson (D.) ..	J. W. Smith, Kaitangata ..	2½	"	1	5'	5'	"	..	D. 30'	123	28,726	1	1	1 " "
Hodson's, Fairfield ..	"	R. McDonald (2nd C.) ..	Hodson and Co., Fairfield ..	6	Lignite ..	1	8'	"	"	..	D. 99'	6,217	20,076	2	10	12 Fan.
Southland District.																
Green's, Gore ..	Freehold	W. J. Barclay (D.) ..	W. J. Barclay, Gore ..	49	Lignite ..	1	20'	10'	Bord and pillar	..	D. 210'	4,869	398,955	2	4	6 Fan.
Croydon, Gore ..	"	John Miller (P.) ..	J. Miller, East Gore ..	22	"	1	30'	All	Opencast	..	"	1,629	30,457	2	1	2 Open.

APPENDIX C.

REPORT OF BOARDS OF EXAMINERS.

Geological Survey Office,
Wellington, 31st May, 1938.

SIR,—

On behalf of the Boards of Examiners under the Mining and Coal-mines Acts, I have the honour to submit the following brief report on the work of the Boards during 1937 :—

Coal-mines Act. The annual examinations of candidates for mine-managers' certificates under the Coal-mines Act, 1925, were held at Huntly, Reefton, Westport, Greymouth, Dunedin, and Ohai on the 19th October and the two following days. In addition, two candidates (one at Huntly and one at Westport) were examined for mine-surveyors' certificates.

Examinations were held for candidates who desired to obtain underviewers' and firemen-deputies' certificates at Dunedin on the 4th, 5th, and 6th October : at Huntly on 9th November : at Greymouth on the 18th and 19th November : and at Westport on the 25th November.

Eighty-nine gas-testing certificates were issued to candidates during 1937, while fifty candidates whose certificates were more than five years old were re-examined in gas-testing and their certificates endorsed to that effect.

The total number of candidates sitting the various examinations under the Coal-mines Act was eighty-five, an increase of nine over the previous year.

Mining Act.—Examinations for mine-managers' certificates under the Mining Act, 1926, were held at Waihi and Reefton on the same dates as the examinations of candidates for similar certificates under the Coal-mines Act. In addition, two candidates were examined at Reefton for battery superintendents' certificates, while examinations for dredgemasters' certificates were held at Greymouth and Dunedin on the 24th November. A special examination of a candidate for a class A dredgemaster's certificate was held at Greymouth on the 14th May.

The total number of candidates sitting the various examinations under the Mining Act was seventeen, equalling the number that sat the previous year.

General.—Mr. R. C. Ruffin, whose term as member of the Board of Examiners under the Mining Act had expired, was reappointed by His Excellency the Governor-General for a further term of three years from the 1st September, 1937.

Inquiries were addressed to the various examining authorities in the Australian States and South Africa with the object of ascertaining if the certificates issued by the New Zealand Board of Examiners under the Mining Act were accepted as a basis of exchange. It was found that in Queensland, Tasmania, and Victoria, New Zealand certificates have been accepted as a basis of exchange in every case where application has been made. In South Australia and Western Australia there is no provision in the mining legislation for certificates for mine-managers, battery superintendents, or dredgemasters. The Board of Examiners in New South Wales advises that mine-managers' certificates of equal status, provided they are obtained by examination conducted by a Board of Examiners of a particular State or country, are recognized and the holder is duly registered as a mine-manager in New South Wales. Battery superintendents' and dredgemasters' certificates are not issued in New South Wales. In South Africa certificates issued by other countries are not interchangeable for certificates issued by the South African Mines Department, for the reason that the nature of work performed by managers of gold-mines on the Witwatersrand differs materially from that performed in other countries.

During the year certain legislation affecting the Boards was passed. In the Coal-mines Amendment Act, 1937, it is provided that every certificate of competency as an underviewer or fireman-deputy shall be deemed to be suspended unless it is periodically endorsed by an Inspector of Mines with a certificate to the effect that the holder is capable of making tests for inflammable gas and that his sense of hearing is not defective or, as the case may be, not so defective as to prevent him from carrying out his duties efficiently.

Section 23 of the Mining Amendment Act, 1937, increases the personnel of the Board by the addition of a person holding a class A dredgemaster's certificate. I have been informed that action has been taken to make the necessary appointment.

Section 24 of the last-named Act re-enacts and elaborates the provisions of the Mining Act, 1926, relating to the recognition of certificates as mine-managers, battery superintendents, or dredgemasters from beyond New Zealand.

The Boards dealt with a considerable number of matters arising out of application for and the issue of certificates, none of which, however, calls for special mention.

The following is a summary of the various examinations and the results obtained :—

Act and Examination.	Number of Candidates.			Number of Certificates issued.	
	Examined.	Passed.	Partial Pass.	By Examination.	By Recognized Credentials.
1. <i>Coal-mines Act, 1925</i> —					
Mine-manager's certificate—					
(a) First class—					
Written examination	16	}	5	..	..
Oral examination ..	*4				
(b) Second class—					
Written examination	6	}	3	1	..
Oral examination ..	*3				
Underviewer's certificate ..	12	4†	4	4	..
Fireman-deputy's certificate ..	49	39‡	6	39	..
Mine-surveyor's certificate—					
Written examination ..	2	}	..	..	..
Oral examination ..	..				
2. <i>Mining Act, 1926</i> —					
Mine-manager's certificate					
(a) First class—					
Written examination	6	}	3	3	..
Oral examination ..	*3				
(b) Second class—					
Written examination	..	..	..	..	..
Oral examination ..	..	..	..	..	..
Battery superintendent's certificate—					
Written examination ..	2	}	2	..	..
Oral examination ..	2				
Dredgemaster's certificate—					
Class A	1	1	..	1	..
Class B	8	8§	..	8	..
Class B (by exchange) ..	..	..	..	..	..

* Includes one candidate who had previously passed the written examination. † Includes one candidate who last year was credited with a partial pass pending production of a certain certificate. ‡ Includes three candidates who last year were credited with partial passes pending production of certain certificates. § Includes one candidate whose certificate was not issued, pending production of further evidence of service.

A list of certificates issued since my last report is appended.

COAL-MINES ACT, 1925.

SECOND-CLASS MINE-MANAGER'S CERTIFICATE.

Issued after Examination.—Brazier, Charles James, Ohai.

UNDERTVIEWERS' CERTIFICATES.

Issued after Examination.—Balderstone, William, Blackball; Hall, Alfred, Kaitangata; Inglis, William Carrick, Pukemiro; Stirling, Hugh Macfarlane, Huntly.

FIREMEN-DEPUTIES' CERTIFICATES.

Issued after Examination.—Alborn, Norman Richard, Reefton; Barclay, Ralph Ewen, Fairfield; Baxendale, Sidney, Renown; Bland, David Edger, Pukemiro; Bolam, George Francis, Huntly; Bowman, Robert James, Taylorville; Cameron, Daniel, Twelve-mile; Coates, Wilfred, Taylorville; Dumelow, Frank, Greymouth; Gibb, Alfred Boyd, Taylorville; Griffiths, George Henry, Pukemiro; Hamill, David, Reefton; Hawthorn, Ludovic William, Owen River; Hughes, William, Runanga; Inglis, William Carrick, Pukemiro; Johnstone, William Steele, Nightcaps; Lawrence, Luther, sen., Pukemiro; Lewis, Reece Edward, Renown; McCaig, William, Glen Massey; McFarlane, William Lawrie, Hector; McGuinness, Samuel, Seddonville; McKiver, Patrick, Roa; McLean, William Jack, Shag Point; Mason, Samuel Campbell, Nightcaps; Melbom, Eric Peter, Reefton; Mitchell, James Wilson, Glen Afton; Mitchell, John Baird, Glen Afton; Owen, Fletcher, Glen Massey; Patterson, Edward, Blackball; Richardson, Alexander, Kaitangata; Richardson, James, Kaitangata; Rutherford, John, Dobson; Smith, Norman, Fairfield; Smith, Peter, Gore; Smith, Robert, Taylorville; Scott, Robert, Taylorville; Thompson, Alexander Ferguson, Runanga; Tweedie, Robert Huntly; Walker, George, Twelve-mile.

MINING ACT, 1926.

FIRST-CLASS MINE-MANAGERS' CERTIFICATES.

Issued after Examination.—Hall, William James, Waita; Waite, Alec Edwin, Waihi; Watt Leslie Ian, Waita.

DREDGEMASTER'S CLASS A CERTIFICATE.

Issued after Examination.—Gillooly, Thomas Bernard, jun., Murchison.

DREDGEMASTERS' CLASS B CERTIFICATES.

Issued after Examination.—Caithness, Alexander John, Maori Gully; Gollop, Charles Edward, Eokiri; Hurst, Thomas Eric, Barrytown; Jellie, David Cornelius, Stafford; Lynch, Joseph Arthur Dunedin; McAlpine, Wallace Herbert, Mawheraiti; Mitchell, Stanley Davidson, Barrytown; Tibbles George Joseph, Ikamatua.

Lists of certificate-holders up to the end of 1937 are attached.

I have, &c.,

J. HENDERSON,

The Under-Secretary, Mines Department, Wellington.

Chairman of Boards.

LIST OF MINE-MANAGERS, BATTERY SUPERINTENDENTS, AND DREDGEMASTERS
WHO HOLD CERTIFICATES UNDER THE MINING ACTS.

FIRST-CLASS MINE-MANAGERS' CERTIFICATES.

Certificates of Service issued under the Mining Act, 1886, without Examination.

Bennett, J., Alexandra.	Jenkins, M., Wakatipu.	Porter, J., Waipori.
Cameron, A., Macetown.	Johnstone, H., Bluespur.	Sturm, A., Waipori.
Chapman, J. A., Dunedin.	McIntosh, D., Bluespur.	Wearne, T., Endeavour Inlet.
Prewen, J. B., Queenstown.	*Morrisby, A. A., Glenorchy.	Young, G., Skipper's.
Glass, W. M., Naseby.	Newman, W., Naseby.	

Issued after Examination under the Mining Act, 1886, and Amendment Acts.

*Donaldson, W., Otago.	Hornick, M., Thames.	Mouat, W. G., Dunedin.
*Fleming, M., Thames.	Hosking, G. F., Auckland.	Watkins, W. E., Reefton.
Harris, W., Thames.	Logan, H. E., Wellington.	

Issued on Production of Certificate from a Recognized Authority outside the Dominion under the Mining Acts, 1886, 1891, 1898, 1905, 1908, 1913, and 1926.

Beckwith, L. H., Wellington.	*Godden, Frederick William Ross, Reefton.	*Lake, J. V., Reefton.
*†Cock, J., jun., Ross.	Griffiths, A. P., Auckland.	McKenna, Thomas, Dunedin.
Cock, W., Waioio.	Hailey, R. C., Dunedin.	Rich, F. A., Auckland.
Datson, J., Manaia.	Hall, E. K., Reefton.	*Spencer, Ernest William, Reefton.
Dodd, William, Milton.		Williams, W. H., Auckland.

Issued after Examination under the Mining Act, 1891.

*Agnew, J. A., Thames.	*McDermott, J., Thames.	*Russell, Murray, Dunedin.
Bennett, E. P., Thames.	McDermott, W., Thames.	Shepherd, H. F., Thames.
Bradley, R. J. H., Te Puke.	McGregor, W. T., Thames.	*Stanford, W. J., Macetown.
Gilmour, J. L., Thames.	McKenzie, H. J., Coromandel.	Vialoux, F., Coromandel.
Keam, P. E., Thames.	McPeake, J., Thames.	White, G. H., Thames.
*McDermott, C., Thames.	Robertson, D. B., Stafford.	

Issued after Examination under the Mining Acts, 1898, 1905, 1908, and 1926.

Allen, Henry, Waihi.	George, M. T., Waihi.	Ruffin, R. C., Reefton.
Autridge, L. E., Thames.	Goldsworthy, W., Coromandel.	*Rutherford, R. A., Waiuta.
Baker, S. G., Thames.	Gordon, H. T., Sawyer's Bay, Dunedin.	Scoble, E. J., Waihi.
Barker, B., Thames.	*Gudgeon, C. W., Macrae's.	Smith, Walter, Karangahake.
Bell, O., Waihi.	Hall, W. J., Waiuta.	Stewart, F., Waihi.
Bishop, Thomas Otto, Skipper's.	Hitchcock, W. E., Barewood.	*Stewart, R. A., Reefton.
Blenkhorn, C., Coromandel.	Hogg, Tasman Rangit, Waiuta.	Sullivan, T., Reefton.
Bolitho, Joseph, Reefton.	Kingsford, C., Waihi.	*Thomson, G. W., Dunedin.
Bower, J. W., Coromandel.	Langdon, H., Waihi.	*Thomson, J. R., Waihi.
*Broad, R., Waihi.	Latour, H. A. de, Waihi.	Thomson, Thomas, Waihi.
Buddle, Frank, Coromandel.	Lewis, Ralph Reginald, Waihi.	Thorne, G. M., Waihi.
*Bull, C. W., Waihi.	Lowes, G. W., Reefton.	*Tucker, E. S., Coromandel.
Caisley, John, Karangahake.	Lowrie, A. F., Waihi.	Turner, A. W., Lawrence.
*Calvert, F. C., Waihi.	Mackie, Portland George A., Waihi.	*Turner, G. W. E., Reefton.
Clouston, R. E., Kaitangata.	McConachie, W. J., Waihi.	*Ulrich, G. A. C., Waihi.
Collier, E., Reefton.	MacLaren, J. A. J., Coromandel.	Waite, A. B., Waihi.
Cooper, J. H., Thames.	McMahon, T., Reefton.	Walker, A. J., Waihi.
Cooper, Thornhill, Waihi.	McMillan, T., Waihi.	Watson, J. L., Thames.
Cornes, J. G., Waihi.	Morrison, William, Waihi.	Watt, L. L., Waiuta.
Downey, J. F., Reefton.	Moye, Michael, Reefton.	*Weir, Thomas, Waihi.
Dutton, W. F., Waihi.	O'Shea, J., Reefton.	*Williams, Evan, Waihi.
*Evered, N. J., Waihi.	Robinson, A. E., Waihi.	*Williams, John, Waihi.
Fry, S., Waimangaroa.		Wotherspoon, James, Waihi.

Issued under Section 313 of the Mining Act, 1891.

Rickard, John, Thames.	Thomas, James, Thames.	White, John S., Karangahake.
Snow, Thomas, Huntly.		

Certificates of Competency granted to Holders of Provisional Warrants under Section 32 of the Mining Act Amendment Act, 1896.

Cornes, C. A., jun., Karangahake.	Draffin, Samuel, Waitekauri.
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Issued to Inspector of Mines by virtue of Office under the Mining Acts, 1886, 1891, and 1898.

Green, E. R., Dunedin.

* Out of New Zealand.

† Alluvial.

SECOND-CLASS MINE MANAGERS' CERTIFICATES.

Certificates of Service issued under the Mining Act, 1891.

*Agnew, J. A., Coromandel.	Edwards, George, Westport.	Mackay, William, Nenthorn.
Blair, Thomas, Kuaotunu.	Guthrie, John, Wellington.	Rickard, John, Thames.
Brown, John, Macrae's.	Hardman, James Edward, Thames.	Shaw, James, Karangahake.
Byrce, John, Karangahake.	Johnstone, William, Collingwood.	Thomas, James, Thames.
Dobson, John Allen, Kuaotunu.		

Issued after Examination under the Mining Acts, 1891, 1898, and 1908.

Benney, J., jun., Paeroa.	Patterson, William James, Driving	White, F. H., Kuaotunu.
Cahill, T. M., Upper Kuaotunu.	Creek, Coromandel.	
Dunkin, T., Coromandel.		

Certificates of Competency granted to Holders of Provisional Warrants under Section 32 of the Mining Act Amendment Act, 1896.

Allen, W. J., Coromandel.	Howe, Albion S., Waitekauri.	Prescott, Arthur J., Coromandel.
*Barney, Montague T., Waitekauri.	Johnson, Frank H., Collingwood.	Ruffin, Richard, Manuaia, Coromandel.
Collins, Charles, Waitekauri.	Murphy, Joseph, Coromandel.	
Gardner, James, Waimangaroa.	O'Brien, John, Westport.	

Certificates of Service issued under the Mining Amendment Act, 1910.

Adams, Albert Augustine, Thames.	Grace, Pierce, Waitekauri.	Lynch, James, Glenorchy.
*Adams, R. W., Thames.	Hansen, Charles Hans, Puketui.	McKenzie, D., Georgetown.
Brabyn, John, Clarendon.	Hayes, James, Thames.	Reid, George, Glenorchy.
Butcher, F. J., Waitekauri.	Hes, E. J., Bamockburn.	Reynolds, Edmond Francis, Coromandel.
Gillan, Thomas, Thames.	Inglis, Robert, Kuaotunu.	

ALLUVIAL MINE-MANAGER'S CERTIFICATE.

Certificate of Service issued under the Mining Act, 1908.

Toole, William Hopwood, St. Bathans.

BATTERY SUPERINTENDENTS' CERTIFICATES.

Issued under the Mining Act Amendment Act, 1894, without undergoing Examination.

Aitken, R. M., Reefton.	McLellan, William, Waitekauri.	Shepherd, Henry Franklin, Waihi.
*Banks, Edwin Gripper, Waihi.	Noble, James R., Karangahake.	Sims, C. F., Tararu.
McKenna, T. N., Tararu.	Park, James, Thames.	

Issued after Examination under the Mining Act Amendment Act, 1894.

Adams, A. A., Thames.	Bowers, W., Thames.	Noakes, H. L., Waihi.
*Allen, F. B., Thames.	Brown, A. E., Thames.	*Stafford, B. H., Waihi.
Allom, H. O., Thames.	*Day, A. T., Thames.	Thorpe, A. H., Thames.
Ansley, Comyn, Paeroa.	Dixon, Clement, Waihi.	Vercoe, R. B., Thames.
Ansley, Walter, Thames.	*Gray, J. W., Waihi.	*Williams, A. G. R., Thames.
Banks, J. H., Waihi.	Lee, J. W., Reefton.	

Issued after Examination under the Mining Acts, 1898, 1905, 1908, and 1926.

Adams, J. H., Thames.	Ewen, H. F., Auckland.	*Orr, F. S., Waiuta.
Adams, Richard W., Tararu, Thames.	Fletcher, H. T., Katikati.	Paltridge, F., Thames.
Airey, Hubert, Karangahake.	Fry, Sidney, Westport.	*Penseler, W. H. A., Dunedin.
*Allen, D. V., Thames.	*Gibson, William, Waihi.	Pond, H. C., Auckland.
*Allen, H. E., Wellington.	*Gilpin, J., Waihi.	Quintrell, Sidney B., Waiuta.
Anderson, David, Waihi.	Gilooly, T., Roxburgh.	Reynolds, E. A., Auckland.
Andrews, T. E., Waihi.	*Gow, E. A., Crushington.	Roberts, H. C., Waihi.
Auld, J. B., Crushington.	Gwilliam, Benjamin, Karangahake.	Rollinson, H. G. V. B., Waikino.
Baker, W. H., Thames.	Halliwell, L. V., Karangahake.	Rosewarne, R. H., Thames.
*Banks, C. A., Waihi.	Hargreaves, E. P., Waihi.	Royse, W. G., Reefton.
*Banks, E. J., Thames.	Hay, Adam, Karangahake.	*Sanderson, F. L., Waiuta.
Banks, J. G., Waikino.	Hazard, T. R. C., Waitekauri.	Sanford, A. G., Waihi.
Bell, Oswald, Waihi.	*Hogg, B., Karangahake.	Saunders, A. J., Waiuta.
*Bidlake, A. E., Waiotapu.	Hogg, T. R., Karangahake.	Shaw, D. S., Waikino.
Bird, A. W., Thames.	Hoyle, H. E., Thames.	Shaw, L. J., Waikino.
Bishop, T. O., Reefton.	Hutchison, R. M., Karangahake.	*Stephens, H., Dunedin.
Blackadder, William, Crushington.	*Johnson, Edward, Waihi.	Sutherland, J. A., Reefton.
Bradley, R. J. H., Karangahake.	Jones, J. W., Waikino.	*Thomson, G. W., Bendigo.
Brown, F. M., Karangahake.	Jones, R. D., Karangahake.	*Thurlow, J. R., Coromandel.
Bush, E. F., Parawai.	*Keogh, J. A., Waihi.	Tomlinson, A., Karangahake.
Bush, George Arthur, Karangahake.	Kidd, R. B., Waitekauri.	Tomlinson, W. F., Dunedin.
Bush, H. R., Thames.	Kingsford, A., Karangahake.	*Ulrich, G. A. C., Komaia.
*Campbell, Colin, Thames.	Kingsford, C., Waihi.	Ulrich, Herstatt, Whangapoua.
Carlson, Noel, Waihi.	Kitching, L. J., Thames.	Walker, Alfred James Dickson, Waihi.
Carter, Harry Francis, Waihi.	Launders, G. H., Waitekauri.	Walsh, Arthur James, Waihi.
Chappell, G. A., Karangahake.	Lawless, L. J., Paeroa.	Watson, A. B., Waitekauri.
Clark, John L., Waihi.	Lawn, H., Reefton.	Watson, A. P., Crushington.
Clarke, Thomas, Waihi.	Littlejohn, W. D., Karangahake.	Watson, J. P., Reefton.
Clifton, Leslie, Waikino.	Mann, C., Westport.	Watson, J. R., Reefton.
Cowles, R. K., Crushington.	Maxwell, W. L., Waihi.	Watson, W. A., Crushington.
Crawford, H., Macrae's.	*McDonall, P. H., Waihi.	Wearne, W., Reefton.
Crompton, H., Maratoto.	McEwin, J. A., Reefton.	White, A. S. H., Karangahake.
Croucher, Herbert, Waihi.	McKinlay, John, Waihi.	*White, E. D., Karangahake.
Dawson, B., Eilerslie.	McNeil, A. R., Karangahake.	Williams, A. C., Waihi.
Donnelly, Thomas, Waihi.	McPadden, J., Coromandel.	Williams, James, Reefton.
Donovan, Willie, Waikino.	*Melrose, P., Waihi.	Williams, Joseph, Reefton.
*Eaton-Turner, Geoffrey William, Waihi.	Metcalf, G. H., Karangahake.	*Williams, William Eustace, Waihi.
Ellery, W. V., Waiuta.	*Morgan, Robert James, Waihi.	Wilson, A. P., Crushington.
*Evans, J., Waihi.	Moyle, W. T., Upper Tairua.	
	*Orbell, G. S., Waikouaiti.	

DREDGEMASTERS' CERTIFICATES.

Issued without Examination under the Mining Act, 1898, and Amendment Acts, 1901 and 1902.

Anderson, L. C., Alexandra.	Herbert, J., Beaumont.	Olsen, Charles, Roxburgh.
Andrews, Ralph, Canvastown.	Hewitt, James, Clyde.	Parsons, J. D., jun., Clyde.
Baker, J. R., Alexandra.	Hoskins, Thomas, Maori Point.	Percy, John, Clyde.
Ballantyne, D., Miller's Flat.	Hoy, Samuel, Alexandra.	Perkins, A. C., Dunedin.
Barnes, T. J., Beaumont.	Inwood, W. J., Rocklands Beach.	Pettigrew, George, Nelson Creek.
Bradley, Neil, Alexandra.	Johnston, E. A., Alexandra.	Poulter, G. W., Alexandra.
Bennett, George, Gore.	Johnstone, Alexander, Cromwell.	Pringle, John, Miller's Flat.
Bennett, James, Kumara.	Kitto, Edward T., Miller's Flat.	Ray, J. C., Totara Flat.
Brand, Peter, Waikaka.	Kitto, Francis, Lowburn.	Reeder, Philip, Bald Hill Flat.
Brennan, Phillip, Palmerston South.	Kitto, J., Lowburn Ferry.	Rennie, Andrew, Roxburgh.
Bremner, A. P., Lower Shotover.	*Ledingham, J., Bannockburn.	Ross, Alexander, Cromwell.
Brice, William H., Cromwell.	Lee, George, Collingwood.	Ross, Robert, Alexandra.
Bringans, D., Alexandra.	Lidicoot, R. H., Fern Flat.	Richmond, J., Gibbston.
Brown, T. G., Ahaura.	Luke, S. J., Alexandra.	Ritchie, J. S., Waitiri.
Bunting, James, Murchison.	Magnus, A., Roxburgh.	Sanders, H. P., Clyde.
Butler, Ewen, Roxburgh.	Magnus, Olaf, Christchurch.	*Sanders, John, Cromwell.
Butler, M. J., Kanieri.	Maier, John, Stillwater.	Schaumann, H., Alexandra.
Cameron, Samuel, Alexandra.	Maitland, A. E., Miller's Flat.	Scott, M. G., Alexandra.
Clarke, Edward, Port Chalmers.	McClure, F. C., Rongahere.	Scott, Robert, Capleston.
Compton, Albert, Dobson.	McCormack, D., Kanieri.	Shore, William, Gore.
Cormack, W., Greymouth.	McDonald, E. A., Waitiri.	Simonsen, Charles, Alexandra.
Cornish, J. T., Miller's Flat.	McDonald, J., Sofala.	Sligo, N. K., Ahaura.
Coutts, Henry, Miller's Flat.	McDonald, John, Cromwell.	Steel, Archibald, Kawarau Gorge.
Cowan, Alexander, Stillwater.	McGeorge, Alexander, Dunedin.	Steel, Thomas, Dunedin.
Crookston, W. L., Three-channel Flat.	McGregor, D., Kanieri.	Templeton, Ivie, Rongahere.
Cumming, J. C., Beaumont.	McGregor, G. R., Alexandra.	Thompson, T., Miller's Flat.
Cutton, W. H., Dunedin.	McIntosh, D. J., Lowburn Ferry.	*Troy, G. C., Cromwell.
Deniston, R. A., Cromwell.	*McLean, D., Waitiri.	Turnbull, W. D., Canvastown.
Donaldson, J. G. A., Greenstone.	McMath, D. C., Ross.	Tyson, John, Rongahere.
Faithful, William, Greymouth.	*McMath, Thomas, Alexandra.	Von Haast, J. H., Clyde.
Foohy, J. M., Alexandra.	Mills, Edward, Murchison.	Wallace, John A., Miller's Flat.
Gibb, William, Croydon Siding.	Mitchell, D. A., Dunedin.	Weaver, Charles, Alexandra.
Gibson, A., Island Block.	Morel, C. G., Inangahua Junction.	Williamson, R., Miller's Flat.
Graham, J. M., Gore.	Morris, G. C., Cromwell.	Williamson, Walter, Miller's Flat.
Grogan, William A., Miller's Flat.	Murray, D., Clyde.	Wood, R. M., Cromwell.
*Hedley, A., Cromwell.	Murray, Madget, Cromwell.	Woodhouse, W. S., Roxburgh.
	Neilson, S., Miller's Flat.	Young, Andrew, jun., Roxburgh.
	O'Leary, D., Waiau.	

Issued after Examination under the Mining Acts, 1898, 1901, 1902, 1905, and 1908.

Anderson, Andrew, Alexandra South.	Harliwich, Matthew, Roxburgh.	Nelson, George L., Brunnerton.
Anderson, G. B., Roxburgh.	Hepburn, D. O., Alexandra.	Newick, Albion Edgar Charles, Bannockburn.
Archer, D. J., Ngakawau.	Hewitson, Sydney, Nelson Creek.	Nicholson, Charles S. G., Mataura.
Baird, William G., Clyde.	Holden, Charles, jun., Cromwell.	Noble, William, Alexandra.
Bate, H. T. G., Greymouth.	Holden, John, Cromwell.	Omond, Thomas, Nevis.
Beaufort, William Vincent, Roxburgh.	Hughes, John L., Miller's Flat.	Orkney, H. E., Cromwell.
Bishop, Hugh Arthur, Collingwood.	Johnston, John, Maori Gully.	Orr, H. T., Cromwell.
Blair, G., Abbotsford.	Johnston, Louis, Beaumont.	Orr, William W., Cromwell.
Borthwick, Robert, Alexandra.	Jones, David Rowland, Island Block.	Parker, P. R., Roxburgh.
*Bourke, John, Clyde.	Jones, T. R., Miller's Flat.	Paterson, J. B., Miller's Flat.
*Brent, C. D., Cromwell.	Junker, Frank J., Berlin's.	Patterson, J., Clyde.
Briggans, Thomas, Alexandra.	Kean, F. F., Waikaka.	*Plumb, E. H., Maori Point.
Briggans, William, Alexandra.	Kellett, C. H., Dunedin.	Rait, Hume, Albert Town.
*Bruce, J. A., Kawarau Gorge.	Kennedy, A., Ophir.	Ray, J. P., Bannockburn.
Burley, J. P., Westport.	Kitto, Henry, Alexandra South.	Ray, Robert Marshall, Bannockburn.
Burnside, Walter, Alexandra.	Kitto, John, Clyde.	Reiderer, Edward, Cromwell.
Burton, A. P., Miller's Flat.	Linney, William, Island Block.	Roberts, G., Three-channel Flat.
Callaghan, E., Three-channel Flat.	Livingstone, D., Alexandra.	Robertson, D. J., Alexandra.
Campbell, G. W. T., Alexandra.	Lloyd, Arthur, Inangahua Junction.	Robertson, W. R., Alexandra.
Carnegy, A., Three-channel Flat.	Lloyd, Hubert, Lyell.	Rooney, J. B., Roxburgh.
Carr, W., Alexandra.	MacDonald, C. J., Cromwell.	Rumble, Charles, Ngahere.
Carter, W. W., Sandy Point.	MacGinnis, J. A., Cromwell.	Rumble, Joseph, Miller's Flat.
Clark, D., Callaghan's Creek.	MacGinnis, M. P., Alexandra.	Sanders, W. J., Ahaura.
Clarke, E. S. B., Alexandra South.	MacLaren, John, Alexandra.	Saunders, C. E., Cromwell.
Coup, George, Albert Town.	Marklund, C. O., Lowburn Ferry.	Sawle, J., Cromwell.
Cox, R. D., Alexandra.	Mathews, James Hulbert, Miller's Flat.	Sawyer, J. F., Alexandra.
Craig, D. A., Shag Point.	Matthews, A. A., Three-channel Flat.	Sherwood, T. W., Greymouth.
Curno, C. B., Alexandra.	Mayne, W. C., Nelson Creek.	Simpson, Edward Robert, Cromwell.
Dalton, J. R., Three-channel Flat.	McCallum, W. S., Alexandra.	Sparrow, J. A., Upper Nevis.
Dalzell, T. L., Cromwell.	McDonald, C. J., Waitiri.	Steele, Thomas, Alexandra.
Donaldson, John, Lawrence.	McDonald, G., Alexandra.	Steele, W. H., Miller's Flat.
Downie, Henry, Totara Flat.	McGregor, Dougald S., Alexandra.	Taylor, Alexander, Alexandra.
Eaton, Edgar W., Alexandra.	McKenzie, John, Roxburgh.	Taylor, J. T., Dunedin.
Elder, D. D., Roxburgh.	McKinnon, John, Alexandra.	Theyers, C., Alexandra.
Fache, S. C., Gore.	Melvin, J. R., Roxburgh.	Theyers, J. W., Alexandra.
Farmer, Nathan C., Miller's Flat.	Merchant, Isaiah, Clyde.	Turner, T. F., Moonlight.
Farquharson, George, Alexandra.	Milne, John A., Roxburgh.	Vickerman, E. M., Cromwell.
Filippi, S. de, Westport.	Moffit, R. W., Miller's Flat.	Walker, J. J., Alexandra South.
Findley, David, Dunedin.	Mollison, William, Stillwater.	Wasserbrenner, M., Alexandra.
Fisher, Hurtle, Miller's Flat.	Moncrieff, Henry, Miller's Flat.	Wathen, James, Miller's Flat.
Foley, S., Lowburn Ferry.	Monson, C. H., Miller's Flat.	Watson, E. H., Collingwood.
Forno, D., Inangahua Junction.	Morel, A. E., Noble's.	Weir, R., Gore.
Fraser, W. J., Roxburgh.	Morel, L. H., Inangahua Junction.	*Weir, T. R., Cromwell.
French, T. E. K., Three-channel Flat.	*Morgan, Harold, Roxburgh.	Weir, W., Nevis.
Gibson, William H., Cromwell.	Morgan, John, Alexandra.	Wescombe, Alfred L., Island Block.
Graham, Thomas Arthur, Gore.	Morris, V., Cromwell.	Westcott, P. A., Miller's Flat.
Gunn, W. E., Beaumont.	Mouat, W. G., Greymouth.	Williams, Frederick, Alexandra.
Guy, Donald, Cobden.	Munro, C. T., Waitiri.	Wilson, George, Marsden.
*Guyton, James, Dunedin.	Munro, Hugh, Alexandra South.	Wilson, Stephen L., Inangahua Junction.
Hanning, C. J., Clyde.	Munro, R. F., Ross.	Woodhouse, F., Bannockburn.
Hanson, H. C., Three-channel Flat.	Murray, H. B., Cromwell.	Wylde, G. R., Inangahua Junction.
Harden, J., Stafford.	Murray, Robert John, Canvastown.	
	Nelson, Edgar, Brunnerton.	

DREDGEMASTERS' CERTIFICATES UNDER THE MINING ACT.

Endorsed as Class A Certificates under Section 11 (6) of the Mining Amendment Act, 1927.

French, Thomas Edward Kerswell, Murchison. Mouat, William Gilbert, Howard, via Nelson. Turner, Thomas Francis, Atarau.

Mitchell, David Alexander, Okarito.

MINING AMENDMENT ACT, 1927.

Dredgemasters' Class A Certificates (issued after Examination).

Anderson, Edward Thomas, Dunedin.	Hawley, J. W. T., Murchison.	Orr, William James, Murchison.
Chapman, Samuel, Christchurch.	Holden, A., Murchison.	Speed, R. O., Murchison.
Foley, Edward, Westbrook, Kumara.	Lyon, S. G., Murchison.	Tohill, J., Christchurch.
Gilooly, T. B., jun., Murchison.	McFelin, F., Queenstown.	Werner, H. J., Alexandra.
Hamer, Frederick Robert, Cardrona.	Matheson, A. N., Cromwell.	Williamson, Andrew, Cromwell.

Dredgemasters' Class B Certificates (issued after Examination).

Anderson, J. A., Invercargill.	Fischer, A., Ngahere.	McAlpine, W. H., Mawheraiti.
Archer, A. D., Hokitika.	Gilooly, T. B., jun., Murchison.	McKay, W. G., Greymouth.
Archer, R. J., Ikamatua.	Gollop, C. E., Kokiri.	McPherson, B. B., Reefton.
Browne, E., Hokitika.	Griffin, J. P., Hokitika.	McRae, D., Ngahere.
Buckland, H. J., Cronadun.	Hepburn, W. B., Okarito.	Poole, R. S., Greymouth.
Caithness, A. J., Kokiri.	Hurst, T. E., Barrytown.	Samson, A. J., Hokitika.
Caithness, D., Upper Nevis.	Jellie, D. C., Stafford.	Smith, P. D., Christchurch.
Cook, A. Y., Waimumu.	Keith, A., Ngahere.	Sutherland, D., Gillespie's Beach.
Cummings, W., Fleming.	Lynch, J. A., Dunedin.	Tibbles, G. J., Ikamatua.
Curnow, N., Nelson Creek.	Mitchell, S. D., Barrytown.	Turner, E. T., Atarau.
Fanning, F. E., Kororo.	Marslin, W., Dunedin.	Williamson, J., Dunedin.

Dredgemasters' Class B Service Certificates.

Jones, F., Nevis.	O'Brien, W., Naseby.	*Speed, R. O., Wellington.
Lewis, P. B., Hokitika.	Pettigrew, D. M., Hokitika.	

Issued on Production of Certificate from a Recognized Authority outside the Dominion.

*Bridson, T., Haldane.	Pearson, G. A., Parawa.	Walker, A., Caversham, Dunedin.
Lyon, S. G., Murchison.	Smail, R. J., Freshford.	

OIL-WELL MANAGERS' SERVICE PERMITS.

Issued under the Regulations under the Mining Acts, 1908 and 1926.

Belcher, W. T., New Plymouth.	Huse, William C. E., New Plymouth.	Taylor, Charles Norman, Island Bay, Wellington.
Bender, Elmore William, New Plymouth.	*Lauder, R. H., New Plymouth.	*Thompson, J. R., Morece.
Bisset, G., Glen Massey.	McKay, J., Motukawa.	*Thompson, Perry Delorm, Tokomaru Bay, Gisborne.
Brown, N. I. W., Kauana.	O'Dowda, B. C., New Plymouth.	
Christensen, N., New Plymouth.	Pedersen, Krystfeldt Emar, Murchison.	*Tynan, D. J., New Plymouth.
*Davis, James Amos, Kotuku.	Rawlinson, J. W., New Plymouth.	*Venneman, John Fred, New Plymouth.
*Hart, S. P., Gisborne.	Rutherford, A. E., New Plymouth.	*Wittekin, Ralph Oscar, New Plymouth.
Henchman, J. E. W., New Plymouth.	*Shipley, Edward Lester, New Plymouth.	

* Out of New Zealand.

LIST OF PERSONS WHO HOLD CERTIFICATES UNDER THE COAL-MINES ACTS.

FIRST-CLASS MINE-MANAGERS' CERTIFICATES.

Issued under the Coal-mines Acts, 1886 and 1891.

Aitken, T., Wendon.	Ord, J., Huntly.	Sneddon, J., Mosgiel.
Love, A., Whangarei.	Reed, F., Westport.	Taylor, E. B., Huntly.
May, J., Greymouth.	Smith, A. E., Nelson.	Thompson, A., White Cliffs.
Moore, W. J., Springfield.	Smith, T. F., Nelson.	

Issued under the Coal-mines Acts, 1886, 1891, 1905, 1908, and 1925, after Examination.

Armitage, F. W., Auckland.	Gilbert, George, Millerton.	Mosley, J. T., Kaitangata.
Armstrong, J., Brunner-ton.	Glendenning, J. W., Dobson.	Neilson, James, Blackball.
Armstrong, Valentine, Runanga.	Green, E. R., Abbotsford.	Newton, James, Brunner-ton.
Barclay, T., Kaitangata.	Haderoff, John, Puponga.	O'Donnell, Alphonsus, Roa.
Barclay, W., Kaitangata.	Hall, R., Petone.	Openshaw, A., Burnett's Face.
Baxendale, James, Reefton.	Hamilton, J. S., Burnett's Face.	Parsonage, W., Runanga.
Bishop, T. O., Reefton.	Hewitson, W. E. G., Burnett's Face.	Pendleton, Samuel, Blackball.
Brown, J. C., Denniston.	Heycock, C. R., Nightcaps.	Peuman, A., Huntly.
Buist, Charles David, Roa.	Heyes, Thomas, Kaitangata.	*Penseler, W. H. A., Huntly.
Burt, A., Waihi.	Hill, Robert, Abbotsford.	Reid, William Taylor, New Lynn.
Campbell, Peter, Fairfield.	Hosking, G. F., Auckland.	Auckland.
Carson, Frederick, Kaitangata.	Hughes, Job, Puponga.	Schoen, R. H., Ohai.
Carson, W., Kaitangata.	Jebson, D., Canterbury.	Scoble, E. J., Waihi.
Colligan, A., Nightcaps.	Jones, T., Kimihia.	Smith, Albert, Denniston.
Crockett, S., Millerton.	King, T., Granity.	Smith, George, Denniston.
Crowe, W., Ngakawau.	Langford, J. N., Ohai.	Smith, George, Fairfield.
Dale, R. T. H., Runanga.	Leitch, W., Blackball.	Smith, Joseph, Denniston.
Davies, W. C., Huntly.	Lewis, James Edwin, Ohai.	Strongman, C., Ngakawau.
Davis, O. J., Runanga.	Lowes, George Wall, Reefton.	*Talbot, H., Brunner-ton.
*Dixon, C. W., Granity.	Makinson, Job, Huntly.	Tattley, E. W., Huntly.
Dixon, W., Kaitangata.	McCaffrey, Patrick, Fern-town.	Taylor, A. H., Waikato.
Dromgool, A. A. W., Pukemiro.	McGeachie, J., Mokau.	Thomson, Thomas, Denniston.
Duggan, George, Burnett's Face.	McLean, M., Ngakawau.	Turner, G. F., Shag Point.
Dunn, Andrew, Denniston.	McLelland, James, Kaitangata.	Watson, J. E., Huntly.
Fleming, J., Kaitangata.	McMillan, Thomas, Black's Point, Reefton.	Wearn, R. J., Collingwood.
Fox, R. A., Denniston.	Milligan, N., Westport.	Westfield, C. H., Fairfield.
Forsyth, Matthew, Denniston.	Molony, C. V. P., Pukemiro Junction.	Whitfleur, A. W., Shag Point.
Fry, Sydney, Waimangaroa.		Young, T., Dunedin.
Gibson, John, Westport.		
Gillanders, A., Shag Point.		

Issued under the Coal-mines Act, 1886, on Production of English Certificate.

Black, T. H., Waipori.	Hodgson, J. W., Ross.	Reed, F., Wellington.
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Issued under the Coal-mines Acts of 1891, 1905, 1908, and 1925, on Production of Certificate from a Recognized Authority outside the Dominion.

Andrews, T. L., Rotowaro.	Goold, A. L., Auckland.	Morris, A., Huntly.
Armstrong, John Eagleston, Stockton.	Howard, T., Runanga.	*Murray, Robert, Nightcaps.
Blackbourn, C., Greymouth.	Hunter, Peter, Ngakawau.	Quinn, John Graham, Seddonville.
Brady, H., Dunedin.	Hunter, Charles, Pukemiro.	Robins, George Edmund, New Plymouth.
*Broadhead, A. K., Ngakawau.	Irvine, James, Dunedin.	Ross, John, Dunedin.
Brown, W., Blackball.	James, Isaac Angelo, Westport.	Rosser, Thomas, Pukemiro.
Clark, W., Blackball.	Kane, D., Denniston.	Spence, John, Huntly.
Davidson, Gavin, Blackball.	Kirkwood, D., Coronamandel.	*Thompson, Cyril, Brunner-ton.
*Davies, D. J., Ngakawau.	Lamont, J., Devonport.	Watson, James, Greymouth.
Frame, Joseph, Kaitangata.	Lewis, W., Blackball.	Watson, John, Blackball.
*Gascoigne, Errington, Huntly.	Mark, W. S., Kaitangata.	Williams, Alfred David, Reefton.
Geddes, Thomas, Ohai.	McArthur, J., Granity.	Woods, William, Mokihini.
Gillick, J., Kaitangata.	McAvoy, H., Christchurch.	
	McGhie, Thomas, Stockton.	

SECOND-CLASS MINE-MANAGERS' CERTIFICATES.

Issued under the Coal-mines Act, 1891.

Elliot, Joseph, Coal Creek.	Radcliffe, William, Reefton.	Willetts, John Morris, Papakao.
Lobb, Joseph, Mokau.	Sart, James, Reefton.	Young, William, Waimangaroa.
McLaren, J. M., Thames.	Thomas, James, Springfield.	

* Left New Zealand.

SECOND-CLASS MINE-MANAGERS' CERTIFICATES---continued.

Issued under the Coal-mines Acts, 1886, 1891, 1905, 1908, and 1925, after Examination.

Adamson, J., Greymouth.	Fleming, R., Huntly.	Monaghan, Henry, Millerton.
Alborn, R. V., Reefton.	Forsyth, Neil, Westport.	Morganty, Louis, Ngakawau.
Allan, J., Brunner.	Fowler, Murray, Rapahoe.	Mosley, J. T., Stirling.
Archer, Frederick William, Stockton.	Fox, R. A., Blackball.	Neilson, J., Runanga.
Austin, W. B., Sheffield.	Fox, Sidney Arthur, Stockton.	Neilson, Moffat, Abbotsford.
Ball, A., Kimihia	Gaskell, G., Westport.	Newburn, S., Kaitangata.
Banks, J. L., Reefton.	Godden, R. L., Pukemiro.	Nicholson, David, Huntly West.
Barclay, Fred, Fairfield.	Grierson, Joseph, Renown, Huntly.	Nimmo, A., Ngapara.
Barclay, T., Kaitangata.	Griffin, James C., Kaitangata.	Openshaw, Arnold, Westport.
Barclay, William, Kaitangata.	Harris, A., Saddle Hill.	Orr, Hugh, Fairfield.
*Barlow, E. J., Hikurangi.	Hector, W., Runanga.	O'Rourke, William, Granity.
Barnes, A. E., Shag Point.	Hewison, S., Dunollie.	Outhwaite, P. M., Greymouth.
Blair, R., Glen Massey.	Hewitson, W. E. G., Burnett's Face.	Parcell, W., jun., Bannockburn.
Brazier, C. J., jun., Ohai.	Heycock, C. R., Nightcaps.	Parfitt, William, Millerton.
Brennan, John, Kaitangata.	Heyes, T., Kaitangata.	Patterson, J. W., Burke's Creek.
Broome, J., jun., Gore.	Hill, R., Abbotsford.	Penman, C. P., Kaitangata.
Brown, Robert, Kaitangata.	Hodson, John, Kaitangata.	Penman, J., Hikurangi.
Buchanan, William, Ohai.	Hodson, John, jun., Bannockburn.	Price, F. J., Burnett's Face.
Burleigh, James Barr, Taratu.	Hughes, Job., Roa.	Quinn, H., Blackball.
Cadman, J., Hikurangi.	Hunter, A., Southland.	Roberts, John Russell, Stockton.
Cain, Alexander, Kaitangata.	James, Isaac, Kaitangata.	Robertson, J., Nightcaps.
Campbell, Peter, Fairfield.	Johnson, E., Pukemiro.	Scoble, E. J., Blackball.
Charles, E., Glentunnel.	Johnston, W., Pukemiro.	Smith, Frederick, Rotowaro.
Chippendale, John Samuel, Stockton.	Jones, Ernest George, Millerton.	Smith, J. W., Puponga.
Christie, James, Saddle Hill.	Jones, H., Huntly.	Snow, T., Mercer.
Coan, Ralph Charles, Rotowaro.	Kells, F. H., Denniston.	Tansey, Michael Joseph, Hikurangi.
Colligan, Andrew, Nightcaps.	*Kelly, J., Runanga.	Taylor, Joseph, Collingwood.
Cook, Leonard Cyril, Runanga.	Lees, T. W., Glen Massey.	Thompson, Joseph, Blackball.
Coppersmith, A., Denniston.	Leonard, James William, Huntly.	Thomson, D. B., Huntly.
Craig, John, Coal Creek Flat.	Lewis, David, Puponga.	Thomson, James, Nightcaps.
Crockett, S., Millerton.	Lewis, J., Nightcaps.	Todd, T., Nightcaps.
Crump, R., Huntly.	Lindsay, J. B., Orepuki.	Turner, G. T., Reefton.
Cunningham, J., Hikurangi.	Lockington, F. E., Burnett's Face.	Turton, John, Huntly.
Curren, V., Pukemiro Junction.	Mackay, Donald, Ohai.	Tweedie, J., Huntly.
Currie, W. N., Pukemiro.	Marshall, R., Dobson.	Waldie, A. B., Mokau.
Curtis, C. D., Reefton.	Makinson, Job, Huntly.	Walls, James, Benhar.
Dale, E. G., Kaitangata.	Mason, Edward, Nightcaps.	Watson, A., Soldier's Creek.
Davies, W. C., Huntly.	Mason, James, jun., Nightcaps.	Westfield, C., Fairfield, Otago.
Dixon, W., jun., Kaitangata.	McAllister, Neil, Kaitangata.	Whittlestone, A. W., Shag Point.
Duffy, Frank, Burnett's Face.	McCormick, Thomas, Reefton.	Whittlestone, G. F., Abbotsford.
Duncan, J. E., Kaitangata.	McDonald, R., Milton.	Williams, J. M., Reefton.
Duncan, John, Lovell's Flat.	McIlwain, John, Denniston.	Williamson, G., Glen Massey.
Dymond, John, Millerton.	McLean, R., Reefton.	Wilson, R., Pukemiro.
Farnworth, W., Dunollie.	McLelland, A. C., Kaitangata.	Woods, A., Millerton.
Ferguson, A., Kaitangata.	McLelland, J., Kaitangata.	Wright, Thomas, Huntly.
Ferguson, G., Roa.	Mills, Walter, Huntly.	Wykes, Alfred, Huntly.

Issued under the Coal-mines Acts of 1891, 1905, 1908, and 1925, on Production of Certificate from a Recognized Authority outside the Dominion.

Baxendale, J., Mine Creek.	Grenall, S., Granity.	Parsonage, W., Dunollie.
Black J., Granity.	Hall, Richard, Dobson.	Penman, A., Huntly.
Boyd, J., Hikurangi.	Jones, T., Kimihia.	Provan, P., Runanga.
Brown, John W., Hikurangi.	Kerr, D., Collingwood.	Reid, William Taylor, Star Town,
Brownlie, John, Huntly.	Lennox, W., Springfield.	Huntly.
Burley, T., Hikurangi.	Little, W., Wellington.	Robertson, R., Roa.
Burt, A., Huntly.	Littlewood, G. G., Denniston.	Ross, John Hikurangi.
Christopher, Richard William, Grey-	McCall, John, Wellington.	Sneddon, J., Blackball.
mouth.	McGeachie, J., jun., Mokau.	Strachan, J., Dunedin.
Cross, G., Hikurangi.	McGuire, P., Mount Somers.	Talbot, H., Huntly.
Dickinson, W., Gore.	McGuire, William, Seddonville.	Tervit, Alexander, Frankton Junction.
Dodd, W., Granity.	McHardy, A. J., Ferntown.	Tipton, Harry, Hikurangi.
Eyeington, G., Huntly.	Molony, C. V. P., Auckland.	Watson, John, Roa.
Ford, John Robert, Nightcaps.	Morgan, H. L., Ngakawau.	Webster, Arnold, Huntly.
Glendenning, J. W., Dobson.	Myers, T., Kiripaka.	Westhead, Frederick, Papakura.
Graham, D., Huntly.	Newburn, F., Roa.	Wilson, R., Ohai.
Graham, Robert, Huntly.	Paterson, W., Christchurch.	Yates, Thomas, Huntly.
Gray, James, Runanga.		

MINE-SURVEYORS' CERTIFICATES.

Issued without Examination under the Coal-mines Act, 1925.

Andrews, T. L., Rotowaro.	Dromgool, A. A. W., Auckland.	Kennedy, Ernest William, Runanga.
Bryce, R., Dunedin.	Flyger, Stanley Arthur, Glen Afton.	McIntyre, A. C., Thornton.
Dale, Roger Thomas Hilton, Kaita-	Geddes, Thomas, Ohai, Southland.	Schoen, R. H., Ohai.
ngata.	Gibson, J. A., Rotowaro.	Shand, N. M., Denniston.
Davies, Harold, N., Mount Eden,	Green, Eric Wallace, Wellington.	Turner, William Herbert, Petone.
Auckland.		

* Left New Zealand.

MINE-SURVEYORS' CERTIFICATES—*continued*.*Issued after Examination.*

Edginton, Bernot Ewart, Dunedin.	Inglis, William Carrick, Pukemiro.	Rennie, John, Millerton.
Glendenning, James William, Glen Afton.	Langford, James Newton, Ohai.	*Samuel, John Thomas, Dunedin.
Hill, William Edward, Kaitangata.	Lennox, Gordon Murray, Renown.	Watson, John Reginald, Huntly.
	Littlejohn, Herbert Clifford, Ngaruahia.	

First-class Mine-managers' Certificates endorsed under Regulation 8 (3), under the Coal-mines Act, 1925.

Armstrong, James, Runanga.	Hewitson, W. E. G., Denniston.	O'Donnell, Alphonsus, Roa.
Armstrong, Valentine, Runanga.	Hill, Robert, Green Island.	Parsonage, William, Blackball.
Baxendale, James, Auckland.	Howard, Thomas, Runanga.	Pendleton, Samuel, Rotowaro.
Brown, John Connel, Westport.	Hughes, Job, Dobson.	Penman, Alexander, Rotowaro, Huntly.
Buist, Charles David, Roa.	Hunter, Charles, Rotowaro.	Ross, John, Ohai.
Burt, Andrew, Pukemiro.	Hunter, Peter, Glen Afton.	Smith, Albert, Millerton.
Carson, Frederick, Kaitangata.	James, Isaac Angelo, Greymouth.	Smith, George, Brunnerton.
Carson, William, Kaitangata.	King, Thomas H., Runanga.	Strongman, Charles James, Granity.
Crowe, William, Nelson.	Leitch, Walter, Dobson.	Talbot, Henry, Avoca.
Davidson, Gavin, Hikurangi.	Lowes, George Wall, Mahakipawa.	Tattley, E. W., Auckland.
Davies, Wilfred Charles, Huntly.	McGhie, Thomas, Ngakawau.	Taylor, Alfred Henry, Hikurangi.
Davis, Oliver James, Reefton.	McMillan, Thomas, Ohai.	*Thompson, Cyril, Brunnerton.
Duggan, George, Dunedin.	Makinson, Job, Hikurangi.	Thomson, Thomas, Ngaruawahia.
Forsyth, Matthew, Seddonville.	Molony, C. V. P., Pukemiro Junction.	Watson, John, Rotowaro.
Fry, Sidney, Brunnerton.	Morris, Arthur, Ohai.	Whittlestone, Arthur William, Denniston.
Gilbert, George, Millerton.	Mosley, John Thomas, Ohai.	
Gillanders, Alex. S., Shag Point.	*Murray, Robert, Ohai.	Wood, William, Reefton.
Hadercroft, John, Lovell's Flat.	Neilson, James, Blackball.	

UNDERVIEWERS' CERTIFICATES.

Certificates of Service issued under the Coal-mines Amendment Act, 1909.

Allan, James, Puponga.	Green, Richard, Abbotsford.	Nimmo, William, Ngapara.
Barry, A. H., Huntly.	Hunter, Peter, Ngakawau.	Penman, John, Denniston.
Bond, John, Waikaia.	Johnston, William Crowan, Gore.	Proctor, William, Kaitangata.
Boustrage, T. Hubert, Brunnerton.	Johnstone, Thomas, Denniston.	Robertson, William, Mosgiel.
Broome, James, Gore.	Levick, Harry, Whitecliffs.	Todd, Thomas, Nightcaps.
*Clough, Henry, Millerton.	Marsh, Charles George, Glentunnel.	Walker, John, Blackball.
Davidson, William, Mine Creek.	McAlister, Robert, Kaitangata.	Williams, William, Kaitangata.
Donaldson, James, Kaitangata.	McNeill, William, Fairfield.	Wilson, Daniel, Kaitangata.
Flynn, John, Bannockburn.		

Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination.

Ainscough, William Huntly.	Coppersmith, Edward, Denniston.	Harrie, Leslie, Reefton.
Aims, Abraham, Dunollie.	Corden, E., Burnett's Face.	Hector, William, Runanga.
Alborn, R. V., Reefton.	Cowan, Thomas, Huntly.	Heward, Nathan, Runanga.
Allison, John, Pukemiro.	Cowan, William, Millerton.	Hewison, Sydney, Dunollie.
Anderson, James, Denniston.	Crawford, William, Glen Massey.	Hewitson, W. E. G., Burnett's Face.
Archer, F. W., Caplestone.	Crump, Robert, Huntly.	Hodge, William, Pukemiro.
Armstrong, V., Runanga.	Curran, Valentine, Pukemiro.	Honey, A. J., Burnett's Face.
Asbury, Harold, Huntly.	Curran, John William, Huntly.	Honey, J. R., Huntly.
Baird, John, Cobden.	Dayne, Robert Desmond, Runanga.	Hughes, T. G., Huntly.
Balderstone, William, Blackball.	Doel, Alfred James, Hikurangi.	Hunter, Peter, Stockton.
Banks, James Lewis, Reefton.	Dowgray, John, Granity.	Hutchinson, Ivanson, Huntly.
Barclay, J. G., jun., Fairfield.	Duffy, F., Burnett's Face.	Inglis, William Carrick, Pukemiro.
Barker, Richard, Dunollie.	Duggan, John, Runanga.	Jack, W., Millerton.
Barlow, Eli John, Hikurangi.	Dunn, Samuel, Pukemiro.	Jamieson, A. C., Blackball.
Bell, Thomas, Huntly.	Dyett, William, jun., Kaitangata.	Jenkinson, Alfred, Runanga.
Berry, A. H., Huntly.	Dymond, John, Mine Creek.	Johnson, Edward, Pukemiro.
Bird, Christopher, Rotowaro.	Eckersley, William Hampson, Roa.	Johnston, C. M., Seddonville.
Bird, Robert William, Ohai.	Etheredge, J. E., Reefton.	Johnston, William, Pukemiro.
Black, David Livingstone, Pukemiro.	Ewen, R. J., Runanga.	Joines, Frank Edward, Pukemiro.
Blair, Robert, Glen Massey.	Farnworth, William, Dunollie.	Jones, Ernest George, Millerton.
Boddy, A. J., Rowanui.	Fenton, John William, Kaitangata.	Jones, Harold Wright, Mangatoti.
Bond, Edwin, Huntly.	Fleming, Gavin, Pukemiro.	Jones, Harry, Kimihia.
Brady, George, Blackball.	Fleming, Robert, Glen Afton.	*Kelly, John, Runanga.
Brennan, John, Kaitangata.	Foot, Sydney George, Hikurangi.	Kelly, Henry Michael, Granity.
Brown, William, Glen Afton.	Forsyth, Matthew, Denniston.	Kennedy, Ernest William, Runanga.
Brownlie, William Aitken, Denniston.	Fowler, Murray, Blackball.	Kerr, David, Palmerston South.
Buist, Charles David, Roa.	Fox, Sidney Arthur, Denniston.	Kerry, Edward, Huntly.
Burchfield, Walter, Granity.	Gardner, Matthew, Pukemiro Junction.	King, T. H., Granity.
Burleigh, James Barr, Orepuki.	Gaskill, Gilbert, Westport.	Lees, Thomas William, Glen Massey.
Burnie, William, Glen Massey.	Gilbert, George, Millerton.	Lennox, Andrew Lightbody, Renown.
Bullough, Ernest, Rotowaro.	Goldthorpe, George, Pipiroa.	Leonard, James William, Huntly.
Byers, William, Glen Massey.	Green, John Allen, Huntly.	Lockington, F. E., Denniston.
Cain, A., Kaitangata.	Grierson, Joseph, Waikokowai.	Longmuir, Richard John, Glen Massey.
Cannings, George McFarlane, Millerton.	Griffin, J., Kaitangata.	Longstaff, Robert, Ngaruawahia.
Carson, F., Kaitangata.	Griffiths, Norman George, Runanga.	Mackay, Donald, Ohai.
Chippendale, John, Westport.	Hadercroft, John, Dunollie.	Maguigan, Thomas, Roa.
Clark, W. S., State Collieries.	Haderoft, Harold, Runanga.	Makinson, J. Huntly.
Coan, Ralph Charles, Huntly.	Hall, Alfred, Kaitangata.	Mann, John Henry, Dunollie.
Cohen, Ernest, Caplestone.	Hall, David, Huntly.	Marshall, Robert, Dobson.
Cook, Leonard, Runanga.	Hall, Thomas, Huntly.	Marshall, William James, Dunollie.
	Hall, Thomas, Kaitangata.	

UNDERTAKERS' CERTIFICATES—continued.

Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination—continued.

Martin, C. R., Ngakawau.	Openshaw, Arnold, Blackball.	Snedden, William Hector, Kaitangata.
McAuley, Robert Thomas, Kaitangata.	Orr, Charles Maru, Ohai.	Stirling, Hugh Macfarlane, Huntly.
McCaig, William, Glen Afton.	O'Brien, D. Q., Mangatina.	Stirling, James, Huntly.
McCormick, Thomas, Blackball.	O'Callaghan, W. J., Huntly.	Strang, James, Blackball.
McDonald, Thomas, Ngakawau.	O'Donnell, Alphonsus, Roa.	Strongman, C. J. Cobden.
McDonald, Robert, Milton.	O'Loughlin, Leo Francis, Runanga.	Sweeney, J. L., State Collieries.
McEwen, Harold Wallace, Stockton.	O'Rourke, William, Granity.	Tennant, Alexander, Blackball.
McIlwain, John, Denniston.	Padfield, Charles, Rotowaro.	Tansey, Michael Joseph, Tartown, Hikurangi.
McIvor, D., Runanga.	Parfitt, William, Millerton.	Taylor, John Ralph, Roa.
McKernan, John, Millerton.	Patterson, Ernest, Reefton.	Thomson, David B., Huntly.
McLean, Archibald Kennedy, Kaitangata.	Patterson, James William, Reefton.	Thomson, James, Huntly.
McLean, Malcolm, Granity.	Peart, Frederick Smith, Millerton.	Tucker, J., Kaitangata.
McLean, Roderick, Reefton.	Peattie, P. T., Renown.	Tunstall, Adam Gray, Hikurangi.
McLelland James Thompson, Ohai.	Pendleton, Samuel, Blackball.	Tunstall, William, Hikurangi.
McLeod, J. G., Millerton.	Penman, John, Hikurangi.	Turnbull, E. V., Thames.
McLiskey, Edward Kemp, Pukemiro.	Peterson, Nicholas, Blackball.	Turner, Alfred, Kiripaka.
McLuekie, John, Huntly.	Philp, Thomas, Denniston.	Turton, J., Huntly.
McMillan, Albert Edward, Ohai.	Pollock, John Marshallvale, Denniston.	Tyson, Isaac, Runanga.
McMillan, John, Huntly.	Ramsden, John, Kaitangata.	Waters, Thomas Edwin, Shag Point.
McNeish, J. A., Brunnerston.	Rennie, John, Millerton.	Watson, George, Huntly.
Mercer, James, Burnett's Face.	Richardson, Ernest, Kaitangata.	Weatherspoon, Peter, Huntly.
Monaghan, Henry, Millerton.	Richardson, William, Taylorville.	Welsh, Mervyn, E. A., Dunedin.
Morganty, L., Stockton.	Roberts, Eric Methven, Oamaru.	White, Edward, Ngauwahia.
Morris, Harry, Burnett's Face.	Rogers, James, Ngakawau.	Whitelaw, James, Kaitangata.
Morrow, John, Denniston.	Schoon, Reginald Hugo, Ohai.	Whittlestone, G. F., Abbotsford.
Moseby, Edward, Nightcaps.	Sharpe, John Russell, Taratu.	Wight, David, Millerton.
Mosley, J. T., Denniston.	Shearer, William, Glen Afton.	Wilcox, William, Pukemiro.
Mossop, Isaac, Runanga.	Shedden, Robert M., Nightcaps.	Wilkinson, Herbert, Pukemiro.
Nicholson, D., Huntly.	Simpson, James Cochrane, Runanga.	Williamson, George, Glen Massey.
Nimmo, Allan, Ngapara.	Smith, Albert, Denniston.	Williamson, W. R., Rewanui.
Nimmo, Thomas, jun., Papakaio.	Smith, Basil, Dunollie.	Wilson, Robert, Huntly.
Niven, James Quinn, Ngakawau.	Smith, Frederick, Rotowaro.	Woods, Albert, Granity.
Olsen, Clarence Victor, Millerton.	Smith, George, Hikurangi.	Wright, Thomas, Huntly.
	Smith, Joseph, Denniston.	Wykes, Alfred, Huntly.
	Smith, Joseph William, Denniston.	

Certificates of Service issued under the Coal-mines Amendment Act, 1910.

Beardsmore, E., Denniston.	Jones, W., Waikaka Valley.	Mitchell, Alexander, Runanga.
Cuthbertson, Robert, Fairfield.	Kitto, Richard, Kaitangata.	Neill, S., Kawakawa.
Evans, William, Abbotsford.	Manderson, P., Runanga.	Newburn, S., Kaitangata.
Fisher, T., Westport.	Mann, D., Granity.	Statham, Robert, Kaitangata.
Gibson, M., Abbotsford.	Mason, Edward, Kingston Crossing.	Walker, J. R., Brighton.

Issued under the Coal-mines Amendment Act, 1914, on Production of Certificate of Corresponding Class granted in any British Possession or Foreign Country.

Beal, George Frederick, Runanga.	Martin, Elias, Ngakawau.	Middleton, Robert, Runanga.
Lees, Andrew, Huntly.		

FIREMEN AND DEPUTIES' CERTIFICATES.

Certificates of Service issued under the Coal-mines Amendment Act, 1909.

Aitken, George, Glentunnel.	Gibson, Robert, Millerton.	Murdoch, Colin McColl, Stirling.
Allan, A. George, Abbotsford.	Gilmour, William, Millerton.	McCaffrey, James Seddonville.
Allan, Charles, Brunnerston.	Glover, Richard, Runanga.	McCaughern, John, Kaitangata.
Beardsmore, Edward, Denniston.	Gray, Thomas, Abbotsford.	McDonald, John T., Millerton.
Berry, Albert Henry, Huntly.	Gribben, John, Kaitangata.	McGhee, William, Kaitangata.
Blaney, James, sen., Kaitangata.	Hamilton, John, Hikurangi.	McGill, Douglas Thomas, Waikaka.
Boyd, Robert, Waronui.	Hargreaves, Charles, Millerton.	McGill, John, Huntly.
Bradley, Robert, Denniston.	Hartley, John, Denniston.	Newburn, Robert, Kaitangata.
Buchols, Joseph, Waikaka.	Hay, James, Denniston.	Newburn, Samuel, Kaitangata.
Burgess, William Charles E., Gore.	Heron, Ralph, Kimihia.	Nicholas, William, Kaitangata.
Callaghan, Frederick, Kiripaka.	Higgins, Thomas James, Denniston.	Oliver, William, Kaitangata.
Campbell, Samuel, Millerton.	Hislop, William, Denniston.	Parcell, Henry Clyde, Bannockburn.
Clausen, Emil P., Wellington.	Howe, George Charles, Shag Point.	Park, Francis, Stirling.
Connolly, Michael, Denniston.	Jarvie, William Marshall, Kaitangata.	Sanderson, John, Kurow.
Connew, John, Puponga.	Jaspers, George F., Denniston.	Scott, John, Runanga.
Coppersmith, John, Denniston.	Jenkins, James, Ngakawau.	Smith, William Seddonville.
Cowan, Robert Black, Gibston.	Johnston, C. Mountier, Seddonville.	Snedden, James, Blackball.
Cuthbertson, Robert, Fairfield.	Kaye, Charles, Runanga.	Statham, Robert, Kaitangata.
Davis, Evan, Denniston.	Kitto, Richard, Kaitangata.	Taylor, James, Springfield.
Dellaway, Archibald, Denniston.	Lutton, William, Millerton.	Thin, William, Whitecliffs.
Dillon, Lawrence M., Nightcaps.	Mann, Duncan, Millerton.	Tripp, Albert, Kaitangata.
Duncan, Frank, Huntly.	*Mears, Andrew David, Runanga.	Wallace, John, Mataura.
Duncan, Hugh, Kaitangata.	Monerieff, Thomas, Nightcaps.	Wardrope, Francis, Hikurangi.
Evans, William, Abbotsford.	Moore, Thomas, Mangatina.	Watson, Andrew, Roa.
Findlay, Charles, Denniston.	Morganty, Charles, Ngakawau.	West, George Thomas, Waronui.
Foot, Frederick Ernest, Denniston.		Young, Thomas Gardner, Waikaka.
Gibson, Matthew, Abbotsford.		

FIREMEN AND DEPUTIES' CERTIFICATES—continued.

Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination.

Abbott, Edward Arthur, Millerton.	Burnie, William, Glen Massey.	Dellaway, Thomas, Denniston.
Abercrombie, William, Huntly.	Burt, John, Millerton.	Dick, Alexander Clark, Kaitangata.
Adcock, Robert Henry, Ohai.	Burt, T., Huntly.	Dickson, John, Ngakawau.
Aims, Abraham, Dunollie.	Butler, Samuel Arthur, Runanga.	Dillon, Joseph, Blackball.
Alborn, Bernard M., Reefton.	Butler, Vincent, Roa.	Dinsdale, George, Rewanui.
Alborn, Norman Richard, Reefton.	Byers, William, Glen Massey.	Dixon, Alexander Shearer, Ohai.
Alborn, Roderick V., Reefton.	Byrne, Edward Francis, Granity.	Dixon, Andrew Cunningham, Wairio.
Allan, James, Brunnerton.	Cairns, Adam, Kaitangata.	Dixon, George Robert, Taylorville.
Allen, Richard Thomas, Reefton.	Cairns, Donald, Hikurangi.	Brunnerton.
Allison, David, Huntly.	Cairns, James, Glen Afton.	Dixon, Matthew, Nightcaps.
Allison, John, Pukemiro.	Calder, Thomas, Ngakawau.	Docherty, Edward, Rewanui.
Anderson, David Alexander, Kaitangata.	Caldwell, Thomas, Blackball.	Docherty, John Edward, Nightcaps.
Anderson, David Alexander, jun., Kaitangata.	Callaghan, M., Blackball.	Docherty, Samuel Valentine, Glen Massey.
Anderson, James, Denniston.	Cameron, Daniel, Greymouth.	Dodds, John, Dunedin.
Anderson, Robert, Abbotsford.	Campbell, Archibald, Cobden.	Doel, Alfred James, Hikurangi.
Anderson, Robert, Ohai.	Campbell, J. C., Glentunnel.	Donaldson, John Brown, Ohai.
Armstrong, V., Runanga.	Campbell, John, Allanhoboe Colliery, Waimate.	Dove, John Thomas, Soddonville.
Astbury, Harold, Huntly.	Carruthers, Alexander Denton, Waro-nui, Milton.	Dover, William Niven, Ohai.
Atkin, William, Waikokowai.	Carson, Frederick.	Dowgray, John, Millerton.
Baird, John, Green Island.	Chadwick, A., Millerton.	Duffy, Owen, Burnett's Face.
Baird, John, Greymouth.	Chadwick, George, Blackball.	Duggan, John, Upper Rewanui.
Baker, Thomas, Huntly.	Chapman, A. E., Kaitangata.	Duggan, William, Runanga.
Balderstone, William, Blackball.	Charles, Ernest, Coalgate.	Dumelow, Frank, Greymouth.
Ball, A., Kihuhia.	Charteris, James Thomas, Kaitangata.	Dunlop, James, Green Island.
Banks, James Lewis, Reefton.	Chetwynd, William, Taylorville, Brun-nerton.	Dunn, Samuel, Pukemiro.
Barber, Robert, Shag Point.	Chippendale, J., Millerton.	Durkin, Thomas, Millerton.
Barclay, F., Kaitangata.	Clare, William, Pukemiro.	Dyett, William, Balclutha.
Barclay, James, Kaitangata.	Clark, Alfred James, Blackball.	Dymond, J., Millerton.
Barclay, James Greig, Fairfield.	Clark, W. S., Dunollie.	Eaton, Robert, Kaitangata.
Barclay, Ralph Carse, Fairfield.	Clarke, John, Millerton.	Eckersley, W., Paparoa.
Barclay, Ralph Ewen, Fairfield.	Clarke, S., Roa.	Edge, Albert Henry, Waikaka.
Barclay, William, Kaitangata.	Cleveland, F. L., Kaitangata.	Edmond, Adam, Green Island.
Barclay, William John, Kaitangata.	Coates, Wilfred, Taylorville.	Edwards, Alfred, Dobson.
Barker, Richard, Runanga.	Cochrane, David Hamilton, Hiku-rangi.	Edwards, Arthur, Waro.
Barnfield, Henry, Wairio.	Cockfield, John, Denniston.	Edwards, F. J., Ohai.
Baxendale, Sidney, Renown.	Coghlan, John Joseph, Cronadun.	Ehlers, F., Burnett's Face.
Beardsmore, Abel, jun., Papakaio.	Cohen, Ernest, Capleston.	English, George, Runanga.
Beattie, George V., Nightcaps.	Cole, Walter G., Glen Afton.	Erschine, G., Dobson.
Beckley, Ronald Richard, Mt. Somers.	Colquhoun, John C., Rotowaro.	Etheredge, J. E., Roa.
Bell, Harry, Stillwater.	Colledge, A., Huntly.	Ewart, John, Millerton.
Bell, John, Dobson.	Colligan, Andrew, Nightcaps.	Ewen, Richard James, Runanga.
Bell, Thomas, Huntly.	Connolly, John Joseph, Runanga.	Excell, Walter, Nightcaps.
Bennett, Thomas, Burnett's Face.	Connolly, John, Runanga.	Fairhurst, R. W., Huntly.
Bennett, Thomas Low, Soddonville.	Coppersmith, Alexander, Denniston.	Fannigan, P., Ngakawau.
Berry, Willis, Dunollie.	Coppersmith, Edward, Denniston.	Farnworth, William, Dunollie.
Birchall, J., Burnett's Face.	Coppersmith, William John, Dennis-ton.	Fauth, Frederick, Blaketown.
Bird, Robert William, Ohai.	Cooper, J. J., Milton.	Fazakerley, John, Stirling.
Bird, Christopher, Huntly.	Corden, Ernest, Burnett's Face.	Featherstone, Joseph Lovell, Puke-miro Junction.
Blair, Robert, Glen Massey.	Cosgriff, Edward, Nightcaps.	Ferguson, A., Kaitangata.
Blair, Peter, Huntly.	Cowan, Alexander, Dobson.	Ferguson, Hugh, Nightcaps.
Bland, David Edger, Pukemiro.	Cowan, J., Millerton.	Ferguson, John Leishman, Ohai.
Blyth, William, Millerton.	Cowan, Thomas, Huntly.	Ferguson, William, Wairaki.
Boddy, Archibald John, Runanga.	Cowan, William, Millerton.	Finlayson, Robert, Millerton.
Bolam, George Francis, Huntly.	Craig, James, Waimate.	Fleming, James, Denniston.
Bolger, John, Mataura.	Crawford, William, Glen Massey.	Fleming, Robert Barclay, Denniston.
Bond, Edwin, Huntly.	Crook, Henry, Rotowaro.	Fleming, Robert, Glen Afton.
Bond, W. T., Huntly.	Cruikshank, P. G., Runanga.	Fleming, Gavin, Pukemiro.
Bougher, Lawrence Wilfred, Kamo.	Crump, Robert, Huntly.	Fletcher, Daniel, Huntly.
Bowman, Robert James, Taylorville.	Cumming, George, Denniston.	Foot, Ernest Alfred, Hikurangi.
Bowron, Christopher, Huntly.	Cunningham, Joseph, Hikurangi.	Foot, Sidney George, Hikurangi.
Boyd, James Langwell, Huntly.	Cunningham, Richard William, Wha-ngarei.	Ford, John, Dodson.
Brady, George Joseph, Blackball.	Curragh, A., Burnett's Face.	Forrest, John, Runanga.
Brady, William Richard, Roa.	Curran, Valentine, Pukemiro Junction.	Forsyth, Neil, Westport.
Braithwaite, Percy, Nightcaps.	Curran, John William, Huntly.	Fowler, Murray, Blackball.
Brazier, Charles James, Ohai.	Curran, James, Ngakawau.	Freeman, Samuel Lawrence, Nightcaps.
Brennen, J., Kaitangata.	Currie, Thomas H., Runanga.	Frew, W., Huntly.
Briggs, William Henry, Renown.	Currie, William Nichol, Pukemiro.	Gage, Thomas, Kaitangata.
Brittan, Christopher, Pukemiro.	Curtis, Cecil Donald, Reefton.	Gair, Robert, Glen Massey.
Broad, Ernest Wairau, Whitecliffs.	Cuthbertson, John, Glentunnel.	Gallagher, Percival J., Cronadun.
Broadbent, Thomas, Huntly.	Dalzell, Joseph, Runanga.	Gaskell, Gilbert, Denniston.
Bromilow, John, Runanga.	Dando, Walter, Brunnerton.	Gaudion, David Robertson, Waikaia.
Brown, Archibald, Oturua.	Danks, Peter, Millerton.	Gaudion, Thomas Shade, Mataura.
Brown, Clifford, Oamaru.	Davidson, James, Blackball.	Gavin, Hugh, Huntly.
Brown, J., jun., Denniston.	Davidson, Thomas, Mine Creek.	Gibb, Alfred Boyd, Taylorville.
Brown, John Robert, Runanga.	Davies, F., Puponga.	Gilligan, H., Runanga.
Brown, William, Glen Afton.	Davies, Henry Hubert, Huntly.	Gilmour, George, Millerton.
Brownlie, Robert Aitken, Granity.	Davies, Llewellyn, Burnett's Face.	Gilmour, Peter, Millerton.
Brownlie, William Aitken, Denniston.	Davies, Sydney, Glen Massey.	Glendenning, Thomas, Glen Afton.
Bryson, John, Millerton.	Davis, Oliver James, Runanga.	Good, Andrew F., Kaitangata.
Buchanan, William, Millerton.	Dayne, Robert Desmond, Runanga.	Gordon, George William, Huntly.
Buist, Charles David, Roa.	Delaney, J. E., Puponga.	Gould, Edward, Denniston.
Bullough, Ernest, Rotowaro.		Gourlay, James Wallace, Blackball.
Burchfield, Walter, Granity.		Gox, Henry John, Blackball.
Burnett, William, sen., Reefton.		Graham, John, Puponga.
Burnett, William, jun., Reefton.		Graham, William, Hikurangi.

FIREMEN AND DEPUTIES' CERTIFICATES—continued.

Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination—continued.

Gray, John, Hikurangi.	Hunter, Archibald Joseph, Denniston.	Marsh, Thomas, Runanga.
Green, Albert, Pukemiro.	Hunter, Robert, Ohai.	Marshall, James, Nightcaps.
Green, George Edward, Huntly.	Inglis, William Carrick, Pukemiro.	Marshall, John, Glen Afton.
Green, John Allan, Huntly.	Ireland, Richard, Glen Afton.	Marshall, Robert, Dobson.
Green, T., Kaitangata.	Isherwood, T., Runanga.	Marshall, William James, Dunollie.
Greenhorn, Alexander, Glen Afton.	Jack, John, Kaitangata.	Martin, Charles Richard, Stockton.
Grierson, Joseph, Waikokowai.	James, Isaac, Kaitangata.	Martin, T. N., Huntly.
Griffiths, George Henry, Pukemiro.	Jenkins, William, St. Helens.	Mason, Samuel Campbell, Nightcaps.
Griffiths, Horace, Brunnerton.	Jenkinson, Alfred, Runanga.	McAuley, P., Ngakawau.
Griffiths, Norman George, Runanga.	Johnson, Frederick William, Kaitangata.	McAuley, Robert Thomas, Kaitangata.
Griffiths, William, Runanga.	Johnson, J. H., Hikurangi.	McCaig, William, Glen Afton.
Griffin, James, Kaitangata.	Johnson, Edward, Pukemiro.	McCaig, William, Glen Massey.
Grimshaw, Thomas, Star Town, Huntly.	Johnson, Frederick Richard, Hikurangi.	McCaw, John, Kaitangata.
Groom, George, Huntly.	Johnson, Thomas, Huntly.	McCallum, Andrew, Huntly.
Hadcroft, Harold, Runanga.	Johnston, William, Pukemiro.	McCallum, John, Blackball.
Haig, James Scott, Kaitangata.	Johnstone, John Braidwood, Nightcaps.	McClure, Arthur, Ngahere.
Hale, Edmund, Granity.	Johnstone, Thomas U., Huntly.	McCormick, Thomas, Blackball.
Hale, J., Kaitangata.	Johnstone, William Steele, Nightcaps.	McDonald, Alexander, Runanga.
Hall, Alfred, Kaitangata.	Joines, Frank Edward, Pukemiro.	McDonald, J., Ngakawau.
Hall, Edward, Huntly.	Jones, Ernest George, Millerton.	McDonald, Thomas, Burnett's Face.
Hall, R. H., Huntly.	Jones, Harold Wright, Mangatoti, Mokau River.	McEwan, David, Millerton.
Hall, Thomas, Huntly.	Jones, Harry, Kimihia, Huntly.	McEwen, Harold Wallace, Stockton.
Hall, Thomas, Kaitangata.	Jones, William Isaac, Blackball.	McFarlane, William Laurie, Hestor.
Halliday, Thomas, Dunollie.	Jones, B., Millerton.	McGovern, R., Wairio.
Hallinan, Ed., Taylorville, Brunnerton.	Jones, J., Hikurangi.	McGuinness, E., Runanga.
Hallinan, James Joseph, Brunnerton.	Jones, J., Kimihia.	McGuinness, Samuel, Seddonville.
Hamilton, Douglas Donaldson, Hikurangi.	Jordan, Harry Leslie, Kaitangata.	McGhie, George, Huntly.
Hamilton, James, Nightcaps.	Kay, Fred, Huntly.	McGhee, David, Granity.
Hamill, David, Reefton.	Keating, Edward, Dobson.	McIlwain, John, Denniston.
Hamill, Marshall, Glen Massey.	Kelly, Henry Michael, Granity.	McIntyre, William H., Millerton.
Hanley, Francis, Huntly.	* Kelly, John, Runanga.	Melvor, David, Runanga.
Hannah, J., Glentunnel.	Kerr, David, Green Island.	McKenty, H., Denniston.
Hansen, Walter Allan, Roa.	Kerry, E., Huntly.	McKenzie, William David, Nightcaps.
Hardie, J., Millerton.	King, Michael Percival, Millerton.	McKernan, John, Millerton.
Hargood, Horace J. S., Kaitangata.	King, Thomas Henry, Granity.	McKinlay, William John, Whangarei.
Harris, Adam, Mount Somers.	Kinson, Brinley, Huntly.	McKiver, Patrick, Roa.
Harris, George S., Mount Somers.	Kinzett, Leonard Phipps, Roa.	McKinney, John, Kaitangata.
Harris, Thomas, Mount Somers.	Kitto, Henry, Abbotsford.	McLaren, William, Shag Point.
Harris, William, Mount Somers.	Kyle, James, Kaitangata.	McLaughlin, J. W., Huntly.
Harrison, William, Glen Afton.	Kyle, William, Nightcaps.	McLean, Archibald Kennedy, Kaitangata.
Hart, John, Brunnerton.	Kyle, William, Kaitangata.	McLean, Roderick, Reefton.
Harvey, D., Huntly.	Lancaster, Herbert, Puponga.	McLean, William Jack, Shag Point.
Harvey, Joseph Shaw, Riccarton, East Taieri.	* Lauder, Matt Currie, Runanga.	McLellan, William, Fairfield.
Hassan, Hugh, Brunnerton.	Lawrence, Luther, Pukemiro.	McLiskey, Edward Kemp, Pukemiro.
Hawker, Clarence, Kaitangata.	Lawrence, Luther, sen., Pukemiro.	McMaster, Cecil Stanley, Reefton.
Hawkins, Joseph, Burnett's Face.	Lawson, David, Pukemiro.	McMillan, John, Huntly.
Hawthorn, Ludovic William, Owen River.	Lawson, Robert, Pukemiro.	McMillan, John, Kaitangata.
Hay, William, Duncdin.	Learmonth, Alexander, Glen Massey.	McMillan, R., Kaitangata.
Heineger, Thomas, Greymouth.	Lee, William, Taylorville.	McNeillage, Thomas, Ohai.
Hendry, John, Millerton.	Leeming, Percy Thomas, Glenroy.	McNeish, John Alexander, Brunner.
Henwood, John Richard, Ohai.	Lees, Gavin Russell, Glen Massey.	McQueen, David, Sheffield.
Heward, Nathan, Runanga.	Lees, Robert, Glen Massey.	McVic, Robert, Kaitangata.
Hewison, John, Reefton.	Leech, Richard, Runanga.	Mee, Albert, Kaitangata.
Hewison, Sydney, Dunollie.	Lewis, I., Puponga.	Meekums, George, Glen Afton.
Hewitson, Matthew, Denniston.	Lewis, Reece Edward, Renown.	Melbom, Eric Peter, Reefton.
Heyward, Wilfred, Roa.	Leitch, Robert, Blackball.	Mercer, James, Burnett's Face.
Hicks, J. R., Kiripaka.	Leishman, Robert, Kaitangata.	Messer, William, Dobson.
Hill, A., Lovell's Flat.	Lennox, Andrew Lightbody, Renown.	Miles, B. C., Millerton.
Hill, Alfred, Runanga.	Leonard, John Patrick, Granity.	Milne, Charles, Kaitangata.
Hill, E. E., Brunnerton.	Leysdon, David, Denniston.	Mitchell, A., Seddonville.
Hill, Henry Adamson, Huntly.	Lidbury, Charles Henry, Millerton.	Mitchell, James, Glen Afton.
Hill, Joseph, Milton.	Lockington, Francis Edward, Reefton.	Mitchell, James Wilson, Glen Afton.
Hillary, William, Reefton.	Longmuir, Richard J., Glen Massey.	Mitchell, John, Seddonville.
Hillman, Charles, Huntly.	Longstaff, Robert, Roa.	Mitchell, John Baird, Glen Afton.
Hodge, William C., Pukemiro.	Long, Arthur Feltham, Hikurangi.	Mitchell, Thomas, Glen Massey.
Hogg, C., Blackball.	Mackenzie, Alexander, Ohai.	Monaghan, Henry, Millerton.
Holland, Isaac, Huntly.	Mackenzie, Alexander Boyd, Waro.	Moreland, S., Hikurangi.
Hollows, W., Fairfield.	Mackie, David Wardrop, Pukemiro.	Morganti, Louis, Millerton.
Holt, Thomas, Huntly.	Mackie, J., Kaitangata.	Morrison, Alexander, Kaitangata.
Honey, Archibald John, Denniston.	Mackinson, Job, Hikurangi.	Morris, Harry, Burnett's Face.
Honey, John Ralph, Huntly.	Maddison, W., Huntly.	Morris, Herbert Thomas, Milton.
Hopkinson, Joseph, Seddonville.	Magee, Peter Lawrence, Kaitangata.	Morrow, John, Kaitangata.
Hornby, Joseph, Ohai.	Maguigan, Thomas, Roa.	Moseby, Edward, Nightcaps.
Howie, Archibald, Nightcaps.	* Makepeace, Henry, Runanga.	Mosley, J. T., Denniston.
Hudspeth, Wilfred Lister, Brunnerton.	Manderson, Archibald, Mosgiel Junction.	Mossop, Isaac, Dunollie, Greymouth.
Hughes, T. E., Huntly.	Mann, John Henry, Dunollie.	Moye, John Patrick, Denniston.
Hughes, William, Runanga.	Mann, John, Mangatina.	Muir, Thomas, Dobson.
Hunter, Albert Newman, Kaitangata.	Mann, William, Birchfield.	Mulholland, Robert McN., Seddonville.
		Mulligan, Patrick, Waro, Hikurangi.
		Murray, Thomas, Millerton.
		Murphy, Francis William, Dunollie.
		Myers, Richard, Millerton.

FIREMEN AND DEPUTIES' CERTIFICATES—continued.

Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination continued.

Neill, William, Kaitangata.	Richmond, William, Runanga.	Stewart, Robert, Whangarei.
Nelson, James, Pukemiro.	Ridley, William, Pukemiro Junction.	Stirling, James, Huntly.
Newman, Robert Thompson, Denniston.	Riggans, William M., Huntly.	Strang, James, Blackball.
Nicholson, David, Huntly.	Robb, Henry James, Whitecliffs.	Strongman, Charles James, Cobden.
Nicholson, J., State Collieries.	Robson, Thomas, Huntly.	Summers, William, Pukemiro.
Nimmo, Allan, Ngapara.	Robson, W., State Collieries.	Sutherland, J., Millerton.
Nimmo, John Haddo, Peebles.	Roberts, Eric M., Oamaru.	Sutton, George Walker Dudley, Millerton.
Niven, James Quinn, Ngakawau.	Robertson, John, Runanga.	Sutton, John, Kaitangata.
Niven, Peter, Ngakawau.	Robertson, William, Runanga.	Sweeney, John Lewis, Runanga.
Nuttall, John, Blackball.	Rodgers, J., Huntly.	Tansey, Michael Joseph, Kaitangata.
Oakley, Frank John, Runanga.	Rodgers, J., Ngakawau.	Tate, Anthony, Seddonville.
O'Brien, Denis Quinsin, Millerton.	Rodgers, William, Granity.	Tatley, Ernest, Reefton.
O'Brien, Martin, Millerton.	Rogers, A. G., Kaitangata.	Taylor, Arnold, Christchurch.
O'Callaghan, William John, Huntly.	Rogers, Francis Edward, Kaitangata.	Taylor, Christopher, Millerton.
O'Connell, John, Runanga.	Rogers, Harry Walter, Glen Afton.	Taylor, Henry Burdon, Hikurangi.
O'Donnell, Alphonsus, Roa.	Rogers, Sidney, Kaitangata.	Taylor, John Ralph, Roa.
O'Fee, J., Kaitangata.	Roe, James, Glen Afton.	Teasdale, George William, Runanga.
O'Flaherty, Morgan, Blackball.	Rose, George, Pukemiro.	Tennant, Alexander, Blackball.
O'Loughlin, Leo F., Runanga.	Rose, Walter Albert, Rewanui.	Taylor, Henry Francis, Kaitangata.
Oldham, Joshua, Burnett's Face.	Ross, Alexander, Fairfield.	Terry, William Edwin, Ohai.
Oliver, Alfred, Rotowaro.	Ross, Robert, Ohai.	Thawley, William, Denniston.
Oliver, R., Kaitangata.	Ross, Richard, Ohai.	Thomas, Ernest, Glen Massey.
Olsen, Clarence Victor, Millerton.	Roteh, Robert William, Orepuki.	Thomas, William, Denniston.
Openshaw, Arnold, Blackball.	Rothera, James William, Taylorville.	Thompson, Alexander Ferguson, Runanga.
Orman, James, Millerton.	Rothwell, Thomas Green, Hikurangi.	Thompson, Abel George, Kaitangata.
Orr, Charles M., Ohai.	Rowse, J., Runanga.	Thompson, James, jun., Kaitangata.
Orr, John B., Hikurangi.	Ruane, Francis Joseph, Dobson.	Thompson, Thomas Kerr, Kaitangata.
Owen, Fletcher, Glen Massey.	Russell, William, Ohai.	Thomson, Andrew, Benhar.
Padfield, Charles, Huntly.	Ruston, Edwin Walter, Huntly.	Thomson, J., Huntly.
Page, John Skikethorp, Runanga.	Rutherford, John, Dobson.	Thomson, Thomas Gordon, Whangarei.
Page, William, Dunollie.	Rutherford, John Yarrow, Dunollie.	Thomson, Thomas, Mine Creek.
Parfitt, William, Millerton.	Rutherford, W. R., Kaitangata.	Thomson, Thomas, Nightcaps.
Parker, Andrew, Greymouth.	Saunders, William Henry, Hikurangi.	Thorp, J., Kaitangata.
Parr, Joseph, Burnett's Face.	Savage, Thomas, Nightcaps.	Timlin, George William, Runanga.
Parrott, W., Waiuta.	Scott, James, Blackball.	Timms, H., Huntly.
Pasfield, Kelvin Harold, Blackball.	Scott, Robert, Taylorville.	Tinker, Harry, Mount Somers.
Patterson, Edward, Blackball.	Scott, Robert, Runanga.	Tinning, J., Brunnerton.
Patterson, Ernest, Reefton.	Scurr, William, Rotowaro.	Todd, John Thomas, Glentunnel.
Patterson, James William, Reefton.	Seddon, William, Huntly.	Todd, Stephen, Granity.
Paul, James, Seddonville.	Shanks, William, Tahora.	Tomasi, John, Seddonville.
Payne, Edwin, Kaitangata.	Sharp, J. R., Kaitangata.	Tunstall, A. G., Hikurangi.
Peart, Frederick Smith, Millerton.	Sharp, William Russell, Kaitangata.	Tunstall, W., Hikurangi.
Pearson, James Thomas, Mataura.	Shaw, John, Roa.	Turnbull, Matthew Charles, Hikurangi.
Pearson, Samuel G., Burnett's Face.	Shearer, William, Stockton.	Turner, F., Kiripaka.
Pendleton, S., Blackball.	Sheehan, Patrick R., Onetea.	Turner, George, Reefton.
Penman, John, Hikurangi.	Short, Samuel, Nelson.	Turner, William James, Denniston.
Peterson, Nicholas, Blackball.	Simon, George, Greymouth.	Turton, John, Huntly.
Phair, James, Nightcaps.	Simpson, James Cochran, Runanga.	Tweedie, John, Huntly.
Phillips, James, Nightcaps.	Simpson, James Stark, Seddonville.	Tweedie, Robert, Huntly.
Philip, Thomas, Denniston.	Simpson, James, Seddonville.	Tyler, Ivor Llewellyn, Ngakawau.
Pollock, Archibald, Whangarei.	Slack, Joseph, Darlington, Stockton.	Tyson, Isaac, Runanga.
Pollock, John, Denniston.	Smillie, John H., Albury.	Unwin, James, Runanga.
Ponton, F., Millerton.	Smith, Basil, Dunollie.	Vaux, John Robert, Westport.
Potter, George, Millerton.	Smith, Donald, Huntly.	Veitch, D., Blackball.
Powell, Richard Fynes, Runanga.	Smith, Edward Walker, Hikurangi.	Vigna, Adamo, Runanga.
Prendeville, Antonio Valli, Nightcaps.	Smith, Frederick Joseph, Runanga.	Vurlow, Frederick Alexander, Denniston.
Pratt, Alexander, Millerton.	Smith, Fred, Rotowaro.	Walker, George, Twelve Mile, Greymouth.
Pratt, Alfred, Ngaruawahia.	Smith, George, Hikurangi.	Walker, Joseph, Mangatina.
Prescott, Joseph, Kaitangata.	Smith, Harold, Millerton.	Walker, W. J., Granity.
Prosser, Arthur, Millerton.	Smith, J. A., Seddonville.	Walls, James, Benhar.
Prosser, Frederick Oliver, Millerton.	Smith, Joseph, Denniston.	Wall, Thomas, Mangatina.
Purdie, Thomas Henry, Rotowaro.	Smith, Joseph William, Denniston.	Wallwork, William Alfred, Greymouth.
Purvis, Thomas, Kaitangata.	Smith, Norman, Fairfield.	Warne, John, Denniston.
Queen, John Joseph, Burnett's Face.	Smith, Peter, Gore.	Waters, Thomas Edwin, Shag Point.
Quinlan, Thomas, Huntly.	Smith, Robert, Taylorville.	Watson, William T., Burnett's Face.
Quinn, Harry, Blackball.	Smith, Thomas W., Millerton.	Waugh, Alexander, Shag Point.
Quinn, Thomas, Seddonville.	Smith, W. A., Denniston.	Waugh, Robert, Huntly.
Rafferty, William, Runanga.	Smith, Wilfred, Millerton.	Wear, Daniel, Huntly.
Ralph, J., Huntly.	Smith, William George, Glentunnel.	Webster, Oliver, Huntly.
Ramsay, J. McK., Kaitangata.	*Smitheram, Thomas Francis, Runanga.	Welsh, M. E. A., Shag Point.
Rarity, Alexander C., Hikurangi.	Smithson, Albert C. L., Dunollie.	White, Edward, Granity.
Rarity, John, Blackball.	Smylie, Thomas, Roa.	Whitelaw, James, Kaitangata.
Ratcliffe, John Thomas, Kaitangata.	Snedden, Thomas, Blackball.	Whittle, George Handford, Granity.
Rayner, Frank, Pukemiro.	Snedden, William Hector, Kaitangata.	Wight, David, Millerton.
Reed, W. H., Hikurangi.	Snedden, William Patterson, Kaitangata.	Wilcox, William, Pukemiro.
Rees, David John, Stockton.	Snell, J., Kaitangata.	Wilkinson, Herbert, Pukemiro.
Reid, Henry, Millerton.	Snowden, W., Kaitangata.	Williams, Benjamin John, Blackball.
Reid, Henry, Huntly.	Southward, William, Runanga.	Williams, Charles Henry, Millerton.
Reid, Samuel, Nightcaps.	Spence, John Gibson Henderson, Huntly.	Williams, James Mitchell, Reefton.
Rhodes, Israel, Glentunnel.	Spies, James, Hikurangi.	Williams, Joseph Henry, Blackball.
Richardson, Alexander, Kaitangata.	Steele, Andrew, Hikurangi.	Williamson, W. R., Rewanui.
Richardson, Ernest, Kaitangata.	Steele, John, Preston Road, Greymouth.	Wilde, William, Dobson.
Richardson, James, Kaitangata.	Steele, Reginald, Huntly.	
Richardson, W., Dunollie.		
Richardson, William, Mangatina.		

* Left New Zealand.

FIREMEN AND DEPUTIES' CERTIFICATES—*continued*.*Issued under the Coal-mines Amendment Act, 1909, and the Coal-mines Act, 1925, after Examination—continued.*

Wilson, Andrew, Blackball.	Wilson, Sidney Robert, Kaitangata.	Wright, Richard C. D., Brighton.
Wilson, John, Taylorville.	Wilson, Thomas Laird, Stockton.	Wyness, James, Glen Afton.
Wilson, James Eric, Stockton.	Wilson, Vernon, Kaitangata.	Wyse, A., Blackball.
Wilson, J. T., Kamo.	Wolstenholme, Frederick, Blackball.	Young, David, Denniston.
Wilson, Matthew, Ohai.	Wood, W., Huntly.	Young, John, Glen Massey.
Wilson, Robert, Pukemiro.	Woods, A., Millerton.	Young, Thomas, Granity.
Wilson, Robert, Ohai.	Worthington, T., Millerton.	

Certificates of Service issued under the Coal-mines Amendment Act, 1910.

Burgess, R. S., Waikaka.	Hodgetts, L., Burnett's Face.	McIvor, W., Waikaka.
Cain, Alexander, Waikaia.	Junker, F. A., Waikaia.	Nelson, J. H., Pukerau.
Cameron, D., North Chatton.	Kidd, G. C., Albury.	Ramsey, George, Waikaka.
Churchill, S. G., Alexandra South.	King, J., Granity.	Robinson, R., Ngakawan.
Clasen, Charles, Shag Point.	Lee, S., Nightcaps.	Russell, H. C., Bannockburn.
Crabbe, George, Alexandra South.	Mackie, N., Kaitangata.	Saunders, W., Denniston.
Cumming, J. S., Denniston.	McAuley, John, Kaitangata.	Stevenson, J., Shag Point.
Dixon, A., Nightcaps.	McClimont, John, Mount Somers.	Thomas, B., Denniston.
Gray, Hugh, Dunedin.	McDowell, R., Nightcaps.	Tinker, G., Nightcaps.
Halsey, W. J., Saddle Hill.	McIntosh, A. S., Shag Point.	Whittlestone, G. F., Abbotsford.

Issued under the Coal-mines Amendment Act, 1914, on Production of Certificates of Corresponding Class granted in any British Possession or Foreign Country.

Barr, T., Coalgate.	Davies, W. C., Huntly.	Quinlan, A. E., —.
Coan, R., Huntly.	Malcolm, A., Nightcaps.	Tucker, J., Kaitangata.

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