1908.

QUEENSLAND.

ANNUAL REPORT

OF THE

UNDER SECRETARY FOR MINES

TO

THE HONOURABLE J. W. BLAIR, M.L.A.,
SECRETARY FOR MINES,

INCLUDING THE

REPORTS OF THE WARDENS, INSPECTORS OF MINES, GOVERNMENT GEOLOGISTS, AND OTHER REPORTS,

FOR

THE YEAR 1907.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY COMMAND.

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REPORT OF THE DEPARTMENT OF MINES, QUEENSLAND, FOR THE YEAR 1907.

TO THE HONOURABLE J. W. BLAIR, SECRETARY FOR MINES.

Brisbane, 9th March, 1908.

SIR,—I have the honour to submit my Report on the mining industry for the year 1907.

The history of mining during the past year hardly affords a theme for unmingled gratulation. The decline in the gold yield continues, and the sudden and severe fall in the industrial metals has proved disconcerting to forecasts and projects based upon values that have been found to be unnatural and unstable. The goodly prospect has been obscured, and the dejection of the hour contrasts strangely with the exuberant optimism of the earlier months of the year. The influences that have contributed to the present situation are beyond our control; they are to be sought for in the great commercial centres of the world, where uncertainty and distrust have led to a general relaxation of industrial activity; and, although the check to enterprise incidental to a period of acute financial stress will not be permanent, and the resumpton of undertakings into which the consumption of the useful metals largely enters will, no doubt, be accompanied by more reliable markets and prices more satisfactory to producers, no very definite assurance of speedy improvement is forthcoming, the preponderance of opinion appearing to be that the circumstances of trade and finance in the disturbed centres are not favourable to a rapid restoration of confidence. Meantime we in Queensland must derive such comfort as we may from the reflection that some attention has been directed to our resources, more especially our distant and partially developed fields, and that some effort has been made to provide the transport facilities essential for the profitable working of our mines. Much remains to be done in this direction, but the year cannot be said to be wholly disappointing that has witnessed the completion of the railway to Cloncurry and the commencement of that to the Etheridge.

Probably the branch of the industry that shows the soundest and most vigorous growth is that of coal-mining, and the increasing volume of our coal trade affords genuine ground for satisfaction. Three years ago coal-mining in Queensland gave small promise of rapid expansion; no fresh outlets could be found, owners deplored the excessive competition for a restricted trade, and few of the miners could rely on constant employment. From this forlorn position the industry was rescued by the timely intervention of the Government, who, by granting certain concessions to vessels coaling at our ports, contributed to the creation of a demand that is growing daily. The shipping companies recognise the advantage of being able to obtain their requirements from a fresh source hitherto comparatively free from the industrial disturbances of which they have had unhappy experience in other parts of the Commonwealth, and the mine-owners are vigorously striving to meet the altered conditions. New ground is being opened, modern machinery and improved methods of handling are being introduced, and, whereas comparatively recently the greater number of men were working only half time, difficulty is now experienced in procuring an adequate supply of skilled labour.

The value of the year's gold yield was £1,978,938, a decrease of £334,526. The value of minerals other than gold was £2,153,226, an increase of £268,043; the total value of the year's mineral production was £4,132,164, a decrease of £66,483.

REVENUE, EXPENDITURE, DIVIDENDS.

Last year's collections for rents, royalties, and fees of various descriptions were £49,164 13s. 5d., being £4,060 more than for 1906. The expenditure of the Department—inclusive of £1,483 granted from the prospecting vote, £1,213 granted from the vote for roads and bridges to gold and mineral fields, and £3,418 advanced in aid of deep sinking and development—was £36,560, being £2,843 in excess of that for 1906.

Dividends paid by mining companies during 1907 amounted to £500,715, a decrease when compared with the preceding year of £126,242.

SCHOOL OF MINES.

Notwithstanding the prevailing depression at Charters Towers, and the loss of several promising students attracted to other fields during the late era of high prices for the industrial metals, the attendance at the Charters Towers School of Mines during the past year has shown no material decrease. The long roll of successful students is evidence of earnest work, and it is worthy of mention that amongst the 43 candidates who entered for examination in the chemistry and assay laboratories only one failure has to be recorded.

The recent enlargement of the school building has relieved the overcrowded laboratories, and the further additions now sanctioned will permit rearrangement and extensions in all the departments sufficient to satisfy the more pressing needs for some time to come. But although the existing courses of instruction will thus be conducted under more favourable conditions than hitherto, the school still lacks the engineering and metallurgical laboratories so insistently declared by both the present Director and his predecessor to be indispensable adjuncts to its complete equipment. As the cost of building and maintainng the laboratories will not be excessive, and as they will contribute greatly to the efficiency of the institution, it is hoped that provision will be made for their establishment at no distant date.

A system of scholarships and bursaries, frequently advocated in former reports, is at length about to be initiated; and it is pleasing to find that an amount for this purpose appears in the Estimates for the current year. It is proposed to grant three scholarships, each of the value of £50, with remission of fees, and tenable for three years; and also six bursaries, three in the mining course, three in the metallurgical course, each of the value of £5, with remission of fees, to be given to the student who has done best in his year.

The Director dwells with natural gratification on the increasing number of graduates and students who are obtaining positions of responsibility in our

various mining fields. "The influence of the school," says Mr. Poole, "is being more strongly felt each year in the mineral industry of the State."

Inspection of Mines.

The report of the Chief Inspector of Mines furnishes detailed information respecting the several matters that come within the province of that branch of the Department, and the various tables form a condensed summary of the chief subjects of interest that relate more directly to the conduct of mininig operations.

From the accident tables it will be seen that last year the number of accidents in connection with mining was 136, resulting in 141 casualties, of which 15 were fatal and 126 non-fatal. In the preceding year the casualties were 24 fatal and 158 non-fatal, showing that the number both of fatal and non-fatal accidents in 1907 was less than in 1906.

The death rate per 1,000 persons employed in 1907 was, in metalliferous mines, 0·84; in coal mines, 0·00; in all mines, including mills and reduction works, 0·70, the corresponding figures in each case for 1906 being 1·35, 0·00, and 1·06.

The statistics relating to the number of men engaged in the mining industry show the average during the year to have been 21,890, a total which is 1,157 less than that in the former year. About one-third of the difference is, however, in the number of tributers, prospectors, and others engaged in work of a like nature. The decrease in the case of wages men was due to the less number of men employed in gold mines, and also to a shrinkage in the number of hands employed in connection with the treatment of the various ores, owing to the closing of some of the smelting works during the year.

In connection with the operations of the various companies and syndicates, it appears from the revised register of mines and managers forming portion of the report, that in 1907 20 new mines were opened, 26 old mines were reopened, and 38 mines suspended operations. Included in the same portion of the report are tables showing the amount of development and other mining work carried on during the year, as recorded by returns made to the various mines offices. The total amounts in the case of gold mines were—for main shaft sinkng, 15,232 ft.; main drives and crosscuts, 79,385 ft.; and other development, 30,128 ft. In copper mines there was a distinct falling off in this class of work during the latter half-year. There are no data available for comparison with previous years, nor is it yet possible to distinguish between producing and non-producing mines, but when this is practicable an actual comparative record of the exploratory work done from year to year will be obtained—a matter of greater importance than is perhaps generally conceded, as it will afford a fairly faithful index of the confidence felt in the future of our mines.

The most important additions to equipment during the year have been in connecton with the mining and treatment of the copper and silver ores, and of the alluvial tin deposits of the State. Five blast furnaces for copper-smelting, as well as 14 furnaces of other kinds, were erected in different localities, and for tin-sluicing 6 additional plants have been put into operation—3 in the Stanthorpe district and 3 in the Herberton and Mount Garnet districts. The year has also witnessed the installation of 36 new boilers, and of steam engines and other prime motive machinery representing an increase of about 4,700-h.p.

The recent revision and amendment of the forms of the returns required from mine and mill managers, which form the groundwork of most of the statistical tables, will, it is believed, ensure greater correctness in the publication of the mineral output, and will also place the Department in possession of information which, when once a mine has been abandoned, has in the past been rarely available. It should, however, be possible to furnish a history of each individual mine in the State, and by this means frequently save useless expenditure, and not seldom prevent danger to life, but to initiate and carry on a system of this kind additional clerical assistance is required.

Various other matters relating to the inspection and regulation of mines are dealt with at some length in the report. Owing to the growing importance of Cloncurry, it was deemed advisable to have a resident inspector in that district, and arrangement which involved the addition to the staff of another assistant inspector. Although the time of the inspecting staff has necessarily been devoted to keeping closely in touch with all important mining operations in the main divisions of the State, leaving little opportunity for visiting remote localities, some attention was given during the year to the inspection of the small goldfields of the Cape York Peninsula and other isolated mines in the far northern districts.

Board of Examiners for Mine Managers and Engine-drivers.

The annual examination by the board appointed to examine persons desirous of obtaining mine managers' certificates was held in June. Seven candidates presented themselves for examination, two received first-class certificates and two second-class certificates, while three others will be eligible on furnishing the board with the necessary testimonials. Eleven applicants were granted certificates of service.

Examinations were held by the Board of Examiners for engine-drivers' certificates in the months of April, July, and October. In all, 135 candidates were examined, and 25 first-class and 67 ordinary certificates issued. Nine applications by qualified engine-drivers from other States were specially dealt with, so that the applicants received certificates without delay. The proficiency shown by the candidates at the examinations was rather higher than in previous years, owing no doubt to the issue by the board of amended rules and regulations, framed with the object of insuring that a larger percentage of candidates shall be properly qualified before presenting themselves for examination.

Ten cases of overwinding were inquired into during the year, the occurrence having taken place in each instance during bailing or other such operations. The necessity of making it obligatory upon the manager to report negligence of this kind whether actual injury or damage results or not, and the deficiencies of existing regulations in this and other respects have already been referred to in former reports.

Geological Survey.

The report of the Acting Government Geologist is an urgent plea for the strengthening of the staff of the Geological Survey. The Survey undoubtedly is altogether undermanned, and is quite incapable of responding to the clamorous demands made upon its services. Without going as far as Mr. Dunstan, whose observations are really tantamount to a recommendation of the appointment of a staff capable of carrying out a detailed examination of all the mineral lands of the State, I certainly think that the Geological Survey, if it is to be of any practical use, should be in a position to (1) continue detailed examination of established centres, such as Gympie, bringing up to date the work already done; (2) begin the more special scrutiny of districts that have been only

cursorily run over; (3) make a reconnaissance or preliminary survey of known mineral belts and recent discoveries, such as the Oaks alluvial find on the Etheridge field; while the staff should be strong enough to carry on the different classes of work concurrently. As a commencement in this direction, and as, I believe, an assistance to the industry at a somewhat critical period, I beg to recommend the appointment of two additional geologists, and also of a mineralogist, who will act as curator of the Geological Museum, which has unavoidably been greatly neglected. The latter appointment has already been urged in former reports, and is amply warranted by the relief it will afford to the attenuated geological staff, and by the prompter attention that the numberless inquiries from prospectors and others will receive.

Reference may here fittingly be made to the display of minerals which formed a portion of the Queensland exhibit at the Australian Natives' Association Exhibition, held in Melbourne in January, 1907, and which were again exhibited at the National Agricultural Show, held in Brisbane in August; and also to the collection of minerals now on its way to London as part of the Queensland exhibit at the Franco-British Exhibition to be opened in May next. It is sufficient to say that the arrangements for collecting and forwarding the exhibits were carried out by the Geological Survey staff, and that in the two first instances the display was in every way successful, whilst there is every reason to believe that the London exhibit, arranged as it will be by Mr. Ball, will prove equally attractive.

"Mining Journal."

The increasing circulation of the "Mining Journal" is evidence of its wider recognition as a reliable record of the position of mining in Queensland. The Journal in all ways maintains its high standard of excellence, and continues to win cordial commendation from persons competent to form a just estimate of its merits. The editor's report gives particulars of the circulation, receipts, cost of printing, and other matters.

Gold.

In common with the other States of the Commonwealth, Queensland shows a substantial decline in her gold yield. Various causes have been assigned for the decrease; and, in so far as we are more immediately concerned, it is probable that the complete exhaustion of the accumulations of old sands, the failure of new mines to fill the places of those gradually retiring from the front rank, the lower average value of the stone of our principal fields, the attention devoted to copper and tin during the period of high prices, and more remotely the general check to enterprise experienced in other parts of the world, have all contributed to a shrinkage that still continues. Concerted action, in the direction of deeper sinking and exploring, both for new shoots and for new reefs, will probably be taken by the mine-owners of the established goldfields—a movement that may well enlist the practical sympathy of the Government; and the extension of railways to and within our fields will greatly encourage prospecting and increase the likelihood of new discoveries of value.

Charters Towers.—The year's operations at Charters Towers show a decline in the value of the gold yield of £127,772; in the average value of the stone treated of 3s. 7d. per ton; in calls of £43,271; and in dividends of £56,503. The diversion of capital into other channels has to some extent abridged the exploratory operations hitherto characteristic of the field, and the year has been signalised by few developments of first-rate importance. Nor can it be said that the renewed interest in gold-mining expected to follow the fall in the value of the industrial metals has as yet manifested itself to any appreciable extent at Charters Towers.

In the eastern section of the field, where the Day Dawn reef dominates, Mills's Day Dawn United produced 49,860 tons of stone, which yielded gold of the value of £215,776, enabling the company to pay £75,000 in dividends, and to close the year with a credit balance of about £40,000. The shoot has now been followed for some 600 ft. to the New Brilliant Freeholds boundary, and the manager estimates the proved ore reserves to be 100,000 tons, of an average value of £3 10s. per ton. At Pfeiffer's Day Dawn Gold Mines the new underlie, by providing more economical haulage, will allow development to proceed on a more extended scale and increase an output which last year totalled 6,196 tons, worth £27,796, and is now being maintained at the rate of about 600 tons per month. Exploration of the deep ground in Pfeiffer's will materially influence the prospects of Plant's Day Dawn Gold Mines, where want of capital has led to the suspension of sinking operations. The persistent exploration of the Day Dawn Gold Mines has not been rewarded. The mine, however, centrally situated as it is, and possessing a large area of untried ground, invites further exploration. Wallis's Day Dawn Gold Mines, the most westerly mine of the field, is about to continue the sinking of the main shaft, and successful development here will lead to the prospecting of a large area of ground to the westward. The Day Dawn Block and Wyndham is nearing the end of its long and splendid career, although there is still a possibility, the Warden says, of the North Australian reef being found in the property. The Moonstone Prospecting Claim, a mine worked to a shallow depth 30 years ago, has been taken up by a party of working miners, and here also success will mean the opening of a large area of maiden ground.

The New Brilliant Freeholds, regarded as the connecting link between the Day Dawn and Brilliant systems, is driving on payable stone in one of three distinct reefs followed through the ground of Mills's United up to the Freehold's boundary. The East Mexican has so far been a disappointment, but further prospecting is to be effected by means of a drive from the Day Dawn School Reserve. The Brilliant Block, having relinquished the extension of the No. 17 level, which formed a considerable part of the year's work, is now driving a crosscut from the No. 13 level, with the object of intersecting the branches of the Day Dawn reef exposed in Mills's United, and the formations penetrated in the Brilliant P.C. shaft. The Brilliant P.C. has been in the hands of tributers. The Brilliant and St. George still maintains a respectable, though steadily diminishing, output. Last year 13,995 tons of stone yielded gold worth £54,065, and furnished dividends totalling £7,200. The extension of Marshall's Queen reef in the eastern ground of the Brilliant Central and the opening of a hanging-wall reef in the western section of the lease have improved the prospect of that mine. The exposure of 3 ft. of mineral stone, estimated to be worth £4 per ton, at the bottom of the No. 3 underlie of the Brilliant Extended, at a vertical depth of nearly 2,700 ft., is a notable incident in the history of the field. The mine is now thoroughly equipped with plant and machinery, and the year's operations will be of more than ordinary significance. Last year's output was 46,322 tons, of a return value of £84,591, and the manager estimates the ore reserves at 65,000 tons, of a value of about £1 19s. per ton, which will probably be raised by the higher grade stone in the deeper workings. The connection, at a depth of 2,400 ft., of the No. 12 West level of the Brilliant Extended with the No. 2 level of the Brilliant Deeps,

Limited, has provided the ventilation required to permit of the systematic development of the large unexplored eastern area of the latter mine, whilst the developments in Mills's Day Dawn United, the New Brilliant Freeholds, and the Brilliant Block have greatly enhanced the prospects of its far western ground. Kelly's Queen Blocks, which has been prospecting the hanging-wall, traced into the Brilliant Central, has produced 7,284 tons, worth £29,112, and paid £7,200 in dividends. The Queen Deep Mines Limited, finding the stone in the old workings unprofitable, confined its operations to the Queen Consols shaft, the most westerly of the three shafts on the property. Here payable stone has been found, and if developments continue to be favourable, an effort will be made to prove the value of the eastern ground, where the deepest workings are less than 1,000 ft., and show large bodies of stone. Persistent exploration in the group of mines in what may be called the Victoria and Queen section of the field, has failed to disclose anything of importance; but the deepening of its main shaft, commenced by the Queen Cross Reef, cannot fail to be of value as prospecting work to the other mines in the neighbourhood.

The prospects of the Golden Alexandra have been brightened by the discovery, in October last, of 10 in. of heavy mineralised stone in the No. 6 South-east level. In the Bonnie Doon, a promising outside property, about five miles south-east from Charters Towers, a reef, from 4 to 9 in. in the stopes, more than pays all costs of working.

At Millchester, in the new shaft of their Identity and Hope lease, the Brilliant and St. George Company, after passing through the reef at a depth of nearly 900 ft., continued sinking until a new lode formation was touched, but not penetrated owing to a heavy influx of water. In the second of two crosscuts 2 ft. of stone, worth 1 oz. per ton, were exposed; but levels subsequently driven east and west have shown the stone to be smaller and of poorer quality than when first met with. Quinn's Block has proved the lode to live in depth, and will probably provide means of access to the deeper ground of Rogers's Millchester Block, which so far has found the reef to be persistent, but low in value at the points of operation. The Ruby P.C., the sole survivor of the Ruby Ridge Mines, from a small but rich reef has produced 1,681 tons, yielding gold worth £13,353.

"The Brilliant P.C. Company's Stockholm property," says the Warden, "has made the greatest advance for the year. The new workings have been connected with the extensive shallow workings, and large bodies of stone have been exposed which, it is hoped, will give a small margin of profit. The newer workings, however, show higher values, and there is promise of a strong and payable shoot extending in depth and to the south. The output has reached the respectable quantity of 600 tons per month, and this is fairly certain to be steadily increased during 1908."

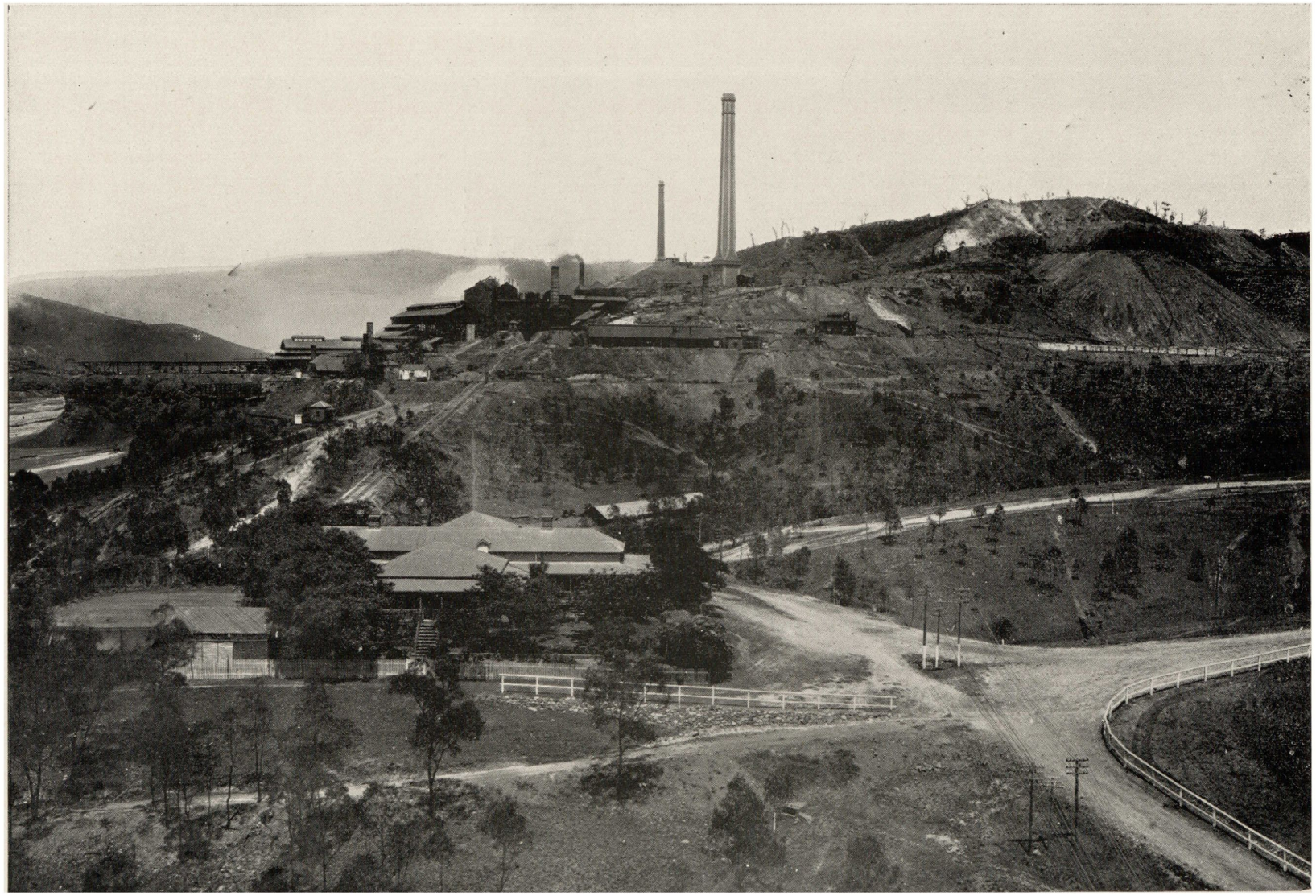
A proposal brought forward some time ago, that mining companies of the eastern section of the field should combine for the purpose of deepening one or more of the existing shafts, is, I am told, still under consideration, and if proceeded with deserves to be encouraged.

On the Carrington field the Carrington United Mines have now developed into a copper-gold mine of very considerable proportions. The shaft has been sunk to a depth of 600 ft., and late reports say that the mine is producing well, especially in the deepest level (No. 6), where the lode is from 3 to 6 ft. in thickness, and contains from 6 per cent. to 12 per cent. of metallic copper, together with a few pennyweights of gold. Four reverberatory furnaces are now in constant use, and an increasing quantity of ore is being treated. In the adjoining mines—the Carrington's Lion Nos. 1 and 2 East—the main vertical shaft has been sunk to a depth of 400 ft., and levels opened at 260 ft. and 360 ft. have exposed a lode from 1 to 2 ft. wide, rich in both copper and gold. The field, which is situated about 28 miles south-west of Charters Towers, suffers from the want of railway communication, and the construction of a branch railway from Powlathanga, a point on the Northern line, only 18 miles from Carrington, is now being mooted.

The only other gold-mining centre within the jurisdiction of the Warden's Court that calls for special notice lies on the head waters of Lucky Creek —a tributary of the Burdekin River—and is about 160 miles north-west from Charters Towers. There is a small prospecting battery on the ground, and the little community, reduced lately by the superior attractions of the new gold rush at the "Oaks," on the Copperfield River, which is only 40 miles distant, last year raised 377 tons of stone, of an average value of £5 12s. 11d. per ton, or a total value of £2,128.

Gympie, from 162,780 tons of stone obtained 63,276 oz. of gold, worth £268,779, the average value of the stone per ton being £1 13s. The amount paid as dividends was £65,102; the sum total of the calls made was £56,463. These results, when compared with those of the preceding year, disclose a decrease in the quantity of stone milled of 52,900 tons, in the yield of gold of 44,777 oz., in the value of the stone per ton of 9s. 7d. per ton, in dividends of £111,911, and in calls of £4,857. The obvious causes of a decadence so striking is the waning productiveness, in different degrees certainly, of the three mines that for a series of years past have been the main contributors to the output of the field, and the absence of any fresh discoveries to compensate for the loss of the support thus withdrawn. The Scottish Gympie, the No. 2 South Great Eastern, and the South Glanmire and Monkland, all show a marked falling off in gold and dividends; the two latter indeed have, for the time at any rate, retired from their positions amongst the leading mines of the State, and perhaps the keenest disappointment of the year has been the failure to successfully explore the belt of country known as the Monkland second bed of slate, from which the South Glanmire and Monkland obtained such gratifying results in the latter part of 1906. The Scottish Gympie, although profits have fallen from £82,500 in 1906 to £37,125 in 1907—a drop of over 50 per cent.—is still by far the most important contributor to the year's yield. The deeper ground is now being prospected, and the geological features revealed as the work proceeds may possibly influence the future of the leases held by Scottish investors in the vicinity.

Amongst the interesting developments of the year are those which have occurred in that portion of the field lying between the Hospital Reserve and the Two-mile, a locality hitherto never prospected to to any depth. Here the Great Northern Company, who began operations in 1906, have now sunk their shaft to a depth of 595 ft. At 319 ft. the Phœnix slate was cut, and drives east and west, at 365 ft. and 420 ft. respectively, met with the Empire reef, from which a crushing of 119 tons of stone yielded 190 oz. (crude) of gold. The mine is not yet sufficiently opened up to allow any definite opinion of its prospects to be expressed, and it seems to be rather a pity that the shaft was not carried down to the next bed of slate, so that both beds might be explored simultaneously. The latest developments have, however, been sufficiently encouraging to cause a rush for leases in the neighbourhood, and should a fair proportion of these new ventures prove to be successful, other leases will in all probability be applied for



MOUNT MORGAN.

General Manager's Residence in foreground; Copper Works and Slag Dump on left; Mundic Works in centre; and Opencut on right.

View taken from the New Chimney Stack at the Central Power-house.

further eastward, where, as the slate dips in that direction, the sinking will be proportionately deeper. South of the fault known as the Two-mile crosscourse many rich reefs have been worked out at what is now considered to be a comparatively shallow depth, and it is quite possible that the relocating of these reefs in the deeper ground to the east of the Great Northern may form the objective of the deep sinking projects of the field for some years to come.

A company, formed in May last, to work the abandoned Two-mile Mine, had, by the end of the year, sunk the old shaft from its original depth of 671 ft. to 875 ft., meeting the second bed at 842 ft. In the same locality the New London and the No. 1 North London and Bristol have been raising small payable crushings from the London reef.

Amongst the Columbia Mines the No. 2 North Columbia and Smithfield, although greatly impeded by defective ventilation and constant irruptions of water, paid in dividends a sum of £10,800; and, as some relief from its difficulties may be expected from the operations in the Columbia Consolidated and the No. 3 North Columbia and Smithfield, a further period of profit-earning may be hoped for during the current year. The Columbia Extended late in the year met with black slate in the 1,465-ft. level. In crosscutting for the reef several small veins were encountered, and in January of the present year a body of quartz, carrying coarse colours of gold, was disclosed. The Oriental and Glanmire, the only member of the Oriental group which appears in the list of dividend-paying mines, made a distribution of 3d. per share, amounting to £1,208. Here the western reef, as it is developed in a northerly direction, grows poorer, and present prospects depend on the eastern reef met with in a crosscut put in at a depth of 1,520 ft., with the country overhead. The East Oriental and Glanmire during the latter part of the year devoted considerable attention to a flat gold-bearing formation in the 2,154-ft. level, one parcel of 66 tons yielding 86 oz. of gold, and late reports announce the extension of the drive through 8 ft. of gold-bearing quartz, leaders, and formation. The No. 1 South Oriental and Glanmire also shows improvement in the winze below the 1,920-ft. level, and in the rise over the 1,620-ft. level. The North Smithfield, during the last three months of the year, paid £6,000 in dividends from the Columbia reef, and an improvement in the Smithfield reef in this mine was announced a few days before the close of the year. The No. 1 North Smithfield began with paying from January to May dividends amounting to £6,600, but later operations have not been remunerative; attention is now being directed to the Columbia reef so successfully worked by the adjoining North Smithfield. A small crushing from the Victory reef in the No. 4 North Phœnix seems to afford some promise for that mine.

Peculiar interest attaches to the operations of the New Dawn, the only active mine on the south side of the river, where the country is of a quite different character from that of Gympie proper, and has hitherto failed to attract much attention. The shaft has been sunk on the inclined reef to a depth of 575 ft., and the mine is now being opened up at different levels. The average recovery—12·47 dwt.—has proved sufficient to pay expenses, and it is satisfactory to learn that the quality of the stone improves with depth. With deeper sinking and a larger output there is a fair promise of the mine becoming profitable.

The tribute system so much affected in Gympie has furnished employment of some 250 men, whose aggregate winnings have amounted to £20,000 or £82 per man. Towards the end of the year a party of men in the Australasian Mine, which has more than once proved kind to tributers, from 38 tons obtained 231 oz. (crude).

Serious mining at the smaller fields in the Wide Bay district has almost ceased. At Glastonbury four claims are being worked. The casual search for alluvial by a few men at Kilkivan has met with small success. The Yabba, Nanango, and Marodian fields are idle.

Mount Morgan.—Familiarity with an object, however remarkable, is apt to beget indifference. It is probable that the dweller in the valley of the Musgrave or the Russell is not impressed by the towering altitude of Bartlé Frere, and the pre-eminence of Mount Morgan has so long been accepted as a matter of course that few persons except those directly interested have any just conception of the magnitude of its operations or of its value to the State. Last year the mine produced gold and copper valued at £1,000,124; paid in dividends £237,500; and besides applying £50,000 to the formation of a reserve fund and £30,000 to the erection of an insurance fund, paid in wages a sum considerably exceeding £300,000; in dues to the Government more than £60,000; in other directions a quarter of a million, and supported a population of 12,000 souls, irrespective of such rising dependencies as Marmor, Iron Island, and Many Peaks.

Both steam shovels have been working either simultaneously or alternately throughout the year, and are now stationed on the lowest bench of the open-cut—362 ft. below the original summit of the hill. The excavation of the overburden has advanced sufficiently to allow the extraction of the uncovered sulphide ore to proceed without hindrance, and the greater quantity and higher grade of this class of ore taken from the eastern workings has compensated for the decline in the yield of the oxidised ore. The major portion of the sulphide ore is still derived from the higher of the underground workings, and the total quantity of stone treated by chlorination at the west and the mundic works was 233,533 tons, which yielded gold worth £391,348. From the chambers at the 740 and 850 ft. levels 132,364 tons of copper-gold ore, sent to the smelters, yielded 52,493 oz. of fine gold, worth £222,975, and 4,333 tons of copper, valued at £360,487, and the recent announcement that a third furnace has been blown in may be accepted as an assurance of a largely increased output during the current year.

The usual extensive development work has been carried on at the various levels, and the main shaft is being deepened to 950 ft., where oreways will be put in underneath the chambers in the higher levels. A new shaft, for the use of men and material only, has also been commenced, and will, when finished, be practically an underground tramway, with switch points at various levels so designed as to allow the ordinary surface trucks to be sent down loaded to any section of the mine.

A timely fall of rain in November avoided a threatened water famine, and the total quantity of water stored in the various dams at the end of December was 106,500,000 gallons, and later intelligence says that all the dams are full, the total quantity of water conserved being 380,000,000 gallons. If the cost is not prohibitive, some scheme for pumping water from an unfailing source may be worthy of consideration.

The development of the Many Peaks Mine, in the Gladstone district, the ore from which, blended with that of Mount Morgan, is expected to prove so advantageous to the latter, has been carried on with vigour. The deposit, which is of great extent, is being opened up by means of tunnels driven into the hill at various distances between its summit and its

base, and the quantity of ore proved at the close of the year is estimated to be half a million of tons. The construction of the railway that is to connect Many Peaks with Mount Morgan will materially influence the welfare of the mine and of the district, since we have the assurance of the general manager, in his report for the half-year ending 30th November, that when the basic ore from ManyPeaks replaces the barren fluxes now used, the capacity of the copper reduction works will be increased from 20,000 tons to 30,000 tons of ore per month, and a very much larger number of men will be employed.

Nothing favourable can be reported of the smaller mines in the district. The Victor and Imperial have both suspended operations, and the only venture to which any interest attaches is that of the Mount Morgan Extension Company, who have acquired the leases of the Sugar Loaf Gold Mining Company, with the avowed object of continuing the straight shaft for several hundred feet and driving levels at various points, in the hope of meeting with the copper-gold ore-body now being worked in the Mount Morgan Mine.

Ravenswood.—The decrease at Ravenswood is due partly to the less quantity of stone treated and in part to the lower grade of the ore, which shows a diminishing value as greater depth is attained. The year has, however, been characterised by steady work, which may ultimately be attended by satisfactory results; indeed, the Warden tells us that at no period within the last ten years has greater activity been displayed in the development of the leading established mines and in the prospecting of new ground in outside localities.

On the leases of the Deep Mines, Limited, whose operations are intended to test the deep ground of the field, prospecting work, at a vertical depth of 1,520 ft., has been well maintained. The southern crosscuts and drives were extended up to, and in one place through, the main lode, known locally as "The Buck," which traverses the company's leases from east to west; the northern crosscuts and drives were also continued, but in neither case with any tangible reward. It is now pretty generally considered that the depth attained in this mine is not sufficient, and that to cut the Sunset reef—the main objective of the company—some hundreds of feet of further sinking will have to be faced.

The Sunset, the chief mine of the field, and one of the group held by the New Ravenswood, Limited, treated more material and gave a better return in gold than during the preceding year, while excellent work generally was carried out on the lease throughout the past twelve months. The mine, which is worked by an underlie shaft 900 ft. deep, and by a vertical shaft which at the end of the year had been sunk to a depth of 556 ft., is well opened up, and the reef, which averages 8 in. in width, kept 20 head of the company's battery continuously occupied. The Grant, another of the company's mines, is working on a vein smaller than that of the Sunset, but more regular and generally richer. The mine gave a better aggregate yield than in the preceding year, and is reported to be looking well in all its faces. In the Meleneur and Black Jack—two other properties of the same company—prospecting and development work have been continued. In the former the formation is large and the quality of the ore raised is said to be improving, while some nice crushings have been taken from the Meleneur.

The London P.C., which had been closed down at the end of 1906, has been taken on a long tribute, and work has been resumed on a systematic scale, the tributers having during the year recovered gold of the value of £975. Unfortunately, the gold is "silvery," and of poor value. The company owning the London North only just cleared expenses, and are reported to have sold the mine, which is now being worked on tribute. The Grant and Sunset Extended Company, whose mine has now reached a depth of 917 ft., have done much good work, chiefly on the vein at the 765-ft. level. Operations—on a reef averaging 6 in. in width—have proved so far satisfactory that a first dividend has been declared, and it is expected that another will shortly be forthcoming. The Overlander, the Silvery Wave, the Premier, the Yellow Jack, and several other mines which had previously been idle for varying periods, have resumed operations, and have thus caused, to some extent, renewed activity in mining matters generally.

The mines at the Kirk, Rochford, Hillsborough, Sandy Creek, Donnybrook, and other outside localities, have done steady work during the year. At the Kirk Diggings, the shaft of the Three Sisters Extended is now down over 700 ft., and the reef being worked averages about 15 in. of heavy mundic. The mine is looking well in all its southern faces, and the crushings for the year resulted in a yield which is said to be highly remunerative.

Croydon.—Here no development has occurred of significance to the field generally, although some slight improvement may be observed in the condition of individual mines. The year's operations have largely consisted in extracting stone previously exposed, and any attempt to open fresh ground has been confined to limited areas at shallow depths.

The larger proportion of the year's output is still derived from Golden Gate, where some ten mines have been worked continuously, and several others with more or less regularity. The Croydon Consols, sinking on an auriferous formation, which continued until displaced by a fault, have at a vertical depth of 109 ft. again met with quartz which, although barren, is being assiduously followed through favourable country, with the confident hope of its proving payable in deeper ground. Two levels have been driven north from the Golden Gate Consols underlie; the No. 1 Gold Mines have been extending their higher drives; a party of tributers have been sinking the underlie shaft of the Golden Gate United with the object of testing the untried ground at the northern end of the lease; the Nos. 2 and 3 South Golden Gate has produced 858 tons of stone, worth £8 10s. per ton; and the returns from a small section of Murray's Banner United was sufficiently satisfactory to induce the owners of the adjoining mine, Williams's Block, to successfully follow the continuation of the stone into their lease. Systematic work at the Content Block yielded gold worth £4,418; unfortunately, hardly sufficient to compensate the cost of its recovery. Late accounts are, however, very much more favourable, 751 tons having yielded gold of the value of £3,854, or £5 2s. 7d. per ton.

The year, although thus disappointing in so far as actual results are concerned, has witnessed the inception of certain operations and projects that may be productive of consequences of great moment to the field: (1) The Highland Mary Blocks, Limited, formed to prove the continuance of the Highland Mary reef on the eastern side of the granite bar which has dislocated all the lodes in the vicinity, had by the end of December last sunk their shaft to a depth of 280 ft., where a floor was met with having the same strike and dip as the Highland Mary reef. Indications, so far, have been favourable, and should it be necessary to exceed the estimated depth of 300 ft., the company have intimated their intention to continue sinking. (2) The Golden Gate Consolidated Tribute, Limited, the outcome of an alliance between the Golden Gate Amalgamated Blocks and

the No. 1 Gold Mines, has been formed for the purpose of exploring the deeper ground of their respective holdings by drives north and south from the Extended shaft of the latter company's mine, thus accomplishing for a portion of Golden Gate that which it is hoped the Highland Mary Blocks may achieve for Croydon proper. (3) The courageous and persistent prospecting of Mr. Bennion has furnished sufficient evidence to lead to the formation of Bennion's Block, Limited, who are now preparing to resume the search for the rich Lady Mary Reef on the eastern side of the intrusive granite. (4) A proposal to amalgamate the Nos. 8, 9, and 10 and 11 Block Lease, with the view of testing the deeper ground of the southern portion of Golden Gate, is now being considered, and if carried into effect will contribute to the solution of the question on which the future of Croydon hinges—the value of the deep ground. All of these enterprises have been approved of by the geological staff of the Department, and are being liberally assisted by the Government.

Little can be said of the outlying portions of the field. The cessation of operations at the Federation Mine has reduced mining at Tableop to the casual efforts of individual miners. At Golden Valley the Australian Beauty and the King of Wallabadah have worked continuously throughout the year, the former with fair results, the latter hampered by lack of capital to cope with frequent incursions of water. A genuine, if not altogether successful, effort by the owners of the Huon Mine to exploit the large comparatively low-grade ore-bodies at Esmeralda has been temporarily discontinued pending the erection of a cyanide plant.

ETHERIDGE.—The approach of the railway to the Etheridge cannot be said to have, as yet, greatly influenced the methods of the field. Gold-mining is still pursued in the somewhat leisurely fashion of the past, and the year's output shows a decline from that of the previous year. Uncertainty as to the route that the line was to follow—that is to say, doubt whether Georgetown or Charleston was to be the terminus—probably discouraged any remarkable display of energy in these localities.

The most prominent mines on the Etheridge at the present time are the Charleston trio, the Nil Desperandum, the Queenslander, and the Havelock. In all three gold is associated with galena, iron pyrites, and in places zinc blende and copper, and no very vigorous exploitation can be looked for until the advent of the railway permits the conveyance of the concentrated ore to the Chillagoe smelters. The principal work of the year at the Nil Desperandum has been the extension of the levels, and some stoping in No. 3 West level, where the lode is about 1 ft. thick, and is estimated to contain 28 dwt. per ton. Nothing of importance has been done in the Queenslander, but the mine has been fairly well opened in former times, exposing a regular reef, carrying in places large quantities of galena. Levels in the Havelock Mine have for most of the way followed a lode about 4 ft. in thickness, and of fairly uniform value up to the faces of the drives. The limited battery power has restricted output, but the proposed renovation of the old Queenslander mill will relieve the pressure, and contribute to the more resolute development of all three mines.

In the immediate vicinity of Georgetown stagnation is supreme, and an attempt to interest persons outside the field in a group of mines close to the town has failed. At the Durham, further acquaintance with the reef in the Durham Consols has shown it to be of less value in the deeper than in the higher levels. The Jubilee Mine at Cumberland continues to successfully treat by cyanidation residues that contain one-half of the gold discharged from the concentrating tables. The International, at Mount Jackson, has continuously developed its highly mineralised lode, occasionally meeting with patches of very rich stone, and has despatched its concentrates direct from the table to Southern smelters. The small rich shoots at Gilberton have furnished occupation, more or less profitable, to some 50 men, and a small three-stamp battery treats their stone. At Ti-tree Creek, near its confluence with the Gilbert River, several shafts have been sunk through 35 ft. of friable overburden to a cement wash about 3 ft. thick, carrying 5 dwt. of gold per yard of earth. One old prospector alleges that he has obtained a weekly return of from 15 to 17 dwt. of gold from 1½ cubic yards of wash.

Towards the close of the year some local excitement was created by the reported discovery of alluvial gold near the Copperfield River, seven miles below Oaks out-station, and 30 miles south from the Einasleigh township. Mr. Walter E. Cameron, of the Geological Survey Staff, who was then at Einasleigh, visited the locality, and reported that a square mile of porphyritic country had been proved to be auriferous. Writing on the 21st of February, 1908, the Warden says there were then on the field about 450 men, of whom 90 per cent. were on gold, the majority making more than wages, and that at least 2,200 oz. of gold had been obtained. The gold which, when smelted, is worth £3 15s. an ounce, appears to be confined to an area which embraces three porphyry hills and four principal gullies, and is two miles by one mile in extent. Colours can be found within a radius of three or four miles, but nothing payable has yet been discovered.

The hindrance to the expansion of the Etheridge has been the proneness of mine-owners to rest content with the methods of treatment established on the field in times past. Latterly, a more enterprising disposition has been shown, and the introduction of modern machinery and processes has led to a more effective recovery of gold. Thus, at the Charleston Mines concentration on tables and amalgamation of the concentrates in pans, although only partially successful, is a forward movement which will be consummated when railway communication with Chillagoe allows the seconds and residues to be sent to the smelters. The highly mineralised ore of the International Mine, concentrated without subsequent amalgamation, is bagged direct from the tables, and despatched, *viâ* Croydon and Normanton, to Southern smelters; and the amenableness of the Jubilee ore to treatment by cyanide process allows a fairly satisfactory recovery to be obtained at that mine. The completion of the railway now in course of construction will assist all of these mines to enlarge their output, and will lead to the reopening of many other mines from which rich surface stone has been extracted, but which were abandoned as worthless when the sulphide zone was reached.

GLADSTONE.—The slight increase in the output of the Gladstone fields is derived from ore sent to metallurgical works, and is not due to any greater activity in gold-mining. The year has, indeed, been specially dull, although not altogether devoid of promise. Thus, the operations of the Targinnie Syndicate, Limited—a company formed to prospect and develop the Archer leases on the Langmorn field and other holdings adjoining these properties—have shown the reef to increase in size and richness with depth, and encourage hopes of more than ordinary success. A company promoted by Mr. G. F. Molony, during a recent visit to England, to reopen the Nuggetty Gully Mine at Calliope, a mine from which rich gold was obtained in former years, is also said to have excellent prospects. Little of a favourable nature can be said of the other numerous gold-mining

centres of the district. The Marodian Mine, on the Milton field, has been abandoned, and the owner of the Frampton Mine is now the sole representative of the industry in that locality. Two good crushings from the United Rise, some smaller parcels from the old workings of the Lady Griffith Extended, and bullion worth a little more than £800 constitute the year's output from Monal. Overtures for the purchasing of several mines on Seaview Hill, at Tableland, with the object of developing them as one property, fell through, and the Barmundoo field is now quite stagnant. A party of men have been mining the cement wash at Mount Rainbow, and another party, with the object of intersecting the wash, are still, with patient persistence, driving a tunnel, commenced in October, 1906. The discovery of a promising reef between Mount Rainbow and Tableland helped to relieve the monotony of a disappointing year. Dredge-mining at Cania, successful in the earlier months of the year, became gradually unprofitable, and operations ceased in September last, when the return was only 3 oz. 16 dwt. The total quantity of material dredged during the year was 88,500 tons, and the gold recovered was 411 oz., valued at £3 16s. per oz. The proprietors have now acquired an additional area, and purchased another dredge, which will be placed in position at a point on Three Moon Creek, two miles distant from the scene of their late operations.

Clermont.—Gold-mining at Clermont has been quite uneventful. At Black Ridge, the chief centre of activity, 14 claims have been producing gold-bearing cement, but no extension of the lead has been proved, two attempts in this direction having been abandoned.

Commenting on a proposal to amalgamate a number of the claims at Black Ridge, the Warden, in his report of the 5th July last, says:—"Some few months back Mr. D. Fraser attempted to get an option from several claim-holders in the locality of Black Ridge, with the object of forming a syndicate to work the ground on a more profitable basis. The intention was to have one main shaft, from which all the ground would be worked, and by the aid of machinery it was calculated that a great saving of labour and other expenses would be effected. By the primitive style now in use, the thousands of tons that are brought to the surface every year are first filled into trucks at the face, then emptied at the bottom of the shaft; next filled into greenhide bags; then emptied into the paddock, to be again lifted into the dray or truck to take it to the mill. This would be obviated if arrangements were made to carry the loaded truck from the face to the mill. Unfortunately, some shareholders would not agree to Mr. Fraser's proposal, and it fell through. As several claims have since been abandoned, and the majority are not giving returns as in the past, it may be advisable for claim-holders to consider whether it would not be to their advantage to work the ground in a more systematic and up-to-date manner."

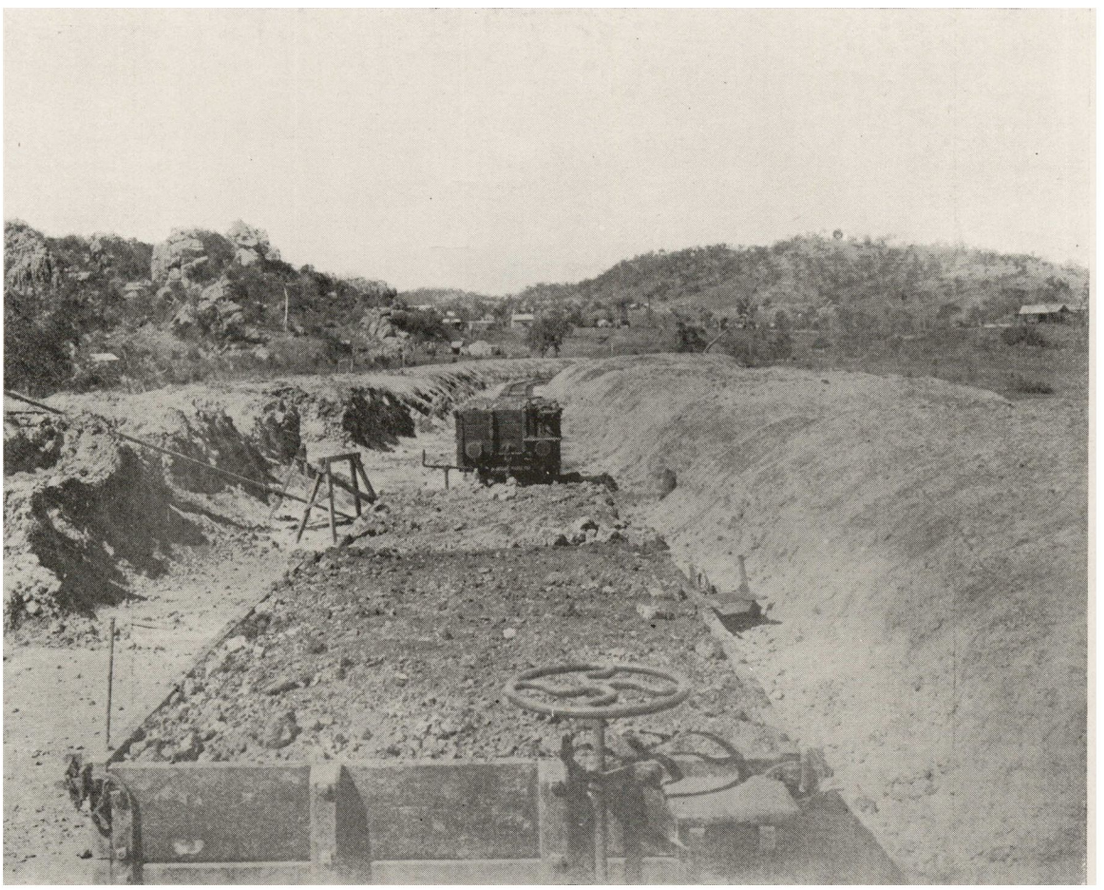
Quartz-mining at Clermont has hitherto failed to attract any general interest, but an effort is now being made to form a company to develop the Bedford Mine in a manner more worthy of a property that the owners, from past returns and present indications, believe to be valuable.

Hodgkinson.—No fresh discovery of importance has been made on the Hodgkinson, which still awaits the lengthy shoot of dividend-paying stone that will create confidence in the field.

At Kingsborough, the Cecil Syndicate have latterly been confining their operations on the payable shoot of gold-bearing ore that occurs on either side of the main shaft of their Grant lease. Unfortunately, a due proportion between development and the extraction of ore has not been observed, and it may be found necessary to close the mill pending the deepening of the shaft and the further exposure of payable stone. From another shoot in the same lode, but at a greater depth, the owners of the adjoining mine—the Grant and Caledonia—have been raising small parcels of good stone. An effort to crosscut for the Caledonia reef at the bottom level of the mine was relinquished, an examination of the reef in the shallower ground affording small encouragement to proceed with its deeper development. The promising appearance of a new shoot of stone in the New Monarch at Beaconsfield has induced the company, with some assistance from the Government, to sink a new shaft, by means of which they hope to be able to haul the ore more cheaply and expeditiously. The Queenslander Mine, at Mount Mulligan, reopened in July last, has been equipped with machinery, and the lessees are now engaged in enlarging and deepening an old shaft in pursuit of the shoot of stone that in time past provided excellent yields from the shallower portions of the mine. In the same neighbourhood the Dagworth and Home Rule Mines continue to turn out parcels of payable stone, but the shoots are too short to warrant the expectation of an annual output of any magnitude. Midway between Kingsborough and Thornborough the Southern Cross claim, remarkable for its associated quartz, scheelite, and gold, continues to furnish profitable returns to its owners. Inspector Horsley, in his report of 15th May last ("Queensland Government Mining Journal," Vol. VIII., page 257), in his mention of this mine, says: "Here a quartz lode, lying at a flat angle, contains both scheelite and gold; 95 tons of the stone recently treated at the Reconstruction mill, Kingsborough, yielded 298 oz. of gold, worth a little over £3 an ounce. The tailings, which have been stacked, contain a payable percentage of scheelite, and they will be subjected to further treatment for its recovery."

Rockhampton.—The relinquishment by the Canoona Gold Recovery Company of their efforts to treat profitably the puddler tailings of the old Canoona diggings, and the exclusive attention paid by the Oaks View Gold Mining Company to work of a developmental nature, sufficiently account for the decrease in gold production apparent in the Rockhampton district. The sinking of the shaft at the Oaks View Mine was in November last stopped by an influx of water, which the existing appliances were unable to subdue, and provision is now being made to overcome the difficulty. Of the Morinish, Rosewood, Ridgelands, and Stanwell fields nothing encouraging can be recorded, and at Cawarral progress has been in the direction of copper-mining rather than in that of gold-mining.

Palmer, Coen, Hamilton, Alice River, Starcke.—Mining in the Peninsula still drags, although the Warden is of opinion that signs of a forward movement are not wanting. Some renewal of interest has been manifested in the dredging possibilities of the Palmer River, and the application for a lease at the Ida revives the hope, often disappointed, that some effectual effort may be made to prove the worth of the reefs in that locality. The most encouraging tidings from the Alice River field is the announcement that the Great Peninsula King Gold Mining Company have arranged to purchase the Alice Queen Mine and battery. The Hamilton field has not advanced; late crushings have been disappointing; and mine-owners have not the means required for the further development of their properties. The discovery of tin at the Archer and of wolfram at the Pascoe River have deprived the field of some of its most enterprising men. The history of the Coen has latterly been that of one good mine—the Great



PADDOCK OF ROASTED ORE AT MUNGANA, CONTAINING 10,000 TONS.

Northern—which, systematically developed to a depth of 500 ft., has encountered in its progress alternate zones of comparatively poor and remarkably rich stone. The company last year paid 9d. per share in dividends. The Starcke has been enlivened by the advent on that field of the Starcke United Gold Mining Company, Limited, who are engaged in developing their holdings on the Last Hit and Boomerang lines of reef. The returns from 23 tons, shipped by boat from the Starcke to Charters Towers, showed the value of the stone to be £9 12s. per ton. The field has the great advantage of proximity to water carriage, the mines being only eight miles distant from the coast. A little alluvial mining is in progress on the northern bank of the Batavia River, and the search for fresh discoveries is still being carried on in a part of the territory that possesses many attractions for the veteran prospector.

Minor Fields.—Nothing of interest can be recorded of the Bowen fields. At the Normanby, the New Lamington Company, after considerable expenditure in removing and re-erecting their battery, have come to the conclusion that they cannot hope to carry on profitably without further outlay on machinery. The company crushed during the year 300 tons of stone, for a return of £386. The owners of the Commonwealth, having completed the erection of their five-stamp battery, crushed 69 tons, which returned gold worth £94. Some assistance to sink their shaft was given to the holders of the Perseverance. A parcel of 22 tons from the Golden Fleece claim crushed at the Commonwealth battery, yielded gold worth £67 10s. The Marengo field was visited during the year by representatives of a Mount Morgan syndicate, but the result of their examination has not transpired. Some 12 alluvial miners still earn a livelihood on the the Mount Wyatt field.

The Gaeta Pioneer Gold Company suspended operations in the early part of the year, and is now in liquidation. The plant was found to be defective, and arrangements are now being made for the formation of a new company, with the object of erecting suitable machinery and developing the mine at a depth. The Gaeta field is, at present, deserted.

Reid's Creek no longer attracts the alluvial miner, but some little attention is being paid to quartz-mining, and a small prospecting battery has been erected on the field.

The expectations formed with respect to Mount Shamrock have hardly been realised, and the mine is now exempted from the labour conditions.

After years of total neglect, the Paradise field is about to receive another trial by a party of men who have applied for a lease and erected mining machinery. Several old miners still earn a subsistence on the Stanton Harcourt diggings.

The year's output of the Eidsvold field consisted solely of bullion recovered from sands by cyanidation. An effort is, I understand, again being made to reopen the Mount Rose and Stockman Mine.

Mining on the Talgai, Canal Creek, Palgrave, and Leyburn fields, constituting the mineral reserves of the Warwick district, has been of a very meagre description. Indeed, the Talgai field alone has furnished any return of operations. Here the Big Hill Company have crushed a few hundred tons for a yield of from 4 to 6 dwt. per ton; but, realising that they cannot profitably treat their large low-grade ore-body with their present crushing power, have approached the Government with an application for assistance to procure additional machinery. A five-stamp battery has been erected at the Gladstone Mine, and two men have been employed in raising stone from shallow ground, and in prospecting new ground in the St. Patrick Extended claim.

Gold-mining in the Herberton district occupies a very subordinate position. At the Minerva Mine, at Mareeba, sinking on an extension of the Queen Constance reef proceeds in a very leisurely fashion. The Waitemata Mine, at the Clohesy, has been idle for some time past, and sluicing operations at the Upper Russell and the Mulgrave are carried on by a small and ever dwindling number of men.

An attempt to revive gold-mining at Horn Island has failed, and experience seems to show that, although gold has been profitably mined near the surface, the inducements to continue the pursuit into deeper ground are not sufficient to warrant any considerable expenditure.

Silver-lead.

Silver and lead are so often found associated with other minerals that doubt sometimes arises with respect to the particular class to which a mine or group of mines should properly be assigned. No hesitation of this nature need be felt in the case of the two great *Mungana* Mines—the Lady Jane and the Girofla—which, although their joint production of copper last year reached the respectable figure of 550 tons, valued at £34,027, are still pre-eminently lead mines. Development in both of these mines, now well ahead of the requirements of the current year, has exposed reserves that will tax the capabilities of the smelters to the utmost, and production will be regulated by the speed and effectiveness with which the new plant performs its functions. The mines last year produced 181,084 oz. of silver, valued at £22,307, and 2,270 tons of lead, worth £30,978—an earnest of what may be expected when initial delays and difficulties are overcome. The Chillagoe Consols, the property of the Chillagoe Mining and Investment Company, obliged from prudential motives to relinquish the opencut system of mining, have sunk a main shaft, and in a crosscut at a depth of 100 ft. have met with an ore-body 8 ft. in width. Some 2,000 tons of ore have long been awaiting their opportunity for treatment at the Chillagoe works, but the claims of the Mungana Mines have been paramount. Meantime, the fall in the value of lead from £22 to £14 has led to a restriction of operations in the Consols Mine. At the Crooked Creek Mine, also, more than 1,000 tons of galena await treatment, and the position of the owner, confronted by a falling market, and obliged to pay wages without any compensating return from ore, is not enviable. The mine, consisting as it does of a series of lenticular deposits, has always demanded a more than usual amount of exploratory work, the exhaustion of one lens being followed by the search for another. Several hundred tons of ore containing lead, silver, and copper have been raised from the Paisley and other mines at Muldiva, where, as at Mungana, the ore-bodies contain lead, silver, and copper. At Orient Camp, between Herberton and Montalbion, and long a minor centre of lead-mining, Weinert's Silver-lead Mines last year produced 1,121 tons of ore, containing 62,809 oz. of silver and 471 tons of lead, which realised £8,914, from which a sum of £3,000 was distributed as dividends. The lode, which is several hundred feet long and about 18 in. wide, has been opened up to a depth of 150 ft., and is rich enough to view market fluctuations with equanimity.

The Silver Spur Mine, at Texas, in the *Stanthorpe* Mineral Field, produced 7,231 tons of ore, which yielded 151,972 oz. of silver, 224 oz. of gold, 78 tons of copper, and 83 tons of lead, of a total value of £25,749. Smelting has been interrupted by shortness of water, but recent rains have now assured an ample supply. A Sydney company, known as the Silver Spur Proprietary, have acquired a lease of adjoining ground, and will at once proceed to sink

their shaft at a site 20 ft. from the southern boundary of the Silver Spur Mine. A breakdown in the machinery of the Queen Silver-lead and Copper Mine at Ballandean caused a temporary interruption of operations.

Twenty-five tons of ore from the Ukalunda Mine, on the *Sellheim* field, treated at Cockle Creek, gave the owners a net return of £1,747, and two other parcels of ore from the same district returned £80.

Silver-lead appears likely to become an important factor in the development of the *Etheridge*, where it occurs either as a concurrent constituent of the ore in mines hitherto worked exclusively for gold or is derived from lodes where lead and silver so predominate as to come within the category of pure galena mines. Of the former class are the Queenslander, Nil Desperandum, and Havelock; whilst the recently awakened interest in galena-mining is mainly directed to the small but rich lodes that lie along the head waters of Mosquito Creek, a few miles west from Charleston. Here a Melbourne firm have acquired a number of leases, which they have been continuously prospecting throughout the year by shafts and drives. The ore consists of very high-grade galena, although no large bodies have as yet been disclosed; and, although some parcels of ore have been despatched to smelters with payable results, costs of transport and treatment are, as a rule, prohibitive. Meantime, ore is being stacked in readiness for the advent of the railway.

Tin.

Although a decline in the value of tin from £190, the price ruling during the first six months of the year, to £120, the quotation in December, has created some consternation amongst producers, the year's output shows an appreciable advance over that of the preceding year. The disturbing elements already referred to have, no doubt, influenced the tin market, and generated a feeling of uncertainty as to how far the downward movement will proceed. But the present price is considerably higher than the average for the last 30 years, and the reflection that the recent extreme figures have had but small effect in increasing the world's output, and that the rivalry of competitors, such as enamelled, galvanised, and aluminium wares, does not appear to seriously lessen the demand for tin-plate may be reassuring to those who are apt to take a desponding view of the situation.

The greater part of our lode tin is still derived from the *Walsh and Tinaroo* field, and here the Stannary Hills Mines and Tramway Company, Limited, claim precedence, with an output of more than 700 tons of black tin. Most of this product was obtained from the extensive low-grade surface deposits of the Arbouin Hills Mine, the richer ore being supplied by the Ivanhoe, Kitchener, and Extended leases, supplemented by smaller quantities from the Eclipse, Young Australia, Caledonia, and other mines belonging to the company. A large amount of dead work has been done during the year, and the connection of the company's various properties by means of tunnels designed to facilitate the opening up of ore-bodies previously worked near the surface, is now almost completed. Nothing of much importance has yet been disclosed, but payable ore is still going underfoot, and deeper sinking will no doubt be resorted to in order to provide the reserves required to keep the company's large plant fully employed, whilst the alterations and additions to the works and to the surface equipment of the mines and tramway will contribute to a general reduction of costs. The Lass of Gowrie (next to the company's properties the most productive mine of the Stannary Hills centre), although idle during the greater part of the year in consequence of a protracted action at law, from 122 tons of stone furnished 28 tons of black tin, and, with energetic management, may be relied upon for an increased output in almost any condition of the tin market. Odd parcels of stone have been supplied by several other mines in the neighbourhood, but the general neglect to make provision for reasonable reserves of ore has brought more than one promising venture to an ignominous end.

Irvinebank is perhaps the most populous and thriving centre of tin-mining in the district, or indeed in the State; and, although it is impossible to refer in detail, or even to mention, the greater number of the many mines that contribute to its ascendency, brief reference may be made to a few of the more noteworthy developments of the year. The striking of a small bunch of rich ore in the main shaft of the Vulcan, at a depth of 1,215 ft., apart from its significance as evidence that tin lives in the deep ground, may, when the true value of the deposit is revealed by the new level opened in consequence of this find, prove to be an influential factor in prolonging the life of the mine. In the workings above the 1,050-ft. level, stoping operations have demonstrated a larger horizontal area of payable stone than was anticipated, and the mine may with confidence be expected to maintain its output during the current year, although no doubt the monetary value of the product will be affected by the lower market for metals. The Tornado, which adjoins the Vulcan, and which, as the subject of litigation involving points of interest in connection with our mining law has come into some prominence during the year, from some 800 tons of ore, from a practically new find near the summit of the Tornado Hill, obtained 80 tons of tin concentrates. At some distance lower down a tunnel has now been driven to the lode, which, with fuller development may prove to be of permanent value. The intention to erect a mill on Ibis Creek, to treat the Governor Norman stone, has been relinquished, and it is now proposed to connect the mine by tramway with the Loudon mill, which will be enlarged to meet the greater claims upon its capacity. The Governor Norman from casual crushings produced 50 tons of black tin, and may be expected to do better during the current year. The Ibis weir—a pile of concrete over 65 ft. in height—conserves a splendid supply of excellent water, which is now laid on to Irvinebank—a boon which the residents of that centre must gratefully appreciate. On the same spur of the Dividing Range as the Governor Norman, but at a higher elevation, the Endeavour and Leslie Mine during the earlier months of the year maintained a respectable output, but latterly the ore-body appears to have cut out, and the owners have transferred their attention to their recently acquired Captain Mine on the Dry River, where they are opening a small vein of high-grade ore. At the Jumna, development which, during the late period of high prices, has been entirely subordinated to the extraction of ore, is again about to be resumed, and the shaft is now being sunk deeper. The Go-Ahead Company are now treating ore from their Jester, Surprise, and other leases at their newly erected works, and, under capable and experienced management, have fair prospects of success. The Vulcan Hope Company, with some assistance from the Government, purpose erecting a plant to treat the considerable body of ore opened up in their Mount Agnes lease. The Norman, Caletta, Consolidated, Mount Peterson, Adventure, and many others convey their crushings with more or less regularity to the Irvinebank, Bischoff, and Star Mills, and will continue to contribute to the district's output of tin.

The Smith's Creek Proprietary Mine, at Nymbool, although hampered by vexatious delays from



AERIAL TRAMWAY.
For Conveying Ore across the Gorge from Arbouin Tin Mine to Tramway, Stannary Hills.

defective machinery, yielded 350 tons of black tin—an output that in quantity closely approaches, and in value greatly surpasses, that of the Vulcan, thus fairly vindicating its claim to rank as the second largest producer of the year. Horizontal development between the 100 and the 300 ft. levels has proved the lode to be 130 ft. long by 30 ft. wide, carrying 2·6 per cent. of very pure mineral, and there is good reason for believing that the additional 100 ft. of sinking now contemplated will disclose further payable deposits. A mile north-easterly from Nymbool, Hall's Mine is developing its deeper level, with promising results, and a rich vein of tin oxide in quartz is being opened up by the Nymbool Queen.

Foremost of the many mines in the still imperfectly explored territory which forms watershed of California, Reid's, and Emu Creeks, are those of the Gilmore group, which, last year, under disadvantageous conditions of equipment and transport, produced nearly 300 tons of tin concentrates, representing nearly 15 per cent. of the stone treated. The deepest workings are now down 200 ft., and sufficient stone has been exposed to warrant the expectation that the past rate of production will be maintained during the current year. Amongst other contributors to the recently erected Gurrumba mill were Dalziel's, with more than 100 tons of black tin, partly derived from the outcrop; the Adelaide, with 60 tons obtained from 6,000 tons of stone—a result of 1 per cent., but said to be payable; the Right Bower, with 50 tons, being 19 per cent. of the output; the Village Blacksmith, noted for its rich though somewhat narrow veins; and the Elsie, whose 23 tons of tin from 64 tons of stone had again established a record yield for the quantity of stone treated, when unfortunately the vein was completely cut off—a fate that has also befallen the Rose of Tralee, whose performance in 1906 seemed to promise a prosperous future. The Gurrumba mill, whilst an unquestionable boon, cannot advantageously serve the more distant mines of the district. It is probable, therefore, that while the mines on the upper watershed of Reid's Creek will continue to send stone to Gurrumba, those from the Village Blacksmith eastward to Emuford will give their custom to the new mill now being erected, with some assistance from the Government, by the Emu Creek Tin Mining and Milling Company, and so effect a considerable saving in the cost of transport.

In the immediate vicinity of Herberton mining has been more active and prospects are brighter than for many years past. The improved position of the Great Northern Freehold (last year the eighth most productive mine of the field) is due to the reopening of old surface workings. Close by the southern boundary of the freehold, in a shaft sunk in an abandoned quarry known as the "Froghole," is now being followed a body of high-grade tin ore that has helped to substantially augment the latterly very moderate output of the mine. Small quantities of ore are also being won from various levels in the main shaft, but no development of importance in the deep ground has been announced during the year. The Good Friday, from an ore-body persisting from near the surface to a depth of 80 ft., has, during 1907, crushed 227 tons of stone for a return of 25 tons of high-grade tin, and has now at grass some 60 or 70 tons of similar ore. The Adelaide Syndicate, who own the Bradlaugh and Wild Irishman, have raised occasional parcels of good stone, but more comprehensive methods of mining are wanted to make the mines payable. The drainage, by means of a tunnel, of the old shaft of the Phœnix Mine, near the Great Northern, has revealed a fairly extensive quartz lode carrying payable tin; and the Black King, St. Patrick, Ironclad, Easter Monday, Anti-Socialist, and about a dozen other mines on the Herberton Hill have helped to swell the output.

None of the Watsonville mines have produced any considerable quantity of tin during the year, although the aggregate output from that centre is respectable. The extension of the T tunnel in the Cuprite Mine, and the driving of a new tunnel a distance of more than 400 ft. through intensely hard country in search of the King of the Ranges lode, represent the prospecting work of the year.

At Bakerville the New Era, hitherto an object of interest as an instance of the successful treatment of extremely low-grade ore, has at length succumbed to a falling market, and possibly in some degree to a change of management at a critical period. From January to December last 6,697 tons of ore were treated for 57 tons of tin, or 0·85 per cent.—an unpayable result at present prices. Barely a mile distant, and in similar country, the tributers of the Bakerville Mine, from a body of considerable extent, are raising ore of payable quality.

The failure of the old Coolgarra Company still overshadows that portion of the district, and want of capital precludes systematic development. Intermittent crushings from the Alhambra, Dalcoath, Grant, Stapleton and Barrett, St. Patrick, Excelsior, and many others have contrived to keep ten head of the local battery supplied during the greater part of the year.

At Koorboora both the older mines and those more recently discovered have fairly responded to the calls made upon them; and, as the ore bodies have an appearance of considerable permanency, a satisfactory return from this centre may be looked for during the current year. Dissatisfaction has been expressed by some of the mineowners of the district with the results obtained from the Koorboora mill, but inquiry goes to show that any disappointment experienced is due less to defective treatment than to over sanguine estimates of the tin contents of the stone.

Tin-mining in the Dry River Valley is at a lower ebb than for some years past. Frequent changes of management have adversely influenced the fortunes of the Lancelot Company, and have retarded any continuous system of prospecting. The diamond-drilling plant sent from Germany has proved quite inadequate, and the little work done by it has been costly and fruitless. The Lancelot Mine during the first half of the year yielded 20 tons of concentrates, but during the latter half was entirely unproductive, since exploratory work had failed to expose any payable ore. Nor have much better results attended operations at the Magnum Bonum and other mines of the company, who have now to face the unpleasant consequences of want of foresight in neglecting to keep development work in advance of ore-winning. The Hadleigh Castle, owned by a local syndicate, after a period of repose, was unwatered in June last, and has since then furnished a few tons of tin, but the veins are usually small and disjointed, and occur in very hard granite.

A three-head battery, driven by an oil engine, has been erected to treat a small lode in the neighbourhood of Fossilbrook. The occurrence of angular tin-bearing stones seems to point to the existence of other lodes in the district, and the approach of the Almaden-Etheridge Railway will no doubt stimulate prospecting in this part of the field.

At the close of the year there were in the Walsh and Tinaroo field 14 plants for the treatment of lode tin, with a total reducing power of 172 stamps, 3 Huntington mills, 2 sets of Cornish rolls, and 15 rock-breakers. Only 10 of the 20 stamps of the Coolgarra mill were in use during the year, and the New Era mill (ten stamps) and Lancelot mill (five stamps) were closed during the latter part of the period under

review; whilst the ten-stamp mill commenced three years ago at the Lancelot still remains uncompleted. A new mill is in course of erection at Lower Reid's Creek, and another is projected in the neighbourhood of Irvinebank.

An active demand for labour for railway and tramway construction, coincident with a prolonged period of dry weather, has served to considerably reduce the number of men who commonly follow the pursuit of alluvial tin-mining, and no fresh find of alluvial tin fitted to engage the attention of the individual miner has been announced during the year. Considerable advance has, however, been made in the more ambitious alluvial propositions, where machinery has been called in to cope with conditions too onerous for ordinary methods. The first of these ventures, which commenced operations on the upper portion of the Herberton lead in 1906, has proved a failure, and the promoters (the Wild River Tin Mining Company) have abandoned their ground and removed their machinery. The Herberton Tin Mining Company, three miles further down the lead, have, on the other hand, by a careful system of boring, been very successfully proving the extension of the tin-bearing drift at depths approaching 130 ft. Shafts, sunk at judicious intervals, are being connected by drives through highly payable wash, and small winding plants have been erected in readiness for the removal of the pay dirt when the connections are completed; whilst in advance the Keystone drill is engaged in following the course of the lead and fixing the site of future operations. The company should add to the production of the current year. Of the superficial low-grade alluvial tin deposits of the field, perhaps the most prominent is the Mount Garnet Hydraulic Company's mine at Glutton Gully, where the water from Mount Garnet dam, forced by a centrifugal pump through a giant nozzle, breaks down the ground, whilst by means of another pump the pay material is elevated to tin-saving sluice-boxes. Near the confluence of the Dry River and Woolooman Creek, the New Dorothy and Woolooman Creek Companies are engaged, the former breaking and concentrating tin-bearing gravel, occurring on a hillside, the latter in hauling washdirt from river and creek beds for treatment in a revolving screen—in both instances hampered by want of water. About 20 miles west from Port Douglas, at an elevation of 4,000 ft. above sea-level, the Mount Spurgeon Alluvial Tin Mining Company have temporarily suspended sluicing operations, and are now engaged in lowering their tailrace, so as to allow the deeper ground in Sandy Creek to be worked. The find of alluvial tin under basalt about a mile below the junction of the Wild and Dry Rivers, referred to in last year's report, has been worked with payable results, but the ground is wet, and, as yet, no person has ventured to explore the many miles still lower down along the edge of the basalt on the left bank of the Wild River. Whilst, from causes already mentioned, the yield of alluvial tin recovered by ordinary methods is likely to diminish rather than increase, the returns from alluvial companies should augment the output for 1908.

Ewan continues to be the chief centre of the *Kangaroo Hills* field, and here the Mount Brown Company, encouraged by the development in their own properties, and by the support accorded by neighbouring mines, are adding to their mining and reducing machinery. Whilst the older mines in this locality have thus been maintaining their ouput, a new and promising competitor, known as the Mount Kidston, has come forward during the year, furnishing as a first contribution 400 tons of ore, which yielded 3½ per cent. of black tin, approximating 70 per cent. of metal.

Satisfactory crushings have rewarded the tributers of the Rob Roy and Separation leases, at Waverley; but, although good stone occurs in most of the company's mines, the shoots are so irregular as to discourage systematic development. The very complete ten-stamp battery recently erected at Red Hill, 20 miles north-east from Waverley, has treated about 6,000 tons of tin-bearing cement, for a return of about 12 lb. per yard of gravel. Operations have been greatly retarded by want of water, and it is now proposed to pump water from Pineapple Creek, with the view of concentrating the gravel before subjecting it to battery treatment, although it is possible that eventually the battery process may be discarded in favour of some system of hydraulic sluicing.

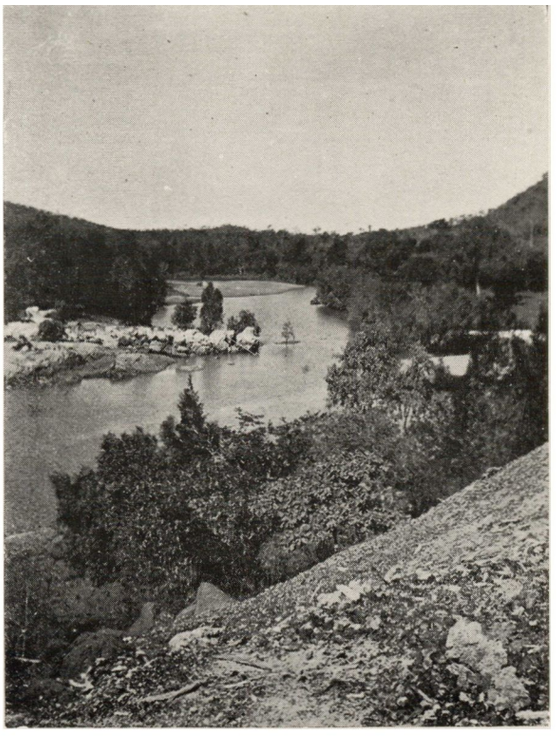
Considerable interest has been manifested during the year in the dredging possibilities of the numerous creeks and flats of the district. The long reaches and flats of the upper portion of Running Creek especially have been declared by Southern visitors to possess all the features favourable for dredging, and tests by boring are now being made to ascertain whether tin exists in sufficient quantities. Only one dredge has been actually operative—that of the Pilot Company, who, on their areas at the head of Oaky Creek, have been encountering and gradually solving and surmounting the problems and perplexities that beset the establishment of an industry under strange and untried conditions.

Although heavy rain, both in the opening and the closing months of the year, caused some injury to races and shafts in the tin-mining centres south of *Cooktown*, operations, on the whole, have been fairly successful. The Queensland Tin Sluicing Company, after a year's delay caused by impassable roads, have completed the construction of a hydraulic plant that will probably serve as a model to other mine-owners in the district. Water, conveyed by pipes from the Home Rule Falls to the Home Rule claim, a distance of one and a-quarter mile, sweeps the material to be treated into a sump, whence it is lifted by hydraulic pressure, and discharged into a tailrace made of red cedar obtained in the neighbourhood. The Annan River Tin Mines, whose race from one of the heads of Parrot Creek to their Leswell leases is seven miles long, were, from lack of water, towards the close of the year obliged to suspend sluicing operations, but continued to develop their Collingwood lode. At the Phœnician Company's mine three tunnels were driven, and 31½ tons of ore from the No. 2 tunnel, treated at the Irvinebank works, yielded 4 tons of 70 per cent. tin—a result that has encouraged the shareholders to persevere in the development of their property. The Mount Romeo Tin Mining Company have been testing their dredging claims on the Annan by an effective system of boring, at places to a depth of 50 ft. On the Upper Bloomfield a party of men, assisted by the Government, are constructing a race to bring water from the Roaring Meg Falls to their claims at Lode Hill, a distance of three and a-half miles. More than 30 men are now mining alluvial tin at Mount Windsor and the other heads of the Palmer River, and about the same number find profitable employment at the Archer River, in the northern part of the peninsula. There are signs of awakening curiosity with respect to the resources of the somewhat inaccessible regions to the south of Cooktown, and the Warden refers to the special interest displayed by visitors to the district in the possible application to economic purposes of the great water power of the mountainous watershed of the Annan and the **Bloomfield.**

Dredge-mining at *Stanthorpe* is gradually being established as an important branch of the industry,



"REFLECTIONS."
View of a Crater of an Extinct Volcano, Einasleigh Mine.



THE EINASLEIGH RIVER.
View from Brace of Main Shaft of Copper Mine.

and last year two additional dredges were brought into commission. The Rover Proprietary have disposed of their original plant, and, dispensing with the services of a punt, now carry on operations from land, confident that the periodical removal of the pump and engines will be less costly than the method formerly followed. Much delay occurred in the substitution of the new plant, and the year's output of 18 tons, valued at £2,250, cannot be accepted as any criterion of the capabilities of the property. The Paddock Swamp Company, with a new centrifugal sluicing plant, commenced work in September last on an area about nine miles from Stanthorpe. The ground, which has been well tested by boring, averages 2 lb. per yard. The Stanthorpe Proprietary —the pioneer dredge of the field—working principally over old ground, from 377,300 tons of earth recovered 60 tons of tin. The Spring Creek Company, having purchased the discarded Rover plant, are ready to begin operations when rain falls. A Southern syndicate have acquired about 50 acres of dredging land at Quartpot Creek, and, should examination of the ground show the expenditure to be warranted, will install a centrifugal pump sluicing plant. The Broadwater Company, after a somewhat disappointing experience, have sold their plant. The Dalcoath Syndicate are about to make careful tests of their areas.

The gradual exhaustion of the known sources of stream tin and insufficiency of water for sluicing purposes have constrained the miners at *Stanhills*, in the Croydon field, to pay more attention to the development of the lodes in that locality. Three promising mines—the Brilliant, the Vincent, and the Mount Cassiterite—are now being opened up, the first already known as one of the principal lodes of the field, the others comparatively recent discoveries. Three tons of ore from the Brilliant, shipped to Sydney during the year, gave a net return of £82 ; 13 tons from the shaft of the Vincent, crushed and dressed at Croydon, yielded 9½ per cent. black tin, and 12 tons from the opencut of the Cassiterite, also treated at Croydon, returned 8½ per cent. black tin. A number of other lodes are held and worked by individual miners, and it is hoped that the renovation and reopening of the local battery will help to stimulate the production of the field.

The *Lancewood* Tinfield (Angore and Truxillo), on Elizabeth Creek, about 16 miles from Quartz Hill, and near the boundary line between the Etheridge and the Walsh and Tinaroo fields, has afforded fairly remunerative occupation to some 50 men, whose winnings may be set down as, approximately, 58 tons, valued at £6,300. Large quantities of stacked earth were also being washed at the beginning of the present year. Several lodes are known to exist in the locality, but in the absence of reducing power no serious attempt has been made to develop them.

Amongst the later accessions to our tin-mining centres may be mentioned the small communities at Stockyard Creek and Sandy Creek, on the Hillgrove Run, about 70 miles north-west from Charters Towers, where several lodes of more than average quality are being opened. At Sandy Creek especially some excellent returns have been obtained, ranging from 7 per cent. to 30 per cent. of tin oxide, but the cost of cartage and treatment prohibits stone carrying less than 5 per cent. being sent to the battery at Stockyard Creek, which is about 15 miles distant. The total output from this quarter last year was 36½ tons of tin, of the value of £3,311.

Copper.

The dramatic vicissitudes of copper have invested that metal with an altogether special interest. Standing at £106 in January, and with prices still ascending, confidence in the position was supported by the higher value commanded by forward copper. In March the price had risen to £112, the highest point attained, whence, with various oscillations, it receded to £98 in June. Thenceforward a rapid decline set in, and the year closed with copper at £62. Production was naturally influenced by the mutations of the market, and the enthusiasm that exalted every copper-stained rock to the dignity of a mine was followed by despondency perhaps equally unreasonable. More sober views now prevail, and the favourable developments in some of our more recently opened mines have again to some extent helped to revive interest in this branch of the industry.

To the brief notice of *Mount Morgan* already furnished it is only necessary to add that the main ore shaft has now reached the depth of 950 ft., that a third furnace has been brought into commission, and that in March of the present year all three furnaces will be working up to their full capacity, increasing the output by 40 or 50 per cent., and providing employment for 100 additional men. The output and the number of persons employed will be still further augmented when the basic ore from the Many Peaks Mine has been rendered available by means of railway connection between Many Peaks and Mount Morgan.

Few of the smaller copper mines in the *Walsh and Tinaroo* field have survived the fall in the value of the metal, and latterly the prominent feature amongst all the active mines in the district has been the subordination of ore-winning to the development of reserves in readiness for the hoped-for market revival. At the same time, new and more efficient machinery is being introduced, tramways are being constructed, and roads repaired, all with the object of reducing the cost of converting the ore to metallic copper, and of ensuring the more regular and speedy conveyance of goods and material to and from the mines.

At the O.K., which is still the leading individual mine of the field, development by sinking, driving, and boring has proceeded vigorously throughout the year, and the estimated ore reserves approach 30,000 tons, containing approximately 8 per cent. metallic copper. An effective winding plant has replaced the temporary structure hitherto used, the main shaft has at length been deepened, and new levels on payable ore-bodies are being opened up at a depth of 200 ft. At the smelters a massive and lofty chimney stack improves both draught and ventilation, and harmlessly dissipates fumes formerly hurtful. Attention to the roads, and some concessions in the railway rates between Mungana and Mareeba have reduced the cost of transport, and the accumulation of supplies of firewood, coke, and limestone, sufficient to last through the wet season, will obviate the loss and annoyance caused by the protracted stoppages of former years. Recent rains have filled the dams, and an ample supply of water for the works and for the town is assured for some time to come.

None of the lesser mines in the neighbourhood of O.K. have made any conspicuous advance during the year. The O.K. Surprise and the O.K. Block have both produced small quantities of ore, but as yet can only be regarded as prospecting ventures of a favourable type, a class within which may be included, though in a less degree, the O.K. East and the Mitchell Surprise.

The decrease in the size and value of the ore-body at Mount Molloy, which necessitated the closing of the smelters in November last, has led to some modification and extension of the policy hitherto observed. The aim of those in control appears to be

to keep the very complete reduction works fully occupied, and in pursuance of this object they have recently installed at the mine additional machinery, which will greatly accelerate the progress of the development of their own ore-body, and have also intimated their intention of becoming competitors for the purchase and treatment of public ores, quoting a tariff that should appeal to mine-owners. In further support of the smelters, the company are said to be negotiating for the acquisition of other copper properties situated within a convenient distance from the Molloy works. Late reports from the mine tell of ore-bodies of fair size in the bottom levels—375 ft. and 475 ft.—containing 6 per cent. of copper, and payable patches of ore are still to be found in the upper levels.

From a lengthy lode averaging about 2 ft. wide, the Sweet William and Gladstone has furnished the Molloy smelters with ore which yielded 40 tons of copper. The ore is good, but is enclosed in hard granite, and any substantial increase in output can hardly be looked for.

Third in order of production in this district come the Mungana Mines, with an output of over 550 tons, and when it is considered that copper is only a by-product of mines producing immensely larger quantities of lead, besides many thousands of ounces of silver, some conception may be formed of their value to the district. The ore reserves of the two principal mines—the Lady Jane and the Girofla—are extensive, and, provided no unlooked for interruptions occur, the mines promise to lead in copper production for 1908.

The output of the Ruddygore, Zillmanton, and Redcap mines entitles the Chillagoe Company to rank as the fourth largest producer of copper in the district. The permanence of the ore-body in the Ruddygore has been considered to be sufficiently established to warrant the sinking of a new shaft from which the deeper ground can be opened. An unexpected incursion of water retarded development of the Zillmanton Mines, although prospecting by diamond-drill has been attended by fairly good results, and the new shaft has been sunk to a depth of 360 ft. From the Redcap group little of an encouraging nature has been reported, but the more vigorous policy of development now contemplated may during the current year reveal ore-bodies of a larger and more payable character.

Of the many smaller mines of the district, whose collective contributions to the Chillagoe smelters have resulted in the substantial output of 300 tons of copper, perhaps the most prominent has been the New Anniversary, at Herberton, which last year, from 550 tons of ore, recovered 93 tons of metallic copper and 5,600 oz. of silver, and now, encouraged by the moderate smelting charges of the Mount Molloy Company, has resolved to proceed with vigorous development. Amongst other smaller mines which promise to become greater, may be mentioned Renton's Independence, near Watsonville, from which a parcel of 100 tons has been despatched for treatment at the Mount Molloy smelters, the Sulphide, recently acquired by the Mount Molloy Company, and Coop's Sid Mine, near Koorboora.

The policy of vigorous development pursued by the Queensland Copper Company at *Mount Perry* during a period of high prices, and the improvements and additions to their works which permit extension of their system of treating ores for the public have helped to mitigate the severity of the unexpected fall in values in a district that is almost entirely dependent on a continuance of the company's operations. Mount Perry is still one of our soundest mining centres, with, under moderately favourable market conditions, excellent prospects of expansion.

The Mount Perry Mine, still the most productive of the company's properties, has furnished large quantities of ore from the 8th, 9th, and 10th levels, the latter of which has been extended many hundreds of feet, and now shows in the stopes above it a continuous length of 1,400 ft. of good ore, averaging 10 in. in thickness. A winze, 141 ft. deep, connects with the No. 11 level (vertical depth 1,150 ft.), which will be further driven when intersected by the new shaft—the Milne—which at the close of the year had reached a depth of 685 ft., and will eventually be the main ore shaft, taking the place of the Kennedy, haulage from which, owing to the increasing distance of the workings, has become costly and inconvenient. The Normanby, a comparatively recent and very fortunate acquisition, already closely rivals the Mount Perry Mine, and promises to become the most productive of the company's numerous properties. In the main, or southern, section of this mine extension of the second level, 350 ft. from the surface, has rendered a large quantity of ground available for stoping, and a winze sunk to a depth of 100 ft. below that level has proved the continuance of the payable ore. The Palmer, or northern section, has furnished a regular and increasing output during the year. The drives of the No. 2 level have been extended for some hundreds of feet on payable ore, and a third level, opened at a depth of 260 ft., has followed the lode for a distance of 460 ft. From a point lower in the hill, and about 1,100 ft. north of the shaft, a tunnel is being driven which intersects the third level, providing means of drainage for surface water, and also an ore-way pending the enlargement and renovation of the shaft which was sunk many years ago. A new shaft, 1,500 ft. north of Palmer's, has been commenced, with the object of testing the northern part of the property. At the New Moonta Mine a fourth level has been opened, but has not yet been driven far enough to intersect the ore shoots worked at the higher levels. As will be seen from the appended statement, the ore contains more than the average proportion of gold and silver.

The new blast furnace, together with various improvements at the works, introduced with the object of preventing waste, have conduced to a higher recovery from the ore treated; and the construction of the Boyne River Railway, by permitting the substitution of the pyritic ore from their Many Peaks leases for the barren fluxes now used, will be an important factor in the further reduction of costs.

The following is a return showing the ore mined and treated by the Queensland Copper Company, Limited, with mineral contents, for the year ended 31st December, 1907:—

Where obtained.	Tons of Ore.	CONTENTS.		Oz. of Gold.
		Tons of Copper.	Oz. of Silver.	
Mount Perry Mine	7,195	928·3	37,313·8	233·4
Normanby Mine ..	6,006	566·3	24,670	720·8
New Moonta Mine	1,409	112·9	17,779	562·5
Purchased	3,334	435·2	25,999	1,826·4
	17,944	2,042·7	105,761·8	3,343·1

At the Harper's Hill Mine, the property of the Normanby Syndicate, whilst production has been confined to high-grade ore that will bear the cost of transport, shafts have been deepened, levels extended, and all preparation made for attacking the main bodies when the concentrating plant, specially designed for the treatment of gold-copper ores, is ready. The property is being developed by means of a tunnel and five shafts, with two winding plants in operation and a third ready for erection. The veins average 12 in. in width, and contain 18 per cent. of copper, 15 oz. of silver, and a trace of gold.

Boolboonda, about ten miles north-east from Mount Perry, now supports a population of some 400 persons, and the reduced scale of charges for treatment lately promulgated by the Queensland Copper Company should stimulate mining in a locality where a number of small rich lodes, within a few miles of railway transport to smelters, afford to practical miners an excellent opportunity of earning a livelihood. Of mining of a slighty more ambitious character the operations of the Gibb Copper Mines, Limited, may perhaps be taken as representative. This company have for the last eight months been steadily developing two parallel lodes, which average about 12 in. in thickness, and contain copper, gold, and silver. A concentrating plant has been erected, and 50 or 60 tons of concentrated ore have been obtained.

The meagreness of information from *Cloncurry*, and the comparative insignificance of its output, may not unnaturally suggest the notion that the year's operations have been of a somewhat listless character. But when the difficulties and delays involved in the conveyance of men and material to the various outposts of this very extensive field are considered, and it is borne in mind that the immediate object of the principal mine-owners is less the production of ore than the installation of machinery, and the exploration of their properties by sinking, driving, and other work of a prospecting nature, it may fairly be claimed that substantial progress has been made.

"At Hampden, Mount Elliott, Wee MacGregor, Mount Cuthbert, and the Duchess, developments have been fairly favourable throughout the year," says the Warden in his report of the 2nd January last, adding that "at the time of writing Mount Elliott, Hampden, the Wallaroo, and the local mine—the Great Australian—are all looking better than at any period of their history."

Exploration at the Hampden has been particularly active, especially during the earlier part of the year, when more than 50 men were employed. Four new main shafts, from which it is intended to block out the ore-bearing zone, have been sunk from depths varying from 164 to 240 ft., and from the old No. 12 shaft numerous drives and crosscuts have exposed a kaolinised formation with oxide and sulphide, low in value except towards the north, where there is said to be a body of fair-grade ore 90 ft. wide. During the latter months of the year expenditure has been restricted to one or two important points of development, pending the completion of arrangements for the construction of a railway from Cloncurry to the mines. On Block No. 15 (the Hampden South Consols) an 80-ft. shaft has been put down, and a crosscut has entered a ferruginous body carrying copper ore. At the Duchess, owned by the Hampden Company, the chief work for some time has been the equipping and sinking of a main shaft, which, from late reports, has now attained a depth of 163 ft., and crosscuts have been started to intersect the Duchess and the Duke lodes, the latter a new ore-body, low in grade, at water level.

At Mount Elliott also the work has been largely of an exploratory nature. The main shaft has now been sunk to a depth of 362 ft. on the underlie, equal to 315 ft. vertical, and a drive from a crosscut put in at a vertical depth of 285 ft. has penetrated a body of dense primary sulphides, fairly basic, and about 3 ft. wide; whilst from the higher levels a large amount of driving and cross-cutting has exposed considerable bodies of high-grade ore. A new underlie shaft is being sunk beneath the main outcrop, which will serve as a way through which all the ore mined in the opencut will be hauled. In the process of development 700 tons of ore have been raised. The mining plant on this property was augmented during the year by the addition of an air-compressor and rock-drills, and an excavation was cut to receive the water-jacket furnace, the erection of which is now well under way.

The Wee MacGregor Mines, from their strong financial position, which enables them to carry on the work of exploration, and also from the success that has attended their operations, continue to command a certain amount of public attention. At the Wallaroo, so far the most promising mine of the group, a main shaft is now being sunk, and a winding plant has been erected. In the No. 1 prospecting shaft the exploratory work at the 84-ft. level exposed a body of 12 per cent. sulphide ore, 100 ft. long by 30 ft. wide, and indications seem to show that this deposit will extend to the south, thus adding considerably to the body already opened north of the shaft. Underground developments at this mine have fulfilled the promise of the gossany outcrops, which Mr. Ball pronounces to be among the best and most persistent in the district. At the Wee MacGregor three prospecting shafts have been sunk upon, and an adit driven into poor formation, and the Great Central is also still in barren formation.

At the Cornet, Jessie, and other mines of Willcocks's groups at Corella and Duck Creek, prospecting has resulted in nothing specially satisfactory.

The Queensland Copper Freehold, Limited, have been exploring so far with unsatisfactory results, four of their freeholds—the Argylla, the Just-in-Time, the Dobbyn, and the Crusader. At the Argylla the diamond-drill bore passed through a formation about 200 ft. wide, carrying an average of about ·2 per cent. copper, whilst in the workings off the shafts, at the 100-ft. level, small bunches of high-grade oxidised ore were met with.

The Mount Cuthbert Mines, 64 miles north-west from Cloncurry, are being developed systematically. On lease No. 107 the main shaft, sunk to the east of the lode, has reached a depth of 280 ft., and levels are about to be opened with the view of proving the size and quality of the various ore-bodies in the formation. The manager has also been prospecting from an old shaft sunk by former owners of the property, and a drive at a depth of 87 ft. has exposed two seams of good ore, separated by 1 ft. of barren formation, the eastern seam being 3 ft. 6 in. wide, carrying 12 per cent. copper, whilst the western, or hanging-wall, seam is 2 ft. 6 in. in width, and contains 20 per cent. of metal. Crosscuts from the same level have passed through various seams of ore, those on the eastern side aggregating 9 ft. 6 in., whilst the western cut has penetrated about 9 ft. of lode formation, worth 9 per cent. of metal. The development of lease No. 381 (the Kalkadoon), at the north-eastern end of the Mount Cuthbert property, has also been continued, with satisfactory results. Some very rich stone has been taken from this lease, and the drives at the 75-ft. level now expose a formation, varying from 5 to 14 ft., and carrying a seam of from 18 in. to 2 ft. of high-grade ore. The company are also sinking the Warwick Castle lease on the eastern side of the Mount Cuthbert formation, and are prospecting the Surprise Mine on the Leichhardt River, some miles easterly from Mount Cuthbert. A shaft has been sunk on the lode to a depth of 42 ft., and the sink is in ore worth 15 per cent. The formation is about 14 ft. wide.

At the Magnet, on the Dugald River, a main shaft is being sunk, with the expectation of meeting the formation at a depth of 200 ft., and the mine is being otherwise developed from two prospecting shafts. At the 100-ft. level of the eastern shaft

drives east and west for a distance of 60 ft. each way have followed a lode varying from 2 to 4 ft. in width, and consisting chiefly of enriched sulphides; whilst in the western shaft, at the 100-ft. level, drives extended each way for about 8 ft. have exposed a sulphide lode about 3 ft. wide.

No authoritative information with respect to Mount Oxide has reached the Department since the time of Mr. Ball's visit, towards the close of 1906. The deposit is said to be one of the largest and most important in the district, but no serious effort to develop it is possible until railway communication has been established between the mine and Cloncurry, or, preferably, Burketown or Normanton.

The Great Australian Mine, which from its past history and advantageous position attracts more than ordinary interest, has, by sinking, driving, and boring been earnestly striving to justify the exalted hopes of its supporters. Small success attended these efforts until, early in the present year, in the south drive running off the western crosscut from the main shaft, at a depth of 200 ft., a body of black sulphide of copper was met with at a point about 130 ft. south of the shaft. The ore, which is very soft and friable, and is said to average 15 per cent. of copper, has, from latest accounts, been penetrated for a distance of 70 ft., the mean width of the body for the whole length being 5 ft. 6 in. Later developments in one of the diamond-drill holes tend to confirm the importance of a discovery which greatly enhances the value of the particular property, and may influence the fortunes of the field generally.

More than 800 mineral leases, comprising an aggregate area of nearly 10,000 acres, were held in Cloncurry at the close of the year.

The foregoing very cursory notice of a few of the more prominent mines may serve to show the nature of the year's operations. It is altogether too early to indulge in forecasts of the future. The present year will no doubt add to our knowledge of the mines; but, with rare exceptions, expressions of opinion, eulogistic or disparaging, are premature. Patient development can alone determine the value of the ore-bodies at Cloncurry, and it must be remembered that the vast majority of mines in the district, even if they prove to be all that their supporters believe them to be, can never be profitably developed without a system of railways and tramways converging into Cloncurry, or, in particular instances, until railway communication has been established with one or other of the ports in the Gulf.

In no part of the State have the consequences of the fall in copper been more manifest than in the *Gladstone district*, where two of the three important mines established at the head of the Boyne River have been obliged to suspend operations, and the Mount Hector Mine alone continues to contribute to the copper output of the State. At Glassford Creek the opencut method of mining having been found to be both dangerous and inefficaceous, a system of underground development was adopted and pursued until, early in September, financial embarrassments, together with the excessive cost of maintaining supplies of coke and flux, and the continuous fall in the price of copper, forced the company to cease operations. During the year 4,787 tons of ore yielded 100 tons of copper, 653 oz. of gold, and 3,576 oz. of silver, or an average of a little more than 2 per cent. of copper, 2¾ dwt. of gold, and ¾ oz. of silver. The population, estimated to be 346 at the beginning of the year, was at its close 40, so that this centre is at present practically deserted.

At Mount Cannindah the deepening of the main shaft (190 ft.) and the opening of the No. 2 level (120 ft.) proved the existence of a large body of sulphide ore, containing 2 per cent. of copper. With the view of economically dealing with ore of so low a grade, very considerable additions were made to the mining, concentrating, and reducing machinery, but before an opportunity had been afforded of testing the efficacy of these improvements, the mine was forced to yield to the low price of copper, and to sue for a term of exemption from the labour conditions. The year's output was 11,618 tons of ore, yielding 260 tons of copper, 134 oz. of gold, and 5,431 oz. of silver, being an average of 2 per cent. of copper, 5 gr. of gold, and ½ oz. of silver. The Mount Hector Mine has the advantage of possessing a lode containing a comparatively high proportion of gold in its ore, and is also fortunate in containing within its boundaries all the materials required for fluxing purposes. The reverberatory furnace erected in March last treated 2,549 tons of ore, which returned 117 tons of copper, 675 oz. of gold, and 2,928 oz. of silver —an average per ton of ore of 4½ per cent. of copper, 5¼ dwt. of gold, and a little more than an ounce of silver.

The Mount Morgan Company, having conclusively proved the existence in their holdings at Many Peaks of many thousands of tons of ore, invaluable as a flux and otherwise profitable from its copper contents, have relaxed the vigour of their operations until the completion, or at all events the commencement, of the Boyne Valley Railway warrants the production of ore on an extensive scale. Here also the Queensland Copper Company have been opening veins containing ore similar in appearance and quality to that of the Many Peaks Mine, in the hope that it may become auxiliary to their operations at Mount Perry.

Interest in the mineral deposits of the *Mackay district* is not altogether of recent date. More than thirty years ago a number of mineral freeholds were acquired at Mount Flora and Mount Orange, and, from time to time, as the value of the metal became ascendant, efforts have been made to attract attention to these properties. In the latest phase of the copper drama Mackay has again come forward in a minor, though not insignificant, part, and has probably been accorded more generous recognition than on any former occasion. During the earlier part of the year, land at Mount Flora was eagerly appropriated, and at one time, in addition to three mineral freeholds, 22 holdings under the Mining Act, comprising 2,200 acres, were being prospected by not less than 150 miners. The fall in the value of copper had its usual chilling effect; a number of areas were abandoned, and it was recognised that the cost of transport over the 70 miles of road between the mines and the railway terminus prohibited the despatch of ore unless of exceptionally high grade. Efforts are now being made to erect reverberatory furnaces on the field, and, as mining operations have, so far, been distinctly promising, and there are now stacked awaiting treatment 800 tons of ore, ranging from 8 per cent. upwards, and containing appreciable quantities of gold and silver, it is probable that satisfactory arrangements in this direction may be made. From the Mount Flora freehold, the chief producer of the district, there have been despatched during the year 440 tons of ore, which yielded 93 tons of copper, 2,428 oz. of silver, and 14 oz. of gold, of a total value of £8,685. On the Mount Spencer field the Pine Vale Syndicate have continued their very genuine prospecting by means of a tunnel, which from a point 260 ft. from its mouth has for a further distance of 470 ft. followed, through extremely hard country, a lode which varies in width from 1 to 4 ft., and, from numerous assays, is



VIEW ON THE MITCHELL RIVER, NEAR O.K.

estimated to contain from 5 per cent. to 30 per cent. of copper. A winze sunk on the lode to a depth of 30 ft. has proved the ore to be 3 ft. thick and of high quality—an excellent augury for the future of the mine, which has besides the very great advantage of comparative proximity to a railway.

Ninety-six tons of ore shipped during the year have returned 22 tons of copper, 838 oz. of silver, and 5 oz. of gold, of a total value of £1,596, and about 90 tons of ore are now stacked ready for shipment.

Some prospecting is being carried on by the Silver King Syndicate and other local adventurers in the neighbourhood of Cattle Creek, but with what success it is too early to say.

Two mines on the *Etheridge field* claim attention—the Einasleigh Mine, the property of the New Einasleigh Copper Mines, Limited, and the Ortona Mines, owned by the Percy River Copper Syndicate. At the former mine the immediate object of the company appears to be the thorough development of the lode at the lower levels, and with this view there has been installed at the main shaft the high pressure half of a compound tandem air-compressing plant, capable of driving eight, and, when complete, twenty, rock-drills. The main shaft will be further sunk to a depth of 400 ft., and a new shaft is being sunk which will ensure better ventilation and facilitate the exploration of the lode. Whilst the mine is thus being explored, laboratory tests will determine the most economical method of preparing the ore for transport to the Chillagoe smelters. At the Ortona Mines, on the Percy River, some 64 miles south of Georgetown, six different lodes have been opened, although in the case of the No. 2 lode alone has sinking below the water-level been attempted. About 2,500 tons of oxidised ore, averaging 14·57 per cent. of copper and 12·13 dwt. of silver, are stacked at the mine, and preparation is being made to treat the best of the ore in a reverberatory furnace. There are several other properties in the neighbourhood of Ortona, but the work, most of a tentative nature, has, so far, been attended by no specially noteworthy results.

The demonstration by the Great Fitzroy Gold and Copper Mines of the existence, in their mine at Mount Chalmers, of a large deposit of payable sulphide ore, and the erection of an 80-ton furnace, the first unit of an extensive smelting plant, promise to bring the decadent Cawarral field, in the Rockhampton district, into very considerable prominence. At the 150-ft. level, the southern limit of an orebody, 330 ft. long by 120 ft. wide, has not yet been reached, whilst exploration at the 225-ft. level proves the continuation of the lode at the deepest point of operation. Smelting on a restricted scale, and more for test purposes than with the intention of maintaining a regular output, was begun in February last, but it is probable that underground development will be suspended until the completion of the short branch railway indispensable for the profitable working of the mine.

At the Peak Downs Mine, the property of the Peak Downs Freehold Copper and Gold Company, Limited, attention during the first half of the year was largely devoted to freeing the mine from water, cleaning out and making secure the old workings, and erecting mining and reducing machinery required for the efficient working of the mine. Smelting, begun in July, was continued intermittently until near the end of October, when financial difficulties, aggravated by the low price of copper, obliged the company to suspend operations.

The Pikedale, Commodore, and Silver Spur Copper Mines, at Stanthorpe, the True Blue and Mount Theckla, in the Ingham district, and small consignments from Kilkivan, Biggenden, and Ravenswood, have all contributed to the year's output.

Wolfram, Molybdenite, and Bismuth.

Wolfram mining in the Herberton and Hodgkinson districts is gradually assuming an aspect of permanency and method with which the pursuit of that mineral has not hitherto been very generally associated, and the systematic development by the Irvinebank Company of their mines at Wolfram and Mount Carbine, together with the measure of success that has attended their efforts to design a machine which will separate the combined ores—wolfram, molybdenite, and bismuth—and free them from quartz and other impurities, have served to establish this branch of the industry on a sounder basis than it has yet occupied. At Wolfram, the shafts of the Tully and the Weate United, two of the company's mines, have both been sunk on their respective lodes for a distance of 300 ft., the vertical depth from the surface being 120 ft. At this depth the ore is more friable, but richer in tungstic acid, and the finest and largest specimens of bismuth have been found in the deepest ground. The dressing plant erected by the company consists of rock-breaker, Cornish rolls, Krupp table, and Frue vanner; and experience will no doubt suggest various improvements in the direction of the effective separation aimed at. The extensive developmental work initiated by the company at Mount Carbine, comprising 2,000 ft. of tunnelling, has exposed large reserves of wolfram-bearing quartz, varying in width from 6 in. to 6 ft. The best of these bodies are now being opened, and with the numerous other lodes of the district, apart from those held by the company, contribute to the support of a population of quite 300 souls. The tramway from Biboohra to Molloy, now nearing completion, will help to bring this field into notice, and will assuredly lead to further discoveries in a region as yet but little known. The absence of capital, or even of co-operation on any appreciable scale, at Bamford has caused that centre to lag behind its more progressive rivals. Claims are largely held by individual miners, and consistent development can hardly be looked for from a community with little staying power, and sensitive to each mutation of the metal market. Yet the deepest shaft on the field (220 ft. on a steep underlie) has proved the ore to be better in the lower than in the shallower ground, and there is no reason to doubt that the infusion into mining at Bamford of some of the enterprise displayed at Wolfram and Mount Carbine would be followed by the satisfactory results apparent at these centres. Koorboora has receded from the prominent position of a year or two ago, the deeper ground in the Neville Mine having proved inferior to that nearer the surface. Some payable ore, however, is still being found below the 200-ft. level, and further development in depth has not been stayed. From 50 to 70 men have, with varying success, been mining wolfram lodes at the Eight-mile Camp, near Fossilbrook, and good patches have occasionally been found on the Upper Lynd River and near the head of Fossilbrook Creek. Wolfram is fairly widely distributed over the extensive districts under review, and at Emuford, Nettle's Creek, the Tate, Mount Pom Pom (near Mount Molloy), McLeod's River (beyond Mount Carbine), and several other places, casual wolfram mining is carried on when the price is sufficiently tempting.

From the Pascoe River, in the Cape York Peninsula, and about 32 miles in a north-easterly direction from the Mein Telegraph Station, 25 tons of wolfram were conveyed overland to Lloyd's Bay, 30 miles distant, and thence shipped to Cooktown. The locality was visited by the Warden, and a small field of

13 square miles, named Bowden, in honour of the prospector, was proclaimed. From Ollera Creek, in the Star field, 16 tons of wolfram, with small quantities of molybdenite and bismuth, of a total value of £2,636, were despatched to Townsville. Fifteen tons of lode wolfram, valued at £2,481, are returned from Lancewood Tinfield, on Elizabeth Creek, in the Etheridge Goldfield and the large and regular Isabella lode at Waverley, in the Kangaroo Hills field, contributed 9 tons, worth £1,256.

Antimony.

During the earlier part of the year Thornborough, Kingsborough, Woodville, and Northcote, in the Hodgkinson district, were centres of unwonted animation, and the development of the antimony lodes with which these localities abound for a time afforded a profitable occupation to a comparatively large number of men. A fall from £20 per ton on the ground to less than £5 was, however, too severe to be withstood, and in July all production ceased. Nor is it at all likely that much attention will again be paid to antimony mining on the Hodgkinson until a substantial improvement occurs in the market value of the metal.

The Mitchell River Gold and Antimony Company are now erecting a plant for the treatment of the antimony-gold ore which occurs in their property on the north bank of the Mitchell River, near its confluence with the Watson. The process is described as simple and inexpensive, and the proprietors hope that the gold in the ore will more than pay the cost of production and treatment.

During the earlier part of the year 83 tons were raised from the Freehold and adjoining Crown land at McKonkey's Creek, on the Coonambula Run, in the Burnett district; the Mount Wellington Mines, at the head of Four-mile Creek, on the Ravenswood field, produced 35 tons, and a few tons are credited to Kilkivan and Kangaroo Hills, but in all of these places antimony mining has for the present been abandoned.

Manganese, Graphite, Ironstone, and Limestone.

Mount Miller, at Gladstone, still the only active manganese mine in the State, last year produced 1,116 tons, of the value of £4,464. The Queensland Graphite and Plumbago Company, Limited, struggling with inadequate means to develop their mine at Mount Bopple, and to establish what may become a profitable industry, have 200 tons of dressed ore ready for delivery. The large quantities of ironstone and limestone returned in the accompanying table have been chiefly used as fluxes at Mount Morgan, Chillagoe, Mount Perry, and other places where smelting operations are carried on, and have been obtained from the sources mentioned in last year's report.

Gems.

The opal mines appear each year to be receiving less attention, though the deposits are undoubtedly very extensive. The Desert Sandstone formation in which the mineral occurs occupies a number of more or less detached areas, aggregating roughly about 25,000 square miles, but scattered over the dry interior of the State, where prospecting is a matter of considerable difficulty.

The industry is peculiar, inasmuch as dry seasons and long periods of drought, which are the greatest difficulties in the way of its advancement, are causes which tend to a greater output, since the work is carried on largely as a means of tiding over bad years, and is not so energetically pursued when conditions, such as those existing at present, are more favourable for employment in pastoral pursuits. It is not suprising, therefore, that the yield for the past year should be a small one.

There being no means of obtaining accurate records of the output from this class of mining, it is only possible to arrive at an approximate statement of the value, which, from information kindly furnished by residents and others interested in the industry, is estimated to be £3,000.

At the Yowah field, one of the oldest and most permanent, operations were carried on continuously throughout the year, but the other known deposits usually worked to the westward of Cunnamulla appear to have been more or less deserted, with the exception of those at Dynevor Downs, which were discovered about the end of 1906. The average number of men in these two districts was about 25, and the value of the year's output about £1,000.

The Eromanga and Jundah Mines, lying to the westward and northward of the above-mentioned group, were only worked to a very small extent, and though they have in the past contributed largely, their combined yield apparently did not equal that of Yowah. Most of the work at Jundah was at a spot about 40 miles from the original camp.

Other contributions during the year came from the deposits further north towards Fermoy and Opalton, chiefly from the camps at Mayneside and Horse Creek.

Much of the gem material obtained from the fields in the past has been of the finest description, and good sound opal from Queensland always sells readily at top prices; but, in latter years, according to buyers' reports, the supply of stones of high quality has greatly fallen off, owing no doubt to the water difficulty and other conditions tending to retard the prospecting and working of new fields—matters which have been referred to in previous reports. Most of the opal obtained in 1907 was sold to buyers in Adelaide, Brisbane, and at White Cliffs, in New South Wales.

In addition to the opal mines of Western Queensland, the only other locality from which precious stones are obtained in commercial quantities is in the Central District, where, as in previous years, sapphire mining at Anakie has been the most productive branch of the gem industry.

Anakie is situated some 200 miles west of Rockhampton, on the railway line, and the workings lie a few miles to the north of Anakie Railway Station. So far as surveys have been made, the sapphire-bearing formation has been shown to occur in small detached areas, somewhat sparsely distributed over a stretch of country having a width of about 24 miles, and equal, or rather greater, dimensions in a north and south direction. The largest extent of this alluvial deposit (not hitherto extensively worked) is at Tomahawk Creek, the most productive areas being at Retreat Creek, in the vicinity of Sapphiretown, and at Policeman Creek.

The population of the field, the total including all camps, was estimated at the end of the year to be about 960.

Owing to the conditions under which the industry is carried on, there is some difficulty in obtaining detailed particulars of the output, but the approximate value may be set down as £40,500, including all classes of material mined—gems, machine stone, and corundum. The only distinction drawn is in the case of corundum, the value of which is given at £1,500, so that £39,000 represents the value of the yellow, green, and different classes of blue stones and the less valuable material classed as machine stone.

Comparing the total £40,500 with the amount for the previous year (£18,110), the largest hitherto

recorded, it will be seen that production in 1907 increased to a remarkable extent. In spite of this favourable feature, however, the vicissitudes of the industry are such that a precise examination of the year's record somewhat detracts from the result, as during the last three months operations received a severe setback owing to cabled orders to local buyers to restrict their operations—an intimation followed by a fall of 50 per cent. in prices, and by a decrease in the population. In accounting for this it must be remembered that the great bulk of the sapphires are ultimately bought in other parts of the world, and the noticeably depressed market corresponds in point of time with the great financial crisis in America, a cause which directly or indirectly would, without doubt, seriously influence the business of buying and selling gems.

Just as the phenomenal record of the field in the earlier part of the year was abnormal, so, it is expected, the depressed condition in the latter part of the year, being due to special causes, will not prove more than a temporary check.

Coal.

Last year's production of coal was 683,272 tons, of a value of £222,135, or an average value per ton of 6s. 6d., being, when compared with the preceding year, an increase in output of 76,500 tons, in value £48,853, and in average value of 9½d. The causes that have contributed to the improved position of the industry have been already briefly touched upon, and the rapid advance in the tonnage of shipping leaving the port of Brisbane—last year's increase being 218,513 tons—furnishes assurance of a continuously growing demand for coal.

That all the districts participated in the advance appears from the returns, which show the average value at the pit's mouth for the Ipswich and Darling Downs districts to have been 6s. 1½d. per ton; for the Wide Bay district 8s. 4d. per ton, and for the Central District 11s. 6¾d. per ton; the corresponding figures for 1906 being 5s. 2½d., 8s. 0¾d., and 11s. 2½d.; and with the selling price slightly raised, as is now the case, the averages for the present year should be higher.

The export of coal to foreign countries is a branch of the trade which owners as yet have not endeavoured to develop to any extent, although opportunities have not been, and are not now, wanting. The trade available, without seeking outside markets is, however, under existing circumstances, sufficient to fully occupy the collieries, and with a demand in excess of supply, and colliery owners alive to possibilities, a period of sustained activity may be looked for.

The inability of the coke-making industry to meet requirements has frequently been pointed out. The importations of coke into the State continue to increase, and last year reached a total of 34,013 tons, being an increase of 11,392 tons over the previous year. It is reported, however, that ovens and appliances of greater capacity are being provided.

The coal production of the Wide Bay district shows a certain decrease, owing to the cessation of operations in one of the collieries, and possibly also to an industrial dispute which arose in that district in the middle of the year. Several old collieries have recently been re-opened, however, and there is a prospect of a larger output in the coming year.

In the Central District the Bluff Colliery has been continually and very successfully worked during the year, and investigations are in progress with a view of testing the possibilities of the coal for coke-making. A quantity of the coal obtained for testing purposes by the Government from the Dawson Valley deposits was sent to Sydney early in the year, and tested, as arranged, by the Naval Authorities; but, owing to certain properties of the coal, rendering it extremely difficult to burn under ordinary conditions, the tests gave very low results, and the coal was pronounced to be unsuitable for the purposes of the fleet. Later in the year, however, the matter was exhaustively investigated at Mount Morgan, where the coal yielded an evaporative efficiency much more nearly approaching that expected from its excellent chemical analysis. The difficulty of burning was proved to be surmountable, but whether the superiority in evaporative power obtainable is sufficient to make up, in certain cases, for the inconvenience and expense of the special arrangements as regards firebox, &c., necessary for burning the coal, is a practical question yet to be determined. Some experts have suggested that there may be possibilities in the use of the coal for suction-producer gas plants, a form of power which is now coming into much favour.

The discovery of a thick coal formation directly under the conglomerate mass known as Mount Mulligan, 32 miles from the Dimbulah Station on the Chillagoe Railway, naturally aroused interest in a district where the demand for fuel is constant and increasing. A tunnel, 250 ft. long by 8 or 9 ft. high, has been driven under the mountain, wholly in the coal seam, and a rise from the end of the tunnel struck conglomerate at 12 ft., after passing through a band 6 ft. thick of good clean coal. The coal formation is thus 20 ft. thick, with bands of clean coal ranging from a few inches up to 6 ft. in thickness. The value of the discovery will depend upon transport facilities, and before the construction of a railway is decided upon, the price at which Southern coal can now be landed in the district will no doubt be considered.

I have the honour to be,

Sir,

Your obedient servant,

A. R. MACDONALD,

Under Secretary.

Table A.

COMPARATIVE STATEMENT OF GOLD YIELD, 1906-1907.

Goldfield.	1906.															1907.															Increase Fine Gold, 1907.	Decrease Fine Gold, 1907.	Increased Value, 1907.	ecreased Value, 1907.
	Stone Treated at Mills.	Product.					Old Tailings.		Treated at Metallurgical Works.		Product from Copper and other Ores.	Alluvial.	Total Crude Gold from all Sources.	Total Fine Gold from all Sources.	Value.	Stone Treated at Mills.	Product.					Old Tailings.		Treated at Metallurgical Works.		Product from Copper and other Ores.	Alluvial.	Total Crude Gold from all Sources.	Total Fine Gold from all Sources.	Value.				
		Mill Gold.	Cyanide Gold.	Gold from Concentrates.	Total Product.	Value per Ton of Stone.																											
	Tons.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	£ s. d.	Tons.	Fine oz.	Tons.	Fine oz.	Fine oz.	Fine oz.	Oz.	Oz.	£	Tons.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	£ s. d.	Tons.	Fine oz.	Tons.	Fine oz.	Fine oz.	Fine Oz.	Oz.	Oz.	£	Oz.	Oz.	£	£
Alice River	533	515	...	...	515	4 2 0	...	...	...	...	...	16	716	531	2,256	818	626	...	...	626	3 5 0	...	...	...	...	...	...	844	626	2,659	95	...	403	...
Balcooma and Lucky Creek	251	242	...	...	242	4 1 11	320	71	...	...	...	...	408	313	1,330	377	501	...	...	501	5 12 11	...	...	...	...	...	...	587	501	2,128	188	...	798	...
Charters Towers	240,416	114,052	39,330	51,146	204,528	3 12 10	...	...	...	...	702	402	295,165	205,632	873,469	211,091	97,106	34,957	39,969	172,032	3 9 3	17,120	1,575	1,087	1,099	...	846	260,937	175,552	745,697	...	30,080	...	127,772
Clermont	281	451	24	...	475	7 3 8	260	60	...	...	...	6,657	7,996	7,192	30,550	257	359	...	7	366	6 0 9	...	...	37	55	...	4,364	5,080	4,785	20,325	...	2,407	...	10,225
Cloncurry Fields	...	...	...	...	...	...	...	...	...	...	...	62	68	62	263	...	...	...	...	...	...	...	...	...	...	...	24	27	24	104	...	38	...	159
Coen	2,757	2,937	353	...	3,290	5 1 5	...	...	...	...	...	232	6,961	3,522	14,960	1,332	1,029	...	...	1,029	3 5 8	...	...	...	...	...	2,033	1,029	4,371	...	2,493	...	10,589
Cooktown Fields (Starcke)	46	41	...	...	41	3 16 8	795	160	...	...	...	...	256	201	854	50	121	...	...	121	10 5 2	225	43	...	...	...	...	181	164	697	...	37	...	157
Croydon	23,342	19,755	618	...	20,373	3 14 2	30,741	3,565	...	...	...	25	62,103	23,963	101,788	11,862	10,426	916	...	11,342	4 1 3	21,802	2,069	...	...	...	...	37,408	13,411	56,966	...	10,552	...	44,822
Eidsvold	2	57	...	...	57	120 12 0	7,175	614	...	...	...	...	1,017	671	2,850	...	...	...	...	...	...	4,055	253	...	...	...	...	350	253	1,073	...	418	...	1,777
Etheridge and Woolgar	10,457	6,798	546	...	7,344	2 19 8	4,476	1,552	...	...	63	180	14,178	9,139	38,820	10,575	5,923	522	508	6,953	2 15 10	2,225	337	...	...	...	812	12,214	8,102	34,415	...	1,037	...	4,405
Gladstone Fields	1,427	1,079	...	69	1,148	3 8 3	3,221	818	38	115	894	527	4,925	3,502	14,876	1,145	1,078	...	132	1,210	4 9 9	2,736	601	49	178	1,381	737	5,279	4,107	17,445	605	...	2,569	...
Gympie, Kilkivan, Glastonbury, &c.	215,680	106,351	1,270	432	108,053	2 2 7	...	...	...	...	382	481	132,003	108,916	462,645	162,780	61,935	875	466	63,276	1 13 0	1,731	206	...	...	279	466	77,654	64,227	272,819	...	44,689	...	189,826
Hamilton	1,737	2,013	24	...	2,037	4 19 7	...	...	...	...	...	537	4,187	2,574	10,934	2,571	1,913	262	...	2,175	3 11 10	180	41	...	...	...	318	4,134	2,534	10,764	...	40	...	170
Herberton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*418	..	444	418	1,776	418	...	1,776	...
Hodgkinson	5,810	2,766	313	23	3,102	2 5 4	3,750	440	...	...	...	44	4,812	3,586	15,232	3,138	1,319	180	19	1,518	2 1 1	...	...	...	...	...	80	2,723	1,598	6,788	...	1,988	...	8,444
Horn and Possession Islands	825	363	...	...	363	1 17 5	...	...	...	...	...	...	561	363	1,543	2,714	406	...	...	406	0 12 9	...	...	...	...	...	...	690	406	1,725	43	...	182	...
Jordan	443	70	...	...	70	0 13 4	...	...	...	...	...	275	377	345	1,465	...	...	...	...	...	...	...	...	...	...	...	113	126	113	479	...	232	...	986
Mareeba	5	1	...	...	1	0 11 6	...	...	...	...	...	...	1	1	3	Nil	...	...	...	...	...	...	...	...	...	...	...	...	...	Nil	...	...	...	...
Mackay Fields	...	...	...	...	...	...	...	...	...	...	...	28	37	28	117	...	...	...	...	...	...	...	...	...	...	...	18	4	25	22	93	...	6	...	24
Mount Morgan	232,798	101,861	43	148	102,052	1 17 3	29,887	1,558	..	...	26,072	342	138,202	130,024	552,307	233,847	92,339	...	50	92,389	1 13 7	1,359	254	...	...	52,777	354	150,874	145,774	619,208	15,750	...	66,901	...
Mount Shamrock	1,613	97	111	450	658	1 14 8	...	...	...	...	...	38	882	696	2,956	3,580	217	713	418	1,348	1 12 0	...	...	...	...	...	14	1,641	1,362	5,785	666	..	2,829	...
Normanby (Bowen)	147	44	...	9	53	1 10 6	...	...	...	...	10	80	211	143	607	232	78	20	27	125	2 5 8	155	31	...	...	...	45	278	201	854	58	...	247	...
Palmer	203	220	...	...	220	4 12 0	...	...	...	...	...	425	718	645	2,740	955	330	...	...	330	1 9 4	...	...	...	...	...	310	679	640	2,719	...	5	...	21
Ravenswood	30,221	19,690	2,043	13,612	35,345	4 19 4	...	...	1	24	...	658	46,961	36,027	153,033	24,203	17,555	2,041	14,677	34,273	6 0 4	...	...	52	193	...	364	49,133	34,830	147,948	...	1,197	...	5,085
Rockhampton	2,113	1,354	27	...	1,381	2 15 6	4,553	102	67	178	...	254	2,333	1,915	8,132	383	467	73	...	540	5 19 8	371	58	...	...	...	202	1,171	800	3,398	...	1,115	...	4,734
Russell	...	...	...	...	...	...	...	...	...	...	...	277	291	277	1,178	...	...	...	...	...	...	...	...	...	...	...	194	204	194	823	...	83	...	355
Russell Extended	20	17	...	...	17	3 12 3	...	...	...	...	...	...	24	17	72	...	...	...	...	...	...	...	...	...	...	...	6	9	6	25	...	11	...	47
Stanthorpe and Pikedale Fields	...	...	...	...	...	...	...	...	...	...	190	...	202	190	808	...	...	...	...	...	...	...	...	...	...	223	...	237	223	948	33	...	140	...
Tenningering (Mount Perry, &c.)	1,829	182	1,016	...	1,198	2 15 8	...	...	...	...	2,201	39	4,076	3,438	14,604	...	...	...	...	...	...	...	...	...	...	3,717	9	3,958	3,726	15,827	288	...	1,223	...
Warwick Fields	200	71	...	...	71	1 10 3	...	...	...	...	...	59	151	130	552	360	84	...	...	84	0 19 10	48	4	...	...	...	71	193	159	675	29	...	123	...
Other Sources	186	593	...	...	593	13 10 11	...	...	...	...	...	...	630	593	2,520	81	95	...	...	95	5 0 0	...	...	...	..	...	...	101	95	404	...	498	...	2,116
Totals	773,342	381,620	45,718	65,889	493,227	...	85,178	8,940	106	317	30,514	11,638	730,452	544,636	2,313,464	672,351	293,907	40,559	56,273	390,739	...	52,007	5,472	1,225	1,525	58,813	9,333	619,214	465,882	1,978,938	18,173	96,927	...	...
																															...	18,173	...	...
																																78,754	...	£334,526

* This quantity includes 73 oz. unaccounted for last year.

Less Increase ... ..

Net Decrease for 1907 ... ...

Table B.

MINERALS OTHER THAN GOLD, 1906–1907.

TABLE SHOWING THE QUANTITY AND VALUE OF ORE AND MINERALS WON DURING 1906–1907.

Mineral Field or District.	1906. Nature of Ore or Mineral Won.	Quantity. Tons.	Quantity. Oz.	Value of Various Minerals. £	Gross Value of Various Minerals. £	1907. Nature of Ore or Mineral Won.	Quantity. Tons.	Quantity. Oz.	Value of Various Minerals. £	Gross Value of Various Minerals. £
Anakie	Gems	...	...	...	18,110	Gems	...	...	...	40,500
Biggenden	...	...	...	...	...	*Copper	8	...	635	
						*Silver	...	208	25	
										660
Bowen	*Silver	...	22,562	2,930		*Silver	...	18,400	2,300	
	†Lead	6	...	107		†Lead	5½	...	88	
	Copper	4	...	364						
					3,401					2,388
Brisbane	Coal	70	...	...	21	Coal	100	...	...	30
Burketown	*Copper	32	...	2,911		Lead	4	...	60	
	*Silver	...	204	26		Silver	...	360	45	
	*Lead	2	...	36						
					2,973					105
Charters Towers	†Silver	...	80,878	10,503		†Silver	...	98,696	11,832	
	†Lead	497	...	8,826		†Lead	361	...	6,850	
	†Copper	33	...	3,001		*Copper	195	...	16,117	
	Tin	50	...	5,036		Tin	36½	...	3,311	
	Antimony	2	...	35		Limestone	809	...	717	
	Limestone	666	...	666						
					28,067					38,827
Clermont	Coal	2,570	...	1,671		Coal	2,725	...	1,891	
	Copper	17	...	1,546		Copper	114	...	6,998	
						Silver	...	136	17	
					3,217					8,906
Cloncurry	*Copper	590	...	...	53,663	Copper	55	...	3,162	
						*Copper	637	...	54,782	
										57,944
Coen and Rocky	Tin	5½	...	570		Tin	15	...	...	2,052
	Wolfram	12	...	990						
					1,560					
Cooktown	Tin	165	...	18,836		Tin	181	...	...	19,614
	Wolfram	2	...	138						
					18,974					
Croydon	Tin	5	...	674		Tin	49	...	6,134	
	†Silver	...	166	22		†Silver	...	38	5	
					696					6,139
Eidsvold	...	...	...	...	...	Antimony	58	...	...	464
Eromanga	Opal	...	...	...	400	Opal	...	...	...	300
Etheridge	Tin	65	...	6,580		Tin	59	...	6,463	
	*Copper	8	...	728		*Copper	3	...	261	
	*Silver	...	8,222	1,068		*Silver	...	8,014	916	
	*Lead	198	...	3,516		*Lead	133	...	2,373	
	Wolfram	3	...	240		Wolfram	15	...	2,481	
	Limestone	40	...	80		Limestone	150	...	300	
						Bismuth	3 cwt.	...	75	
					12,212					12,869
Gladstone	Manganese	1,113	...	4,391		Manganese	1,116	...	4,464	
	†Silver	...	14,731	1,913		Silver	...	11,936	1,488	
	Copper	511	...	46,478		*Silver	...	524	65	
	Ironstone	867	...	174		Copper	478	...	43,214	
	Limestone	3,522	...	1,870		*Copper	4¼	...	408	
						*Lead	1½	...	30	
						Ironstone	908	...	479	
						Limestone	3,050	...	1,763	
					54,826					51,911
Gympie and Kilkivan	†Silver	...	1,000	130		†Silver	...	816	102	
	*Copper	54	...	4,911		Copper	16	...	1,621	
	Copper	11½	...	1,046		*Copper	17	...	1,325	
						Antimony	6½	...	224	
					6,087					3,272
Herberton	Tin	3,854	...	385,680		Tin	4,159	...	394,242	
	Silver	...	349,432	45,378		Silver	...	488,993	59,716	
	Lead	1,868	...	33,173		Lead	4,370	...	61,906	
	Copper	4,286	...	389,830		Copper	4,188	...	314,347	
	Ironstone	4,534	...	3,090		Ironstone	6,757	...	5,880	
	Limestone	12,097	...	7,766		Limestone	14,927	...	11,300	
	Bismuth	1½	...	487		Bismuth	8 cwt.	...	145	
	Wolfram	274	...	22,979		Wolfram	134	...	16,404	
	Antimony	49	...	711		Antimony	20	...	240	
	Molybdenite	13	...	1,950		Molybdenite	3½	...	403	
					891,044					864,583
Hodgkinson	Bismuth	5	...	1,395		Copper	9	...	701	
	Wolfram	432	...	36,103		Tin	35½	...	2,790	
	Molybdenite	92½	...	13,232		Bismuth	5½	...	1,554	
	Antimony	457	...	5,641		Wolfram	409	...	64,356	
	Scheelite	4½	...	347		Molybdenite	63	...	8,019	
	Wolfram and bismuth	23	...	1,759		Antimony	390	...	6,356	
						Scheelite	2¼	...	320	
	Silver	...	4,185	543		Wolfram and bismuth	10½	...	1,218	
	Lead	38	...	675		Silver	...	14,268	1,605	
						Lead	135	...	1,791	
					59,695					88,710
Ipswich and Darling Downs	Coal	509,989	...	...	132,719	Coal	591,174	...	...	181,448
Jundah, Opalton, and Horse Creek	Opal	...	...	...	1,000	Opal	...	...	...	1,250

* Treated at Metallurgical Works. † By-product obtained from Gold and other Ores.

Table B—*continued.*

MINERALS OTHER THAN GOLD, 1906-1907—*continued.*

TABLE SHOWING THE QUANTITY AND VALUE OF ORE AND MINERALS WON DURING 1906-1907—*continued.*

Mineral Field or District.	1906. Nature of Ore or Mineral Won.	Quantity. Tons.	Quantity. Oz.	Value of Various Minerals. £	Gross Value of Various Minerals. £	1907. Nature of Ore or Mineral Won.	Quantity. Tons.	Quantity. Oz.	Value of Various Minerals. £	Gross Value of Various Minerals. £
Kangaroo Hills ...	†Silver ...	...	17,674	2,295		Antimony ...	2	...	29	
	Tin	275	...	27,031		†Silver ...	...	508	63	
	Copper ...	50	...	4,548		Tin	210	...	21,593	
	Wolfram ...	18	...	1,418		*Copper ...	16	...	1,450	
						Wolfram ...	9	...	1,256	
						†Lead	2	...	23	
					35,292					24,414
Mackay	*Copper ...	26	...	...	2,365	*Copper ...	117	...	9,817	
						†Silver ...	...	3,401	419	
										10,236
Maryborough	Graphite ...	31	...	...	200	Graphite ...	65	...	...	200
Mount Morgan ...	Copper ...	2,567	...	233,479		Copper ..	4,713	...	385,705	
	Ironstone ...	25,000	...	10,500		Ironstone ...	611	...	153	
						Fireclay ...	1,400	...	560	
					243,979					386,418
Mount Perry	Copper ...	1,722	...	156,623		Copper ...	1,973	...	169,678	
	†Silver ...	...	92,505	12,013		†Silver... ...	...	103,304	12,913	
	Limestone ...	655	...	295		Limestone ...	932	...	559	
					168,931					183,150
Palmer	Tin	62	...	...	7,164	Tin	59	...	6,583	
						Wolfram ...	4 cwt.	...	21	
										6,604
Pascoe River	...	...	...	...	...	Wolfram ...	31	...	...	2,600
Perry	Limestone ...	8,603	...	...	1,720	...	...	...	...	...
Ravenswood	†Silver ...	...	16,524	2,146		†Silver ...	...	11,763	1,385	
	†Lead	6	...	106		†Lead	27	...	474	
	Tin	31	...	4,082		Tin	12¼	...	1,200	
	*Copper ...	5	...	455		*Copper ...	16	...	1,318	
	Antimony ...	22	...	530		Antimony ...	35	...	550	
					7,319					4,927
Rockhampton	*Copper ...	43	...	3,911		*Copper ...	20	...	1,595	
	Limestone ...	34,600	...	10,380		Limestone ...	68,266	...	20,480	
	Ironstone ...	1,000	...	350		Ironstone ...	27,484	...	17,774	
	Coal	7,509	...	3,975		Coal ...	11,352	...	6,252	
					18,616					46,101
Star River (Ollera) ...	Wolfram ...	27	...	2,268		Wolfram ...	16	...	2,541	
	Molybdenite ...	13 cwt.	...	93		Bismuth ...	4 cwt.	...	32	
						Molybdenite ...	3 cwt.	...	20	
					2,361					2,593
Stanthorpe	Tin	310½	...	34,630		Tin	324	...	32,784	
	Silver	...	168,783	21,918		Silver	...	156,626	19,241	
	*Silver ...	...	1,363	177		*Silver ...	...	1,036	125	
	Copper ...	116½	...	10,596		Copper ...	176	...	14,960	
	Lead	104	...	1,847		Lead	83	...	1,203	
	*Lead ...	12	...	213		*Lead	12½	...	187	
	Limestone ...	1,357	...	271		Limestone ...	1,467	...	312	
						Wolfram ...	1	...	108	
						Ironstone ...	96	...	41	
					69,652					68,961
Warwick	Limestone ...	316	...	...	316	Limestone ...	377	...	...	377
Wide Bay	Coal	86,634	...	...	34,896	Coal	77,921	...	...	32,514
Yowah, Sheepstation Creek, and Duck Creek, &c.	Opal	...	...	...	1,200	Opal	...	...	...	1,000
Other Opal Districts...	Opal	...	...	...	400	Opal	...	...	...	450
Other Sources	*Copper ...	1	...	91		*Copper ...	1	...	85	
	*Silver ...	...	4,858	631		*Silver ...	...	2,470	278	
	*Lead	78	...	1,385		*Lead ...	23	...	345	
					2,107					708

* Treated at Metallurgical Works. † By-product obtained from Gold and other Ores.

SYNOPSIS.

1906. Minerals.	Quantity. Oz.	Quantity. Tons	cwt.	Value. £	1907. Minerals.	Quantity. Oz.	Quantity. Tons	cwt.	Value. £
Total quantity of tin won ...	...	4,823	0	490,283	Total quantity of tin won ...	...	5,140	5	496,766
,, ,, silver ...	783,087	...		101,693	,, ,, silver ...	921,497	...		112,540
,, ,, lead ...	...	2,809	0	49,884	,, ,, lead ...	...	5,157	10	75,330
,, ,, coal ...	...	606,772	0	173,282	,, ,, coal ...	...	683,272	0	222,135
,, ,, copper ...	...	10,077	0	916,546	,, ,, copper ...	...	12,756	5	1,028,179
,, ,, opal ...	...	...		3,000	,, ,, opal ...	...	...		3,000
,, ,, wolfram ...	...	768	0	64,136	,, ,, wolfram ...	...	615	4	89,767
,, ,, manganese ...	...	1,113	0	4,391	,, ,, manganese ...	...	1,116	0	4,464
,, ,, bismuth ...	...	6	10	1,882	,, ,, bismuth ...	...	6	5	1,806
,, ,, bismuth and wolfram	...	23	0	1,759	,, ,, bismuth and wolfram	...	10	10	1,218
,, ,, molybdenite ...	...	106	3	15,275	,, ,, molybdenite	...	66	13	8,442
,, ,, limestone ...	..	61,856	0	23,364	,, ,, limestone ...	...	89,978	0	35,808
,, ,, gems ...	...	...		18,110	,, ,, gems ...	...	...		40,500
,, ,, ironstone ...	...	31,401	0	14,114	,, ,, ironstone ...	...	35,856	0	24,327
,, ,, scheelite ...	...	4	10	347	,, ,, scheelite ...	...	2	5	320
,, ,, antimony ...	...	530	0	6,917	,, , antimony ...	...	521	10	7,863
,, ,, graphite ...	...	31	0	200	,, ,, graphite ...	...	65	0	200
					,, ,, fireclay ...	...	1,400	0	560
	...	...		1,885,183		...	...		2,153,226

Table C.

YIELD OF GOLD IN THE SEVERAL AUSTRALIAN STATES, ETC., FOR 1907 (FROM RETURNS KINDLY FURNISHED BY THE DEPUTY-MASTER OF THE ROYAL MINT, MELBOURNE).

State or Colony.	Gold.
	Fine ounces.
New South Wales	247,363
New Zealand	477,312
Queensland	465,882
South Australia	*11,871
Tasmania	65,354
Victoria	695,576
Western Australia	1,697,553
Total	3,660,911

* Amount received at Mints.

Table D.

Table showing approximately the Quantity and Value of Minerals Raised since 1860.

Year.	Copper.		Silver.		Antimony Ore.		Coal.		Tin Ore.		Opal. Value.	Gems. Value.	Bismuth.		Wolfram.		Manganese.		Lead.		Molybdenite.		Limestone.		Ironstone.		Scheelite.		Graphite.		Fireclay.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.			Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value	Tons.	Value.	Tons.	Value.
		£		£		£		£		£	£	£		£		£		£		£		£		£		£		£		£		£
1860 ...	1	50	...	...	...	...	12,327	9,244	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1861 ...	49	1,450	...	...	...	...	14,212	9,922	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1862 ...	268	10,332	...	...	...	...	24,067	19,253	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1863 ...	1,100	30,000	...	...	...	...	24,000	15,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1864 ...	2,000	60,000	...	...	...	..	25,000	15,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1865 ...	721	58,440	...	...	...	...	33,000	19,425	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1866 ...	3,168	91,872	...	...	...	...	39,316	21,249	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1867 ...	6,140	84,200	...	...	...	...	17,988	9,566	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1868 ...	9,033	73,020	...	...	...	...	19,611	11,519	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1869 ...	6,310	76,230	...	...	...	...	11,120	5,907	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1870 ...	1,335	80,795	...	...	...	...	22,639	12,311	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1871 ...	2,490	174,300	...	...	...	...	17,000	9,407	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1872 ...	2,448	196,000	...	...	...	...	27,727	16,120	1,407	109,816	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1873 ...	2,441	185,808	...	...	15	157	33,613	22,052	8,938	606,184	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1874 ...	2,228	164,040	1	60	207	2,141	43,443	19,700	5,702	358,550	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875 ...	1,674	121,980	...	...	60	360	32,107	14,835	4,475	237,879	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1876 ...	2,105	147,000	...	...	18	216	50,627	26,470	4,315	187,201	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1877 ...	1,959	167,337	...	...	101	606	60,918	25,659	3,335	133,432	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1878 ...	574	35,126	...	...	27	405	52,580	21,272	2,849	88,366	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1879 ...	567	34,791	12	285	4	40	55,012	22,759	2,877	120,391	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1880 ...	326	20,137	112	2,459	...	...	58,052	24,573	2,847	142,977	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1881 ...	331	19,637	383	13,494	355	3,665	65,612	29,033	3,456	193,699	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1882 ...	1,724	14,982	2	140	251	4,447	74,436	33,592	4,261	269,904	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1883 ...	1,800	21,080	5,263	66,192	527	6,550	104,750	52,894	3,346	187,292	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1884 ...	1,653	30,872	4,386	35,327	748	6,469	120,727	60,025	3,383	130,460	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1885 ...	1,340	18,920	3,787	63,711	70	300	209,698	87,228	3,253	151,871	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1886 ...	900	7,000	1,631	52,797	110	400	228,656	95,243	3,153	162,124	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1887 ...	1,010	7,600	2,183	80,092	...	...	238,813	97,460	3,279	217,389	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1888 ...	1,126	9,248	1,190	44,015	...	...	311,412	127,947	3,586	200,019	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1889 ...	1,079	12,000	1,104	61,500	58	215	265,507	121,118	3,033	156,406	...	...	52	8,780	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1890 ...	185	3,000	1,913	56,639	172	4,816	338,344	157,071	2,970	154,963	3,000	...	31	1,481	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1891 ...	98	865	875	21,879	217	3,625	271,603	128,198	2,236	116,387	10,000	...	117	11,070	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Oz.																													
1892 ...	81	2,461	224,810	36,436	26	278	265,086	123,308	2,389	123,098	10,000	4,437	130	16,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1893 ...	297	3,822	339,267	42,408	30	288	264,403	125,340	2,434	106,953	...	4,500	74	10,676	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1894 ...	415	9,582	183,158	22,077	28	280	270,705	114,593	2,871	102,277	12,000	...	65	6,270	105	710	140	400	451	4,370	...	...	...	...	...	...	...	...	...	...	...	...
1895 ...	434	13,097	225,019	30,042	...	...	323,068	132,530	2,114	68,133	32,750	...	59	3,258	25	542	355	1,103	363	3,634	...	...	...	...	...	...	...	...	...	...	...	...
1896 ...	580	21,042	279,284	32,162	...	...	371,390	154,987	1,554	49,018	23,300	...	...	...	3	60	300	900	618	6,180	...	...	...	...	...	...	...	...	...	...	...	...
1897 ...	288	12,645	234,065	25,118	...	...	358,407	139,889	1,203	37,509	10,250	...	$0\frac{1}{8}$	134	13	195	397	1,506	885	4,117	...	...	...	...	...	...	...	...	...	...	...	...
1898 ...	62	2,166	104,021	10,585	...	...	407,934	150,493	1,025	36,502	6,645	...	8	700	78	2,540	67	251	243	2,480	...	...	...	...	...	...	...	...	...	...	...	...
1899 ...	$161\frac{1}{2}$	9,498	145,325	15,671	40	200	494,009	175,715	1,308	77,302	9,000	...	2	494	259	10,060	735	2,831	56	730	...	...	...	...	...	...	...	...	...	...	...	...
1900 ...	384	23,040	112,990	12,712	...	...	497,132	173,705	1,123	74,041	7,500	900	8	1,865	$189\frac{1}{2}$	6,605	75	205	205	3,359	11	561	3,664	3,862	...	...	...	...	...	...	...	...
1901 ...	3,061	194,227	571,561	62,241	...	...	539,472	189,877	1,661	93,723	7,400	6,000	20	3,684	72	1,145	218	795	561	6,993	*26	1,609	6,514	4,901	430	215	...	...	...	...	...	...
1902 ...	3,784	189,200	701,312	70,145	...	...	501,531	172,286	2,085	116,171	7,000	5,000	1	123	55	1,167	4,600	16,989	267	2,706	*41	5,502	4,743	3,672	...	...	...	...	...	...	...	...
1903 ...	4,916	285,122	642,125	65,538	...	...	507,801	164,798	$3,709\frac{1}{2}$	243,149	7,300	7,000	11	2,523	197	7,870	1,320	5,332	3,795	43,639	*24	2,100	13,612	8,060	9,808	3,852	...	...	...	...	...	...
1904 ...	4,370	257,896	654,929	71,858	...	...	512,015	166,536	3,923	270,276	3,550	10,575	$20\frac{9}{20}$	3,581	$1538\frac{5}{10}$	161,635	830	3,540	2,046	24,560	*$21\frac{13}{20}$	2,746	18,773	10,820	4,424	1,659	$1\frac{3}{20}$	75	...	...	...	...
1905 ...	$7,220\frac{3}{4}$	503,547	601,712	69,176	24	$17\frac{1}{4}$	529,326	155,477	3,945	297,454	3,000	5,255	$15\frac{3}{10}$	5,368	1,409	99,873	1,517	5,925	2,422	33,212	*$84\frac{1}{2}$	10,454	25,057	15,863	4,342	3,600	4	330	32	272	...	...
1906 ...	10,077	916,546	783,087	101,693	530	6,917	606,772	173,282	4,823	490,283	3,000	18,110	$6\frac{1}{2}$	1,882	768	64,136	1,113	4,391	2,809	49,884	*$129\frac{3}{4}$	17,034	61,856	23,364	31,401	14,114	$4\frac{1}{2}$	347	31	200	...	...
1907 ...	$12,756\frac{1}{4}$	1,028,179	921,497	112,540	$521\frac{1}{2}$	7,863	683,272	222,135	$5,140\frac{1}{4}$	496,766	3,000	40,500	$6\frac{1}{2}$	1,806	$615\frac{1}{5}$	39,767	1,116	4,464	$5,157\frac{1}{2}$	75,330	*$66\frac{1}{20}$	8,442	89,978	35,808	35,856	24,327	$2\frac{1}{4}$	320	65	200	1,400	560
Totals	$107,070\frac{1}{2}$	5,430,182	...	1,278,992	$4,139\frac{1}{2}$	50,412	10,036,240	3,876,503	$114,007\frac{3}{4}$	6,607,965	168,695	102,277	$627\frac{6}{20}$	79,695	$5,327\frac{3}{5}$	446,305	12,783	48,632	$19383\frac{1}{5}$	261,194	*$404\frac{4}{20}$	48.448	224,197	106,350	86,361	47,767	$11\frac{13}{20}$	1,072	128	672	1,400	560

* Also contains Bismuth and Wolfram.

Table E.

TABLE SHOWING APPROXIMATELY THE NUMBER OF MINERS, OTHER THAN GOLDMINERS, WORKING DURING THE YEAR 1907.

Mineral Field or District.	CLASS OF MINE AND NUMBER OF MINERS.								
	Silver and Lead.	Tin.	Antimony.	Coal.	Copper.	Bismuth, Wolfram, and Molybdenite.	Gems.	Other Minerals.	Total.
Anakie	...	...	...	...	...	...	560	...	560
Blackall	...	...	...	...	...	...	4	...	4
Biggenden	...	...	...	...	9	...	...	...	9
Bowen Fields	9	...	...	...	...	...	...	...	9
Brisbane	...	...	...	2	...	...	...	...	2
Burketown	2	...	...	...	...	...	..	...	2
Charters Towers	...	42	...	...	135	...	...	7	184
Clermont	...	...	...	5	135	...	...	...	140
Cloncurry	...	...	...	...	650	...	...	...	650
Coen	...	50	...	...	...	6	...	...	56
Cooktown	...	156	...	...	6	4	...	...	166
Croydon	...	46	...	...	...	...	...	...	46
Eidsvold	...	...	6	...	...	...	...	...	6
Eromanga	...	...	...	...	...	...	4	...	4
Etheridge and Woolgar	30	62	...	...	30	2	...	1	125
Gladstone Fields	4	...	...	...	172	...	...	27	203
Gympie Fields	...	...	2	...	22	...	...	6	30
Hodgkinson	20	20	50	8	10	550	...	6	664
Ipswich and Darling Downs	...	...	...	1,233	...	...	...	...	1,233
Jundah, &c.	...	...	...	...	...	...	4	...	4
Kangaroo Hills	...	200	2	...	10	7	...	...	219
Mackay Fields	...	...	...	5	128	...	...	...	133
Maryborough and Wide Bay	...	...	...	211	...	...	...	5	216
Mount Morgan	...	...	...	...	440	...	...	...	440
Mount Perry	...	...	...	...	470	...	...	5	475
Palmer	...	17	...	...	3	5	...	...	25
Pascoe River	...	...	...	...	...	30	...	...	30
Ravenswood and Star	8	9	3	...	11	...	...	...	31
Rockhampton	...	...	...	41	144	...	...	150	335
Stanthorpe	60	175	...	...	5	4	...	...	244
Townsville District	...	...	...	...	...	24	...	...	24
Walsh and Tinaroo	340	1,920	1	...	600	220	...	65	3,146
Warwick	...	...	...	...	...	...	...	4	4
Yowah, Sheep Station Creek, and Duck Creek	...	...	...	...	...	...	21	...	21
Totals	473	2,697	64	1,505	2,980	852	593	276	9,440

Table F.

TABLE SHOWING APPROXIMATELY THE NUMBER OF MINERS EMPLOYED IN GOLDMINING ON 31ST DECEMBER, 1907, ALSO THE VALUE OF GOLD WON FROM ALL SOURCES.

Goldfield.	ALLUVIAL DIGGERS.		Quartz Miners—European.	Gross Total of Miners.	Value from Alluvial.	Value of Reef Gold from all Sources.
	European.	Chinese.				
					£	£
Alice River	6	...	15	21	...	2,659
Balcooma and Lucky Creek	...	...	15	15	...	2,128
Charters Towers	120	25	3,026	3,171	3,595	742,102
Clermont	385	4	31	420	18,537	1,788
Cloncurry Fields	4	...	...	4	104	...
Coen	2	...	24	26	...	4,371
Croydon	...	...	281	281	...	56,966
Eidsvold	...	...	6	6	...	1,073
Etheridge and Woolgar	202	40	190	432	3,450	30,965
Gladstone Fields	31	8	82	121	3,130	14,315
Gympie, Kilkivan, Marodian, Nanango, Yabba, and Glastonbury	19	...	1,303	1,322	1,981	270,838
Hamilton	30	...	20	50	1,350	9,414
Herberton (from copper ores)	...	...	...	...	...	1,776
Hodgkinson	...	30	80	110	340	6,448
Horn and Possession Islands	...	...	16	16	...	1,725
Jordan	4	...	3	7	479	...
Mackay Fields	2	...	10	12	17	76
Mareeba	...	...	4	4	...	...
Mount Shamrock	5	...	14	19	59	5,726
Mount Morgan	50	...	530	580	1,503	617,705
Mulgrave	4	...	1	5	...	...
Normanby (Bowen)	19	...	20	39	189	665
Palmer	39	260	48	347	1,316	1,403
Ravenswood	29	85	597	711	1,545	146,403
Rockhampton Fields	62	...	65	127	856	2,542
Russell and Russell Extended	7	...	...	7	848	...
Stanthorpe	...	...	6	6	...	948
Starcke and Cocoa Creek (Cooktown)	2	...	16	18	...	697
Tenningering	10	1	2	13	40	15,787
Warwick Fields	14	...	30	44	301	374
Other Sources	...	...	...	...	...	404
Totals	1,046	453	6,435	7,934	39,640	1,939,298

Table G.

COMPARATIVE STATEMENT OF MINERS EMPLOYED IN GOLDMINING THROUGHOUT THE STATE DURING THE YEARS 1906 AND 1907.

1906.				1907.			
European Quartz Miners.	European Alluvial Diggers.	Chinese Alluvial Diggers.	Gross Total.	European Quartz Miners.	European Alluvial Diggers.	Chinese Alluvial Diggers.	Gross Total.
8,286	998	558	9,842	6,435	1,046	453	7,934

Table H.

REVENUE.—THE FOLLOWING TABLE GIVES COMPARATIVE STATEMENTS OF REVENUE COLLECTED DURING THE YEARS 1906 AND 1907.

Place.	1906.	1907.	Increase, 1907.	Decrease, 1907.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bowen	155 16 10	109 14 2	...	46 2 8
Brisbane	11,832 14 10	11,713 14 6	...	119 0 4
Bundaberg	4 5 0	3 17 6	...	0 7 6
Burketown	773 14 8	83 15 1	...	689 19 7
Blackall	0 10 0	0 15 0	0 5 0	
Cairns	25 3 1	56 19 4	31 16 3	
Charleville	1 0 0	0 5 0	...	0 15 0
Charters Towers	7,348 16 0	6,586 6 9	...	762 9 3
Childers	2 16 0	2 15 0	...	0 1 0
Clermont	249 5 4	408 6 0	159 0 8	
Cloncurry	5,739 14 3	7,874 15 4	2,135 1 1	
Cooktown	1,271 9 0	747 3 8	...	524 5 4
Coen	82 8 0	147 12 6	65 4 6	
Croydon	1,431 1 7	1,305 0 11	...	126 0 8
Cunnamulla	3 10 0	5 0 0	1 10 0	
Eidsvold	142 10 3	116 14 4	...	25 15 11
Emerald	14 15 0	19 13 0	4 18 0	
Eromanga	3 0 0	2 0 0	...	1 0 0
Etheridge and Woolgar	1,799 1 7	2,963 7 4	1,164 5 9	
Geraldton	96 15 0	38 11 0	...	58 4 0
Gin Gin	15 10 0	7 0 0	...	8 10 0
Gympie, Kilkivan, and Glastonbury	4,832 13 8	6,257 9 1	1,424 15 5	
Gladstone	1,526 0 4	1,946 7 5	420 7 1	
Hamilton	203 0 10	151 14 11	...	51 5 11
Herberton	6,130 8 1	7,384 13 9	1,254 5 8	
Hodgkinson	709 13 0	1,073 15 9	364 2 9	
Hughenden	113 15 0	90 1 0	...	23 14 0
Ingham	394 15 1	696 9 6	301 14 5	
Ipswich	2 7 6	3 9 6	1 2 0	
Jundah	1 0 0	1 6 0	0 6 0	
Longreach (Fermoy)	1 5 0	1 10 0	0 5 0	
Mackay	62 12 0	746 1 4	683 9 4	
Maryborough	8 10 0	15 4 0	6 14 0	
Mount Shamrock (Biggenden)	153 14 1	191 18 11	38 4 10	
Mount Morgan	2,450 4 1	1,846 18 5	...	603 5 8
Nanango	12 1 9	18 15 0	6 13 3	
Normanton	2 9 0	2 5 0	...	0 4 0
Palmer	99 7 10	73 15 4	...	25 12 6
Port Douglas	2 15 0	2 12 0	...	0 3 0
Ravenswood and Star	1,495 12 4	1,439 6 11	...	56 5 5
Rockhampton	866 0 8	899 11 2	33 10 6	
Roma	32 4 6	23 5 0	...	8 19 6
St. Lawrence	12 5 0	18 10 0	6 5 0	
Stanthorpe	353 1 7	809 19 2	456 17 7	
Tenningering	364 2 8	472 4 10	108 2 2	
Texas	10 15 0	19 5 0	8 10 0	
Townsville	37 4 0	63 5 0	26 1 0	
Toowoomba	6 15 0	25 11 6	18 16 6	
Thargomindah	8 15 0	1 15 0	...	7 0 0
Thursday Island	163 16 9	67 7 3	...	96 9 6
Warwick	209 2 2	171 17 9	...	37 4 5
Wooroorooka	0 10 0	Nil	...	0 10 0
Totals	£51,260 13 4	£56,709 11 11	£8,722 3 9	£3,273 5 2
Less Decrease	...	...	£3,273 5 2	
Increase for Year 1907	...	...	£5,448 18 7	

Table I.

TABLE SHOWING THE NUMBER OF MINERS' RIGHTS AND BUSINESS LICENSES ISSUED DURING THE YEARS 1906 AND 1907.

Where Issued.	1906.		1907.	
	Miners' Rights.	Business Licenses.	Miners' Rights.	Business Licenses.
Bowen	63	1	48	2
Brisbane	99	...	92	...
Bundaberg	17	...	15	...
Burketown	37	...	38	1
Blackall	2	...	3	...
Charleville	4	...	1	...
Charters Towers	1,882	3	1,691	8
Childers	11	...	11	...
Clermont	425	11	528	30
Cloncurry	884	2	824	3
Cairns	83	...	94	...
Coen	68	2	87	3
Cooktown	391	...	274	2
Croydon	334	1	316	...
Cunnamulla	10	...	20	...
Eidsvold	82	1	69	...
Emerald	51	1	62	2
Eromanga	12	...	8	...
Etheridge and Woolgar	352	8	437	6
Geraldton	31	1	8	...
Gin Gin	46	2	12	2
Gympie	823	5	706	1
Gladstone	288	20	398	37
Hamilton	111	1	77	...
Herberton	2,384	11	3,194	17
Hodgkinson	403	5	487	8
Hughenden	7	...	8	...
Ingham	212	...	215	...
Ipswich	9	...	7	...
Jundah	4	...	5	...
Longreach (Fermoy)	5	...	6	...
Mackay	53	1	224	4
Maryborough	23	...	21	...
Mount Shamrock (Biggenden)	31	...	58	...
Mount Morgan	709	6	698	3
Nanango	30	...	32	...
Normanton	9	...	9	...
Palmer	80	6	164	6
Port Douglas	11	...	10	...
Ravenswood and Star	439	2	308	2
Rockhampton	322	...	311	...
Roma	7	...	17	...
Stanthorpe	185	...	177	...
St. Lawrence	7	...	14	...
Tenningering	228	12	261	7
Texas	43	...	79	...
Townsville	105	...	69	...
Toowoomba	23	...	7	...
Thargomindah	15	...	7	...
Thursday Island	23	...	29	...
Warwick	58	...	59	...
Wooroorooka	2	...	...	...
Totals	11,533	102	12,295	144

Table J.

TABLE SHOWING THE NUMBER AND AVERAGE AREA OF GOLDMINING LEASES AND APPLICATIONS IN FORCE ON ALL GOLDFIELDS ON 31ST DECEMBER, 1907.

Goldfields.	Number of Goldmining Leases and Applications in Force.	Total Area.	Average Area.
		A. R. P.	A. R. P.
Alice River	5	52 0 0	10 1 24
Charters Towers	132	3,056 1 28	23 0 25
Clermont	4	50 0 0	12 2 0
Cloncurry	12	100 2 16	8 1 21
Croydon	40	573 0 24	14 1 13
Coen	4	59 0 0	14 3 0
Eidsvold and St. John's Creek	1	22 0 0	22 0 0
Etheridge and Woolgar	79	817 0 14	10 1 15
Gladstone	13	148 1 8	11 1 38
Gympie	150	3,304 2 3	22 0 5
Hamilton	7	63 0 0	9 0 0
Hodgkinson	13	242 0 0	18 2 18
Horn and Possession Islands	1	20 0 0	20 0 0
Jordan	1	25 0 0	25 0 0
Kilkivan	1	50 0 0	50 0 0
Mackay Fields	1	40 0 0	40 0 0
Mareeba	2	30 0 0	15 0 0
Marodian	2	15 0 25	7 2 12
Mount Shamrock	6	56 0 0	9 1 13
Mount Morgan	26	760 3 33	29 1 33
Mount Perry Fields	6	114 0 0	19 0 0
Mulgrave	1	6 0 0	6 0 0
Normanby (Bowen)	4	57 2 13	14 1 23
Palmer	2	35 0 0	17 2 0
Ravenswood	45	745 1 0	16 2 10
Rockhampton	4	45 0 0	11 1 0
Warwick Fields	6	49 0 0	8 0 23
Yabba	1	25 0 0	25 0 0
Totals	569	10,562 0 4	18 2 10

Table K.

TABLE SHOWING THE NUMBER AND AVERAGE AREA OF MINERAL LEASES AND APPLICATIONS IN FORCE ON ALL MINERAL FIELDS ON 31ST DECEMBER, 1907.

Mineral Field.	Number of Leases and Applications in Force.	Total Area.	Average Area.
		A. R. P.	A. R. P.
Biggenden	3	143 0 0	47 2 27
Bowen	5	60 0 0	12 0 0
Burketown	55	1,583 0 0	28 3 5
Charters Towers	12	581 3 28	48 1 39
Clermont	5	739 0 0	147 3 8
Cloncurry	822	9,891 1 38	12 0 5
Coen	1	12 0 0	12 0 0
Cooktown	22	1,093 0 0	49 2 29
Croydon	3	60 0 0	20 0 0
Etheridge and Woolgar	83	1,395 3 12	16 3 11
Gladstone	64	1,923 2 36	30 0 9
Gympie, Kilkivan, &c.	5	370 0 0	74 0 0
Hodgkinson	44	537 0 0	12 0 33
Ipswich	6	120 3 5	20 0 21
Kangaroo Hills	39	629 2 0	16 0 23
Mackay Fields	21	703 1 32	33 1 39
Mount Morgan	14	567 1 29	40 2 5
Mulgrave	1	20 0 0	20 0 0
Mount Perry Fields	20	423 0 0	21 0 24
Nanango	1	10 0 0	10 0 0
Pascoe River	1	12 0 0	12 0 0
Ravenswood and Star	7	290 0 0	41 1 29
Roma	1	37 2 37	37 2 37
Rockhampton	21	2,710 0 0	129 0 8
Stanthorpe	17	538 2 38	31 2 30
St. Lawrence	2	21 0 0	10 2 0
Toowoomba	1	37 0 0	37 0 0
Townsville (Star)	5	100 0 0	20 0 0
Walsh and Tinaroo	736	8,411 0 0	11 1 28
Totals	2,017	33,021 2 15	16 1 19

Table L.

TABLE SHOWING THE NUMBER AND AVERAGE AREA OF LEASES, AND APPLICATIONS FOR SAME, UNDER PART VIII. OF "THE MINING ACT OF 1898," ON GOLD AND MINERAL FIELDS.

Gold or Mineral Field.	Number of Leases and Applications in Force.	Total Area.	Average Area.
		A. R. P.	A. R. P.
Burketown District	2	90 0 0	45 0 0
Charters Towers	3,611	15,818 1 19	4 1 21
Clermont	28	424 2 5	15 0 26
Cloncurry	340	776 2 29	2 1 5
Coen	36	178 2 0	4 3 33
Croydon	394	658 1 31	1 2 27
Eidsvold	151	250 0 0	1 2 25
Etheridge and Woolgar	172	1,300 1 23	7 2 10
Gladstone	135	790 3 18	5 3 17
Glastonbury	3	41 0 0	13 2 27
Gympie	2,467	24,604 0 29	9 3 36
Hamilton	58	45 0 0	0 3 4
Herberton	774	2,658 1 16	3 1 29
Hodgkinson	65	1,117 0 0	17 0 30
Horn and Possession Islands	2	22 0 0	11 0 0
Kangaroo Hills	14	98 3 0	7 0 8
Kilkivan	199	2,129 3 0	10 2 32
Mackay Fields	6	7 1 0	1 0 33
Marodian	4	95 0 0	23 3 0
Mulgrave	1	10 0 0	10 0 0
Mount Morgan	1,856	7,761 2 11	4 0 29
Mount Shamrock	35	66 2 27	1 3 25
Mount Perry Fields	26	113 0 0	4 1 15
Nanango	12	26 0 0	2 0 27
Normanby (Bowen)	19	38 2 26	2 0 6
Palmer	1	5 0 0	5 0 0
Ravenswood	545	1,686 0 24	3 0 15
Rockhampton Fields	150	1,151 0 0	7 2 28
Russell	3	15 0 0	5 0 0
Stanthorpe	74	931 0 20	12 2 13
Warwick	121	3,371 0 0	27 3 18
Yabba	7	280 0 0	40 0 0
Totals	11,309	66,561 0 38	5 3 22

Table M.

TABLE SHOWING THE PRICES FOR CRUSHING QUARTZ ON THE SEVERAL GOLDFIELDS WHERE CRUSHING MACHINES WERE IN OPERATION DURING THE YEAR 1907.

Goldfield.	From—Per Ton.	To—Per Ton.
	£ s. d.	£ s. d.
Alice River	1 2 6	1 5 0
Charters Towers and Cape	0 10 0	0 10 0
Clermont	0 12 6	1 0 0
Cocoa Creek and Starcke (Cooktown)	1 0 0	1 0 0
Coen	0 15 6	0 15 6
Croydon	0 10 0	0 12 0
Etheridge	0 10 0	1 0 0
Gladstone	0 12 0	1 0 0
Gympie Fields	0 7 0	0 8 0
Hamilton	1 2 0	1 2 0
Hodgkinson	0 15 0	1 0 0
Horn and Possession Islands	0 17 6	0 17 6
Mount Shamrock	0 18 0	0 18 0
Mount Morgan	0 12 6	0 15 0
Normanby (Bowen)	0 17 6	0 17 6
Palmer	0 15 0	1 1 0
Ravenswood	0 12 0	0 15 0
Rockhampton	0 13 6	0 15 0
Warwick Fields	0 11 6	0 11 6

Table N.

TABLE SHOWING ESTIMATED YIELD OF GOLD IN QUEENSLAND TO THE END OF 1907.

CROYDON GOLDFIELD.

Year.	Estimated Yield.	Total of each Field.
	Fine Oz.	Fine Oz.
During 1886 ...	1,514	
„ 1887 ...	20,018	
„ 1888 ...	28,670	
„ 1889 ...	31,799	
„ 1890 ...	37,848	
„ 1891 ...	37,949	
„ 1892 ...	36,781	
„ 1893 ...	43,393	
„ 1894 ...	43,062	
„ 1895 ...	41,457	
„ 1896 ...	43,018	
„ 1897 ...	34,148	
„ 1898 ...	26,103	
„ 1899 ...	31,770	
„ 1900 ...	48,045	
„ 1901 ...	34,147	
„ 1902 ...	28,355	
„ 1903 ...	31,790	
„ 1904 ...	33,841	
„ 1905 ...	33,746	
„ 1906 ...	23,963	
„ 1907 ...	13,411	
		704,828

CLONCURRY, CALLIOPE, CLERMONT, PARADISE, NORMANBY, and other small Goldfields.

To end of 1877 ...	156,790	
During 1878 ...	9,197	
„ 1879 ...	10,546	
„ 1880 ...	12,791	
„ 1881 ...	17,918	
„ 1882 ...	14,647	
„ 1883 ...	8,997	
„ 1884 ...	6,401	
„ 1885 ...	5,900	
„ 1886 ...	7,786	
„ 1887 ...	13,182	
„ 1888 ...	11,853	
„ 1889 ...	10,113	
„ 1890 ...	11,478	
„ 1891 ...	19,845	
„ 1892 ...	19,148	
„ 1893 ...	25,725	
1894 ...	31,208	
„ 1895 ...	31,809	
„ 1896 ...	25,511	
„ 1897 ...	33,681	
„ 1898 ...	42,764	
„ 1899 ...	23,797	
„ 1900 ...	17,042	
„ 1901 ...	20,446	
„ 1902 ...	17,608	
„ 1903 ...	18,359	
„ 1904 ...	19,205	
„ 1905 ...	19,820	
„ 1906 ...	18,022	
„ 1907 ...	17,132	
		698,721

HAMILTON GOLDFIELD.

During 1900 ...	8,300	
„ 1901 ...	5,515	
„ 1902 ...	4,325	
„ 1903 ...	5,928	
„ 1904 ...	5,278	
„ 1905 ...	3,588	
„ 1906 ...	2,574	
„ 1907 ...	2,534	
		38,042

GYMPIE GOLDFIELD.

	Fine Oz.	Fine Oz.
To end of 1877 ...	51,498	
During 1878 ...	34,248	
„ 1879 ...	31,684	
„ 1880 ...	35,490	
„ 1881 ...	55,915	
„ 1882 ...	41,456	
„ 1883 ...	53,408	
„ 1884 ...	92,327	
„ 1885 ...	73,828	
„ 1886 ...	73,004	
„ 1887 ...	84,168	
„ 1888 ...	88,263	
„ 1889 ...	95,243	
„ 1890 ...	64,571	
„ 1891 ...	50,027	
„ 1892 ...	68,705	
„ 1893 ...	65,540	
„ 1894 ...	92,581	
„ 1895 ...	64,999	
„ 1896 ...	60,615	
„ 1897 ...	78,873	
„ 1898 ...	86,251	
„ 1899 ...	73,147	
„ 1900 ...	76,309	
„ 1901 ...	98,675	
„ 1902 ...	120,662	
„ 1903 ...	147,622	
„ 1904 ...	126,710	
„ 1905 ...	116,342	
„ 1906 ...	108,916	
„ 1907 ...	64,227	
		2,375,304

ROCKHAMPTON AND MOUNT MORGAN GOLDFIELDS.*

During 1883 ...	3,209	
„ 1884 ...	19,822	
„ 1885 ...	12,879	
„ 1886 ...	47,957	
„ 1887 ...	82,338	
„ 1888 ...	113,704	
„ 1889 ...	314,356	
„ 1890 ...	218,372	
„ 1891 ...	141,685	
„ 1892 ...	121,514	
„ 1893 ...	118,291	
„ 1894 ...	116,295	
„ 1895 ...	127,793	
„ 1896 ...	147,853	
„ 1897 ...	170,368	
„ 1898 ...	167,933	
„ 1899 ...	177,422	
„ 1900 ...	199,262	
„ 1901 ...	157,099	
„ 1902 ...	146,906	
„ 1903 ...	120,758	
„ 1904 ...	133,195	
„ 1905 ...	128,975	
„ 1906 ...	131,939	
„ 1907 ...	146,574	
		3,266,499

* Prior to 1883 the gold won from Rockhampton District was included in returns under the heading of "Cloncurry, Calliope, and other small Fields."

Table N.—*continued.*

TABLE SHOWING ESTIMATED YIELD OF GOLD IN QUEENSLAND TO THE END OF 1907—*continued.*

Year.	Estimated Yield.	Total of each Field.
HODGKINSON GOLDFIELD.		
	Fine Oz.	Fine Oz.
To end of 1877 ...	47,522	
During 1878 ...	35,567	
„ 1879 ...	26,954	
„ 1880 ...	19,940	
„ 1881 ...	12,433	
„ 1882 ...	10,296	
„ 1883 ...	6,096	
„ 1884 ...	6,147	
„ 1885 ...	4,871	
„ 1886 ...	3,777	
„ 1887 ...	2,081	
„ 1888 ...	1,916	
„ 1889 ...	1,600	
„ 1890 ...	882	
„ 1891 ...	540	
„ 1892 ...	990	
„ 1893 ...	1,509	
„ 1894 ...	1,865	
„ 1895 ...	1,848	
„ 1896 ...	2,464	
„ 1897 ...	2,642	
„ 1898 ...	3,435	
„ 1899 ...	3,496	
„ 1900 ...	3,300	
„ 1901 ...	3,999	
„ 1902 ...	4,033	
„ 1903 ...	4,568	
„ 1904 ...	4,528	
„ 1905 ...	3,220	
„ 1906 ...	3,586	
„ 1907 ...	1,598	
		227,703
PALMER GOLDFIELD		
To end of 1877 ...	819,697	
During 1878 ...	116,759	
„ 1879 ...	87,399	
„ 1880 ...	61,617	
„ 1881 ...	48,930	
„ 1882 ...	35,161	
„ 1883 ...	22,684	
„ 1884 ...	14,265	
„ 1885 ...	11,704	
„ 1886 ...	7,783	
„ 1887 ...	6,327	
„ 1888 ...	14,886	
„ 1889 ...	15,282	
„ 1890 ...	9,436	
„ 1891 ...	11,230	
„ 1892 ...	7,611	
„ 1893 ...	2,960	
„ 1894 ...	3,124	
„ 1895 ...	2,381	
„ 1896 ...	3,815	
„ 1897 ...	2,351	
„ 1898 ...	2,909	
„ 1899 ...	2,708	
„ 1900 ...	2,415	
„ 1901 ...	2,483	
„ 1902 ...	2,421	
„ 1903 ...	1,606	
„ 1904 ...	1,376	
„ 1905 ...	1,130	
„ 1906 ...	645	
„ 1907 ...	640	
		1,323,735

Year.	Estimated Yield.	Total of each Field
CHARTERS TOWERS AND CAPE RIVER GOLDFIELDS.		
	Fine Oz.	Fine Oz.
To end of 1877 ...	493,558	
During 1878 ...	59,482	
„ 1879 ...	63,715	
„ 1880 ...	67,773	
„ 1881 ...	65,410	
„ 1882 ...	63,242	
„ 1883 ...	55,264	
„ 1884 ...	86,228	
„ 1885 ...	106,981	
„ 1886 ...	112,166	
„ 1887 ...	117,603	
„ 1888 ...	106,839	
„ 1889 ...	126,666	
„ 1890 ...	127,426	
„ 1891 ...	183,830	
„ 1892 ...	216,679	
„ 1893 ...	216,660	
„ 1894 ...	221,544	
„ 1895 ...	200,916	
„ 1896 ...	181,923	
„ 1897 ...	242,641	
„ 1898 ...	272,368	
„ 1899 ...	319,572	
„ 1900 ...	283,237	
„ 1901 ...	235,302	
„ 1902 ...	265,244	
„ 1903 ...	285,771	
„ 1904 ...	262,018	
„ 1905 ...	226,696	
„ 1906 ...	205,632	
„ 1907 ...	175,552	
		5,647,938
COEN GOLDFIELD.		
During 1893 ...	2,203	
„ 1894 ...	3,482	
„ 1895 ...	3,325	
„ 1896 ...	2,999	
„ 1897 ...	3,328	
„ 1898 ...	3,613	
„ 1899 ...	2,340	
„ 1900 ...	1,139	
„ 1901 ...	3,005	
„ 1902 ...	1,854	
„ 1903 ...	1,933	
„ 1904 ...	2,654	
„ 1905 ...	6,894	
„ 1906 ...	3,522	
„ 1907 ...	1,029	
		43,320
EIDSVOLD GOLDFIELD.		
During 1888 ...	5,897	
„ 1889 ...	13,310	
„ 1890 ...	13,597	
„ 1891 ...	9,159	
„ 1892 ...	12,639	
„ 1893 ...	6,491	
„ 1894 ...	4,203	
„ 1895 ...	4,027	
„ 1896 ...	4,980	
„ 1897 ...	3,570	
„ 1898 ...	9,026	
„ 1899 ...	4,612	
„ 1900 ...	2,099	
„ 1901 ...	697	
„ 1902 ...	339	
„ 1903 ...	256	
„ 1904 ...	797	
„ 1905 ...	911	
„ 1906 ...	671	
„ 1907 ...	253	
		97,534

Table N—*continued.*

TABLE SHOWING ESTIMATED YIELD OF GOLD IN QUEENSLAND TO THE END OF 1907—*continued.*

Year.	Estimated Yield.	Total of each Field.	Year.	Estimated Yield.	Total of each Field.
ETHERIDGE AND WOOLGAR GOLDFIELDS.			**RAVENSWOOD GOLDFIELD.**		
	Fine Oz.	Fine Oz.		Fine Oz.	Fine Oz.
To end of 1877 ...	95,945		To end of 1877 ...	154,094	
During 1878 ...	5,006		During 1878 ...	10,295	
„ 1879 ...	10,946		„ 1879 ...	12,231	
„ 1880 ...	14,385		„ 1880 ...	10,445	
„ 1881 ...	16,665		„ 1881 ...	8,160	
„ 1882 ...	13,234		„ 1882 ...	6,973	
„ 1883 ...	13,396		„ 1883 ...	10,406	
„ 1884 ...	13,577		„ 1884 ...	11,360	
„ 1885 ...	19,854		„ 1885 ...	14,120	
„ 1886 ...	18,101		„ 1886 ...	7,400	
„ 1887 ...	14,857		„ 1887 ...	8,316	
„ 1888 ...	17,407		„ 1888 ...	8,537	
„ 1889 ...	12,914		„ 1889 ...	13,322	
„ 1890 ...	17,360		„ 1890 ...	12,849	
„ 1891 ...	12,648		„ 1891 ...	11,063	
„ 1892 ...	15,616		„ 1892 ...	9,858	
„ 1893 ...	19,370		„ 1893 ...	8,200	
„ 1894 ...	16,549		„ 1894 ...	14,682	
„ 1895 ...	16,179		„ 1895 ...	11,551	
„ 1896 ...	16,548		„ 1896 ...	12,420	
„ 1897 ...	14,649		„ 1897 ...	14,698	
„ 1898 ...	13,774		„ 1898 ...	19,311	
„ 1899 ...	11,347		„ 1899 ...	18,016	
„ 1900 ...	10,047		„ 1900 ...	24,832	
„ 1901 ...	10,146		„ 1901 ...	26,868	
„ 1902 ...	7,747		„ 1902 ...	40,969	
„ 1903 ...	11,682		„ 1903 ...	38,273	
„ 1904 ...	8,914		„ 1904 ...	40,635	
„ 1905 ...	8,833		„ 1905 ...	42,465	
„ 1906 ...	9,139		„ 1906 ...	36,027	
„ 1907 ...	8,102		„ 1907 ...	34,830	
		494,937			693,206

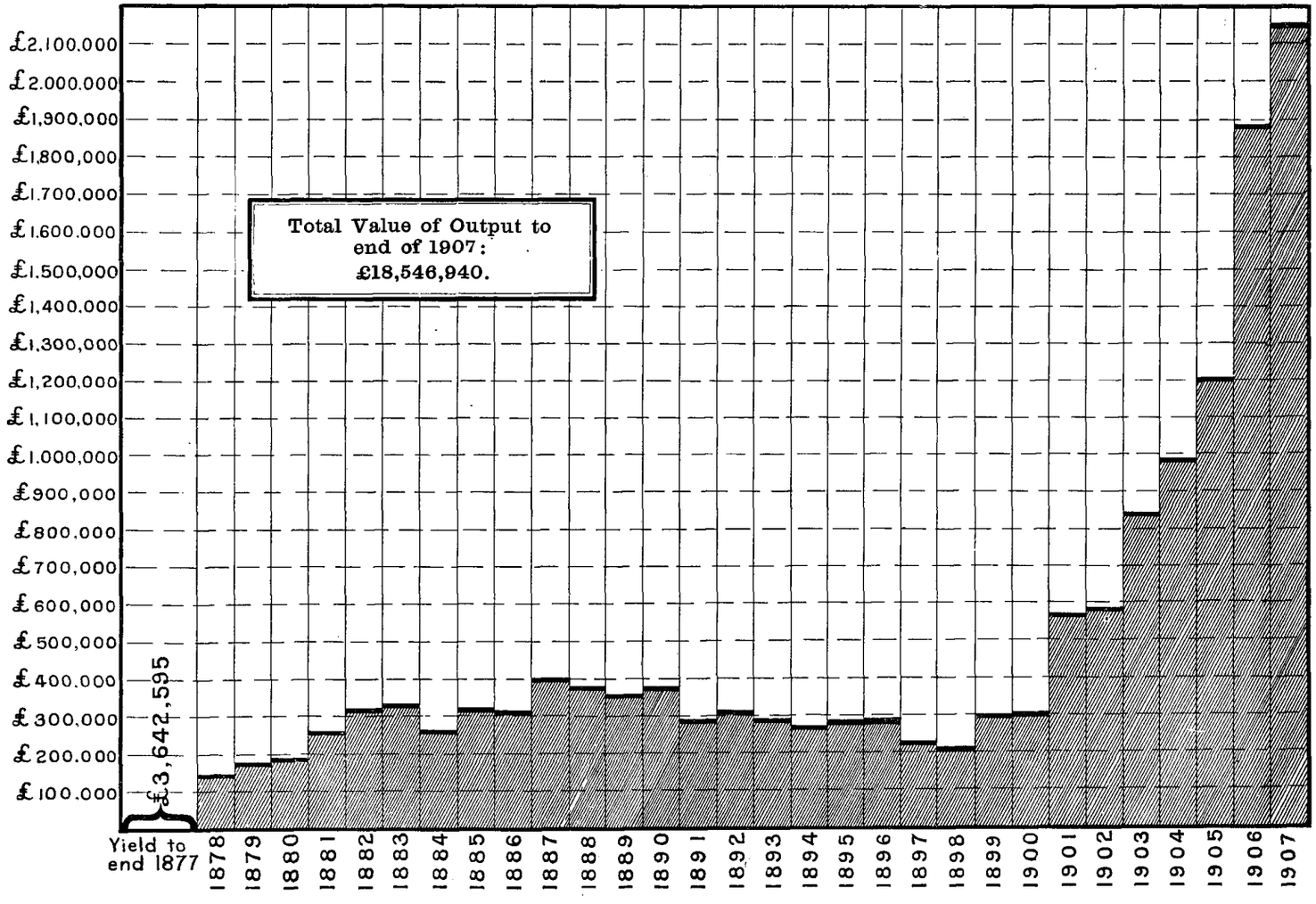
SYNOPSIS—

	Fine Oz.		Fine Oz.
Total yield to end of 1877	1,819,104	For the year 1893	510,342
For the year 1878	270,554	Ditto 1894	548,595
Ditto 1879	243,475	Ditto 1895	506,285
Ditto 1880	222,441	Ditto 1896	502,146
Ditto 1881	225,431	Ditto 1897	600,949
Ditto 1882	185,009	Ditto 1898	647,487
Ditto 1883	173,460	Ditto 1899	668,227
Ditto 1884	250,127	Ditto 1900	676,027
Ditto 1885	250,137	Ditto 1901	598,382
Ditto 1886	279,488	Ditto 1902	640,463
Ditto 1887	348,890	Ditto 1903	668,546
Ditto 1888	397,972	Ditto 1904	639,151
Ditto 1889	634,605	Ditto 1905	592,620
Ditto 1890	513,819	Ditto 1906	544,636
Ditto 1891	477,976	Ditto 1907	465,882
Ditto 1892	509,541	Total	15,611,767

Total value of Gold won to end of 1907 ... ... £66,314,528.

MINERAL PRODUCTION OF QUEENSLAND.

Diagram Showing the Total Value of Minerals other than Gold Won from Queensland Mines to end of 1907.



WARDENS' REPORT ON GOLD AND MINERAL FIELDS FOR 1907.

BOWEN FIELDS.

Revenue, Etc.

The amount of revenue collected for the year 1907 was £111 12s. 8d., a decrease on that of the preceding year, which is accounted for by the fact that several leasehold rents for the incoming year have not been paid, while some applications for leases have been withdrawn.

Forty-eight miners' rights and two business licenses were issued during the year, being a decrease of 15 in miners' rights compared with those of the preceding year.

Five mineral leases were applied for during the year, each being a 10-acre block, and two of which were subsequently withdrawn, while for two the rents have not been paid for 1908.

Normanby Diggings.

This field, I am sorry to say, has not been worked, as was anticipated at the end of 1906, and the population has decreased during the year. The two leaseholds, Grace Darling and Glengarry, were cancelled for non-payment of rents due for 1907. The only ground now being worked is the Perseverance claim, held by Messrs. Sinclair and Murray Prior. The shaft has been sunk a further depth, and great hopes are held out of success. The holders of this claim have obtained assistance from the Government for the purposes of deep sinking and further development, but, so far, no crushing has been put through.

The population on this field is 38.

Lamington.

The New Lamington Gold Mining Company, Limited, have completed the erection of their five-head battery on their holding, being ready for operations at the early part of the year. A considerable amount of development work has been done in connection with the mine, but I understand that the ore obtained cannot be profitably treated with the present machinery. During the year nearly 300 tons of ore were raised, of which they put through their battery 141 tons, for a yield of 77 oz., of the value of £207; 22 tons of concentrates, yielding 28 oz. 12 dwt.—value, £86; 18 cwt. copper—value, £86; and 115 tons 10 cwt. of tailings, yielding 30 oz.—value, £97. I regret to say that the rents due on these holdings for 1908 have not yet been paid.

Commonwealth.

The holders of this mine completed the erection of their five-head battery in the early part of the year, and have done a good deal of work in connection with the mine. They have a good paddock of stone at grass, and raised about 14 tons during the year. They put through the mill 69 tons, which yielded 17 oz. 6 dwt., of a value of £58 14s., while 40 tons of tailings yielded 14 oz.; value, £35.

Golden Fleece.

This ground was formerly held as a leasehold. It was applied for during the year as claims, and has been worked for the past few months, during which time the holders raised 43 tons of stone, 22 tons of which was put through the Commonwealth battery, yielding 17 oz. 19 dwt., of the value of £67 10s.

Copper King.

The Copper King is situate not far from the Lamington, and was formerly held as a prospecting area, but was applied for as a lease during the year for the purpose of mining for copper. The shaft is down about 100 ft., but none of the ore has been treated. I am not in a position to say what the holder of the lease intends doing. The rent for 1908 has not been paid. Population of New Normanby is 28.

Marengo.

The prospecting area, known as the Brilliant, held by Messrs. Aplin and Ryan, has been continuously prospected. Two experts from Mount Morgan visited the area during the year, but the result of their inspection has not been made known. Another prospecting area, held by W. S. Wilkins, and known as the New Hope, situate not far from Marengo, has been continuously prospected, but nothing of any importance can be said for either of these areas. Both prospectors have received assistance from the Government. The population is 4.

Mount Wyatt.

A few miners still remain on this old field, and manage to earn a small living at alluvial mining. The yield of gold obtained from this place is not available, but is included in the statistical return for the whole district. The population is 12.

Ukalunda.

The only mining operations conducted on the Sellheim Mineral Field of any note have been done in connection with the Sunbeam Silver Mine, which has been continuously worked during the year, giving constant employment to eight men. The following are the returns, as furnished during the year:—25 tons 11 cwt. 26 lb. of ore shipped to Cockle Creek, the return value being £1,747 2s. 1d. Mr. Cope, one of the original holders of the Sunbeam Mine, applied for another lease of 10 acres adjoining, so as to enable more extensive operations being carried on in connection with the mine. Two other parcels of ore were shipped to Cockle Creek by Messrs. Whalan and White, of 5 tons, which gave a return of £80 for the lot. No other work worthy of mention has been done on this field. The population is 42.

Holdings.

The following holdings were registered during the year:—Mineral leases, 5; machine area, 1; gold claims, 2; mineral claims, 9; prospecting areas, 11.

Population.

The total population of the mining district is as follows:—Adult males, 73; women and children, 51; total, 124.

Crushings for the Year, 1907.

Name of Mine.	Quantity.			Yield.			Value.		
	Tons.	cwt.	qr.	Oz.	dwt.	gr.	£	s.	d.
Lamington	141	0	0	77	0	0	207	0	0
Commonwealth ...	69	0	0	17	6	0	58	14	0
Golden Fleece	22	0	0	17	19	0	67	10	0
	232	0	0	112	5	0	333	4	0
Concentrates—									
Lamington	22	0	0	28	12	0	114	0	0
Copper, 18 cwt. ...		...			...		84	0	0
Silver, 44 oz. ...		...			...		6	0	0
	22	0	0	28	12	0	204	0	0
Tailings—									
Lamington	115	10	0	30	0	0	97	0	0
Commonwealth ..	40	0	0	14	0	0	35	0	0
	155	10	0	44	0	0	132	0	0

Gold bought by Banks and others—

	Oz.	dwt.	gr.	Value.
Alluvial	52	8	12	£189 2 1
Cyanide	40	17	17	82 17 2
Reef gold	112	14	2	318 10 0

W. GRACE MORAN, Warden.

BURKETOWN DISTRICT.

The cash collections at this office for the year ended 31st December, 1907, amounted to £97 13s. 1d., compared with £781 2s. 2d. for 1906, and £108 9s. 6d. for 1905. The decrease in revenue is principally due to the fact that a number of mineral leases were forfeited, and that the rents were not paid on the Lawn Hill Silver and Lead Mines, which are awaiting capital for the construction of a railway from Burketown to Lawn Hill Mines. Practically, work has been suspended on this field during the past year, as only two men were employed.

The quantity of copper ore despatched from this port has increased, principally through the quantity brought by camels from Mr. Henry's mine at Mount Oxide. The decrease in price of copper has caused a number of the mines to suspend work for some time, and copper ore is stored awaiting a rise in price.

J. COURTNEY, Acting Warden.

CHARLEVILLE DISRTICT.

In the matter of opal-mining, I have the honour to report that there is none in the Charleville district, but I have taken some pains to elicit information on the subject from outside sources, which information can be relied on.

On the Eromanga Opal Field about five men have been working during the past year, and they recovered about £200 worth of opal, which was sold in Brisbane and Broken Hill. There have been no new finds during the year.

Duck and Station Creeks have been practically deserted during the past year, and the same may be said of the Yowah opal mines.

There is no doubt that opal exists in payable quantities on the Bulloo, Paroo, and on the Dividing Range between the Bulloo and the Cooper, but, as it is nearly always found in dry arid places, and the year 1907 has been exceptionally free from rainfall until the last month, and as, in consequence, no water has been available for working the opal, while there has also been a great demand for hands on the stations and selections, the industry has been practically wiped out for the last year. It is, however, liable to revive at any time under more favourable conditions.

BRAB. R. STAFFORD, Warden.

CHARTERS TOWERS AND OTHER FIELDS.

The Charters Towers Goldfield shows an unexpected decline in output and value of yield. The decreases are, however, proportionately less than most of the other chief goldfields in the Commonwealth, and may, perhaps, be attributed more to the withdrawal of capital during the earlier portion of 1907 than to any serious falling off in the prospects. This shortage of capital had necessarily as its corollary the cramping of prospecting operations in the soundest ventures, the cessation of work in a number of properties where the risk was greater, while several mines, the exploration of which is of great importance, were compelled to seek exemption from labour conditions owing to the disinclination of the public to subscribe calls.

Since the decline in metal values there has been a general expectancy, hardly realised as yet, that there will be a return of capital to gold-mining. The high price of metals which ruled during a portion of the year certainly had one beneficial feature in regard to the extensive mineral area comprised within the boundaries of the Charters Towers Goldfield. Prospecting of a most valuable character was carried on extensively for copper, silver, lead, and tin in localities distant from the centre of the field, and with results that appear likely to lead eventually to the establishment of a number of payable mines. High carriage costs, owing to the distance separating such properties from rail communication, absence of treatment works, and the conservative attitude of a community previously solely interested in gold-mining, together with the sudden slump in prices, prevented the subscription of capital in sufficient amount to properly develop the newer ventures. However, two companies—the Ambrose Silver-Copper Mines and the Rio Tinto—were successfully formed, and are now operating in the Burgessville or Stockyard Creek district, some 80 miles distant from Charters Towers. This district is varied in its mineral character, producing silver, copper, and lead. Several very promising tin properties are in the earliest stages of development. A comparison of the returns during 1906 and 1907 of these metals will show the tangible advance that has been made, and which I consider will ultimately prove a full compensation for the decrease in gold production in the central section of the field.

The total value of metals other than gold for 1906 was £27,367, as compared with £38,109 for 1907.

Dealing with the established lines of reefs in the central area, the Day Dawn has given excellent returns in *Mills's Day Dawn United*, where the chute has been proved for some 600 ft. in line to the New Brilliant Freehold boundary, while the exploration of this reef in depth is now being undertaken by the extension of the No. 13 East level. This property has an area of upwards of 100 acres, of which only about 10 acres have been explored. Further, it is not yet established that the Brilliant reef does not extend as a parallel and untested reef into the property. Results for the year have been excellent, the output being 49,860 tons 5 cwt. for a return value of £215,776 11s. 5d. The dividends paid amounted to £75,000, making the total paid to date by the company £457,500. The credit balance at the end of the year was about £40,000, the net profit being £115,000. The management estimate the ore reserves proved at about 100,000 tons, of an average of £3 10s. per ton.

The *Day Dawn P.C.* has been busy developing the New Day Dawn reef, which, in the limited exploration so far conducted, has been erratic, and some time has been occupied in the erection of new machinery.

The *Talisman and New Dawn* shaft has been sunk to a depth of 1,810 ft., penetrating several veins of stone, most of them identifiable with reefs that were worked to a shallow depth many years ago, but never explored to the depths to which we are now

accustomed. This shaft has been a good test of the country behind the Day Dawn reef, and it has now been decided to open out on the Peabody reef, which was penetrated at 1,221 ft.

Pfeiffer's Day Dawn Gold Mines, adjoining Mills's United on the west, is developing what is apparently a new chute of stone. The mine is a block on the Day Dawn Block and Wyndham, and the reef is in two sections, the hanging-wall at present giving excellent returns and good promise. The depth attained is now about 2,500 ft., and the mine is leading the way in exploration of the deep ground on the Day Dawn line. The necessity for a new underlie, giving more economical haulage, has retarded general development, but this is on the eve of completion, and the mine is regarded as one of the most promising features for the new year. An evidence of the value of the reef is given in the year's returns, which totalled 6,196 tons, for a return value of £27,796. There is little doubt that this mine will be one of the chief producers of the field within a few months, and the results of the continued exploration of the deep ground will be of extreme importance to the field, and especially to Plant's Day Dawn Deep Mines, which block off Pfeiffer's Day Dawn Gold Mines, and where development has been almost at a standstill owing to the absence of the necessary capital to deepen the shaft.

West again is the *Day Dawn Gold Mines*, where exploring with no beneficial result has been persistently executed during the year. A monkey shaft has been sunk to a depth of 779 ft. from the No. 8 level, but nothing of value has been disclosed. Recently it was decided to crosscut in the western section of the mine, in proximity to the point where the Day Dawn reef certainly deviates its strike and possibly branches. Another important work shortly to be undertaken is the further extension of a hanging-wall crosscut in order to test the country for the hanging-wall reef, which should exist, according to data furnished by the operations in Pfeiffer's Day Dawn Gold Mines. The mine, admitting the comparative failure of the past year's explorations, has great possibilities. It has a fair record as a gold producer, is situated in a central position on the Day Dawn reef, and has a large area of untested ground.

Wallis's Day Dawn Gold Mines adjoins the Day Dawn Gold Mines on the west, and in fact is the most westerly working on the field. The lease comprises a number of old shafts sunk many years ago, previous to the era of mining at even ordinary depths. During the year this company deepened its underlie till it connected with the deepest of the old workings (known as the No. 8 level), and a strong body of low-grade ore was exposed in the bottom eastern level, while in the western level a vein of stone has been found to dip underfoot. To develop this, the main shaft is to be deepened—that is, the shaft is to be continued into maiden ground, and the vertical depth now is under 700 ft. This property, venture as it is, must be regarded as of extreme importance as a test of the westerly extension—not of the reef, for that has been proved, but of the gold chutes. Success here would be of extreme importance to the field, as it is almost certain to lead to further prospecting of a large area of ground to the westward. Indeed, this prospect, on present appearances, may be considered as of the greatest importance to the field as a whole, and for that reason the Day Dawn line has been dealt with first.

The *Day Dawn Block and Wyndham* treated during the year 11,893 tons, for a return value of £29,284, and the company paid one dividend equal to £12,460. This is a decline only to be expected, as the Day Dawn reef is practically exhausted, and there has been no development of importance during the year, though there is a possibility that the North Australian reef will be found in this property.

Keeping to the western end of the field, the only other property of importance is the *Moonstone P.C.*, worked 30 years ago, but never beyond a vertical depth of 120 ft., and the mineral belt was not entered. The reef averages 2½ ft. in thickness, and the proprietors—a party of working miners—have unwatered the old ground, and are now making an effort to develop it in depth. Here also success will mean that a large area of maiden ground will be taken up and explored.

Commencing from Mills's Day Dawn United, which by purchase now owns the Day Dawn School Reserve Lease, is the *New Brilliant Freeholds*, up to whose boundary, or to within a short distance of it, three distinct reefs have been traced, one of them 2 ft. in thickness of payable stone. A drive is now in progress on this stone, and has already entered the New Brilliant Freeholds lease, which is regarded as the connecting link between the Day Dawn and Brilliant systems, and it is not improbable that one or other of the three veins already mentioned may be the Brilliant reef, though, owing to the disturbing influence of a dyke in one section of the property, this may never be finally ascertained.

The *East Mexican*, which is blocked off by the New Brilliant Freehold and Mills's United properties, has been a disappointment. It has been fairly established, however, by the long crosscut drive from the vertical shaft that the so-called Mexican reef is identifiable with one branch of the reef now being worked in Mills's Day Dawn United. It is now considered not improbable that the footwall branch reef has yet to be discovered, or rather explored; and an endeavour is being made to arrange for a level to be extended from the Day Dawn School Reserves into the East Mexican ground. This manner of direct approach, where there has been some faulting influence, although necessitating dead work, appears to be the most satisfactory, as the locality of any fault and its probable influence will the more clearly be disclosed.

The Brilliant Block is the next eastern property. The chief operation during the year has been the extension of the No. 17 West level some hundreds of feet, for the greater distance on a very wide formation carrying a reef of low-grade ore. Operations were abandoned recently at this point, and a crosscut is now being driven into the footwall from one of the upper levels (No. 13), in order to test the formations which were met in the deepening of the Brilliant P.C. shaft, and also with an eye to the branches of the Day Dawn reef exposed in the Mills's Day Dawn United.

The *Brilliant P.C.* has been in the hands of tributers, the fire which destroyed a portion of the shaft preventing further attention to the reefs which were exposed underlying the Brilliant reef. The company has, however, another property, to which I shall refer later on.

The eastern neighbour of the Brilliant P.C. is the *Brilliant and St. George United*, which has surprisingly maintained a payable output, though steadily decreasing. The output for the year was 13,995 tons, for a yield value of £54,065 19s. 8d., and dividends were paid totalling £7,200. The company has now paid £791,400 in dividends, and under different proprietaries the area (under 19 acres) has paid nearly £1,000,000 in dividends. There is yet a chance that a small cross reef will extend the life of the mine, but no large output can be expected, though a proposal, to which I shall later on make reference, may have a far-reaching result in the case

of a number of mines in a locality now regarded as nearing exhaustion.

The *Brilliant Central* opened the year badly, but has made a good recovery in proving the extension of the Marshall's Queen reef in its eastern ground, and in opening a hanging-wall reef in the western section—a reef which may be found to extend throughout a considerable portion of the lease. The company's output shows a decline, both as regards tonnage and value, but such economy has been practised that the company was able to liquidate a debit balance and pay two dividends, equal to £5,000.

The *Brilliant Extended* has not met with the full measure of expected success, and the profits, which have accrued from a low-grade reef, have been employed in the erection of improved plant and machinery. This installation, only possible to a strong company with certain prospects of a consistently large output, has already led to a decrease in costs. The output for the year was 46,322 tons, for a return value of £84,591, but the chief feature is that the No. 3 underlie has been extended to a vertical depth of nearly 2,700 ft., the bottom showing 3 ft. of mineral stone, estimated to be worth £4 per ton. The No. 16 levels are now being driven (2,650 ft. vertical depth), and the chute appears to be making to the westward. With the higher value and the good size of the reef in the bottom of the shaft at the greatest depth yet attained on the field, the mine may only be commencing its history. It is now thoroughly equipped with plant and machinery, and the new year's disclosures should be decisive as to its future, and give a valuable index to the future of one of our main reefs in depth. The manager estimates the tonnage of ore reserves at 65,000 tons, of a value of about £1 19s. per ton. This leaves a slight margin of profit, but it is expected that the high-grade stone in the deeper workings will increase the average value.

Blocking off the Brilliant Central, Brilliant Block, and New Brilliant Freeholds, and with Mills's Day Dawn United as its western and the Brilliant Extended as its eastern neighbour, is the *Brilliant Deeps Limited*, a reconstruction of the Deep Level Mines of Charters Towers, Limited. It holds 100 acres of ground, and has excellent prospects for the deeper continuation of both the Brilliant and Day Dawn reefs. The mine has been almost continuously working, although it has been under exemption during a portion of the year. The chief gain has been in ventilation, from the absence of which the mine has suffered for years past, and which has seriously retarded its development as the pioneer deep-sinking mine of the field. Ventilative connection was gained by the extension of the No. 12 West level of the Brilliant Extended (2,413 ft. vertical depth) into connection with the No. 2 level of the Brilliant Deeps, Limited. The two deep mines of this section of the field are thus connected, to their material benefit; and now that it appears probable that the main Brilliant chute is trending westerly from the Brilliant Extended towards the Brilliant Deeps, Limited, the eastern ground of the latter, already opened and accessible to a systematic development, has prospects, the realisation of which would make the mine the leading one in output. Another string is in the far western ground, where, for a mining certainty, both the Brilliant and Day Dawn reefs must exist. Mills's Day Dawn United, the New Brilliant Freeholds, and the Brilliant Block in their disclosures have made the prospects already mentioned almost certainties—that is, as concerning the continuance of the reefs mentioned, the value, of course, awaiting actual development for proof.

Kelly's Queen Block produced during the year 7,284 tons 10 cwt., for a return value of £29,111 19s. 3d., and paid £7,200 in dividends. This company has performed a large amount of prospecting work on the hanging-wall reef, which, traced thence into the Brilliant Central, has given good returns. In Kelly's Queen Block it is in three sections, developed chiefly in the eastern portion of the mine, and the work of the year has been its development westerly.

The *Queen Deep Mines, Limited*, has vigorously continued the heavy task of unwatering the old workings on the Queen reef, but the stone in them, during years of idleness reported to be of high value, proved to be too low in value, though big bodies of stone were exposed, and the probability of payable chutes existing at a greater depth fairly evidenced. The heavy calls necessary to explore all sections of the extensive workings could not be made under the financial conditions which have ruled, and, consequently, the company limited its operations to the Queen Consols shaft, the most westerly of the three existing on the property. Here a short run of payable stone has been developed in the upper ground, and the underlie has been sunk and No. 5 levels opened, the western drive, at latest, just entering on the expected chute. It is expected that this chute will be developed within a few months, and the resultant profits employed in the wider scheme of operations, which will take in the whole of the extensive eastern workings, including Golden Gate and Sunburst shafts. The deepest workings in this, a main line of reef, are under 1,000 ft., with large bodies of stone showing throughout, well deserving of exploration to greater depth.

The records of the *Band of Hope, Queen Cross Reef, Victoria and Queen, Victory, Phœbe, Queen Central, Queen Central Block,* and *Victoria and Caledonia Block* have been of persistent exploration, which only in the Band of Hope and New Victoria and Caledonia have resulted in any discovery of a promising nature. The Phœbe, however, is doing good work in opening up the George formation with some promise, and the Queen Cross Reef is commencing the new year by deepening its main shaft—a work which will be of value to the whole of the group of mines mentioned as a prospecting work undertaken by a company which has a good cash reserve, and is, therefore, not compelled to call on shareholders.

The *Bonnie Doon* Company's mine is situated about five miles south-east of Charters Towers, and is a promising outside property. It has crushed 160½ tons, which realised £1,372 0s. 4d., and another crushing of 126 tons is being treated. The mine is well equipped, and has an underlie shaft from the surface carrying rich stone for about 80 ft. The chute of gold is running in a north-westerly direction, and a winze from No. 1 West level is following down on the chute. The reef varies from 4 to 9 in. in the stopes. The mine is more than paying its way, and undoubtedly has possibilities.

The *Golden Alexandra Company* during the year 1907 crushed 2,984½ tons, for a yield of 3,855 oz. 17 dwt. of smelted gold. The total value of the gold and residues amounted to £16,103 17s. 4d. A considerable amount of development work has been done in the lower workings in the mine. In the month of October a reef of about 10 in. of very heavy mineralised stone was met with through the fault in the No. 6 South-east level. This new development has enhanced the value of the mine, and further development on this make should be interesting. A further lease of 50 acres has been acquired during the year, adjoining this company's

north-eastern boundary. The prospects are now encouraging, and the company may again shortly enter on the dividend list. No dividends have been made during the year.

At Millchester, *Quinn's Block* has, with its small area, proved the lode to live in depth, but to be somewhat erratic in character. The company, nevertheless, paid £2,333 6s. 8d. in dividends. The chief value of its work has been to prospect for Rogers's Millchester Block, a large area, which almost surrounds and blocks off its smaller neighbour. Rogers's Millchester Block has found the reef to be persistent but low in value at the points in operation. Ultimately, however, access could be gained through Quinn's Block to the deeper ground, and in a few months it is likely that this will be the procedure.

The *Brilliant and St. George United Company*, which in 1906 acquired the Identity and Hope property of 100 acres, promises to be the backbone of this locality (Millchester). The mine is situated only a few hundred yards from the Company's mill and cyanide works, thus promising well for economical treatment. The new property when taken over contained a strong reef, which had given fine results in the shallower ground, but at the greatest depth attained (600 ft.) showed a decline in value. A straight shaft sunk ahead of the old workings to a depth of nearly 900 ft. penetrated the reef, and was continued until a new lode formation was touched, but not penetrated, owing to a heavy influx of water. Two crosscuts have been driven, and in the second 2 ft. of stone, worth 1 oz. per ton, have been exposed. This is now being driven on, and if the size and value are maintained the locality, which has languished for many years, will become a busy centre.

The *Ruby P.C.* is the only survivor of the half dozen or so of companies which at one time were operating in the locality of what is known as the Ruby Ridge. Its product for the year was 1,661 tons, for a yield value of £13,352 15s. 2d. This was obtained from the No. 2 shaft, where the reef, although averaging small in size, has been, as the returns show, of high average value. The mine continues to hold a prominent position on the field, and ranks fifth on the dividend list for 1907. The total amount of dividends disbursed to shareholders is £26,250, which is £1,250 in excess of the nominal capital of the company, of which only 1s. 3d. per share has been called up. Operations are confined to the reef intersected in the vertical shaft at 100 ft., and followed by means of the main underlie shaft for 500 ft. and east and west levels.

The Brilliant P.C. Company's *Stockholm* property has made the greatest advance for the year. The new workings have been connected with the extensive shallow workings, and large bodies of stone have been exposed, which it is hoped will give a small margin of profit. The newer workings, however, show higher values, and there is promise of a strong and payable chute extending in depth and to the southward. The output has reached the respectable quantity of 600 tons per month, and this is fairly certain to be steadily increased during 1908.

The *Carrington United Mines*, which now hold 128 acres of ground, have become a copper property of importance. The lode has been proved for upwards of 1,200 ft. in line in three shafts, at depths varying from 200 to 600 ft. In the No. 1 shaft (600 ft.) the lode has averaged 6 ft. in thickness for the last 300 ft., and the value of the ore is estimated to vary from 6 per cent. to 12 per cent. copper and a few pennyweights of gold per ton. This shaft is the deepest of any copper mine in North Queensland, and the consistent character of the lode has been proved. The company has recently proceeded with the erection of a series of six reverberatory furnaces, three of which are now in operation, and the fourth is being completed. Production has been delayed awaiting the erection of the furnaces, which have only recently commenced treatment, but are now producing blister copper. Sufficient ore reserves have been developed to provide a large output for a long time ahead, and the mine is now only awaiting adequate treatment works, the erection of which has been delayed owing to the carriage difficulties, while the cost of their erection has been tremendously increased owing to the absence of rail communication. Concerning this, the Carrington field is situated about 28 miles south-west of Charters Towers, but a branch tramline has been suggested from Powlathanga, a point on the Northern line only 18 miles from the Carrington field. Such a line, it is urged, could be cheaply built as a tramline, and would serve a double purpose, as, besides conferring the benefit of reasonable carriage cost on the mines and the population (now numbering about 400), it would ensure the cheap provision and conveyance of firewood and mining timber to both Charters Towers and Carrington. The fuel question is regarded as increasingly acute, and the consumption, with the greater depth of mining, is increasing steadily. It is certain that fuel costs form a very important item of mining conditions, and it is no less certain that the area within a reasonable distance of the field has been denuded of timber.

At *Carrington's Lion Nos. 1 and 2 East* the main vertical shaft has been deepened a further 200 ft., and has reached a total depth of 404 ft., with 4 ft. of gold and copper ore in the present sink. The lode, which is almost vertical, evidently lives to a considerable depth, as the Carrington United Company's shaft, 180 ft. further to the west, is down 600 ft., carrying a strong body of sulphide ore the full width of the shaft. The lode was first intersected at 229 ft., and is of a serpentine nature, winding in and out of the shaft as sinking proceeds. Levels have been opened out in the shaft at 260 ft. and 360 ft., and extended east 50 and 150 ft. respectively, carrying 2 ft. of rich ore. The following crushings have been taken out:—86 tons from the 360-ft. level were despatched for realisation, upon which the sum of £365 has been advanced; also 358 tons from these stopes realised £1,476, exclusive of residues stacked on the lease, rich both in copper and gold. A trial crushing of 23¼ tons from the 260-ft. level has just been completed for a return of £303, clearly demonstrating that the quality of the ore is richer in gold contents in the shallower workings, copper predominating with depth.

One of the most important proposals in connection with mining on Charters Towers is comprised in the suggestion made some months ago by Mr. J. Millican, and still under consideration, whereby it is suggested that mining companies in the eastern section of the field, where there is at present a depression, should form groups, and each group sink a deep shaft for the general use and benefit, from a depth to be fixed. This is the outcome of the depression and of the exhaustion of the known reefs in what is termed the Queen end of the field. The scheme will probably go further, and apply to the testing of the Brilliant footwall country, especially in regard to the lodes exposed in the Brilliant P.C. shaft, but never thoroughly tested.

Outside Mining Centres.

Stockyard Creek, about 70 miles distant from Charters Towers, forms the centre of a small tin and

copper area. Here McCready's battery, although limited in capacity, treats the product of the mines in the neighbourhood. So far, the tin deposits in the vicinity have been of a very bunchy or pipey nature, notably the *Roberts's Tin Mine*, which proved to be a rich pipe, some 2 or 3 ft. through. Messrs. Huxley and Wells are prospecting for the rich pipe of tinstone lost in this mine, and the chances of their being successful seem to be fairly good. The *Rio Tinto Mine*, in the same locality, are doing some prospecting work, and have just installed a small horse-power plant, the workings having passed beyond the windlass stage. The population of the place is 35 men and 10 women and children.

Sandy Creek, about 15 miles distant from Stockyard, produces most of the stone crushed at McCready's mill. There are some fine-looking bodies of tinstone at this centre, the returns showing that the quality is by no means of a low order. Water is plentiful at present, and in the driest season may be obtained in sufficient quantity for domestic purposes by 15 ft. of sinking in the creek bed. The stone is carted to Stockyard (15 miles), at a cost of £1 per ton. This, with the somewhat expensive and slow treatment available, necessitates a rough hand-sorting of all the stone broken, as the total costs of carting and crushing prevent anything under 5 per cent. being profitably handled. The deposits consist of well-defined quartz-tourmaline lodes or dykes of considerable dimensions, which carry tin in varying quantity throughout their entire mass. Owing to the conditions prevailing, only the high-grade stone is treated, some of which crushes 20 per cent., while roughly-picked parcels have crushed up to 30 per cent. tin oxide. The following are some of the principal shows being worked in the locality:—

The *Lucky Hit*, belonging to Torkington and Powley, is four men's ground in extent, and has two shafts to a depth of 30 ft. A recent crushing of hand-sorted stone yielded 12 per cent. tin oxide.

The *Standard*, owned by Daintree and party, in front of the Lucky Hit, and similar to it in that it is a large deposit, appears to have some considerable lateral extent. It is at present worked by means of an opencut, and recently 20 tons of hand-sorted stone crushed at Stockyard for 30 per cent. tin oxide, there remaining 30 tons at the battery and 20 tons at the mine of similar stone awaiting treatment.

The *Mystery*, owned by Rex and party, lies about 1½ mile from the main Sandy Creek, and is a small, though equally promising, deposit. A shaft, 40 ft., proves the continuation of the lode in depth, while the owners claim to have proved the tin on the outcrop for a distance of 120 ft. Sixteen tons now await treatment, estimated to go 10 per cent. tin oxide.

The *Ruby* (Peterson and party) has just crushed 12 tons of stone for 7 per cent. tin oxide.

The *Wonder* (Spicer and party) consists of a 5-acre lease, from which 72 tons have just been crushed for 5 per cent. tin oxide, which, under the existing conditions, proved unprofitable to the owners, who are now seeking exemption.

Some distance from Sandy Creek, in the Gowrie Mountains, McIntyre and Kelly are working a good tin show, and have just crushed 20 tons for 3 tons 15 cwt. tin oxide.

LUCKY CREEK.—This mining centre lies on the head waters of Lucky Creek, a tributary of the Burdekin River. It is practically on the divide between the Gulf and coast waters, and about 90 miles from Stockyard Creek. The new gold rush at the Oaks, on the Copperfield River, is only 40 miles distant from Lucky Creek, and is responsible in a measure for the comparative quietness of the latter place, many of the claim-holders having journeyed to the alluvial field in the hope of a getting a bit of gold quickly. Provisions at Lucky Creek are by no means plentiful. Meat, which has to be packed from a neighbouring station, costs 4d. per lb., while flour is 15s. per 50-lb. bag. The population is 15 men and 10 women and children. There is a small prospecting battery on the field, belonging to Rush and O'Keefe, capable of crushing from 20 to 24 tons per week. Plate amalgamation and blanket streaks constitute the saving appliances, the sands being stacked for future treatment. The following are the principal mines:—

The *Mint* (Rush and O'Keefe) comprises two men's ground, and has a shaft down 80 ft. The reef is small, averaging about 8 in., from which a recent crushing of 22 tons yielded 92 oz. of gold, worth £3 14s. per oz.

The *Try Again* (Boland and Shannon) has an area of 600 by 400 ft. This is a promising claim, with a shaft down 115 ft. A level driven from the bottom 80 ft. north shows 2 ft. of good stone in the end. In places the lode measures up to nearly 4 ft. in the bottom level, and a rich leader has just been exposed in the hanging-wall. One hundred and eighty-six tons crushed for a yield of 351 oz., worth £3 13s. per oz.

The *Orient* (Scott and Son, 400 by 400 ft.) has a shaft down 80 ft. on 18 in. of good stone. This party is sinking at present, and crushed recently 29 tons for 51 oz., worth £3 13s. per oz.

The *Lucky Surprise* (H. Currie) comprises the P.C. claim and No. 1 South. A small pumping and winding plant has recently been installed, but the mine has not been unwatered since the holidays, thus preventing an inspection of the bottom. The total crushings were 90 tons for 347 oz., worth £3 12s. 6d. per oz., which included a parcel of "cullings" of 65 tons for 48½ oz., at £3 12s. 6d. per oz.

Several of the shows, from which good crushings have been obtained, are at prevent vacated, the owners having left for the new rush. The country rock consists of highly inclined slates, and the reefs, which are conformable with the bedding planes of the slates, take the form of lenses of various size, occurring generally within short distances of one another, and more rarely overlapping in the ore-channel. So far, the deepest workings show no diminution in the size of the lenses—rather the contrary, and it is just possible the ore-bodies may assume a lenticular form in a lateral direction only and not in depth, although sufficient data is not available to settle the point.

The crushings, as a whole, have been very satisfactory, and the value of the gold has reached £3 19s. 6d. per oz., which for reef gold is high.

The stone is of a banded nature, and when broken has the appearance of being leadery, which may have led to the impression off the field that the deposits are only leaders. So far the opening up of the lode has shown, almost without exception, an increase in size as depth was attained, and in no case, so far, has any indication of pinching in depth occurred.

PRODUCE.

The amount of quartz treated at the mills for the year was 211,090 tons 13 cwt., for a yield of 120,734 oz. 9 dwt., of a total value of £409,954 15s. 3d. The tailings treated by cyanide during the year were—new tailings, 209,090 tons, for 89,635 oz. 7 dwt. 22 gr., of a total value of £148,487 13s. 10d.; and the old tailings, 17,120 tons for 5,089 oz. 4 dwt. 2 gr., valued at £6,690 14s. 2d. Concentrates and ore treated by smelters amounted to 8,103 tons, for a yield of 44,395 oz. 5 dwt., valued at £176,960.

Alluvial gold recovered was 1,082 oz. 15 dwt. 4 gr., valued at £3,594 18s. 3d., bringing the grand total of the gold production from all sources to £745,688 11s. 4d. The total value of minerals other than gold was £38,109 18s. 4d., an increase over last year of £10,742 12s. 10d.

The dividends paid during the year totalled £120,099 9s. 5d., and the calls made £81,863 8s. 4d., being an excess of dividends over calls of £38,235 1s. 1d.

Revenue.

The collections for the year amounted to £7,125 12s. 1d., including joint stock companies' fees amounting to £62 17s. 4d.

The number of miners' rights issued during the year was 1,691, and 8 business licenses.

Leases and Tenements.

At the close of the year there were in force 3,611 miners' homesteads, containing an area of 15,818 acres 1 rood 19·5 perches., averaging 4 acres 1 rood 20·896 perches; 132 gold-mining leases, containing 3,056 acres 1 rood 28·4 perches, averaging 23 acres 0 roods 24 perches; 12 mineral leases, containing 154 acres 3 roods 28·8 perches, averaging 48 acres 1 rood 32·3 perches; 48 machine areas, containing 154 acres 2 roods 9 perches; 58 tailings areas, containing 177 acres 3 roods 5·05 perches; 34 garden areas, containing 73 acres 3 roods 26 perches; 337 water rights; and 1,978 residence areas.

Joint Stock Companies.

During the year five joint stock companies were registered, with a total capital of £281,516, divided into 74,350 shares.

Population.

I estimate the population of the field at 23,630 Europeans and 375 Chinese, making a total of 24,015.

Table A.

Return of Gold from all Sources, Charters Towers and Cape River Goldfields, for the Year 1907.

—	Treated.			Yield.			Total Value.		
	Tons	cwt.	qr.	Oz.	dwt.	gr.	£	s.	d.
Mills	211,090	13	0	120,734	9	0	409,954	15	3
Cyanide (new)	209,090	0	2	89,635	7	22	148,487	13	10
Cyanide (old)	17,120	0	0	5,089	4	2	6,690	14	2
Assayers (various sources)	...			785	15	0	2,522	9	10
Smelting Works	8,103	0	0	43,609	10	0	174,438	0	0
Alluvial	...			1,082	15	4	3,594	18	3
	...			...			745,688	11	4

Table B.

Return of Minerals other than Gold, the Produce of the Charters Towers and Cape River Goldfields, for the Year 1907.

Mineral.	Treated within the State.				Treated outside the State.				Total Value.		
	Result.			Value.			Result.			Value.		
	Oz.	dwt.	gr.	£	s.	d.	Oz.	dwt.	gr.	£	s.	d.
Silver	13,820	9	2	1,462	4	6	84,876	0	0	10,370	0	0	11,832	4	6
	Tons.	cwt.	qr.				Tons.	cwt.	qr.						
Lead	...			...			361	0	0	6,850	0	0	6,850	0	0
Black Tin	18	19	2	1,536	18	7	..			...			1,536	18	7
Alluvial Tin	9	9	3½	951	1	4	7	19	0	823	0	0	1,774	1	4
Copper	...			...			194	15	0	16,116	13	11	16,116	13	11
													£38,109	18	4

Table C.

Return of Crushings, Etc., and Dividends from Principal Mines, Charters Towers Goldfield, for the Year 1907.

Mine.	No. of Men Employed.	Ore Treated.	Production.								Total Value of Production.			Dividends.		
			Milled.			Concentrates.			Residues and Sands.							
			Gold Yield.			Value.			Quantity Produced.			Value.			Quantity.			Value.								
		Tons	cwt.	qr.	Oz.	dwt.	gr.	£	s.	d.	Tons	cwt.	qr.	£	s.	d.	Tons	cwt.	qr.	£	s.	d.	£	s.	d.	£	s.	d.
Band of Hope	24	993	1	0	972	18	7	3,275	6	6	9	15	0	90	2	3	983	6	0	428	13	0	3,794	1	9	...		
Bonnie Doon	8	160	10	0	259	1	0	830	17	2	...			...			160	10	0	541	3	2	1,372	0	4	...		
Brilliant	5	705	0	0	1,086	15	0	3,465	16	8	...			...			705	0	0	637	15	10	4,103	12	6	...		
Brilliant (Stockholm)	53	3,411	15	0	1,234	13	0	3,737	5	3	49	7	1	1,766	3	3	2,619	17	3	4,359	17	4	9,863	5	10	...		
Brilliant and St. George United	120	13,995	1	2	8,385	8	7	29,378	11	11	4	10	0	67	5	0	...			24,620	2	9	54,065	19	8	7,200	0	0
Brilliant Central	151	14,079	10	0	8,353	1	12	29,213	2	11	423	4	0	9,785	4	9	...			2,669	18	11	41,668	6	7	5,000	0	0
Brilliant Extended	342	46,322	0	0	12,346	0	0	43,491	0	0	1,486	0	0	30,607	0	0	...			10,493	0	0	84,591	0	0	...		
Carrington United	123	6,299	6	0	2,645	7	16	9,985	9	5	651	19	1	6,148	18	1	...			...			16,134	7	6	2,875	0	0
Clark's Brilliant, Worcester, and Victory	13	910	2	0	1,717	0	6	5,943	17	2	...			...			910	2	0	581	3	11	6,525	1	1	...		

Table C.—*continued.*

RETURN OF CRUSHINGS, ETC., AND DIVIDENDS FROM PRINCIPAL MINES, CHARTERS TOWERS GOLDFIELD, FOR THE YEAR 1907.—*continued.*

Mine.	No. of Men Employed.	Ore Treated.	Production.						Total Value of Production.	Dividends.
			Milled.		Concentrates.		Residues and Sands.			
			Gold Yield.	Value.	Quantity Produced.	Value.	Quantity.	Value.		
		Tons cwt. qr.	Oz. dwt. gr.	£ s. d.	Tons cwt. qr.	£ s. d.	Tons cwt. qr.	£ s. d.	£ s. d.	£ s. d.
Day Dawn Block and Wyndham	228	11,893 0 0	6,963 0 0	24,439 0 0	205 0 0	3,930 0 0	...	915 0 0	29,284 0 0	12,460 0 0
Day Dawn P.C.	45	1,639 15 2	1,168 17 3	4,042 9 6	36 19 2	592 13 4	1,607 7 0	604 0 0	5,239 2 10	...
Golden Alexandra	64	2,984 8 0	3,855 17 0	12,039 3 11	...	...	2,984 8 0	4,064 13 5	16,103 17 4	...
Kelly's Queen Block	86	7,284 10 0	5,707 4 12	19,665 5 0	277 8 2	6,690 0 2	...	2,756 14 1	29,111 19 3	7,200 0 0
Marshall's Queen	8	2,464 13 0	1,828 6 12	5,999 9 5	...	...	2,464 13 0	916 11 10	6,916 1 3	...
Mills's Day Dawn United ...	317	49,860 5 0	23,535 15 20	83,451 7 4	3,743 0 0	83,210 0 11	...	49,115 3 2	215,776 11 5	75,000 0 0
Mount Leyshon	12	1,350 0 0	417 19 12	1,295 10 7	27 3 0	221 12 7	...	...	1,517 3 2	...
New Craven's Caledonia ...	28	699 3 0	929 7 2	2,985 9 2	...	...	699 3 0	492 17 3	3,478 6 5	...
New Queen	44	1,947 4 0	1,293 13 2	4,094 14 9	42 18 1	682 11 1	...	1,377 7 6	6,154 13 4	...
Papuan Brilliant and Victoria	8	1,152 18 0	748 2 6	2,452 12 11	50 19 1	945 19 8	1,101 17 0	249 11 4	3,648 3 11	...
Pfeiffer's Day Dawn	90	6,196 5 0	5,611 13 18	19,587 10 4	266 19 0	5,729 14 7	...	2,479 10 9	27,796 15 8	...
Phœbe	32	2,719 3 0	1,684 4 21	5,848 14 9	71 13 2	2,108 19 8	2,639 14 3	557 8 10	8,515 3 3	...
Queen Central	20	1,538 8 0	1,698 2 12	5,386 2 5	...	...	1,538 8 0	505 10 9	5,891 13 2	...
Queen Cross	135	6,051 15 0	6,128 7 18	18,919 3 10	83 9 2	2,226 5 3	...	3,213 8 6	24,358 17 7	...
Queen Deep	14	1,768 3 0	406 2 9	1,192 18 6	88 7 3	1,461 2 9	1,672 6 0	329 2 9	2,983 4 0	...
Quinn's Block	25	2,800 3 0	675 9 22	2,012 13 11	130 12 3	3,992 13 11	2,670 12 0	2,705 13 11	8,711 1 9	2,333 6 8
Ruby	34	1,661 5 0	3,610 1 12	12,128 4 3	...	...	1,661 5 0	1,303 17 11	13,432 2 2	6,250 0 0
Try Again No. 1 East ...	...	776 0 0	655 15 17	1,438 18 3	...	...	776 0 0	552 7 3	1,991 5 6	...
Victoria and Caledonia Block	16	780 12 0	516 10 18	1,646 7 7	...	...	730 5 0	402 7 8	2,048 15 3	...
Victoria and Queen	26	761 19 0	798 8 8	2,620 3 8	...	...	761 19 0	259 17 11	2,880 1 7	...
Victory	69	3,285 19 0	4,058 11 6	14,064 13 2	56 4 3	2,401 17 7	...	1,835 9 3	18,302 0 0	...

Table D.

GOLD PURCHASED BY BANKS, CHARTERS TOWERS, FOR THE YEAR 1907.

Field obtained from—	Mills.		Cyanide.		Alluvial.	
	Oz. dwt. gr.	Value.	Oz. dwt. gr.	Value.	Oz. dwt. gr.	Value.
Charters Towers, Cape River, and Carrington	137,092 11 10	454,992 3 6	123,947 1 5	258,735 16 5	1,082 15 4	3,594 18 3
Ravenswood	1,660 16 4	5,125 4 1	...	...	83 2 9	274 13 2
Gilberton	433 11 1	1,418 10 6	...	...	...	...
Georgetown	25 12 12	87 11 11	...	...	...	...
Hughenden (Woolgar) ...	13 16 15	40 7 6	...	...	...	...
Kingsborough	1,418 19 6	4,247 0 0	348 1 17	781 6 6	...	...
Lucky Creek	487 13 12	1,763 0 10	...	...	...	...
Woodlark Island	1,310 19 4	4,434 3 3	...	...	...	...
York Peninsula	14 14 0	54 10 9	...	...	...	...
	142,458 13 16	472,162 12 4	124,295 2 22	259,517 2 11	1,165 17 13	3,869 11 5

ERNEST EGLINTON, Warden.

CLERMONT FIELD.

The gold production for the year 1907 was nearly 3,000 oz. less than that produced in 1906. This is chiefly owing to so many gold miners having turned their attention to the sapphire fields of Anakie. As will be seen by the returns, the Black Ridge is responsible for a shortage of 1,800 oz. from the total deficiency.

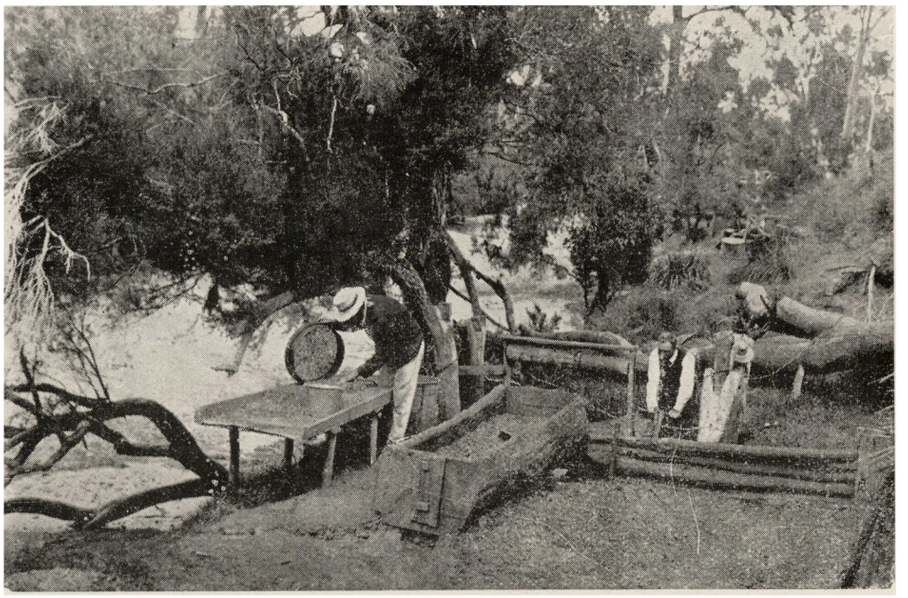
In quartz-mining a shortage in the output and yield is also noticeable, the largest yield coming from Ower's Reward Claim. A considerable amount of work has been done on the Bedford lease, McDonald's Flat, during the past year, without any payable result following. The owners are, however, sanguine, from past results from this mine, and, taking into consideration the well-defined walls, that at a depth the formation between the walls will develop settled country and payable gold.

The New Idea reef, in this locality, has given wages to the two men who are working it, but the smallness of the reef compels them to work a lot of ground to raise a crushing.

Star of Hope Reef.—This reef, which was abandoned for some considerable time and afterwards taken up as a lease, is now in a fair way of being tested. Early statistics show that from the 100-ft. level downwards the reef has averaged 25 in. in width and over 15 dwt. per ton. The manager reports:—"Since the shaft has been straightened and timbered to the 170-ft. level, work is proceeding. At the outset we had to bail water and hoist



SAPPHIRE MINING.
Anakie Sapphire Field, Central Queensland.



WASHING SAPPHIRES.
Visitors "Taking a Turn" on the Anakie Field.

mullock that had been thrown in for a depth of 80 ft. from the upper levels. There are two well-defined walls at the lowest level, carrying formation with a little gold. The shaft is now 6 ft. by 3 ft., timbered with 8-in. by 3-in. sawn timber, with division in centre of shaft. Up to the present there has been an outlay of £400 in putting the shaft in order. Considerable delay was caused through having to wait for the sawn timber. A contract has now been let for sinking the shaft a further depth of 100 ft at £2 7s. per ft., and contractors have started work. There is an 8-h.p. winding engine and one 10-h.p. boiler on the lease, besides poppet-heads and buildings erected thereon."

The Peak Downs Copper Mine, Copperfield.—This mine, which was started in the early part of the year with every prospect of success, has not turned out as expected, owing to work being stopped on account of the low price of copper. A heavy expense was incurred at the outset in unwatering the mine, securing the underground workings, and making the old drives workable. Whilst this was being carried out, the erection of the smelters, furnaces, stack, dams, and necessary buildings was being proceeded with. In the manager's report for quarter ending 30th September last, he describes a winze being sunk at the 270-ft. level, for 110 ft. below it, and states that a fine body of ore had been struck. Smelting operations only started towards the end of July, and were then only carried out intermittently, owing to the difficulty in keeping up the supply of coke. During the quarter ending September, 2,460 tons of ore were treated, for a return of 72 tons of copper, valued at £4,320. The winze above referred to is stated to be equipped with an air-driven winch, double truck lines, and timbered for two compartments for 50 ft. Further, the mine is now splendidly ventilated throughout, and the trouble caused by the presence of carbonic acid gas at the commencement of the exploration work has been completely overcome. In the manager's report for the year, he states, in his letter dated 8th January:—"The mine was unwatered by the end of 1906, and work was commenced early in 1907, putting the mine in working order. The erection of smelting works was also begun, and these were completed by the middle of July, when smelting was commenced. Unfortunately, the price of copper, which had reached £112 per ton, began to decline rapidly just at the time production commenced, and continued until it reached the low figure of £57. Smelting was carried on intermittently only, owing to the difficulty in procuring supplies of coke, until near the end of October, when, owing to financial stress, the company was obliged to suspend operations.

The cleaning of the old workings where ore was known to exist occupied most of the time while the smelting works were being erected, and very little development work was done. A winze, which had been sunk from the 270-ft. level to a depth of 110 ft. (following the dip of the lode, which lies at an angle of about 30 degs. from the horizontal), has been enlarged so as to allow for a double skip-way and travelling compartment. A winding engine has been placed on this winze. A strong body of ore shows all the way down this winze. At Thomas's shaft, some 1,100 ft. west from the main shaft, some prospecting was done, and a quantity of oxidised ore was obtained in the vicinity of the old workings. While the smelting works were in operation over 200 wages men were employed on the mine and works, besides which employment was provided for a number of wood-cutters and carriers. During the year the company paid out £11,861 13s. 3d. in wages. The Railway Department received £1,974 5s. 11d. for freight; carriers were paid £544 8s. 5d.; and other large amounts were paid for firewood, mine timber, &c. The local sawmill also benefited considerably, being kept hard at work on the company's orders for some months." The value of all machinery, buildings, tramways, rolling-stock, dust chambers, chimney stack, tanks, and head gear is given as £10,800.

The copper lease taken up on the Drummond Range is now under exemption, the holders not caring to work it at the present low price of copper.

St. George and party's copper prospecting area, near Logan Downs, is being worked half-handed.

The Sapphire Fields.

During the past year unusual activity was shown on these fields, consequent upon the arrival on the fields of a number of European gem-buyers in addition to the few Southern buyers. This caused a boom in the market, and prices almost doubled compared with what had been given in the past. With the increased value given for gems many of the gold-miners in and around Clermont flocked to the fields, and, although no large or extra valuable deposits have so far been found, the yield was too much for the buyers to negotiate, and, in consequence, they left the field, the result being a slump in the gem market. This has been the grievance expressed by several miners on the fields when sending in their last quarterly reports. A few men have left the field during the past month, some for their holiday, and others to return to the old fossicking ground, but the majority will continue working their claims, holding their gems for a demand. A place known as the "New Rush," situated about two miles northerly from Sapphire and about four miles from Ruby Vale, was opened up during the year, and good results were obtained. A few miles north and westerly from Sapphire some parties are now prospecting for any mineral they can find. I have been informed that some years ago auriferous country, in the shape of a quartz reef, was discovered in the neighbourhood of Mount Clifford; that payable gold was found, and a crushing plant erected, but that, for some unexplained cause, the party broke up.

Another valuable mineral discovery has been opened up in the neighbourhood of Mount Ball, but the full particulars are not to hand. The probability is that, having a number of miners on sapphire, and in close proximity to this ground, new alluvial and mineral fields will be opened up during the present year.

Accidents.

During the year four mining accidents occurred, one of which was fatal.

Another case, not reported as a mining accident, was that of a man named George Quinlan, who is supposed to have committed suicide by dropping down the shaft of the Brilliant Mine at night, when no one was about. Evidence was taken by me and forwarded to the Attorney-General.

General Remarks.

Out of 18 claims at work on Black Ridge in 1906, only 14 were working last year, though two of the abandoned claims—the Homeward Bounder and Accumulation—have been lately applied for as claims and registered. The former is held by Mr. W. Fraser, manager, of the Helena battery, while Messrs. Derritt and Sons, sawmill owners, who, it is reported, are erecting a second battery on the field, hold the other. The Homeward Bounder is the claim that had the use of the Government pump, but the party abandoned the claim when they had sunk only

half the depth required. The holders of the Accumulation also abandoned before proving their ground, though the Government pump was available when work was stopped on the Homeward Bounder.

It is to be hoped that both Messrs. Fraser and Derritt will continue the sinking of these shafts until they prove whether the wash is payable or not.

The rainfall during the past year was, according to the "Peak Downs Telegram" of the 28th ultimo, 23·69; and, through the courtesy of the Postmaster, I am informed the rainfall registered from the 1st to the 18th January, 1908, was 1·39. This makes a total of 9·64 since the 1st November.

During the month of January, 1908, the thermometer has recorded 84 maximum and 65·5 minimum.

The country around is luxuriant with beautiful grasses, and water is abundant.

The revenue collected during the past year through the several offices is as follows:—Warden's office, £425 19s. 6d.; C.P.S. office, £933 7s. 7d.; and Lands office, £4,453 4s. 6d., making a total of £5,812 11s. 7d.

CLERMONT GOLD RETURNS FOR THE YEAR 1907.

Month.	—	—	—	—	—	—	—
		Tons cwt. lb.	Oz. dwt. gr.	Tons cwt. lb.	Oz. dwt. gr.	Tons cwt. lb.	Oz. dwt. gr.
January ...	Alluvial gold	...	...	...	80 4 7		
February ...	Cement treated ...	29 0 0	12 13 0				
„ ...	Alluvial gold	...	65 4 18				
				29 0 0	77 17 18		
March ...	Cement treated ...	454 0 0	294 5 0				
„ ...	Quartz treated ...	49 6 0	80 4 9				
„ ...	Alluvial gold	...	19 4 1				
				503 6 0	393 13 10		
						532 6 0	551 15 11
April ...	Cement	1,140 4 2	675 3 11				
„ ...	Alluvial gold	...	60 13 7				
				1,140 4 2	735 16 18		
May ...	Cement	628 0 0	241 3 0				
„ ...	Quartz	12 19 4	39 10 20				
„ ...	Alluvial gold	...	53 11 5				
				640 19 4	334 5 1		
June ...	Cement	337 5 0	370 0 0				
„ ...	Quartz	35 0 0	72 7 11				
„ ...	Alluvial gold	...	74 1 13				
				372 5 0	516 9 0		
						2,153 8 6	1,586 10 19
July ...	Cement	218 0 0	169 16 0				
„ ...	Alluvial gold	...	71 1 15				
				218 0 0	240 17 15		
August ...	Cement	1,004 10 0	562 8 0				
„ ...	Alluvial gold	...	338 17 12				
				1,004 10 0	901 5 12		
September ...	Cement	592 10 0	371 19 0				
„ ...	Quartz	39 8 0	45 9 4				
„ ...	Alluvial gold	...	26 3 19				
				631 18 0	443 11 23		
						1,854 8 0	1,585 15 2
October ...	Cement	877 0 0	432 5 0				
„ ...	Quartz	13 16 0	9 7 6				
„ ...	Alluvial gold	...	40 2 8				
				890 16 0	481 14 14		
November ...	Cement	680 0 0	352 7 0				
„ ...	Quartz	44 9 2	67 0 9				
„ ...	Alluvial gold	...	49 15 15				
				724 9 2	469 3 0		
December ...	Cement	560 0 0	273 0 0				
„ ...	Quartz	31 1 2	49 18 23				
Bedford's ...	„	22 0 0	17 0 0				
	Concentrates, realised £22 17s. 10d.	1 12 0	7 2 0				
				614 13 2	347 0 23		
						2,229 18 4	1,297 18 13
		...	...	...	...	6,770 0 10	5,021 19 21

ANALYSIS OF CLERMONT GOLD RETURNS FOR 1907.

Cement Claims.	Output.	Yield.	Total Yield.	Locality.
	Tons cwt. lb.	Oz. dwt. gr.	Oz. dwt. gr.	
The Prosperity	29 0 0	12 13 0	...	
The True Blue	887 0 0	308 5 0	...	
The McClosky's Mistake	644 10 0	441 19 0	...	
The Rejected	671 0 0	583 9 0	...	
The Just-in-Time	850 0 0	495 0 0	...	
The Just-in-Time, No. 1	348 10 0	222 5 0	...	
The Bantam	699 0 0	286 19 0	...	
The Pumpkins	166 0 0	66 2 0	...	
The Hope	326 10 0	94 18 0	...	
The Eclipse	69 0 0	27 15 0	...	
The Nipper	335 10 0	176 6 0	...	
The Eldorado	1,018 15 0	805 6 0	...	
The Brilliant...	225 0 0	56 1 0	...	
The Perseverance	104 10 0	51 10 0	3,628 8 0	Black Ridge
Other cement holdings	145 4 3	126 11 11	126 11 11	The Springs
Quartz Reefs—				
The Ower's Reward...	145 13 0	201 15 0	...	Venus
The Croydon's Reward	28 10 0	39 12 12	...	Brewery Creek
The Columbia	7 12 0	25 9 6	...	McDonald's Flat
The Mount Walker	20 14 2	12 8 9	...	Venus
The New Idea	31 0 4	82 11 11	...	McDonald's Flat
The Doctor's Extended	2 7 2	2 1 20	...	
The Bedford (G.M.L. 83)	22 0 0	17 0 0	380 18 10	
Concentrates from the Bedford (G.M.L. 83) ...	1 12 0	7 2 0	7 2 0	
Alluvial Gold from various sources	...	879 0 0	879 0 0	
Total yield	...	...	Oz. 5,021 19 21	

D. M. JONES, Warden.

CLONCURRY MINERAL FIELD.

Although expectations generally entertained at the close of 1906 as regards developments during 1907 of the mining industry on the mineral field of Cloncurry have not been fully realised, several of the principal mines in the district are in a fair way to fulfil their early promise, whilst others are evidencing signs of becoming of importance. The difficulties in the way of landing machinery and mining requisites at outlying centres continued more or less acute throughout the year but the advent of rail communication should do much to relieve the position, as it will render many more teams available for the work of carrying from the railway terminus to outlying mines. Notwithstanding the difficulties encountered as regards transit, several of the chief mines of the district have been fairly equipped with winding plant, &c., and these have been more or less vigorously developed, but the great majority of the holdings remain undeveloped or are only slightly prospected. For the major portion of the year a good deal of activity was exhibited by miners in search of deposits of ore sufficiently rich to stand the cost of shipment to smelting works in the South, and in some instances fair success attended these efforts until the heavy fall in the price of copper rendered the business rather precarious.

At Hampden, Mount Elliott, Wee MacGregor, Mount Cuthbert, and the Duchess, developments have been fairly favourable throughout the year, and at the time of writing Mount Elliott, Hampden, the Wallaroo, and the local mine, the Great Australian, are all looking better than at any period of their history.

At the *Hampden Mine* a considerable amount of mining plant has been installed, and offices and other necessary buildings have been erected, and in the mine a great deal of exploratory work has been accomplished during the year, while recent developments have proved encouraging. Four prospecting shafts were commenced and sunk to depths varying from 164 ft. to 240 ft., and a considerable amount of cross-cutting was done. The kaolinised body, carrying black oxide of copper, first exposed in the levels off No. 12 shaft, has assumed fairly considerable dimensions, and at the 200-ft. level some sulphides have been met with. During the year the sinking done aggregated 600 ft., and the driving and cross-cutting 1,300 ft.; and when this exploratory work was being done about 360 tons of ore were raised.

At *Mount Elliott* the work carried out during the year has also been largely of an exploratory nature. The main shaft was carried down to a depth of 285 ft., and at the 125 ft. and 185 ft. levels a large amount of driving and cross-cutting has been done, exposing at both levels large bodies of high-grade ore. On the occasion of my last visit, a few days ago, a plat was being cut preparatory to cross-cutting at the 285-ft. level to the formation. The country in the face of the cut at that time was slightly impregnated with iron and copper sulphides, but since then the crosscut has exposed a body of fairly basic sulphides of copper. The development work accomplished during the year consisted of 510 ft. of shaft sinking and 800 ft. of driving and cross-cutting, and during this work 700 tons of ore were raised. An underlie shaft has been sunk from the brow of a hill to the east of the main outcrop. This will be used as an oreway, through which all the ore mined in the opencut will be raised. The mining plant on this property was augmented during the year by the addition of an air-compressor and rock-drills, and an excavation was cut to receive the water-jacket furnace, the erection of which is now well under way.

At the Wee MacGregor and Wallaroo Mines steam winding gear has been installed, and in each of these properties a considerable amount of exploratory work has been accomplished.

In the *Wee MacGregor* three prospecting shafts have been sunk, and an adit has been extended from the side of the hill which is traversed by the lode into the formation. This formation has been explored to a depth of about 130 ft. at two points, but values have proved very low, and towards the end of the year work, owing to a heavy influx of water, had to be suspended pending the installation of steam winding gear. The formation in this property, which is very wide, consists of a very siliceous gossan, which evidences a considerable amount of leaching, and it is probable that it has been impoverished of its copper contents, and that better values will be discovered when the unchanged zone is penetrated.

In the *Wallaroo*, developments have been pushed ahead with vigour, and results have been very satisfactory. Simultaneously with the commencement of the erection of steam winding plant, a start was made to put down a main shaft, which, at the time of my last visit, had reached a depth of 36 ft., but is now very much deeper. Two prospecting shafts, sunk from the hanging-wall side of the formation, were continued to the depths of 93 ft. and 163 ft. respectively, and a considerable amount of driving and cross-cutting was accomplished. In No. 1 shaft, which is down 93 ft., the exploratory work at the 84-ft. level has exposed a body of fair-grade secondary sulphides, about 100 ft. in length by upwards of 30 ft. in width. These workings are in the zone of change, and indications point to the fact that the sulphide body, which has a southerly strike trending downwards, will extend a considerable distance to the south, which will add considerably to the body opened to the north of the shaft.

The *Great Central*, one of the Wee MacGregor group, was subjected to a considerable amount of prospecting by means of adits, but nothing of importance has as yet been met with. This property is traversed by a promising-looking outcrop of siliceous gossan, showing impregnations of copper at several points, and it is possible that more will be heard of it during the current year.

A good deal of exploratory work was accomplished at the *Great Australian Mine* during the year, but results were rather discouraging than otherwise until an important discovery was made during the present month (January). A main and a prospecting shaft have been sunk in this property, and upwards of 3,000 ft. of diamond drilling has been carried out. The bores, with one exception, proved discouraging, only very low values being met with in all but the second put down, in which 10 ft. of sulphides were struck, averaging 7 per cent. copper. In all the underground workings the ore met with was in small bunches of high-grade stuff, interspersed through a gossan formation, until, in the south drive running off the western crosscut from the main shaft, a body of black sulphide of copper was met with at a point about 130 ft. south of the shaft. This body has now been penetrated about 20 ft. by a cut 12 ft. wide. It is a very soft friable deposit, and is said to average over 17 per cent. of copper and 20 units of sulphur. On the surface of this property steam winding gear was installed early in the year, and two reverberatory furnaces have been erected and put into commission.

A little attention has been paid to four of the outlying freeholds—viz., the *Argylla*, the *Just-in Time*, the *Dobbyn*, and the *Crusader*—but results have not been very satisfactory. At the Argylla, in addition to the sinking of a couple of shafts, about 1,400 ft. of diamond drilling was accomplished. The drill passed through a formation about 200 ft. in width, carrying an average of about 0·2 per cent. of copper, whilst in the workings off the shafts at the 100-ft. level small bunches of high-grade oxidised ores in a formation of quartzite and limonite were met with.

Several of the shows owned by the Willcocks Cloncurry Syndicate on the Corella and at Duck Creek have been subjected to a considerable amount of prospecting, but results have not been highly satisfactory.

At the *Daisy*, steam winding and pumping gear was installed towards the end of the year, and a considerable amount of exploratory work was accomplished during the period under review. In this property two shafts have been put down on a lode carrying very siliceous sulphides to a depth of about 85 ft., where the formation is a fairly basic sulphide of copper.

The Morris Creek group of mines have been hung up, or only intermittently worked, during the greater part of the year. At this centre there have been no developments of importance.

During 1907 about 6,000 tons of ore were raised from the mines being worked, but of this only about one-third was sent away for treatment, the balance in the main being retained for treatment in the district.

Table A, attached hereto, is a statement of all parcels of ore returned to me as having been despatched for treatment from the district and Table B shows the destinations of the ore despatched and the yield in copper of the portion treated in the Commonwealth. It will be noticed that after deducting the ore shipped to London from the total forwarded only 1,920 tons are accounted for as having been sent to works within the States, whereas the returns from the smelting works show that 2,343 tons were received from this district and treated during 1907. Of the latter amount 261 tons were forwarded at the close of 1906, and would not be received at the works before January, 1907. That tonnage would, therefore, not appear in my returns, but there is still a discrepancy between my returns and those from the smelting works of 162, which may be accounted for by the fact that all weights given me locally are estimated. In addition to the ore sent away for treatment, 597 tons were treated at the Great Australian Smelting Works, and yielded 55 tons of copper, worth 98 per cent. metal.

At the close of 1907 there were good on the registers at this office 822 mineral leases and applications therefor, with an aggregate area of 9,891 acres; 12 gold-mining leases, with an aggregate area of 100 acres; and 340 miners' homesteads, with an aggregate area of 776 acres.

I estimate the population of this field on the 31st December last as follows:—

Copper miners	650
Alluvial miners	4
Carters, &c.	220
Tradesmen, &c.	225
Women and children	600
Total European population	1,699
Chinese	148
Total population	1,847

The revenue collected at this office during 1907 amounts to £8,077 5s. 4d., as against £5,759 17s. 5d. for 1906, being an increase of £2,317 7s. 11d., exclusive of the rents paid on holdings on this field at the Brisbane office.

During the year only one accident happened, but it unfortunately caused the death of two miners who were working at the Great Australian Mine.

I have nothing to report under the heading of gold-mining. Only a few fossickers were at work during the year, and those only intermittently. The banks purchased 26 oz. 12 dwt. 21 gr. of alluvial gold during the year.

I append the usual statistical schedules.

J. C. LINEDALE, Warden.



GREAT AUSTRALIA COPPER MINE, CLONCURRY.

Table A.

STATEMENT OF COPPER ORE FORWARDED TO SMELTING WORKS FOR TREATMENT FROM CLONCURRY DISTRICT DURING 1907.

Name of Claim.	Name of Person Sending Ore.	Ore. T.	C.	Q.
	Allis, A.	19	0	0
	Absolon, W.	1	15	0
	Anderson and White ...	2	12	0
	Alexander, H. J.	5	5	0
	Alchin and party ...	3	3	0
Mount Mascotte ...	...	33	0	0
	Ashmore, R	3	0	0
Argylla Freehold ...	...	31	9	0
	Armstrong and Anderson	9	12	0
	Baker, E.	2	19	0
Bottlefield	...	11	0	0
	Bolster, J.	1	10	0
Captain	...	4	0	0
Bean Tree	...	2	0	0
British Workman ...	...	10	0	0
	Brassington, J. H. ...	20	3	0
	Butler	2	0	0
	Bryden	3	12	0
Bally Hooley ...	...	5	0	0
	Bottom	6	0	0
	Boyd and Sergeant ...	2	8	0
Better Luck... ...	...	1	10	0
Pees Nest	...	5	0	2
	Brideson, W.	3	10	0
	Brydon and Hooper ...	2	10	0
	Brown, S.	8	0	0
Chums	...	3	0	0
	Corney and party ...	5	14	0
	Chaplain, S.	35	5	0
	Cain, J.	0	10	0
	Chaplain	1	0	0
	Church, W.	2	13	0
	Connors, J.	1	8	0
	Clayton, G.	4	0	0
	Cornford, J.	1	10	0
	Conway, J.	8	15	0
	Carty, J.	9	8	2
	Cummins and Davis ...	17	1	0
Double Oxide ...	...	6	17	0
Daisy	...	59	0	0
Duchess	...	140	0	0
	Delmer, R.	2	11	0
	Dennes, M.	1	0	0
Dessie	...	6	19	0
Evie	...	4	0	0
Erin-go-Bragh ..	...	18	7	0
	Entriken and Hensley ...	1	0	0
Empire	Empire (claim)	1	0	0
	Edwards	2	11	0
	Eyre, D.	1	3	0
Eclipse	...	184	11	0
	Fisher and Prosser ...	12	2	0
	Flanagan, R.	1	11	0
Floradora	...	38	0	0
	Fenton and Comyn ...	6	7	0
	Gulliver, W.	1	0	0
	Goodwin and Patterson ...	2	2	0
	Gold and party	19	0	0
	Gray, A.	2	10	0
	Hughes, T.	2	0	0
	Higgie, C.	0	10	0
	Hardess and Sandelin ...	1	15	0
	Hanley and Orchard ...	5	10	0
	Hansen	1	10	0
	Harper, A. J.	1	11	0
	Hedge, J.	10	0	0
	Hazard, H.	8	5	0
	Hibbard, M.	2	7	0
Hampden	Hampden Co.	110	0	0
	Harrison and Goodfellow	4	7	0
	Hansen and Armstrong ...	14	6	0
	Hooper, H. J.	2	10	0
Homeward Bound ...	...	0	10	0
	Hill, Montague and Allis ...	3	10	0
	Huddlestone and party ...	6	16	0
	Jackson, C.	8	0	0
	Kennedy, A.	3	0	0
Kalkadoon	...	160	0	0
Labour Victory ...	...	21	0	0
	Lyons and Hockings ...	9	15	0
Lochiel	...	2	10	0
	Lansen, W.	6	10	0
Lady Mina	...	8	0	0
	Looker, E.	0	15	0
Llomas	...	2	0	0
Lady Aycha	...	6	11	0
Lottery	...	20	4	0
Lady Franklin ...	...	1	0	0
	Lyons and Williams ...	4	3	0
Laird	...	8	0	0
Lady Fanny... ...	...	5	10	0
Mount Vivian ...	...	1	0	0
Mount Metallic ...	...	19	5	0
	McGregor, Smith & Hinds	7	15	0
	McMahon, J.	0	9	0
	Manning, T.	2	0	0
Mount Remarkable...	...	2	0	0
Mount Oxide ...	...	159	7	0
	McCormack	1	12	0
	McKeand, N. W.... ...	18	14	0
Mountain Home ...	...	2	15	0
Maude A	...	4	0	0
Mabel	...	11	2	0
Mount Elliott ...	...	117	0	0
	Murphy	5	0	0
	McEvoy and McAuliffe ...	2	0	0
Musical Union ...	...	6	0	0
Malbon Freehold ...	...	218	10	0
	McDermott	5	10	0
	McLennan, A.	1	5	0
	Morphett, J. H.	1	10	0
	Newlands, G.	10	0	0
New Chum, Victoria	...	19	0	0
	Osborne	0	10	0
	O'Keefe	2	6	0
	O'Connor	1	16	0
Prodigal	...	25	10	0
Pioneer Chief ...	...	15	19	0
	Phœnix, G.	3	10	0
	Prosser	0	10	0
	Perkins	2	0	0
	Roche and Tilden	2	10	0
	Roberts	2	0	0
	Roche	0	15	0
	Roach and Moran ...	2	14	0
	Richards and Cavanagh ...	3	10	0
	Rowan	14	0	0
Stars and Stripes ...	...	9	8	0
	St. Onge, H. and A ...	9	13	0
	Smith and Egan	8	12	0
	Scanlan, King, and Davis	5	10	0
	Smith, T.	5	0	0
Same-as-Usual ...	...	4	10	0
Spray	...	17	6	0
	Scott, W.	13	4	0
	Smith, F.	15	8	0
	Smith, O.	6	0	0
	Smith and McGregor ...	8	0	0
	Sargent, J.	4	10	0
	Saunders	1	10	0
Timberoo Block ...	...	2	18	0
	Thomson, C.	0	6	0
	Thomas, J.	1	2	0
	Taylor, J. J.	4	16	0
Trikelana	...	33	0	0
T.C.	...	17	0	0
	Various small lots ...	14	3	3
	Walker and party ...	2	0	0
	Wilson	1	10	0
	Wilmot and Mottram ...	8	10	0
	Wilkie, T.	16	12	0
	Wilson and Gray ...	6	13	0
Witch	...	12	9	0
	Wilmot, C.	5	0	0
	Wilmot, J. J.	6	0	0
	Wilmot and Wilson ...	1	0	0
	White, E.	4	10	0
	Walsh and Dunn ..	1	10	0
	Woods and Cormie ...	5	15	0
	Wright	15	17	0
	Williams	15	2	0
	Woods	1	19	0
Willandungar ...	W.	17	0	0
Una	...	17	0	0
Native Companion ...	...	19	0	0
Monastery	...	28	0	0
	Total	2,304	6	3

Table B.

STATEMENT OF COPPER ORE FROM CLONCURRY MINING DISTRICT TREATED IN AUSTRALIA DURING 1907.

Name of Smelting Works.	Ore Treated.	Yield of Copper.
	Tons cwt. qr.	Tons cwt. qr.
Wallaroo	227 6 0	66 4 1
Waratah	2,116 0 0	571 0 0
	2,343 6 0	637 4 1

	Tons cwt. qr.	Tons cwt. qr.
Local returns of ore forwarded	...	2,304 6 3
Deduct shipments to London from—		
Mount Elliott	117 0 0	
Una	17 0 0	
Argylla Freehold	31 9 0	
Malbon Freehold	218 10 0	
	383 19 0	383 19 0
Shipments to Southern States, as per local returns	...	1,920 7 3
	Tons cwt. qr.	
Ore returned from smelting works as treated during 1907	2,343 6 0	
Less amount shipped in 1906	261 0 0	
	2,082 6 0	2,082 6 0
Amount short returned locally	...	161 18 1

N.B.—Weights given locally are estimated.

J. C. LINEDALE, Warden.

COOK AND CAPE YORK PENINSULA DISTRICTS.

I have the honour to furnish annual report for the year 1907, on the fields of the Cook and Cape York Peninsular districts. They include the Palmer, West Normanby, Alice River, Hamilton, Coen, and Starcke Goldfields; the Bowden (Pascoe River) Wolfram Field; and that large tin, wolfram, and gold-bearing area which extends southerly from the port of Cooktown for some 90 miles, through the mountainous coastal scrub lands, over the watersheds of the Annan and Bloomfield Rivers to Mount Windsor, which is situate at an altitude of upwards of 3,000 ft., on the tableland between the heads of the Palmer and West Normanby Rivers.

The total value of the mining product for 1907 from these fields was £51,998 18s. 10d., a decrease of £7,048 4s. 3d. upon the returns for the previous year. The reduced gold yield from the principal Peninsular fields more than accounts for the difference. The output from all the other fields has been well maintained.

PALMER.

There is an increase of some 200 oz. of gold, and the Acting Mining Registrar reports having sold 100 more miners' rights than were sold in 1906. Some of the long-abandoned reefs have been taken up; they are being worked by good practical miners, and signs are not wanting that a revival of the gold-mining industry will ere long occur on this field.

Dredging propositions on the Palmer River still remain in the speculative stage. The field was visited last September by the representative of an English company, and the old Bonanza dredging claim was reapplied for. A gold-mining lease on the Ida was also applied for by a Southern visitor. Fresh mining developments have likewise taken place at Glenroy, on the main road from Laura to Palmerville, and close to the St. George Copper and Coal Mine. At Glenroy some large copper outcrops are being prospected, and their value is enhanced by the fact that the ore, at a depth of 17 ft., carries an appreciable percentage of gold. The St. George Copper and Coal Company's mines are also situate on the Palmer road. A considerable amount of prospecting development has occurred during the year, including the discovery on this property of cinnabar. This has attracted much interest, both in this State and elsewhere, and I may safely predict that the coming year will witness important progress on the Palmer field. When it is remembered that the railway bridge across the Laura River has been constructed, and that some 50 miles of line over an easy route would connect Cooktown by rail with possibly one of the most potential gold and mineral fields in the State, it is not surprising that the hope is expressed on every side that the extension of this line will soon be commenced. One of the greatest disadvantages of the reefs around Maytown is the scarcity of timber for mining purposes, and rail communication is required before mining development can have a fair chance.

The production of alluvial tin and a little wolfram from the heads of the Palmer River, Granite and Cannibal Creeks, and Mount Windsor, formed an important item in the year's returns, amounting to £6,600.

WEST NORMANBY.

The road from Cooktown to this field was put in repair by the Daintree Shire Council, assisted by a grant from the Mines Department, and a small Tremaine gold-crushing mill was conveyed and erected at The Brothers reef. Crushing was continued until the water supply gave out, and from 300 to 400 tons of stone from The Brothers and other claims will be treated as soon as water is available. It is greatly to be regretted that mail communication is not provided, for to this and other outlying fields a regular service, even if only fort-

nightly, is of very great assistance in furthering mining settlement and development. At West Normanby, I know, miners have been forced to leave, after spending time and money in prospecting reefs, owing to the difficulty of obtaining supplies, or of sending for them. The matter of a mail service was taken up by the local authorities, and the Federal Postal Department was approached, but without success.

Alice River.

On this field 818 tons yielded 844 oz. gold. Although the year's operations were interfered with owing to the difficulty in keeping miners at the company's mines after mail communication had been stopped, the output for the year slightly exceeded that of the preceding twelve months in quantity and value. Mr. Coghlan, who has done yeoman work in helping the progress of the Alice during a depressing period, took a tribute of the Alice Queen Mine and battery, employed the full complement of miners, and demonstrated that, with economic management, the large Alice reefs may be profitably worked. In the Alice Queen, at a depth of 125 ft., the lode was 8 ft. thick. At the Great Peninsula King Gold Mining Company's Mine (Dickie's P.C.) 70 tons yielded 126 oz. gold. A steam winding plant was erected on the mine.

At the close of the year arrangements were made by the directors of the Great Peninsula King Gold Mining Company, Limited, for the purchase of the Alice Queen and adjoining leases, also of the Alice Queen battery. The price of the leases was 8,000 fully paid up shares, and that of the battery £600. This is, without doubt, a fortunate occurrence for the Alice River field, and I confidently expect a good return for the coming year from this field. I cannot avoid again mentioning that the lack of regular mail communication interfered with the progress of this field during the past year. When there were over 30 men at the Alice mail communication suddenly ceased, and was only renewed (conditionally until the end of 1907) upon Mr. Coghlan entering into a special arrangement at a reduced rate. A mail service, at least fortnightly, is of vital importance to such fields.

Hamilton.

The returns for the year show that there were crushed 2,571 tons 9 cwt., which gave 3,066 oz. gold, worth £8,125, and that 500 oz. of alluvial gold, worth £1,351, was also obtained, while 992 tons of tailings, treated by cyanidation, yielded 568 oz. gold, worth £1,286.

Notwithstanding the delays caused by floods in the beginning of the year, and the partial desertion of the field for a time by miners who went to the Archer and Pascoe Rivers, the mines at Ebagoolah, Yarraden, Lukin, &c., produced almost the same quantity as in 1906. The Savannah United heads the list, with 856 tons 5 cwt. for 891 oz. 16 dwt. 23 gr. gold. Returns were furnished from 18 mines. A fatal accident occurred at the Caledonia Company's mine in March. The manager (J. O'Hagan), fell down the shaft and was killed. Financial difficulties followed soon afterwards, and the mine was closed down. An effort is being made to reconstruct the company.

Exemption was also obtained on the Savannah and Golden King. Unless operations are actively resumed early in 1908, there will be a much reduced output for that year.

Starcke.

The prospects of this rich little field, which is 60 miles north-north-west from Cooktown and eight miles from the east coast, has brightened somewhat. A new company, called the *Starcke United Gold Mining Company, Limited*, was formed in May to take over and develop the Last Hit and Boomerang lines of reef. Substantial poppet-legs and a double winding engine, 14-h.p., was erected, and the old shaft on the Last Hit was cleaned out and sunk to a depth of 111 ft. The manager reports that the reef is from 1 ft. to 2 ft. 6 in., showing coarse gold at times. There is a heavy inflow of water—1,200 to 1,600 gallons per hour—and bailing per bucket has greatly retarded operations. A pump is very necessary. At 80 ft. a level was put in 45 ft. easterly, where the reef is from 6 in. to 15 in. thick, carrying fairly good gold at times; 23 tons of stone raised by the company were shipped by boat from the Starcke to Charters Towers for treatment at the close of the year, and is reported to have crushed for 53 oz. gold; value, £209 17s. The tailings were sold for 10s. 5d. per ton, bringing the total value realised up to £9 12s. 10d. per ton. This is regarded as highly satisfactory, and the local battery at the Starcke is being put in repair, in order that stone may be treated on the field.

At the *Starcke Consols* another gold-mining lease was taken up by a Cooktown syndicate. It takes in the La France and another claim. The shaft in the old tunnel was sunk 52 ft., and a drive was also put in 25 ft.; 25 tons of stone were raised from a reef which bunches in size from 1 to 5 ft., with alternate layers of quartzite. Heavy rains greatly interfered with operations, but if these mines are supplied with proper bailing appliances, and crushing power is available, the coming year's product should be a considerably improved one at this conveniently situated coastal field.

If gold-mining at the Starcke permanently improves, the splendid agricultural lands of the McIvor will greatly benefit thereby. Settlement has for many years been slowly but steadily forming all the way along the main road which goes up the Endeavour River from Cooktown through Wilton, Streamlet's, Thygersen's, Dick's coffee plantation, Wallace's, Gorton's, and other holdings on the McIvor River, and thence to the Starcke.

Coen.

On this field 1,332½ tons yielded 2,033 oz. 4 dwt. gold.

Owing to the enforced idleness of the *Great Northern Mine*, while the shaft and other workings damaged by the heavy rains were being repaired and other dead work effected, a considerable decrease in the output is noticeable. During the last quarter 240 tons of ore were raised, and 20 men were employed. No sinking was done for the year except putting down a winze between the 300 and 400 ft. levels. The levels were extended 150 ft., from whence the crushings were principally obtained. Ninepence per share was paid in dividends. The past records of this fine reef show that poor and rich zones of country are passed through in development, and it is confidently hoped that a change for the better will be experienced in the coming year.

A lease was applied for on the *Daisy* line of reef, and there is a possibility that mining operations will be resumed on this and other Coen reefs shortly.

Archer River.

The Archer River field is 20 miles from Mein. From 30 to 40 alluvial tin-miners found profitable employment on some of the eastern heads of the Archer River, principally at Tin Creek, about six miles easterly from the telegraph line crossing of

the Archer River; 21 tons 3 cwt. of tin was despatched *viâ* Coen.

I am glad to say that arrangements are being made by the postal authorities for mail communication for the Archer River and Bowden mining settlements. Bowden (Pascoe River), situate 32 miles north-easterly from Mein, was proclaimed a mineral field, and the postal officer at Mein was appointed Acting Mining Registrar. Some 50 men were working for a few months before the wet season set in. Lloyd's Bay, which is about 32 miles easterly from this new field, is the port from which much of the wolfram has been shipped. Of wolfram 28½ tons were returned from Bowden and Noble Island.

A little alluvial gold-digging is in progress on the northern banks of the Batavia River, and a fair amount of prospecting is in progress in this portion of the Peninsula. The whole of the Peninsula, and as far south as the Palmer and westerly to the shores of the Gulf of Carpentaria, forms a field for prospecting, at very little cost, which is full of attraction. Veteran prospectors, such as John Dickie, William Lakeland, William Bowden, and others of their type, are continually engaged in the search for undiscovered gold or mineral.

Cooktown Mineral Fields.

The more populous tin-mining centres of Rossville, Romeo, Grass-tree, Mount Amos, Helenvale, and Trevethan Creek, are situated from 12 to 30 miles southerly from Cooktown. The year commenced with a heavy rainfall, and injury was done to water-races, shafts, and other mining holdings, causing some delay while repairs were effected.

Towards the end of the year heavy rain again fell, and some damage was done at the recently-erected *Queensland Tin Sluicing Company's* works at the Home Rule Falls (Rossville). This company, after more than a year's delay, caused by difficulties of transport, completed in November the construction of an elaborate hydraulic plant, said to be one of the first of its kind in North Queensland, whereby the water is conveyed by iron piping from the intake at the Home Rule Falls for a distance of one and a-quarter mile to the Home Rule claim. The material to be treated is there swept into a sump, and lifted therefrom by hydraulic pressure from 25 to 30 ft. high, and discharged into a specially constructed tailrace, 300 ft. long and 7 to 8 ft. wide, made of red cedar, which is obtained in the neighbourhood. It is reported to be working successfully, and the good example thus set is likely to be followed by others.

The *Annan River Tin Mines Company* started hydraulic sluicing operations on their Leswell leases in January, connecting the water supply with their Collingwood lease. The water is brought by means of a race (ditching, fluming, and piping) a distance of seven miles from one of the heads of Parrot Creek, but it is feared that in dry weather much of this supply is lost, and probably far better results would follow if more piping was used. Owing to lack of water, sluicing operations ceased for a short period at the close of the year, but prospecting development was continued, and, on the whole, the results of the year's work may be considered satisfactory. In November the tunnel on the company's Collingwood lode was cleaned out and securely timbered for 180 ft. A few feet more will connect it with the shaft in the opencut on the lode.

At the *Phœnician Company's mine*, Mount Amos, three tunnels were put in, and 31½ tons of ore, taken from the lode in Port Arthur No. 2 tunnel, were sent to Irvinebank for treatment, yielding 3 tons 19 cwt. 3 qr. 21 lb. of 70 per cent. tin. This good return from ore that was not all specially picked will no doubt encourage the company to continue development until the existence of ore is proved in sufficient quantities to warrant the erection of machinery.

The *Mount Romeo Tin Mining Company* continued testing operations, with an effective boring plant, down to 50 ft., on the dredging claims held on the Annan, principally between Helenvale and Rossville. It will be seen by the attached return that 176 tons 15 cwt. 2 qr. 1 lb. of tin was despatched from the claims at Rossville and other neighbouring centres. This is slightly in excess of returns for 1906.

On the Upper Bloomfield, Messrs. Elliott and party started cutting a race three and a-half miles long to bring water to Lode Hill from the Roaring Meg Falls. Assistance was rendered for the purpose. This project had been discussed for years by the late Robert Baird and other previous holders. Recently a 40-acre mineral lease was also applied for by Mr. Leslie, who proposes also to commence another race from the same falls to the lease for which he has applied, which is near Lode Hill. The lease application is objected to, on the ground that the available tin-bearing area is limited, and that the water supply will be interfered with.

Mount Windsor.

Over 30 miners are working alluvial tin on this and other heads of the Palmer River. Some 40 Chinese have removed from Mount Windsor to Cannibal Creek and the Granite; 58 tons 18 cwt. 2 qr. 17 lb. of tin were received at Cooktown from these three places for the year.

Other Minerals.

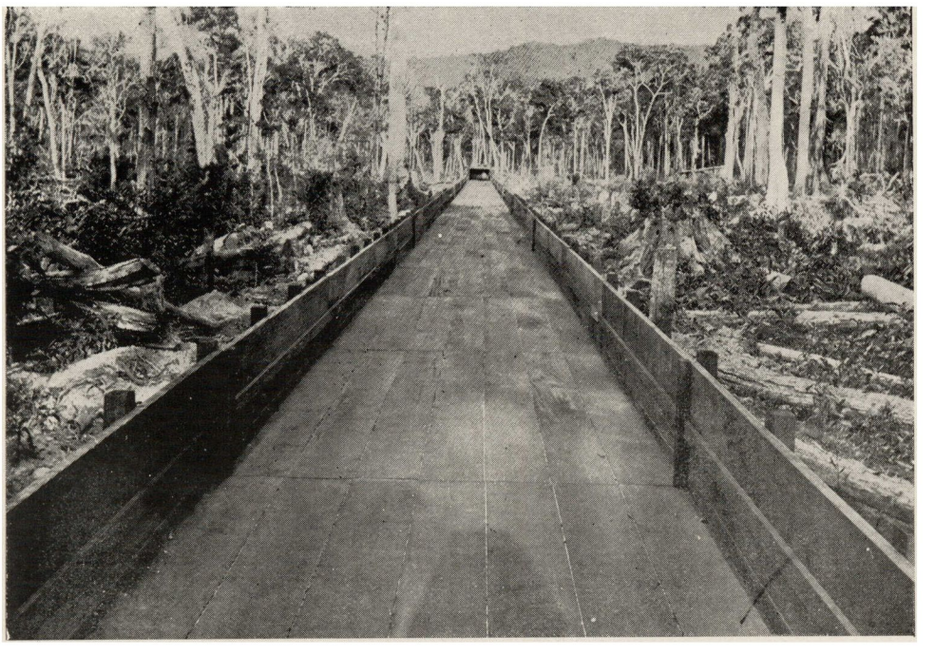
About the middle of the year Mr. John Dickie, prospector, discovered some extensive antimony outcrops within a radius of two miles on the middle head branch of the Alice River, about 20 miles from Imooya. Twelve outcrops in all were counted, some of them being of considerable length. Unfortunately, the depreciation in value prevented further development of this discovery. An assay of 58 per cent. was returned for a sample of the ore forwarded by Mr. Dickie.

Coal.

In addition to previously reported discoveries of coal near the Thirty-eight-Mile (Laura Railway), and at Little River, a fresh find has been made about four and a-half miles south-west from the Thirty-five-mile Peg on the Laura line. A coal prospecting area of 640 acres was applied for; three men were employed, and two shafts sunk, 15 and 25 ft., and other prospecting work was done. Coal-bearing shale and sandstone is found in level, settled country on the area, and appears to be lying horizontally. The indications are altogether of a hopeful nature, and likely to encourage prospecting to a greater depth. Samples were recently forwarded, with an application for assistance in development. There is a seam of nearly 5 in. of coal in the 25-ft. shaft. Mr. Carter, the prospector, has had some years' experience in coal-boring in New South Wales and Victoria, and he says that the indications are more promising than any he has seen in this district. The importance of coal-mining development so near Cooktown cannot be over-estimated.

Accidents.

One fatal accident (previously referred to) occurred at Ebagoolah on 9th march, 1907. John O'Hagan, manager of the Caledonia Mine, fell from



TAIL RACE, FOR TIN-SAVING.
North Queensland Tin-Sluicing Company, Rossville, Cooktown District.



ONE OF THE NOZZLES.
North Queensland Tin-Sluicing Company, Rossville, Cooktown District.

the pump level, 120 ft., into the well-hole, and was killed. The usual inquiry was held. Three other accidents, of a minor nature, occurred.

Statistical.

The mining revenue collected at Cooktown and other fields under my charge amounted to £1,204 3s. 6d., a decrease of over £600, as compared with previous year; 629 miners' rights and 8 business licenses were issued.

The value of machinery employed in mining and reduction is estimated at £15,300.

Future Prospects.

Notwithstanding the reduced value of the industrial metals, mining for tin and other minerals maintained a vigorous and healthy tone. It is probable that the coming year will also witness greater activity on the goldfields of the district. It may be stated that not for a long time past has such keen interest been taken by a number of representative practical men as during the past few months. I refer more particularly to the number of inquiries regarding water rights or other similar privileges at places where the great water-power of the Annan and Bloomfield mountainous watersheds may be further utilised.

Table A.

Cooktown Fields.—Product, 1907.

Field.	Nature of Mining.	Material.	Yield.	Average Value per Ounce.	Total Value.
		Tons cwt. qr. lb.	Oz. dwt. gr.	£ s. d.	£ s. d.
Hamilton	Reef gold	2,571 9 0 0	3,066 3 0	2 13 0	8,125 6 0
	Alluvial gold	...	500 7 10	2 14 0	1,351 0 3
	Cyanide	992 0 0 0	568 0 0	2 5 $3\frac{3}{5}$	1,286 0 0
					10,762 6 3
Coen	Reef gold	1,332 10 0 0	2,033 4 0	2 3 0	4,371 7 6
Palmer	Reef gold	934 15 0 0	313 5 0	4 0 0	1,253 0 0
	Alluvial gold	...	329 0 0	4 0 0	1,316 0 0
					2,569 7 6
Alice River	Reef gold	818 0 0 0	844 7 0	3 3 0	2,659 14 0
Starcke	Reef gold	50 0 0 0	134 16 12	3 16 0	512 4 9
	Cyanide	224 10 0 0	45 19 0	3 18 7	181 0 0
					693 4 9
West Normanby	Reef gold	28 10 0 0	36 8 16	4 0 0	146 14 8
	Total value of gold	...	...	...	£21,202 14 8
Cooktown	Alluvial tin	176 15 2 1	...	...	19,284 0 2
	Lode tin	3 19 3 21	...	...	330 0 0
					19,614 0 2
Palmer	Alluvial tin	58 18 2 17	...	...	6,583 13 6
	Wolfram	0 4 0 0	...	...	21 10 6
					6,605 4 0
Coen	Alluvial tin	21 0 3 7	...	...	1,152 0 0
Bowden	Wolfram	24 19 0 0	...	...	3,067 0 0
Noble Island	Wolfram	3 10 2 0	...	...	358 0 0
	Total value minerals other than gold	...	...	...	30,796 4 2
					£51,998 18 10

Table B.

Cooktown Fields.—Yield of Wolfram for 1907.

Field.	Locality.	Quantity.	Value.
		Tons cwt. qr. lb.	£ s. d.
Bowden	Pascoe	24 19 0 0	3,067 0 0
Palmer	Windsor...	0 4 0 0	21 10 6
Noble Island	Noble Island	3 10 2 0	358 0 0
		28 13 2 0	3,446 10 6

Table C.

COOKTOWN FIELDS—YIELD OF TIN FOR 1907.

Field.	Locality.	Quantity.	Value.
		Tons cwt. qr. lb.	£ s. d
Cooktown	Rossville	68 17 2 11	7,529 1 0
	Hartley	11 7 0 4	1,137 17 6
	Amos	7 9 2 0	827 8 8
	Slatey	8 9 0 0	941 0 0
	Romeo	32 9 0 20	3,537 0 0
	Leswell	12 5 0 5	1,436 0 0
	Helenvale	2 11 2 12	269 0 0
	Finnegan	9 18 1 8	1,048 0 0
	Collingwood	5 6 1 8	608 0 0
	Bloomfield	12 4 2 26	1,261 3 0
	Grasstree	2 13 2 26	325 0 0
	Shipton's Flat	1 14 3 21	217 0 0
	Tableland	1 8 2 0	147 10 0
		176 15 2 1	19,284 0 2
Coen	...	21 0 3 7	1,152 0 0
Palmer	...	58 18 2 17	6,583 13 6
31½ tons of tin ore was treated	from Phœnician Mine, yielding ...	3 19 3 21	330 0 0

Table D.

COOKTOWN FIELDS—ESTIMATED POPULATION, 1907.

—	Palmer.	Hamilton.	Coen.	Alice River.	West Normanby.	Starcke.	Cook Mineral Field.	Bowden.
Europeans—								
Reef miners	36	20	24	8	12	16	...	...
Alluvial	33	30	52	...	6	2	156	...
Carters, &c.	5	15	12	3	3	...	8	2
Merchants, &c.	7	2	8	1	...	1	6	2
Women and children ...	102	50	140	...	...	3	104	...
Wolfram miners	...	...	...	...	...	...	4	50
Copper „	...	...	...	...	...	...	6	...
Total European population	183	117	236	12	21	22	284	54
Chinese—								
Miners	260	...	4	8	3	...	...	...
Gardeners, &c.	157	...	33	...	3	...	8	...
Total Chinese population...	417	...	37	8	6	...	8	...
Grand total	600	117	273	20	27	22	292	54

Table E.

COOKTOWN FIELDS—HOLDINGS UNDER MINING TENURE.

Nature of Holding.	Palmer.	Coen.	Hamilton.	Starcke.	Alice River.	West Normanby.	Cook Mining Field.
Gold Mining Leases—							
Number	2	4	7	3	5	1	...
Area	35 acres	59 acres	63 acres	50 acres	52 acres	4 acres	...
Mineral Leases—							
Number	...	1	...	...	...	...	22
Area	...	12 acres	...	...	...	...	1,093 acres
Miners' Homesteads—							
Number	1	36	58	...	...	...	2
Area	5 acres	178½ acres	45 acres	...	...	...	5½ acres
Machine Areas—							
Number	5	2	2	1	...	...	1
Area	5 acres	2 acres	10 acres	2 acres	...	...	2½ acres
Tailings Areas—							
Number	...	1	2	...	...	...	...
Area	...	1 rood	5 acres	...	...	...	...
Garden Areas—							
Number	3	4	...	...	...	...	1
Area	4 acres	12 acres	...	...	...	...	3 acres
Dredging Claims—							
Number	2	...	...	...	...	...	19
Area	600 acres	...	...	...	...	...	2,298 acres
Coal Prospecting License—							
Number	...	...	...	...	...	...	4
Area	...	...	...	...	...	...	1,914 acres

Table F.

COOKTOWN FIELDS—GOLD YIELD FOR 1907.

Mine.	Quantity.		Yield.		
	Tons	cwt.	Oz.	dwt.	gr.
Hamilton.					
Golden Gate	9	0	25	19	3
Try Again	149	10	257	10	0
Golden King P.C.	192	0	154	19	19
Golden King No. 1 South	33	0	69	2	12
Golden King No. 4 North	6	0	4	19	14
Golden King Nos. 6 and 7 United	42	0	51	17	9
Hamilton King P.C.	58	0	283	0	0
Lukin King P.C.	320	0	520	17	18
Lukin King No. 1 North	88	14	76	0	0
Lukin King Nos. 1 and 2 South	527	0	418	0	0
Caledonia P.C.	43	0	68	13	0
Trafalgar Extended	31	10	36	8	0
Violet P.C.	22	10	51	7	12
Savannah	856	5	891	16	23
Hit-or-Miss	37	0	21	4	0
Hidden Treasure Extended	128	0	85	0	0
Gold Mount	8	0	34	10	0
Surface	20	0	14	17	10
	2,571	9	3,066	3	0
Alluvial	...		500	7	10
Cyanide—					
Savannah Extd. (new tailings)	180	0	76	0	0
Lukin King (old tailings)	812	0	492	0	0
	992	0	568	0	0
Coen.					
Great Northern	1,304	10	1,923	4	0
Springs (mixed)	16	0	38	0	0
White Rose	7	0	20	6	0
Welcome	5	0	51	14	0
	1,332	10	2,033	4	0

Mine.	Quantity.		Yield.		
	Tons	cwt.	Oz.	dwt.	gr.
Palmer.					
Challenge	9	0	13	0	0
Throwelson's Claim	21	0	41	0	0
Mountain Maid (Hit-or-Miss)	518	0	156	1	0
Waratah	7	0	5	0	0
Queen (headings)	107	0	21	15	0
Queen (Hit-or-Miss)	270	0	70	7	0
Surface	2	15	6	2	0
	934	15	313	5	0
Alluvial	...		329	0	0
Alice River.					
Alice Queen	657	10	640	16	0
Advance	15	0	14	12	0
Eureka	36	0	28	19	0
Peninsular King	95	0	146	0	0
St. Aignan	14	10	14	0	0
	818	0	844	7	0
Starcke.					
Boomerang	14	0	45	2	0
La France	36	0	89	14	12
	50	0	134	16	12
Cyanide (mixed old tailings)	224	10	45	19	0
West Normanby.					
The Brothers	5	0	10	16	12
Goodall's (Moore Extended)	7	0	6	12	4
Try Again Extended	16	10	19	0	0
	28	10	36	8	16

F. J. CHERRY, Warden.

CROYDON.

PROSPECTS.

During the past year the most noticeable feature in connection with this field was the combined and systematic effort made for prospecting the deeper ground. The years of work confined to the comparatively shallow ground has, with few exceptions, exhausted the mines and brought the field to a low ebb. Of those who made money in the "richer" days few cared to risk their profits in testing the deeper ground, and as time went on mine after mine closed down. At the Golden Gate end of the field the position was further accentuated by the water trouble, and, though temporary schemes have tided over the matter for the time being, I think it would be an advantage if some definite and permanent scheme could be adopted, more especially as an effort is now being made to further prospect that line.

The turn for the better took place late in 1906, by the formation of the Highland Mary Blocks, Limited, to prove the existence of the Highland Mary reef on the eastern side of a bar of granite that had cut this and other reefs out at a comparatively shallow depth. Mr. Bennion, who had for years been prospecting the country to the east of the bar on the Lady Mary and Sir Walter lines of reefs, ultimately met with some success, but had so exhausted his capital that he decided to put the property on the market. His offer was accepted, and a strong company is now preparing to commence work.

At the Golden Gate, the Golden Gate Consolidated Tribute, Limited, has been registered, and commenced work in the Extended Block shaft, No. 1 Gold Mines. This company, formed for the purpose of testing the deep ground on the Golden Gate line, took over one of the No. 1 Gold Mines leases, and two from the Golden Gate Amalgamated Blocks. The shares were taken up immediately, and the company commenced operations at once.

A movement is now on foot to amalgamate the Nos. 8, 9, 10, and 11 South Blocks at the Golden Gate, to start work in the Nancy Lee Consols shaft, and has every chance of success. Further, the managing director of the Golden Gate Consols, Limited, informs me that if any reasonable solution of the water difficulty can be arrived at they will start sinking at once.

At Esmeralda, Stuart and Hourston have started operations on the old Huon line. The proposition is a big low-grade one, and they are very sanguine of success.

Following the decrease of the alluvial tin in the creeks at Stanhills, a fairly vigorous policy of lode prospecting was carried on, resulting in the opening up of the Vincent and Mount Cassiterite lodes at Rocky. These mines are still in the prospecting stage, but notwithstanding the Vincent is, I hear, under offer to a Cairns syndicate at a reasonable figure, and there is every reason to anticipate a successful issue.

The character of the preparatory work undertaken during 1907 suggests a position brighter in prospects for 1908 than the field has experienced for some years past.

Gold-mining.

CROYDON.

Highland Mary Blocks, Limited.—In December, 1906, this company was registered. The capital is £5,000, divided into 100,000 shares of 1s. each. In addition, the Government has subsidised the mine £ for £. The object of the company is to prove the existence of the Highland Mary reef on the eastern side of a bar of granite that has cut this and other reefs out at a comparatively shallow depth. With the assistance of Mr. Geologist Dunstan, it was decided to commence operations in the old Highland Mary Extended shaft. In January, 1907, a contract was let to cut down to 10 ft. by 4 ft. in the clear, and clean out the shaft, which proved to be 95 ft. deep. Poppet-legs were erected, and an engine rented with the option of purchase. A contract was let to sink from the bottom of the old shaft. The contractor commenced operations on the 26th June, but after getting down to the 132 ft. 6 in. he threw up the contract. A fresh contract was let, the new contractor starting on the 12th August. The shaft was down 279 ft. on the 24th December, when the contractors knocked off for the Christmas holidays. As the country is considered highly favourable for reef, and the estimated depth at which it would be cut was about 300 ft., the shareholders are on the tiptoe of expectation; but should the estimate be wrong it is the intention of the company to continue sinking. The contractors have had no water trouble.

Bennion's Block, Limited, formed for the purpose of carrying on the work inaugurated by Mr. Bennion on the Lady Mary line of reef, on the eastern side of "Rand's intrusive bar," was registered on the 19th December, 1907, with a capital of £20,000, divided into 80,000 shares of 5s. each, of which 30,000 were issued as fully paid-up to the vendor. The lease, a block on the Lady Mary and Sir Walter (so rich in the early days of the field), has been prospected for the last five years by Mr. Bennion, both by sinking and boring. In both of the shafts sunk the reef was found and proved, and a small crushing of 5 tons, taken from the bottom of No. 1 shaft, gave a return of 4 oz. to the ton. A level connects the shafts. Notwithstanding that the Government has subsidised the venture to the extent of £800, after the first shaft had bottomed on the reef the prolonged effort had exhausted Mr. Bennion's capital, and he decided to put the property on the market, with the result as stated. The promoter met with some unforeseen difficulties in the earlier stages of his flotation, but these were overcome, and the company is now preparing to commence operations.

GOLDEN GATE.

Croydon Consols, Limited.—No. 1 Mine, No. 2 shaft: Up to August last this mine had been worked on tribute, the company assisting by subsidising development work done with its approval. Attention was directed to the hanging-wall reef north and east from the pass over No. 5 North level, where a fair amount of stoping work was carried out. The reef, though on the average small, varied in size, and was of good quality; 58 tons treated yielded 172 oz. 14 dwt. 18 gr., valued at £372 17s. No. 3 shaft: Pumping operations have been continuously carried on here, draining the shaft to a vertical depth of 413 ft., thus enabling prospecting and development work on the reef to be more cheaply effected in the other shafts on this company's lease, which are operating at a lesser vertical depth. No. 2 Mine, No. 5 shaft: Commenced in May, 1906, and was worked on tribute to June of this year, since when the company has worked the mine. During the year the underlie has been sunk a further 181 ft., making a total of 228 ft. Levels driven total 33 ft. A fair amount of stoping was carried out on the reef in the upper portions of the mine, the reef varying in size from 6 in. to 18 in. Ninety-one and a-half tons of ore were won, yielding 133 oz. 6 dwt. 18 gr., valued at £329 10s. 6d. While sinking the underlie down at the 117 ft. point very good quality ore was met with in places. At this point (117 ft.) a break or fault was encountered, which displaced the reef, but on passing through the break at the 175 ft. point an entire change of country came in, and the quartz, though small and not gold-bearing, was again picked up. From that point to the present depth the country has been considered most favourable for the striking of a gold-bearing lode. The company has been making every effort to push down the sink as speedily and as far as possible before the wet season, two shifts being employed. At the date of writing the heavy rains have flooded the workings to within 60 ft. of the surface, and the water is still rising. On resuming, if the reef in the sink proves to be gold-bearing and payable, the company intends equipping one of these shafts with more powerful machinery than is at present installed, to enable them to carry on more extensive operations.

Golden Gate Consols, Limited.—During the past year operations have been confined to general exploration and stoping work in the higher portions of the company's mines. The heavy water previously encountered when sinking having, owing to the great cost, precluded the further pushing down of the main underlie (No. 1 shaft) until circumstances prove more favourable. The underlie in question, which is over 1,700 ft. in length, and is sunk to a depth of over 700 ft. vertical, is the deepest on the field, with the exception of Plant's shaft. When work ceased in this sink it was stated the quartz and formation in the face were encouraging, and it is probable that after the wet season sinking operations will be resumed. During the year the levels and crosscuts driven totalled 524 ft.; rises put up, 65 ft.; winzes sunk, 228 ft.; making a total footage of 817 ft. A total of 597 tons of ore were crushed by the company, yielding 1,571 oz. 3 dwt., valued at £3,546 12s. 11d., and equal to £5 18s. 10d. per ton. There are now over 160 tons of ore at surface, and 50 tons below ready for hauling. A crushing will take place shortly, the stone being estimated to yield 30 dwt. per ton. A fair amount of development work is being carried on north from the main underlie by means of levels. At date of writing, the No. 2 North level, at the 614 ft. point of underlie, is in most promising country for the picking up of a payable chute of gold-bearing ore.

During the earlier half of the year the company carried out a good deal of prospecting work in the No. 2 shaft of this lease, but, nothing sufficiently payable being disclosed, operations were discontinued. There were 98 ft. of levels and crosscuts driven, and 108 ft. of winzes sunk, making a total footage of 206 ft. Since July last the ground has been worked by tributers. A recent crushing of 43 tons yielded 95 oz. 17 dwt. 12 gr., and at present date there are upwards of 30 tons of ore at grass, the ore being raised slowly.

No. 1 Gold Mines, Limited.—During the year the main level was extended. It was the intention of the directors to continue this north-east along the southern boundary of the Golden Gate Consols as a prospecting venture, but, owing to the heavy water, work had to be discontinued about the middle of the year, and operations confined to driving No. 10 South level and taking out stone previously left there. Work was also carried on in the Block level from No. 3 shaft, and bailing from No. 4 shaft during the whole of the year.

In April last an attempt was made to raise capital in London to further sink the *Extended Block* shaft on lease 732, but owing to the tightness of the

money market the attempt failed. Subsequently a scheme was evolved whereby this company, by working with the Golden Gate Amalgamated Blocks Company, have started operations as the Golden Gate Consolidated Tribute, Limited, in the Extended Block shaft. For these reasons the company has now stopped operations. During December a tribute was let in a portion of the upper ground, and negotiations for a second tribute in another portion are now under consideration. The company does not intend to resume operations in the mine until the result of the work by the Golden Gate Consolidated Tribute in deeper ground warrants such an outlay.

Golden Gate Amalgamated Blocks.—Following the policy brought into operation in 1906, a level was driven north from the crosscut from 462 ft., and put in 170 ft. 6 in. Reef showed in the level the whole of the way, but it carried very little gold. At about 100 ft. in the reef looked very promising, but as the level proceeded the walls closed and pinched it. The country was very hard. As the shareholders did not feel inclined to carry on in that shaft, which was too small to install pumping gear, it was decided to apply for exemption, and in the meantime to make an effort towards getting in funds to sink a new shaft about 250 ft. to the north-east. A scheme was formulated, and Government assistance granted. This scheme was then dropped in favour of a proposal from the No. 1 Gold Mines to prospect from their Extended Block shaft, which is within 300 ft. of the northern boundary of the Amalgamated. The scheme was subsequently carried into effect in the Golden Gate Consolidated Tribute, of which this company holds half the shares.

Golden Gate Consolidated Tribute, Limited.—This company, already referred to, is the result of the effort by the No. 1 Gold Mines and the Golden Gate Amalgamated Blocks Companies to test the deeper ground on the Golden Gate line of reef. The company has a capital of £3,300, divided into 44,000 shares of 1s. 6d. each, all contributing. Its object is to acquire lease 732 from the No. 1 Gold Mines and leases 845 and 849 from the Amalgamated Blocks. The tribute is for a period of five years, and contains a condition of repurchase by the companies owning the leases at £5,000 and the cost of development work. The Government has subsidised the company £ for £, to the extent of £1,000. The tribute company has started work in the Extended Block shaft (No. 1 Gold Mines), which it intends to sink a further 100 ft. or more, and from there drive north into that lease and south towards the Amalgamated leases. The shaft has been dewatered, and tenders for a contract to sink will be called at once, so that sinking should commence early in the new year. The tribute company has applied for a lease blocking the ground included in their tribute.

Golden Gate United Gold Mining Company, Limited.—Operations in this mine for the year have been confined to one tribute party, who worked the northern portion of the lease from Tracey's shaft. The underlie was extended a further 107 ft., and now shows 2 ft. of fair stone in the face. The object of the party was to test the maiden ground on the northern end of the lease. The prospects have been considered favourable, and the party will continue with the sink.

Golden Gate Nos. 3 and 4 South.—The proprietary and two parties of tributers have been working on stone developed in previous years. No settled policy has been followed, and no development work done. The returns, which are excellent, are as follow:—The proprietary crushed 134 tons for 511 oz. 18 dwt., valued at £1,420 10s. 2d.; dividends paid, £1,160. No. 1 tribute (Welch and party) crushed 246 tons for 776 oz. 11 dwt., valued at £1,974 18s. 7d.; dividends paid, £425. No. 2 tribute (Dryden and party) crushed 478 tons for 1,552 oz. 5½ dwt., valued at £3,940 17s. 6d.; dividends paid, £864—making a total crushed of 858 tons for 2,840 oz. 14½ dwt., valued at £7,336 16s. 3d., equal to £8 11s. per ton. The dividends paid to the owners amounted to £1,160, and the tributers divided £1,289.

Golden Gate No. 5 South.—The syndicate owning this mine devoted the first part of the year to driving and stoping from the No. 1 North and intermediate levels, on the Nancy Lee reef. Owing to the smallness of the reef and its poor quality, work was abandoned about the middle of the year, and the syndicate's energies were directed to the Golden Gate reef in Nos. 3 to 7 South levels. The development work is now completed, and stoping will commence in the new year.

Golden Gate and Nancy Lee United (Viles's Block).—Starting the year with an overdraft, the company continued the driving of Nos. 1 and 2 South levels from No. 2 (Frenchman's) shaft, and then opened up stopes over Nos. 1, 2, and 3 South levels. The stone varied in quality, and required sorting by hand. Encouraging at first, the quality deteriorated as work went on, until, in the end, the company decided to close dawn. The company has worked continuously for eight years. Steps are now being taken to let the mine on tribute.

Banner of Freedom Nos. 12 and 13 South Block (Williams's Block).—During the first half of the year the mine was worked by tributers in the shallow portion of the frontage, stoping out portions of stone left by the company. In July the syndicate started operations from Murray's Banner Block shaft, by agreement, to work out a block of stone on their boundary that could not be worked from their own shaft. Two hundred and seventy-three tons were taken out, yielding 1,186 oz. 14 dwt. 12 gr., valued at £2,365 10s. From this a dividend of £400 was declared, and a balance carried forward to credit. During September trucks were installed in the shaft, and the works generally were overhauled, after which a crosscut was started from the shaft to cut the reef to the west. This was met in 20 ft. A level is now going in from the end of the crosscut to break through into Murray's Block in their stope over No. 1 North level for ventilation, and also for the purpose of working out a block of payable stone on the boundary. The level will be completed in another 5 ft.

Murray's Banner Block.—Have been stoping over No. 1 North and "stulling" Jones's and the No. 2 South levels during the year, and have crushed 574½ tons for 985 oz. 5 dwt. 6 gr., valued at £2,632 8s. 1d. During October the syndicate cemented the shaft from the surface down a distance of 14 ft., to keep back storm waters. The syndicate will during the coming year continue work in the stopes already mentioned, and sink the underlie about a further 150 ft. to the eastern boundary, where it is estimated another block of payable stone exists.

Development and prospecting work is being carried on in the *Baltic, No. 8 South Block, No. 9 South Block, Nos. 10 and 11 South Blocks,* 9, 10, 11, and 12 frontage, and the 19 and 20 south. There is nothing of special importance to mention.

CONTENT.

Content Block.—In the beginning of the year work was started by continuing the Nos. 1, 2, and 3 South levels from No. 2 shaft. After going in about 30 ft. a "break" was met. Work was continued through the "break" in No. 3 a further 60 ft., without success. A winze was then sunk 28 ft. at the end of No. 3, with no better result, and operations were

then discontinued in this part of the mine. Work was then started in the No. 3 North level, then in 43 ft., and continued for a further 74 ft. The face showed 2 ft. 6 in. of white stone, that was not considered rich enough to stope, and work was then resumed in the "Balcony" level. During this time stone was being raised from Nos. 1 and 3 North and No. 1 South levels from No. 1 shaft. About three months ago the stone in Nos. 1 and 3 North became too poor to work, since when work has been confined to sinking of No. 1 South level (No. 1 shaft) and to the stopes over No. 1 South (No. 1 shaft), and the "Balcony" level (No. 2 shaft). For the year 1,969 tons of stone have been treated, giving a return of 2,264 oz. 6 dwt., valued at £4,418 9s. 4d. The tailings have been stacked for treatment. The proprietor will start crushing some 700 tons about the beginning of January.

TABLETOP.

This centre has been worked in a very small way. At the *Federation* a couple of small tribute parties have been working on the cap of the reef, with very little success. The mine itself has not been worked, and, so far as I can gather, there is little likelihood of its being worked during the coming year. Mr. Cuthbert, the owner, has been employing his energy and money at the Golden Gate, and cannot see his way, without assistance, to start single-handed a proposition of this size, as pumping machinery, air-compressors, and rock-drills would have to be installed at once.

A few prospectors are working about the *Ace of Hearts*, the *Hope*, *Mount Morgan*, and *Break o' Day*.

GOLDEN VALLEY.

King of Wallabadah.—In February last the present party started to sink No. 1 shaft 80 ft., drove a level east towards the Block 30 ft., and sunk a winze 20 ft. to the end of the level from the Block shaft for the purpose of ventilation. They had previously left stone in the end of the Block level, but found they could not continue on account of the heat. They therefore came back and sunk No. 1 shaft, already mentioned, and drove for the purpose of picking up the reef left in the Block level. In September last they struck the stone, and have since been working it out. The work has been heavy through the water, and the party were further handicapped by the fact that they were able to put only a small 6-h.p. engine on to cope with it. With this they now find it impossible to carry on, and are trying to arrange for a more powerful plant. It is proposed during the coming year to continue the level towards the Block shaft, and open out over the mundic stone.

Australian Beauty Nos. 6 and 7 South.—Have been taking out stone previously developed. Want of capital and the smallness of the party have hindered work. During the year 160 tons of stone treated gave a value of £4 2s. 8d. per ton, with sand values still to come, the estimated value of which is 14s. per ton. There are 300 tons of stone in the paddock awaiting treatment.

A few prospectors are working in this locality, with varying results, on the Grace Leigh, Black Jack, and other lines.

STANHILLS TINFIELD.

During the first half of the year the creeks in this locality carried about 150 men, a good many of whom did fairly well; but with the drying up of the water and the exhaustion of many of the smaller creeks the population dwindled. Following the loss of the water, a good many dry-blowers were taken out, and many of the claims, principally on Ten-mile Creek, are being worked, employing about 30 men. After the rains there should be a revival of sluicing on the field, as there are many places on which little or no work has been done. As the water became exhausted for sluicing purposes a good deal of attention was given to lode prospecting, resulting in the discovery of the Vincent and Mount Cassiterite Mines at Rocky. Prospecting work has gone ahead, and, as stated in a previous report, the Vincent is now under offer to a Cairns syndicate.

Late in the year another claim, the *Wild Cat*, was taken up between these two, and Mr. Charley Ham has a prospecting area a few miles this side of the Gap.

At the *Brilliant*, little other than prospecting work has been done for the year. Three tons 3 cwt. of ore from this mine, shipped to Sydney, gave a net return of £89. A new cut has been put in to the north of the shaft and another to the north-east, the lode in each varying from 3 in. to 1 ft. It is the intention of the lessee to sink a new shaft on the lode this year for the purpose of proving it at a depth.

McGregor and McKee are getting their battery in order, and this, when ready, will help materially in the development of this field. The price of carting to local batteries has been prohibitive, and, as a consequence, very little stone has been treated.

PRODUCE.

The amount of quartz treated for the year was 11,862 tons 10 cwt., for a yield of 18,357 oz. 13 dwt. gold, giving an average value of £2 8s. 2·97d. per ton, being a decrease in the tonnage treated, as compared with 1906, of 11,479 tons 14 cwt., and a decrease in yield of 20,446 oz. 1 dwt. 16 gr. Tailings treated by cyanide during the year were:—New tailings, 6,509 tons 10 cwt., for a yield of 3,825 oz. 9 dwt. 12 gr., giving an average value of £1 0s. 3·99d. per oz.; old tailings, 21,802 tons, for a yield of 15,225 oz. 14 dwt., giving an average value of 11s. 6·53d., and being a decrease on the total treated, as compared with 1906, of 6,681 tons 11 cwt. 2 qr. treated, 4,206 oz. 11 dwt. 18 gr. in yield, and £5,091 13s. in value.

The amount of ore treated at the mills from the tin field for the year was 21 tons 9 cwt. 3 qr. 13 lb., valued at £1,026 14s. 9d.; alluvial tin recovered, 42 tons 0 cwt. 2¼ qr., valued at £4,839 4s. 8d.; concentrates shipped, 3 tons 19 cwt. 1 qr. 13 lb., of an approximate value of £268 2s. 2d.

The dividends paid during the year totalled £3,880, as compared with £19,733 7s. 8d. for 1906, a decrease of £15,853 7s. 8d.

The calls amounted to £3,397 6s. 9½d., as against £4,689 0s. 8d. for 1906, a decrease of £1,291 13s. 10½d. For the year the dividends exceeded the calls by £482 13s. 2½d.

STATISTICAL.

The collections for the year amounted to £1,366 14s. 8d., including £18 19s. 6d. joint stock companies collections, a decrease of £167 2s. 5d. on the previous year.

The number of miners' rights issued during the year was 316.

At the close of the year there were in force 394 miners' homestead leases, containing an area of 658 acres 1 rood 31 7·13 perches, and averaging 1 acre 2 roods 27·38 perches; 40 gold-mining leases, containing an area of 573 acres 0 roods 24 3·10 perches, and averaging 14 acres 1 rood 12·6 perches; 3 mineral leases, containing an area of 60 acres, and averaging 20 acres; 25 machine areas, containing an area of 93 acres; 8 tailings areas, containing an area of 29 acres; 3 market garden areas, containing an area of 14 acres; and 50 water rights.

During the year three mining companies were registered, with a total nominal capital of £28,300, divided into 224,000 shares.

I estimate the population at 2,352 persons.

Table A.

RETURN OF MINERALS, CROYDON GOLDFIELD, FOR THE YEAR 1907.

—	Treated.	Yield.	Average Value.	Gross Value.
	Tons cwt. qr.	Oz. dwt. gr.	£ s. d.	£ s. d.
Gold.				
Mills	11,862 10 0	18,357 13 0	2 8 2·97	44,285 16 10
Cyanidation (new tailings)	6,509 10 0	3,825 9 12	1 0 3·99	3,889 3 7
,, (old tailings)	21,802 0 0	15,225 14 0	0 11 6·53	8,788 11 11
				£56,963 12 4
Tin.				
Lode	21 9 3·46	...	...	1,026 14 9
Concentrates (shipped)	3 19 1·46	...	...	268 2 2
Alluvial	...	42 0 2·25	...	4,839 4 8
				£6,134 1 7
Silver.				
...	...	38 5 0	...	£3 7 4
Total Value from all Sources	...	...	...	£63,081 1 3

Table B.

GOLD PURCHASED BY BANKS, CROYDON, FOR THE YEAR 1907.

—	—	Value.
	Oz. dwt. gr.	£ s. d.
Mill gold	18,190 12 17	42,702 1 11
Cyanide bullion	19,763 1 12	23,263 2 8
	37,953 14 5	£65,965 4 7

Table C.

PRINCIPAL CONTRIBUTORS TO GOLD YIELD FOR YEAR 1907.

Name of Mine.	Stone Treated.	Yield of Gold.	Name of Mine.	Stone Treated.	Yield of Gold.
	Tons cwt.	Oz. dwt. gr.		Tons cwt.	Oz. dwt. gr.
Golden Gate 3 and 4 South Tribute	725 0	2,352 4 0	Golden Gate 3 and 4 South Proprietary	132 0	514 0 0
Content	1,969 0	2,297 17 12	Golden Gate 10 South Tribute	371 0	308 0 0
Golden Gate Consols	640 0	1,655 0 0	Australian Beauty 6 and 7 South	160 0	201 12 0
Richmond Tribute	507 0	1,380 0 0	Golden Gate 8 South Block	111 10	199 19 6
Williams's Block	325 0	1,245 16 12	Golden Gate 9 South Tribute	224 10	199 9 6
Golden Gate and Nancy Lee United	1,083 0	1,131 11 0	Croydon Consols, Limieed	70 0	138 2 0
Murray's Banner	593 0	974 12 0	Huon	475 0	133 14 0
No. 1 Gold Mines	280 0	896 8 8	King of Wallabadah	62 0	128 0 0
Golden Gate 5 South	577 0	831 14 0	Golden Gate 10 and 11 South Block	39 0	121 16 0
Golden Gate 9 South Block Tribute	485 10	695 10 0	Miner's Right	79 10	115 1 12
Golden Gate 8 South (Baltic)	448 0	525 15 0			

A. TREGEAR, Warden.

CUNNAMULLA MINERAL FIELD.

The search for opals and such like gems is the only description of mining carried on in the Cunnamulla district. Fairly successful results have been achieved in this description of mining during the past year. My information to the effect that a comfortable living is being made by all those who are following the occupation, as it is termed, of "opalling." Several fair patches of gemstones have been hit on during the past year. Marshall, Kemp, and Martin are three of those who have been thus fortunate. E. Davis, mentioned in my report for 1906, unearthed in his claim a patch of stone that was disposed of for £160. This was at Yowah, where the main workings are at present situated. There are several other localities which were formerly worked, but the want of water has prevented operations being carried on for some time past. During last year Sheep Station and Duck Creeks were two of those places. At the latter the population has dwindled down to one man and his family.

At Dynevor Downs and other outside workings away from the main camp, very good results have been achieved, "lobs" of gemstone being found worth as much as £70.

It is considered that if some slight pecuniary assistance was given towards the prospecting of new ground, the expenditure would be justified by the

discoveries likely to be made. If such aid only took the shape of supplying rations for a few months to three or four men, it is considered good results would ensue. But it would be advisable, in the event of any such assistance being given, that those engaged in the way indicated should be diggers who are at present working in the district, and who thus possess a special local knowledge of the gem-bearing strata of this part of the country.

No accidents have been reported during the year, and the health of the population has been good.

Twenty miners' rights have been issued, and the revenue from them was all that was received at this office.

I am indebted for much of the information I have furnished to Mr. David Hislop, who runs a cart out to the fields periodically, supplying those at the workings with rations.

A. DORSEY, Acting Mining Registrar.

EIDSVOLD FIELD.

On the Eidsvold, Rawbelle, and St. John's Creek field, beyond the working of the Agusta claim, there has been no mining for gold during the past year. The only gold return was from cyaniding, and from this yield was 4,055 tons of sands treated, for £1,073 worth of gold. The cyanide works suspended operations during December.

Mining for antimony ore, of which 23 tons have been sent home and 40 tons are at grass, has been in progress for some time at St. John's Creek, at what is known as Hungry Hill. I have made various inquiries respecting this mine, and am fairly confident that an important development will take place shortly.

Prospecting operations for copper have ceased at Rawbelle, due, no doubt, to the lowering of prices for that mineral.

There have not been over half a dozen miners constantly employed on the field, and the population is about the same as last year.

The revenue for the year was £95, showing a slight decrease.

GEO. PUGH, Acting Mining Registrar.

ETHERIDGE AND WOOLGAR.

Gold-mining.

The gold product last year was less than that of 1906. The average yield (mill gold) was 16 dwt. (£2 11s.), as against 18 dwt. (£2 12s.). No dividends were declared, and calls amounted to £1,320. The diminution in mill gold may be briefly attributed to a falling off in the returns from several of the larger mines, particularly the International, Nil Desperandum, Golden Crown, and Northampton. Their deficiencies almost account for the total decrease. Added to this was a decrease in reef gold won by fossickers, owing to the difficulty in obtaining payable stone at shallow depths. An increase, however, was recorded in gold from concentrates treated at metallurgical works outside the State, and in alluvial gold, which exceeded the comparative period by 740 oz. Altogether, 60 mines contributed to the total output, as against 57 last year. Approximately some 432 men were employed, besides 125 in mining for minerals other than gold. These figures include miners engaged in alluvial and leader-hunting, also persons working at reduction works.

The attached Table A is a record in figures of the field's history, showing at a glance the returns from each mine. It will be noticed that, as in recent years, the Havelock was the chief gold-producer; then comes the International, Nil Desperandum, Jubilee, and Durham Consols, in respective order. Several of these mines also contributed rich metal values, which are shown in detail in Table A.

The following table is a comparative statement of mill gold since 1903:—

	Tons.	cwt.	qr.	Oz.	dwt.	gr.	£	s.	d.
1903 ...	10,430	18	0	10,229	0	0	30,218	3	5
1904 ...	8,749	2	0	8,735	8	0	25,970	2	7
1905 ...	8,315	19	0	8,346	13	0	24,322	11	0
1906 ...	10,457	7	0	9,788	6	0	28,874	0	0
1907 ...	10,575	9	0	8,824	7	2	25,163	8	0

These figures indicate but little alteration in the progress of gold-mining during the past five years. Still, there has been more *bonâ fide* prospecting, and, in some instances, better developments have occurred in the past twelve months than for some time. Candlish's mines (the Nil Desperandum, Queenslander, and Dry Hash) at Charleston, were worked to advantage the greater part of the year, whilst the Havelock, the property of the same owner, not only worked continuously, but increased its output to a greater extent than during any previous period. Similarly, at Schaffert's International, International No. 1 East, Linger-and-Die, Durham, Jubilee, Caledonia, Ancient Briton, Tarrant's, and Morning Light, work continued the whole year, giving employment to a larger number of men than hitherto. Another satisfactory feature in the year's progress is that several mines, notably the Heart's Content (now the East Durham), Lord Byron, Black Streak, Crown, East Cumberland, Wexford, Havelocks East and West, Ophir Tunnel, and Electric Light, which had been dormant the previous year, were also worked, as were others of lesser importance.

Very little has been done in the vicinity of Georgetown. From a mining standpoint, last year was one of the worst, perhaps the worst, in its history. The Better Luck employed a few men for a few months, and then closed down. It is now under exemption, and unlikely to resume operations for a considerable time. A couple of fossickers are surfacing within the precincts of the town, and five men are engaged on the Victoria and Titania lines. To the north the Wexford and Ancient Briton are employing four men. Further north, the Electric Light is enjoying exemption. No mining otherwise, in that vicinity, was carried on during the year.

The Papa, St. George, Telegraph, Spero Meliora, and other properties, which gave such handsome returns some few years ago, are practically abandoned, awaiting the introduction of capital to resuscitate and work them. So it is throughout the field; valuable reefs, rich in mineral wealth, are lying idle, better known by what they would be than what they are, if suitable machinery were available within reasonable distance to treat them.



MESSRS. SCHAFFERT BROS.' INTERNATIONAL GOLD MINE, ETHERIDGE.



BENNION'S MINE, CROYDON.

At the Gorge, 16 men were gully-raking, and a few found employment in the neighbourhood of Talbot, Agate, and Cave Creeks.

With the close of the year some excitement was occasioned by the discovery of alluvial gold near the Copperfield River, seven miles below Oaks outstation, and 30 miles to the south of Einasleigh township. Mr. Geologist Cameron, who was then at Einasleigh, visited the locality, and reported to the effect that a square mile of porphyritic country had been proved auriferous. Later reports stated that gold was being found at points two to three miles apart, and 180 men were on the ground. The quantity of gold already won is variously estimated at 200 to 500 oz. At the time of writing, 400 men are on the field, and 1,000 oz. are said to have been obtained. The gold is worth (smelted) £3 15s. per oz.

Referring to the more southern sections of the field, it is regrettable to report that mining on the Percy and at Mount Hogan is in a very desultory state. At Lower Percy four men are working for alluvial gold and bismuth in Sandy Creek, with little result. There is a caretaker in charge of the Mount Hogan mill and cyanide works, and a few fossickers are pottering about; otherwise the place is deserted. At Tweedside little or nothing has been done, the battery having been idle the major part of the year. Gilberton, the home of the fossicker and leader hunter, found employment on and off for 50 men. Some did very well, but the majority earned less than wages. The returns for each of these places are shown in Table A.

The Woolgar has not had a prosperous year. The three or four claims that were working gave poor returns in comparison with those of previous periods. Ten miners were employed reefing, whilst a few engaged in alluvial and leader hunting. The Woolgar is pretty well a cipher now; still, in common with other centres in its vicinity, it is rich in mineral wealth. Owing, however, to its isolated position, the field attracts but little attention, and seems likely to remain in a more or less depressed condition until its resources are better known.

Minerals other than Gold.

Good progress was noted under this head, the total quantity of mineral produced exceeding that of any previous similar period. The returns from the various centres are shown in Table B. They are incomplete, as those from the Ortona, Carsen's, and Caledonia Copper Mines are not to hand.

Silver-lead.—At Mosquito Creek, in some respects one of the most attractive centres on the field, a large amount of prospecting and development have been done, with generally satisfactory results. The principal properties operating there are the Orion, Pleiades, Argent Kings, Argent Prince, Commonwealth, Commonwealth Extended, Crow's Nest, Southern Cross, Leo, and Star. The enormous expense (nearly £9 per ton) involved in sending ore for treatment to Cockle Creek and elsewhere is a heavy handicap on the industry. Despite this, some handsome profits have been obtained. From the Orion, for example, 87 tons of ore were treated for 6,027 oz. silver and 60 tons of lead. Satisfactory returns were also received from the Commonwealth and Argent King. At Mount Turner, some few miles from Durham, work was carried on during the early part of the year, but latterly no work has been done, owing, probably, to the recent fall in the price of lead, a fact that has had a depressing effect on silver-lead mining throughout the district.

Copper.—At the Ortona Mines, the property of the Percy River Syndicate, work was continued the whole year, as many as 20 men being employed at times. From returns furnished, 495 tons of ore were raised, averaging 14 per cent. copper (69·3 tons), of which 46 tons (33 per cent.) were shipped to England, to be sold in the open market. No sale notes are yet to hand. The manager states that the quantity of ore at grass is 2,495 tons, averaging 14·57 per cent. copper (363·63 tons), and 12 oz. 13 dwt. 7 gr. silver per ton (31,601 oz.). During the syndicate's operations, extending over six years, 845 ft. of sinking and 1,386 ft. driving have been done, developing 18,000 tons of ore, averaging 15 per cent. copper and 18 oz. of silver per ton.

Other properties worked in this vicinity were the Caledonia and O'Donohue's area at the Eight-mile. Work was confined to prospecting. Similarly at Carson's, a few prospecting shafts were put down, with satisfactory results. A parcel of ore from the No. 1 Lease was sent South for treatment. Particulars are not available for this report. The Caledonia sent 16 tons of 27 per cent. ore to England, and 6 tons to Waratah, New South Wales, which yielded 1 ton 7 cwt. of copper, worth £135. No return has been received yet for the former lot. This property has been recently acquired by Messrs. Moffat and Linedale, who propose forming a company to work it. Several other areas are held by different people near Gilberton and Glenrowan, but nothing has been done on any of them to warrant report.

Considerable mining activity is in progress at Einasleigh. The new company is utilising all the energy that can be economically employed in pushing on operations, and already 25 men are working. This number should be greatly augmented in the near future. Since the reconstruction (the company is known as the New Einasleigh Copper Mines, Limited) £41,000 actual cash has been subscribed to further develop and equip the property. No undue haste is being made to start production. A wise policy is being instituted of thoroughly opening up the mine before arriving at any decision as regards output. With this object in view, an air-compressor has been installed to facilitate development work. The present levels are to be further explored, the shaft is to be deepened to 400 ft., and two new levels opened out. Chiefly to promote ventilation of the underground workings, and also for the purpose of testing the southern portion of the known chute, another shaft is being sunk at a spot about 250 ft. south of the main shaft. It will eventually connect up with the extension of the south drive at the 170-ft. level. Its present depth is 100 ft. To the north the ore chute strikes across the Einasleigh River; in fact, the outcrop can be actually seen and examined in the dry season in the river bed itself. It is probable, from its physiographical position, as well as from the fact of the lodes dipping east, that this portion of the workings will have to be operated from the eastern river bank. At present four rock drills (the only ones on the Etheridge) are working in this mine. Several leases are held by different syndicates adjoining or adjacent to the freehold. No work has been done on any of them; probably the owners are awaiting developments in the freehold.

Tin-mining.—Work at Angore and Truxillo could be carried on only intermittently, as during portions of the year the creeks were dry. About 60 men found employment, on and off, and reports state they did very well. Approximately, 58 tons of stream tin were won, worth £6,323. Large quantities of stacked earth are now being washed. The result will be included in current year's figures. Most of the ore is sold to local storekeepers, who

represent Southern buyers. There are also buyers at Fossilbrook, and occasionally parcels are forwarded direct by teams to Almaden. The Robinson Tinfield, on the Robinson River, 16 miles south-west of Castleton, is abandoned, the last man having left in August. Some 25 cwt. (£140) were obtained since the beginning of the year.

Wolfram.—According to statistics furnished by the buyers at Angore and Truxillo, 15 tons of wolfram (lode) were obtained. The value is given at £2,481.

Bismuth.—A few men are fossicking for bismuth in conjunction with gold in Sandy Creek, at the Lower Percy; 3 cwt. were obtained, worth £200.

Limestone.—About 150 tons (worth locally £2 per ton) were burnt at kiln at Aurora.

Produce.

10,575 tons 9 cwt. of quartz, treated at the local mills, yielded 8,828 oz. 7 dwt. 2 gr., worth £25,179 8s. 0½d. Compared with the previous year, the increase in material treated is 118 tons, and the decrease in gold won 947 oz.

1,993 tons of new tailings were treated by cyanidation, for 923 oz. 8 dwt. bullion, worth £2,258 12s.; and 2,225 tons of old tailings for 936 oz. 8 dwt., worth £1,432 4s.

Gold won from concentrates, treated at metallurgical works beyond the State, amounted to 537 oz. 16 dwt. 16 gr. (worth £2,157 3s. 5d.), which exceeds that of any previous period. Large quantities of concentrates are in transit to Cockle Creek.

Alluvial gold amounted to 988 oz. 1 dwt. 12 gr., worth £3,453 14s. 4d.

The total value of gold produced is, therefore, £34,481 1s. 9d.

Gold despatched by escort amounted to 9,887 oz. 0 dwt. 12 gr.

The produce of minerals other than gold is shown in detail in Table B. The value is given at £12,995 2s. 4d.

Dividends and Calls.

No dividends were declared, and calls amounted to £1,320.

Revenue.

The revenue collected at the Warden's office amounted to £3,064.

Mining Tenures.

There are in force 79 gold-mining leases, embracing an area of 817 acres; 83 mineral leases, 1,395 acres; and 172 miners' homesteads, 1,300 acres; besides a number of lesser titles (machine, tailings areas, claims, &c.).

Population.

The population of these fields is estimated as follows:—

	Etheridge.	Woolgar.
Gold reef miners	180	10
Miners (lode)	60	
European alluvial miners ...	265	2
Carters and timber-getters ...	70	6
Farmers	14	
Tradesmen and others	450	1
Women and children	840	29
Chinese	70	4
	1,949	52

Accidents.

There were four accidents; one was fatal, and the others were reported as not serious.

Table A.

Gold Returns, Etheridge and Woolgar Fields, Year 1907.

Name of Mine.	Quanty of Ore Treated.	Mill Gold.		Concentrates Treated at Metallurgical Works.		
		Gold.	Value.	Quantity Treated.	Gold.	Value.
	Tons cwt. qr.	Oz. dwt. gr.	£ s. d.	Tons cwt. qr. lb.	Oz. dwt. gr.	£ s. d.
Ancient Briton	16 0 0	47 3 0	152 15 0	...	...	...
Annie Day	30 0 0	8 0 0	15 0 0	...	...	...
Better Luck	25 10 0	16 16 0	50 8 0	...	...	...
Big Wonder	67 0 0	30 17 0	81 1 8	...	...	...
Big Wonder West	30 0 0	3 12 12	10 18 5	...	...	...
Black Blow	13 0 0	2 12 0	7 0 0	...	...	...
Black Streak	28 0 0	48 12 0	158 17 0	...	...	...
Bookall's Extended	20 0 0	4 5 0	12 15 0	...	...	...
Brown Snake	21 0 0	10 8 0	33 16 6	...	...	...
Bubble and Squeak	27 0 0	9 0 0	27 0 0	...	...	...
Caledonia P.C.	150 0 0	54 10 0	189 12 0	...	...	...
Combo	8 0 0	7 8 0	24 0 0	...	...	...
Cross, J. K.	24 0 0	27 18 0	76 14 6	...	...	...
Cumberland	8 15 0	7 14 0	22 15 6	...	...	...
Cumberland (1 South)	5 0 0	3 15 0	11 1 0	...	...	...
Dunbarton Castle	25 0 0	18 0 0	54 0 0	...	...	...
Dunstan's Folly	30 0 0	26 15 0	75 6 4	...	...	...
Durham	4 0 0	1 15 0	5 18 9	...	...	...
Durham Consols	738 0 0	501 4 0	1,529 8 0	...	...	...
Dry Hash	10 9 0	8 7 5	33 8 10	25 19 0 25	30 7 23	121 11 10
Elizabeth	9 0 0	46 6 0	127 4 0	...	...	...
Englehcim	8 15 0	18 18 0	61 8 6	...	...	...
Enterprise No. 1	7 0 0	6 10 0	19 10 0	...	...	...
Flying Cloud	19 0 0	37 19 0	115 14 9	...	...	...
Golden Bar	53 0 0	31 14 0	99 7 0	...	...	...
Golden Crown	79 0 0	55 0 0	164 16 0	...	...	...
Hand of Friendship	9 0 0	2 12 0	7 3 0	...	...	...
Hampstead Queen	34 0 0	22 13 0	67 9 0	...	...	...
Hearts Content	10 0 0	20 0 0	65 0 0	...	...	...
Havelock	2,002 10 0	2,621 10 12	7,343 6 6	...	...	...
Havelock East	10 0 0	6 0 0	15 12 0	...	...	...
Havelock West	16 0 0	14 10 0	33 0 0	...	...	...
Havelock West (concentrates) ...	...	4 0 0	16 0 0	...	...	...
Hawkins Hill	170 0 0	51 18 0	149 3 6	...	...	...

Table A—*continued.*

GOLD RETURNS, ETHERIDGE AND WOOLGAR FIELDS, YEAR 1907— *continued.*

Name of Mine.	Quantity of Ore Treated.	Mill Gold.		Concentrates Treated at Metallurgical Works.		
		Gold.	Value.	Quantity Treated.	Gold.	Value.
	Tons cwt. qr.	Oz. dwt. gr.	£ s. d.	Tons cwt. qr. lb.	Oz. dwt. gr.	£ s. d.
Home Rule	117 0 0	51 15 0	135 13 6	...	...	...
International	1,637 0 0	1,439 0 0	4,144 9 7	69 19 1 3	278 3 12	1,112 2 0
International 1 East	...	...	...	4 19 3 0	32 3 12	135 2 9
John Dunn	5 0 0	25 10 0	82 17 6	...	...	...
John Mitchell	5 0 0	19 0 0	53 4 0	...	...	...
Joseph Morris	9 0 0	25 10 0	82 17 6	...	...	...
Jubilee	1.289 0 0	647 14 8	1,738 14 6	...	...	...
Jubilee (concentrates)	...	339 7 0	848 16 0	...	...	...
Linger-and-Die	154 0 0	142 0 0	428 5 7	...	...	...
London	6 0 0	18 14 0	60 15 0	...	...	...
Lord Byron	118 0 0	142 4 0	439 10 0	...	...	...
Lord Kitchener	50 0 0	39 5 0	129 17 6	...	...	...
Lord Roberts	27 0 0	28 11 0	94 7 0	...	...	...
Mafeking	8 0 0	9 6 0	25 2 6	...	...	...
Monkland	10 0 0	11 0 0	33 0 0	...	...	...
Morning Light	24 0 0	24 0 0	67 16 0	...	...	...
Native Cat	32 0 0	19 0 0	57 0 0	...	...	...
Nil Desperandum	738 10 0	767 6 0	2,182 4 9	28 3 1 15	122 19 4	491 16 8
Northampton	25 0 0	23 13 0	64 0 9	...	...	...
Ophir	675 0 0	147 4 0	398 15 0	...	...	...
Perseverance	479 0 0	105 10 12	306 17 7	...	...	...
Poverty	54 0 0	38 0 0	92 0 0	...	...	...
Queenslander	153 10 0	150 11 0	421 15 6	10 8 3 7	74 2 13	296 10 2
Red Flat	4 0 0	3 16 12	10 10 3	...	...	...
Red Hill	250 0 0	50 0 0	143 0 0	...	...	...
Roman Crown, No. 4 East... ...	43 0 0	33 1 0	99 3 0	...	...	...
Shamrock	8 0 0	26 0 0	84 5 0	...	...	...
Sir William Wallace	19 10 0	55 0 0	141 3 6	...	...	...
Sudden Jerk	140 0 0	76 0 0	222 12 4	...	...	...
Sudden Jerk, No. 1 West	52 0 0	24 0 0	70 0 0	...	...	...
Sundry Surfaces	402 0 0	190 11 12	600 12 6	...	...	...
Try Again	4 0 0	1 11 13	6 2 0	...	...	...
Tweedside	50 0 0	30 5 0	83 14 6	...	...	...
Victoria	92 10 0	114 4 0	279 2 0	...	...	...
Wexford	55 0 0	108 1 12	338 19 6	...	...	...
Widow's Lease	22 0 0	13 5 0	39 15 0	...	...	...
Wild Cat	16 10 0	10 0 0	29 7 6	...	...	...
Wright's Leader	93 0 0	103 10 0	303 8 5½	...	...	...
	10,575 9 0	8,828 9 2	25,179 8 0½	139 10 1 22	537 16 16	2,157 3 5

Table B.

MINERALS OTHER THAN GOLD.

Mine or Place.	Class of Material.	Tonnage.	Silver.	Value.	Lead.	Value.	Copper.	Value.	Bismuth (alluvial.)	Value.	Stream Tin.	Value.	Wolfram.	Value.
		T. C. Q. G.	O. D. G.	£ s. d.	T. C. Q. L.	£ s. d.	T. C.	£	C.	£	T. C.	£	T.	£
International Mine ...	Concentrates*	69 19 1 3	1,004 2 17	121 4 6	42 3 2 0	730 9 0	...	...	...	...	...	...	...	...
International 1 East ...	Do ...	4 19 3 0	75 6 0	9 6 11	2 13 3 16	52 3 9	...	...	...	...	...	...	...	...
Nil Desperandum Mine	Do ...	28 3 1 15	179 17 9	21 15 0	2 11 1 8	45 16 10	...	...	...	...	...	...	...	...
Queenslander Mine ...	Do ...	10 8 3 7	83 10 12	11 1 5	0 13 2 8	13 2 11	...	...	...	...	...	...	...	...
Dry Hash Mine ...	Do ...	25 19 0 25	204 7 8	25 13 6	12 13 2 19	238 12 10	...	...	...	...	...	...	...	...
Mount Turner Mine ...	Silver-lead ore	10 0 3 19	34 0 0	4 9 0	6 13 0 18	126 0 0	...	...	...	...	...	...	...	...
Commonwealth Mine ...	Do ...	5 12 3 0	350 0 0	39 7 6	3 14 1 8	64 1 0	...	...	...	...	...	...	...	...
Argent King Mine ...	Do ...	3 7 1 8	45 6 0	5 12 0	1 13 0 0	29 1 0	...	...	...	...	...	...	...	...
Orion Mine	Do ...	87 0 0 0	6,027 0 0	678 0 9	60 11 0 13	1,074 1 0	...	...	...	...	...	...	...	...
New Einasleigh	Copper ore ...	12 6 0 0	1 12 0	0 3 5	...	...	1 15	126	...	...	...	...	...	...
Caledonia	Do ...	6 0 0 0	...	...	...	...	1 7	135	...	...	...	...	...	...
Angore and Truxillo Tinfields	Stream Tin ...	...	...	...	...	...	...	...	...	...	59 5	6,463	...	...
Angore and Truxillo Tinfields	Wolfram ...	...	...	...	...	...	...	...	...	...	...	...	15	2,48
Percy Field	Bismuth ...	...	...	...	...	...	...	...	3	200				
			8,005 1 22	916 14 0	133 7 2 6	2,373 8 4	3 2	261	3	200	59 5	6,463	15	2,481

* For gold values from concentrates see Table A.

P. M. HISHON, Warden.

GLADSTONE FIELDS.

Contrary to expectation, the gold production for the year has slightly exceeded that of last year. The increase, however, is primarily due to the quantity of gold obtained from the treatment of copper ores.

The introduction of capital for the prospecting and development of the Archer leases at Targinnie has had a beneficial effect on that centre, and the present prospects of the property warrant the assumption that a further improvement will take place during the coming year. The successful opening up of the Archer property will no doubt lead to the procuration of capital for the working of the other mines on the field.

During a recent visit to England, Mr. G. F. Molony was successful in forming a company to

work the Nuggety Gully Mine at Calliope, which has been lying abandoned for years. The capital of the company, I am informed, is £20,000, divided into 20,000 shares, half fully paid up, of £1 each. A preliminary payment of 5s. a share has been made, and work is about to commence in the old shaft. Winding and pumping machinery is now in course of erection on the shaft. It appears to be the general opinion in the district that this mine is worthy of a further trial, and that, with proper management, good results will again be obtained.

During the early part of the year the prospects of those mines working for copper ore were extremely bright, and, in view of the high price then ruling for copper, a profitable year was anticipated. In March last the Glassford Creek, Mount Hector, and Mount Cannindah mines were inspected and reported upon by Dr. Logan Jack, and in each instance his report was of a very encouraging nature. In September was of a very encouraging nature. In September last, on account of the want of capital, the financial position of the company (there being a liability to the bank of over £25,000), and the fall in the price of copper, the Glassford Creek Company were compelled to cease work. The low-grade quality of the sulphide lode and the heavy expenditure in the purchase and cartage of coke for the furnace, made it impossible to carry on profitably with copper at £60 a ton. In December the Mount Cannindah Company also ceased work, the low price of copper being assigned as the reason. By the issue, in the early part of the year, of 60,000 shares of 5s. each, sufficient capital was obtained to purchase and erect additional crushing and concentrating machinery.

Mining for Gold.

As will be seen from Table A., hereto attached, most of the fields under my charge have contributed to the year's output of gold. Although the quantity crushed shows a decrease, the quality of the stone has improved. Under the heading "Old tailings treated by cyanidation," there is a decrease both in the quantity treated and in the yield therefrom. However, the total output of gold shows an increase of 329 oz. 16 dwt. 11 gr. on the preceding year, due to increases in the quantity of gold obtained from alluvial mining, from the ore and concentrates sent to metallurgical works, and from the copper ore treated in this district.

On the Langmorn Extended field, which again occupies the premier position, mining for gold has been confined to the Targinnie and Duke of York centres.

In my last annual report I referred to the probability of capital being procured to prospect and develop the *Archer leases* on the Targinnie field. As the result of the inspection by Mr. Ashcroft, an option for twelve months was secured over the leases by a syndicate, called the Targinnie Syndicate, Limited. The capital of this company is £7,500, divided into 30 shares, six being fully paid up, of £250 each. According to the terms of the option, £2,400 have to be expended by this company in prospecting and developing the property. In June last work was commenced, and since then the old No. 1, or western tunnel, has been extended through the hill. The winze in this tunnel, where a reef was cut 18 in. in thickness some years ago, was continued down on this reef for over 40 ft. The reef increased in size from 18 in. to 4 ft. of solid quartz, estimated to average 3 oz. to the ton.

A tunnel from the eastern side of the hill, 131 ft. below No. 1, to connect with the winze, has been driven, and cut the reef at 203 ft. Another 200 ft. has to be driven to make this connection. From present indications the prospects of the mine becoming payable are decidedly bright. Parcels of ore from the reef in the winze are to be sent South for treatment.

An option was also secured by the syndicate over the *No. 2 West Archer*, but, after some sinking and driving had been done, the option was given up. The reasons assigned for this were the failure to secure an option over the No. 1 West Archer, the fact that the owners of the No. 2 had applied for another 10 acres adjoining, and the limited extent therefore available on the reef if further prospecting proved the existence of a payable lode. An option was subsequently arranged with the owners of the *No. 1 East Archer*, and a crosscut to cut the Archer reef has been commenced. During the year the owners sent three parcels of ore—7 tons 3 cwt. 2 qr. 8 lb., 7 tons 9 cwt. 2 qr. 17 lb., and 6 tons 15 cwt. 16 lb.—to Cockle Creek, for a return of 7 oz. 13 dwt., 5 oz. 7 dwt. 12 gr., and 3 oz. 16 dwt. 6 gr. per ton respectively.

The other mines working on the field were the *No. 1 West Archer* and the *No. 1 West Commonwealth*. From the former a parcel of ore has just been despatched south for treatment, while at the latter a small but very rich leader is being followed, and the gold obtained therefrom by dollying.

At the *Duke of York* Mine work has been confined to the stoping of the reef in the south level, and 303½ tons raised therefrom yielded 535 oz. 18 dwt. When within 40 ft. of the surface a large reef, 12 ft. wide and dipping in an opposite direction to the old reef, was met with. From this reef 253¾ tons of stone were crushed, for a return of 166 oz. 2 dwt., thus making the output of the mine for the year 557¼ tons, for a yield of 702 oz. A lease to the east was applied for, in the hopes that the large reef would continue to a depth, but work done thereon has dispelled that idea, and the probability is that the new lease will be allowed to lapse.

The efforts of Mr. Dunning to locate a payable reef in the *Mount Bennett* ground proved unsuccessful. The mine has been abandoned, and all the machinery thereon, with the exception of the cyanide plant, has been sold.

Milton.—Several attempts were made to let the *Marodian* Mine on tribute, but, as no one seemed disposed to take over the ground, the lease was allowed to become forfeited for non-payment of rent. Only one mine—the *Frampton*, worked by one man—is now in existence on the field. From this mine 14 tons 16 cwt. 18 lb. of ore and 2 tons 11 cwt. 13 lb. of concentrates were sent to Cockle Creek, and purchased by that company, the former on an assay of 2 oz. 18 dwt. 21 gr. of gold and 4 oz. 14 dwt. of silver, and the latter 3 oz. 16 dwt. 20 gr. of gold and 4 oz. 4 dwt. of silver.

A parcel of concentrates from the *Goodie's* Mine —3 tons 18 cwt. 3 qr. 11 lb.—returned 2 oz. 6 dwt. 7 gr. of gold and 7 oz. of silver per ton.

Monal.—The lease applied for by Messrs. Campbell and Bailey on the Lady Griffith line was abandoned, owing to the inability to procure the necessary capital to work the ground. The option over the United Rise was also allowed to lapse for the same reason. Two crushings from the *United Rise* were raised during the year—48 tons for 112 oz. 19 dwt., and 103 tons for 181 oz. 10 dwt.

The only other mine working was the *Lady Griffith Extended*, from the old workings of which a few small parcels of stone were raised. By the cyanidation of 501 tons of old tailings Mr. Stephenson obtained 470 oz. 2 dwt. of gold, valued at £814 4s.

A gold-mining lease of 19 acres has been lately applied for by Messrs. Westcott and Wentworth, employees of the Mount Morgan Company, but whether they will be able to obtain the necessary capital to work the property remains to be seen.

That the expenditure of capital in the erection of up-to-date machinery is necessary before there can be any improvement in the Monal field is the opinion arrived at by all who have inspected the reefs on that field.

Barmundoo.—The return for the year from the mines at Tableland, the only centre working in this field, was 251 tons for 222 oz. 7 dwt. of gold, an increase in the quantity of stone raised, but a decrease in the quality and total yield. This field has now reached the stage when capital is necessary to prospect the deeper ground.

An attempt was made early in the year to purchase or obtain options over the several mines on Seaview Hill, with the intention of forming a company to work the lot as one property. Owing to the inability to come to satisfactory terms with some of the holders nothing eventuated. There are five mines on the hill, and two of these have had since to apply for exemption on account of not being payable.

Mount Rainbow.—At the close of the year two claims were at work on this field—one held by Black and mate, and the other by Fitton and party. The former has been on the cement wash for the greater part of the year, and the results obtained have been about payable. The latter party are driving a tunnel to cut the wash. Work was started by them in October, 1906; and, as it is not expected to cut the wash for some little time yet, some idea can be formed of the magnitude of the task two men have undertaken. It is to be hoped that success will crown their efforts.

The cyanidation of the tailings on this field have been completed, and the plant removed to Tableland.

Between Mount Rainbow and Tableland a gold-prospecting area was applied for, and, from the surface indications and the little work done thereon, prospects are certainly encouraging. The reef, ranging from 18 in. to 3 ft., has been traced on the surface for over 600 ft., and, it is stated, prospects for an average of 3 oz. to the ton. A large parcel of the stone is being packed to Tableland mill for treatment, and I hear that arrangements have been made for the cartage of 500 or 600 tons by team. From work done, the reef was thought to be only payable within the boundaries of the area, but prospecting work carried out in a claim at the south end has proved that payable stone exists outside the area. I expect this reef to contribute largely to the gold production of the coming year.

Cania and Kroombit.—Dredging operations by the Willcocks's Cania Dredging Company were carried on up to September last, when, on account of the material dredged being unpayable, work was suspended. For the first quarter of the year the results were highly payable, 305 oz. being recovered. Each month thereafter showed a decrease on its predecessor, until in September the return was only 3 oz. 16 dwt. The total quantity of material dredged for the year was estimated at 88,518 tons. The quantity of gold recovered therefrom was 411 oz. 9 dwt., valued at £3 16s. per oz. An adjoining claim, held by Mr. R. Christie, has been taken over by the company, and dredging is to be commenced thereon. A dredging plant at Crocodile has been purchased, and is now in course of removal. It is estimated that by the time the dredge is ready for work the cost thereof will be about £6,000. Dredging operations are to be started at Parnell Point, a place about 2 miles down Three-Moon Creek from the present dredge.

A few old fossickers—principally old age pensioners—are engaged in alluvial mining in various parts of the field, but, as far as I can learn, they are not making tucker.

Mount Jacob.—In July last the *Garden* and *Standby* claims, abandoned for years, were applied for on behalf of the Queensland Copper Company, Limited, and work commenced in the old tunnels. Up to the present nothing of a payable nature has been struck.

Concerning the other centres, I have little to report. At Calliope the little alluvial mining carried on is by Chinese. The cyanidation of 294 tons of old tailings by Mr. Fitton yielded 97 oz. of gold, valued at £1 10s. per oz. At Maxwellton there is only one miner, who raised and crushed 6 tons of stone for 6 oz. 14 dwt. gold, and cyanided 80 tons of old tailings for 43 oz. 7 dwt. 12 gr. of gold, valued at £56 19s. 6d.

Alluvial Mining.—The total yield from alluvial mining was 839 oz. 4 dwt. 3 gr., of which 411 oz. 9 dwt. was won by the Cania dredge, leaving 427 oz. 15 dwt. 3 gr. as the total production of the 39 persons engaged in that class of mining.

Minerals other than Gold.

The principal mineral other than gold mined for during the year was copper, and operations for that metal were confined principally to the Glassford Creek, Mount Cannindah, and Mount Hector centres.

Glassford Creek.—As mentioned in my last annual report, smelting was suspended by the Glassford Creek Copper Mining Company, at the close of the year, to allow of the further development of the lode and an alteration in the method of working. As the Blue Bag opencut was followed in depth and northward, the increasing height of overburden rendered it extremely dangerous to the men working therein. It was also found that ore in sufficient quantities to keep the furnace going could not be raised by the continuation of the opencut or underhand stoping system. This was, therefore, discontinued, and a level north from the bottom of the opencut was started, and ultimately driven 298 ft.; while crosscuts every 50 ft. were put in east and west through the lode. At Nos. 1 and 3 West crosscuts a considerable amount of stoping was done, and, by discarding about 50 per cent. of the lode material mined, a fair quantity of ore, estimated to average 3 per cent. copper and 2 dwt. gold per ton, was obtained. A shaft from the bottom of the opencut, at a point 50 ft. north from the south end, was commenced and sunk to a depth of 80 ft. A level to the north was started, but shortly afterwards the mine closed down. An opencut near Sidey's shaft exposed a large body of oxidised ore. Up to the end of July, 1,641 tons of ore were obtained from this place, while 1,536 tons of sulphide ore were raised from the underground workings. What the respective quantities were for August and September I am unable to say, but, from the resumption of smelting operations in April until the closure of the mine early in September, 4,787 tons of copper ore were smelted, for a return of 99 tons 12 cwt. 3 qr. 8 lb. copper, 653 oz. gold, and 3,576 oz. silver, or an average of a little over 2 per cent. copper, $2\frac{3}{4}$ dwt. gold, and $\frac{3}{4}$ oz. silver to the ton.

Although the sulphide ore from the mine was self-fluxing, the insufficiency of silica and the almost entire absence of sulphur in the oxidised

ore raised from Sidey's opencut, rendered it necessary, the supply of sulphide ore from the underground workings being inadequate to the demand, to obtain about 200 tons of sulphide ore from the Many Peaks Mine, about twelve miles distant.

The only other mine working at this centre was the Mount Glassford, to the south of and adjoining the Blue Bag lease. After working over twelve months and expending £1,250 in prospecting work, the exhaustion of the capital of the company rendered exemption necessary.

Glassford Creek, therefore, at the close of the year is practically deserted. At the beginning of the year I estimated the population of this centre at 346, whereas the estimate at the close of the year is 40 all told.

Mount Cannindah.—The production of the *Mount Cannindah Mine* for the year, as given in the monthly returns supplied by the manager, was 11,618 tons treated for a return of 259½ tons copper, 133½ oz. gold, and 5,431 oz. silver, or an average of about 2 per cent. copper, 5 gr. gold, and ½ oz. silver to the ton. The returns for the first quarter of the year gave an average value of over 3 per cent. copper to the ton. The June quarter showed a considerable decrease in the quality of the ore, and resulted from the fact that the ore treated was all raised from the No. 2 level. Although it was estimated in April that between No. 1 level and the base of the overburden there was a large body of at least 3 per cent. oxidised ore to be mined, operations subsequently disclosed the fact that the payable ore, instead of extending up about 45 ft., as it was thought, did not continue upwards for more than 5 ft. above the floor of the level, except in the locality of the Bonanza, where it carried up to within 10 ft. of the surface on a dyke. The loss, therefore, of the oxidised ore accounted for the diminished quality. The No. 2 level, and the sinking of the main shaft a further depth of 65 ft., proved the existence of a large body of sulphide ore of 2 per cent. quality. To make the mine pay with this lode, it was obviously necessary to increase the output and lessen the cost of the mining and other expenses. With this end in view, the crushing and concentrating plant were duplicated, and the reverberatory furnace enlarged. By the erection of McMurtrie pots to desulphurise the ore, a saving in flux was effected, and a higher grade of matte produced. In the mine, rock-drills were installed, and various alterations were made on the surface, all with a view to lessen the cost of handling the ore. Before the new machinery had commenced work, the low price of copper compelled the company to close down and seek exemption from the labour conditions.

The work done by the *South Cannindah* Company has been confined principally to proving the existence of the lode in the Apple-tree lease south of the dyke. In the No. 2 underlie shaft on that lease the dyke was penetrated, and the lode discovered on the south side. The company, I believe, have now suspended operations pending a rise in the price of copper.

Mount Hector.—In March last the erection of a reverberatory furnace for the smelting of the ores from the Mount Hector Mine was completed and smelting commenced. It was found necessary to crush the ore from the Monument and Goodie's No. 2 workings before smelting, and for that purpose a stone-breaker and motor mill were erected. With a view to hastening the smelting, all material for the furnace is now put through the stone-breaker and mill. The quantity of ore treated for the year was 2,549 tons, and the return therefrom 116 tons 19 cwt. copper, 675 oz. gold, and 2,928 oz. silver, or an average of 4½ per cent. copper, 5¼ dwt. gold, and a little over an ounce of silver per ton. The company are very fortunate in having the necessary fluxing material required on their property. Mining operations have been principally confined to the underground workings and opencut on Welch's lease. Most of the ore smelted was obtained from this lease. All the various workings on the property have been connected with the furnace by tramlines, while on the Monument shaft a winding plant has been erected ready for use when operations are resumed in that mine. In September last a proposal was made to close down the mine on account of the fall in the price of copper and the fact that the balance-sheet showed a liability to the bank of over £4,000. The Brisbane shareholders, however, objected, and ultimately removed the office of the company from Rockhampton to Brisbane. A reconstruction of the company has taken place, and from present prospects the company should have a profitable year.

Many Peaks.—A considerable amount of prospecting work has been done on the Many Peaks reward claim by the Mount Morgan Company. Until the construction of the Boyne Valley Railway line is completed, further prospecting work only will be undertaken. The work done, so far, has proved the existence of over 1,000,000 tons of fluxing material; consequently, at 100,000 tons a year, there is ten years' work at present in sight. The copper contents of the ore, I am informed, will more than pay the cost of the mining it and the railage to Mount Morgan. In leases at each end of the reward claim the Queensland Copper Company are prospecting for the lode. On the north lease a vertical shaft has been sunk 132 ft., and a formation 48 ft. in thickness passed through. At the top of this formation there was a vein of ore 18 in. in thickness, and at the bottom another vein 15 in. thick. The manager is opening out on the latter vein, and the ore is similar in appearance and quality to that of the Many Peaks Mine.

Kroombit.—A considerable amount of work has been done by the Kroombit Copper Company on their lease at the Five-mile. As far as I can learn, a lode of about 20 ft. in width has been driven through, and averages about 4 per cent. copper to the ton. All the capital having been expended, the company ceased operations at the close of the year.

The Eastern Boyne leases have been abandoned, nothing of a payable character having been found.

For the same reason work was stopped at the Mount Rainbow Freehold property.

Manganese.—The output of manganese from the Mount Miller Mine for the year amounted to 1,116 tons, of an estimated value of £4,464.

Ironstone.—From Drain's mineral lease at Targinnie 908 tons 6 cwt. of ironstone, valued at £479 2s. 3d., were despatched to Mount Morgan. The lease has now been abandoned.

Limestone.—The output of limestone for the year from Ambrose's quarry near Mount Larcombe was 3,050 tons, valued at £1,762 16s. 7d. An arrangement has now been made between Ambrose and the Queensland Copper Company for a supply of about 1,000 tons monthly.

Machinery.—I estimate the value of all mining and reduction machinery at the close of the year on the fields under my charge as £43,625.

Produce.

During the year 1,145 tons of quartz were treated at the various crushing mills in the district, yielding 1,325 oz. 3 dwt. 12 gr. of gold, of an estimated value of £4,577 8s. 6d., or an average

value of £3 9s. 1d. per oz. Comparing these figures with those of the previous year, a decrease is shown in the tonnage of 282½ tons, the small decrease of £7 8s. in the total value of the gold, but an increase of 60 oz. 15 dwt. 4 gr. in the total yield of gold. The average value of the gold per oz. shows a reduction of 3s. 5½d.

The quartz crushed produced 36 tons 11 cwt. 6 lb. of concentrates, which were treated at metallurgical works and returned 140 oz. 1 dwt. of gold, valued at £560 4s., 193 oz. 4 dwt. silver, and 3 cwt. 4 lb. copper, thus making the gross yield of gold from the quartz crushed as 1,465 oz. 4 dwt., the total value £5,137 12s. 6d., and the value per ton £4 9s. 8¾d.

The tailings from the quartz crushed were not treated, according to the returns supplied, but 2,736 tons of tailings, the production of former years, were treated by cyanidation, and yielded 1,319 oz. 18 dwt. 18 gr. of gold bullion, valued at £2,552 2s. 6d., as against 3,221 tons for 1,919 oz. 13 dwt. 9 gr., valued at £3,473 7s. 11d. for the year 1906.

In addition to the concentrates, 48 tons 16 cwt. 2 qr. 21 lb. of ore were treated at metallurgical works, and yielded 188 oz. 16 dwt. 8 gr. gold, 165 oz. 15 dwt. 22 gr. silver, and 2 cwt. 3 qr. 24 lb. copper.

The production of gold from the copper ore treated at Glassford Creek, Mount Cannindah, Mount Hector, and other works amounted to 1,466 oz. 5 dwt. 5 gr.

Alluvial mining accounted for 839 oz. 4 dwt. 3 gr. of gold, as against 596 oz. 19 dwt. for the previous year, thus making the total gold production from all sources for the year as 5,279 oz. 8 dwt. 22 gr., valued at £15,439 7s., as against 4,886 oz. 12 dwt. 11 gr., valued at £14,719 2s. 8d. for the year 1906.

The output of minerals other than gold shows, under the headings of copper and silver, a decrease on last year's figures, due to the cessation of work at Glassford Creek for half the year, and the suspension of smelting at Mount Cannindah for about three months.

The output was: Manganese, 1,116 tons, valued at £4,464; limestone, 3,050 tons, valued at £1,762 16s. 7d.; of copper ore, 36 tons 2 qr. 21 lb., treated at metallurgical works, produced 3 tons 19 cwt. 1 qr. 12 lb. of copper, and 60 oz. 12 dwt. 20 gr. of silver; and 18,982 tons 5 cwt. 2 qr. of copper ore, treated at works in the district, produced 478 tons 9 cwt. 1 qr. 4 lb. of copper and 11,935 oz. 14 dwt. of silver. A parcel of silver-lead ore—3 tons 14 dwt. 2 qr. 2 lb.—from Cania, treated at Cockle Creek, returned 104 oz. 6 dwt. 6 gr. of silver and 1 ton 6 cwt. 3 qr. 8 lb. of lead.

Adding the copper, silver, and lead obtained, from the treatment of auriferous concentrates and ore at metallurgical works (6 cwt. copper, 358 oz. 19 dwt. 22 gr. silver, and 3 cwt. 2 lb. lead) to the figures in the previous paragraph, give the total output from all sources as follows:—Copper, 482 tons 14 cwt. 2 qr. 16 lb., valued at £43,622 19s. 6d.; silver, 12,459 oz. 13 dwt., valued at £1,552 3s. 1d.; lead, 1 ton 9 cwt. 3 qr. 10 lb., valued at £29 19s. 8d.

The total value of all minerals other than gold for the year was £51,911, as against £54,955 16s. 6d. last year.

Accidents.

Only one accident was reported to this office during the year, and that occurred at the No. 1 West Archer, to John Urquhart, one of the shareholders of the lease. Urquhart was engaged timbering the shaft, when, through the collapse of some of the timber, the staging on which he was standing gave way, precipitating him down the shaft a depth of 55 ft. Fortunately, there were several feet of water in the bottom, which broke his fall, otherwise the accident, which resulted in a few bruises and a sprained ankle, might have ended fatally.

Estimated Population.

I estimate the total population of the various centres in this district at the close of the year as—Europeans, 1,428; Chinese, 15; or an increase of 25 in the European and a decrease of 1 in the Chinese.

There has been a large decrease in the number of persons engaged in mining and carting, due to the closure of the mines at Glassford Creek.

Revenue.

The revenue collected in the Warden's office and remitted to the Treasury during the year amounted to £1,970 10s. 11d., or an increase on the previous year of £444 10s. 7d. In addition to the amount collected in this office, the sum of £120, rent of leases in this district, was paid at the Brisbane office.

The number of miners' rights and business licenses issued were 393 and 37 respectively, as against 288 and 20 last year.

The revenue from the C.P.S. office amounted to £831, and from the Lands office £5,709.

Holdings under Mining Tenure.

During the year 7 gold-mining leases, of an aggregate area of 92 acres 2 roods 34 perches; 27 mineral leases, of an area of 522 acres 3 roods 20 perches; and 90 miners' homesteads, of an area of 195 acres 3 roods 20 perches, were applied for, against 31, 39, and 27 respectively last year.

The numbers in force at the close of the year were as follow:—Gold-mining leases, 13, representing a gross area of 149 acres 1 rood 8 perches, or an average area of 11 acres 1 rood $37\frac{7}{13}$ perches; mineral leases, 64, of a gross area of 1,923 acres 2 roods 36 perches, or an average area of 30 acres 0 roods $9\frac{5}{16}$ perches; and miners' homesteads, 135, of a gross area of 790 acres 3 roods 18 perches, or an average area of 5 acres 3 roods $17\frac{43}{135}$ perches.

The figures show, in comparison with those of last year, an increase of 3 in the number of gold-mining leases, 16 in the mineral leases, and 85 in the miners' homesteads. The large increase in the number of miners' homesteads is due to the opening of a township at Many Peaks.

Prospects of the Future.

I do not anticipate much improvement in gold-mining during the year 1908. The quantity of the stone raised and the yield therefrom will probably show an increase, but there will be, as far as I can judge at present, a decrease in the alluvial gold, the gold from the cyanidation of tailings, and in the quantity of gold obtained from copper ores.

Owing to the suspension of operations at Glassford Creek and Mount Cannindah, and the uncertainty as to whether work will be resumed at either places during the year, I anticipate a considerable reduction in the output of copper and silver.

As soon as the Boyne Valley Railway, which is now looked upon as a certainty, is commenced, there will be an improvement at Many Peaks centre, but until the line is completed that centre will not contribute to the field's production.

Table A.

RETURN SHOWING TOTAL OUTPUT OF GOLD AND COPPER ORE FROM GLADSTONE GOLDFIELDS FOR THE YEAR 1907.

Name of Fields.	Stone Crushed.		Old Tailings Treated by Cyanidation.		Treated at Metallurgical Works.				Copper Ore Treated.				
					Concentrates.		Ore.			Contents.			
	Q'nty.	Yield.	Q'nty.	Yield.	Quantity.	Yield, Gold.	Quantity.	Yield, Gold.	Quantity.	Copper.	Silver.	Gold.	
	TONS.	OZ. D. G.	TONS.	OZ. D. G.	TS. C. Q. L.	OZ. D. G.	T. C. Q. L.	OZ. D. G.	T. C. Q. L.	T. C. Q. L.	OZ. D. G.	OZ. D. G.	
Langmorn	712	779 9 12	1,183	401 18 6	7 0 2 24	33 8 16	21 8 1 13	121 0 2	9 0 2 0	0 15 0 18	4 10 0	0 9 0	
Extended													
Barmundoo	251	222 7 0	298	157 16 0	23 0 1 14	87 14 4	1 18 3 0	7 6 6	1 18 1 0	0 3 2 14	0 3 20	...	
Monal ...	161	306 12 0	501	470 2 0	...	...	...	...	...	...	...	...	
do. Mount Hector	...	...	...	...	...	...	...	...	2,549 11 2 0	116 19 0 0	2,928 8 0	675 3 0	
Calliope ...	11	7 4 0	294	97 0 0	...	...	...	...	...	...	...	...	
Maxwellton	6	6 14 0	88	43 7 12	...	...	...	...	...	...	...	...	
Mt. Rainbow	4	2 17 0	372	149 15 0	...	...	...	...	8 13 0 21	1 8 2 8	30 15 0	0 8 15	
Cania ...	...	...	...	...	...	...	0 14 3 26	1 15 6	...	...	...	...	
Milton ...	...	...	...	...	6 9 3 24	18 18 4	14 16 0 18	43 11 18	...	...	...	...	
Glassford Ck.	...	...	...	...	...	...	...	...	4,787 2 0 0	99 12 3 8	3,576 6 0	655 0 14	
Mt.Cannindah	...	...	...	...	...	...	9 18 1 20	15 3 0	11,662 0 3 0	263 9 1 24	5,456 4 0	135 4 0	
Total ...	1,145	1,325 3 12	2,736	1,319 18 18	36 11 0 6	140 1 0	48 16 2 21	188 16 8	19,018 6 0 21	482 8 2 16	11,996 6 20	1,466 5 5	
Year 1906	1,427½	1,264 8 8	3,221	1,919 13 0	14 15 0 21	72 12 15	27 3 2 3	83 12 13	13,008 9 0 0	510 10 0 7	14,491 16 0	948 12 4	

NOTE.—The copper and silver obtained from gold concentrates and ore are not included in this return.

JAS. BRACEWELL, Warden.

GYMPIE, KILKIVAN, NANANGO, GLASTONBURY, YABBA, AND MARODIAN FIELDS.

PROGRESS.

The aggregate results of the year's mining upon the Gympie Goldfield have been disappointing, and show a marked decline in both output and yield compared with 1906. There was a diminution in the quantity of stone treated of 52,900 tons, whilst gold recovered at the batteries was less by 52,830 oz.

In consequence, dividends receded largely, totalling £111,911 below the amount distributed in the previous year. Calls also show a shrinkage of £4,857.

The serious decline as indicated above is, however, chiefly attributable to the decreased product of the Scottish Gympie, No. 2 South Great Eastern, and South Glanmire and Monkland; but these mines have retained their position of the previous year, in the order mentioned, above all other mines on the field, as the chief factors in the year's output and yield.

The Scottish Gympie also again heads the record of profits distributed, but by the No. 2 South Great Eastern no dividend was declared, and one only by the South Glanmire and Monkland.

From the Monkland portion of the field, although prospecting work was well maintained, but little actual development can be reported, and one of the great disappointments of the year was the failure of the second Monkland bed of slate to give the expected results, as mines which had been exploring it in the previous year—viz., No. 1 South Great Eastern, North Glanmire Tribute, and Nos. 7 and 8 Monkland—each failed to get profitable returns therefrom, whilst South Glanmire and Monkland had a considerably reduced yield from the same slate.

On the western side of the field comparatively little mining was in progress, but in most of the mines on the east and situate north of the Smithfield crosscourse operations were actively carried on. The most successful of these was the No. 2 North Columbia and Smithfield, which paid 4s. 6d. per share in dividends, but suffered much inconvenience and delay from excessive water.

In the northern portion of the field, perhaps, has most interest been shown during the year. Owing to the Great Northern cutting a reef in their shaft at 386 ft., showing coarse gold, quite a rush ensued to secure gold-mining leases in that locality. Some 23 lease applications, embracing a total area of about 520 acres, were applied for, and practically all the available ground was taken up. Upon only a few of these leases, however, has work yet commenced.

At the Two-mile, good prospecting was being carried on in the Two-mile Mine, while on the south of the field the New Dawn has been producing better quality stone from deeper levels, and in consequence several additional gold-mining leases were taken up adjoining this property.

GOLD-MINING.

Owing to the large extent of its operations, the *Scottish Gympie* is again easily the premier mine on the field in respect of stone raised, the consequent yield, and profit therefrom; 87,150 tons of crushing material were treated for 28,049 oz. of gold, the value of which was £99,530. This is a reduction on the previous year of 4,550 tons crushed and of 17,860 oz. of gold won. The average return per ton of stone treated was about 6½ dwt., as against about 10 dwt. for 1906, which was the best year the mine has had. Dividends amounted to £37,125, a falling off on the previous year of £45,375. The deeper workings have latterly shown improvement, and are giving encouraging prospects. The average number of men employed in the mine during the year was 317.

The yield from the *No. 2 South Great Eastern* was but about one-third of that for the previous year, being 9,206 oz. from 30,147 tons, compared with 27,994 oz. from 64,833 tons. No dividend was declared, while £37,800 was distributed in 1906. A large number of hands employed in the mine had unfortunately to be discharged, but the average number at work throughout the year was 193. Operations on No. 1 formation, near the Inglewood, were commenced in September last, and somewhat better quality stone than from No. 1 reef was obtained. At 970-ft. level the same formation was cut going south from No. 1 reef. On No. 2 reef stoping was carried on, but the quartz varied considerably in quality.

On No. 3 reef, above the 1,100-ft. level, prospecting was in progress throughout the year, and from No. 5 reef, below the 1,230-ft. level, a good deal

of stone was raised but of rather poor quality. Prospecting is still being carried on from the South Glanmire and Monkland for the floors which gave good results previously in that mine.

South Glanmire and Monkland has not been so successful as prospects early in the year appeared to warrant, and, although stone raised and crushed exceeded that of the previous twelve months by 2,418 tons, gold won was less by 2,356 oz. One dividend of £1,500 was paid, as against £10,500 the year previous. Of late, work was restricted to Nos. 2 and 3 reefs, but prior to that prospecting had been carried on from the western shaft on the slate floors, but with indifferent results. With a view to further prospecting the western ground, it is intended to continue the western crosscut at the 721-ft. level, and ultimately to connect it with the workings from the western shaft.

No. 2 North Columbia and Smithfield was much hampered with water, or the returns, which are good, would probably have been much better; 2,174 tons gave 4,844 oz. of gold, from which £10,800 in dividends were paid. At the 1,390-ft. intermediate level driving and stoping on the flat and the eastern reefs were carried on, with payable results. Going north both reefs were cut off by a crosscourse, but were again picked up, and a winze sunk on the eastern reef, which proved it to carry payable gold. The 1,413-ft. crosscut was then continued, and a connection made with the winze, north of which is a large body of quartz showing fair gold. A winze was started to prove the reef in the hanging-wall country, and sunk 28 ft., exposing a good extent of crushing stuff carrying fair gold. A heavy influx of water then stopped further work in this winze. It is hoped, however, that with the commencement of work in the No. 3 North Columbia and the Columbia Consolidated the trouble from water in the No. 2 North Columbia will be very materially reduced.

North Smithfield has latterly been producing good stone, having paid dividends in the last three months of the year aggregating £5,880.

At the 920-ft. intermediate level the drive north was continued to a distance of 224 ft., the reef here and in the stopes carrying payable gold. Driving and rising has also been carried on at the 615-ft. level, where a little gold has been obtained.

From the treatment of 998 tons, 2,857 oz. of gold were obtained, and present appearances point to this mine doing well during the current year.

No. 1 North Smithfield gave excellent returns during the earlier part of the year. Subsequently the stone raised was not of such good quality, but the December crushing again gave satisfactory results, as 281 tons then yielded 340 oz.

Work was principally confined to the 1,108-ft. level. Driving and stoping above and below this level has been continued, with payable results.

Operations were also commenced to locate the northerly continuation of the Columbia reef, now being worked in the North Smithfield. A little work was also done on the eastern reef, in the first bed of slate. During the year 5,433 tons were crushed for 4,224 oz., and dividends amounting to £6,600 were paid. The prospects of this mine now appear encouraging.

Oriental and Glanmire found employment for an average of 63 men throughout the year, raised 2,837 tons for 4,091 oz., and paid one dividend of £1,200. A winze was sunk on the eastern reef to a depth of 108 ft.; the shaft was then further deepened 150 ft., making it 1,550 ft., and a crosscut driven east to the reef, which was opened up. They are now driving for the bottom of the winze. Good results are expected from the eastern reef in the near future.

East Oriental and Glanmire.—A good deal of exploratory work was accomplished in this mine, and a connection made with the No. 1 North Oriental and Glanmire, for ventilation purposes, from the top of the rise above the 1,884-ft. level. Driving and stoping on the flat formation east of the shaft at the 2,154-ft. level was also carried on, some of the stone raised therefrom being of good quality. Quartz raised amounted to 1,194 tons, yielding 723 oz. of gold.

No. 1 North Oriental and Glanmire.—The dip crosscut from the 1,385-ft. level was extended east a total of 605 ft., when a reef formation about 4 ft. wide was cut. A rise was put up on the reef, and from the bottom of the dip a level south was driven. This was connected with the workings of the East Oriental and Glanmire, and much improved the ventilation. During the year 842 tons were crushed for 392 oz.

In *No. 1 South Oriental and Glanmire* work was principally confined to opening up and developing the eastern reef between the 1,800 and 1,920 ft. levels, from which stone was continuously being raised. The western reef is being worked from the No. 2 South Great Eastern boundary, at their 1,320-ft. level; 2,353 tons were crushed for 2,187 oz.

Oriental Consols.—This is the most easterly mine now working. At the 2,618-ft. level crosscutting east from the shaft was continued, and prospecting carried on at the 2,077-ft. level on the western reef. A winze was also started at this level immediately south of the crosscut, and sunk 63 ft. Some stone obtained here showed nice gold. Latterly, at the 2,290-ft. level, they commenced to open out east from the shaft, the depth of which is 2,655 ft. There were 45 tons of quartz crushed for a yield of 209 oz.

Columbia Extended.—In this mine work has been continuous but unproductive, the development anticipated not having been realised. Efforts were chiefly directed in an attempt to locate the slate from the 1,465-ft. level, black slate floors having been cut in a rise from that level. Owing to a fault, however, the reef was lost, and a crosscut east was then driven to pick it up. Recently it was reported that a formation containing quartz leaders had been cut in this level. Being contiguous to the No. 2 North Columbia it is hoped that similar stone may continue into this lease.

No. 1 North Columbia and Smithfield.—Prospecting was carried on near the northern boundary on No. 1 reef, in the dip below the 1,250-ft. level; also from the 990-ft. level on the reef near the western boundary, and communication was made with the No. 1 North Smitheld, thereby improving the ventilation. A crosscut west from the top of the dip at the 1,250-ft. level was also commenced, and driven 190 ft.; 1,322 tons of quartz were raised, which yielded 910 oz.

No. 3 North Columbia.—A company bearing this name was formed during the year to work a portion of the ground previously held by the Oriental and Columbia Consolidated. The shaft sunk by this company will be utilised and further deepened, with the object of prospecting the slate country which has given such good returns in the No. 2 North Columbia and Smithfield. A subsidy in aid of sinking this shaft was granted.

At the *Columbia Consolidated* bailing was the only work done during the year.

The *No. 4 North Phœnix* has had a fairly successful year, as from 529 tons of quartz raised 709 oz. of gold were recovered. The work now in progress

at the mine is at the 740-ft. level, 220 ft. east of the shaft, where the Victory reef is being driven upon north and south, and is showing fair prospects.

In the *No. 1 North Victory* work was principally carried on in the eastern part of the ground. The reef was small but at times rich, one crushing of 21 tons yielding 93 oz. The total amount of quartz raised was 251 tons, which gave 357 oz. Tributers were working in the western portion of the lease, 65 tons being raised and crushed by them for 49 oz. of gold.

Laing's Syndicate is prospecting on the west of the field, near the old Hall's lease. A shaft has been sunk 318 ft., and at 300 ft. levels were driven east and west. Quartz leaders were met with, and the manager states there are good indications of a reef being near.

The Great Northern.—The success of the Great Northern in cutting slate and subsequently opening out what appears to be a payable reef may be regarded as important as bearing on the future of the field. Should this mine continue to develop satisfactorily, it will no doubt be the means of stimulating much increased activity and enterprise in this locality. Slate was first met with in the shaft at 319 ft., and a reef, known as the Empire, intersected at 386 ft., the quartz showing coarse gold. The shaft was continued to a depth of 545 ft., and levels were opened east and west. The reef has also been driven on north and south, and winzes and rises put in to connect Nos. 2 and 3 levels. An initial crushing of 118 tons was treated for 190 oz. of gold in December last, thus proving the payable nature of the reef. Crushing material should now be raised in considerable quantities, as 16 men are employed at the mine.

The Great Northern Extended, which adjoins the Great Northern on the east, has commenced work during the year. A steam winding plant was procured, and the shaft has been sunk to a depth of 245 ft. Sinking was hindered, however, of late by excessive water.

The Great Western is a no liability company, holding a lease of 25 acres adjoining the Great Northern on its western boundary. This company was floated in Sydney in August last on the promising outlook in the Great Northern. A shaft has been sunk 80 ft., and the erection of a steam winding plant is nearing completion.

The No. 2 South Great Northern is another new venture in this locality. An old shaft, previously known as the Stanley, has been reopened, and sinking is proceeding.

The Two-mile.—A company was formed during the year to work the Two-mile Mine, and operations were started in July last. The old shaft, which was 671 ft. deep, was unwatered, and at the close of the year it had been sunk to 875 ft. Favourable country was passed through, the second bed of slate, which is reported to be of good quality, having been cut at 842 ft. Sinking will be continued for the present before opening out.

Of the other mines in this district, *No. 1 North London and Bristol* have been raising payable stone from the London reef, and a number of claims were worked with fair results. No crushings were raised from the *Great Hibernia* and the *Sadowa*, however.

In the *New Dawn* was the chief work effected during the year, on the south of the field. Recently much better stone has been raised from this mine, and, being from the bottom levels, the outlook here is encouraging. The shaft has been sunk to a depth of 575 ft. on the underlie, and a good body of stone is showing in the sink. Levels were driven at 460 ft. and 550 ft. north and south, the mine being now well opened out, with plenty of stone available. 1,246 tons were crushed for a yield of 777 oz.

The Eastern Miners lease is under exemption. Prior to this being granted work was confined to prospecting the surface levels and timbering and repairing shafts. No crushings were raised.

During the year about 250 men were working as tributers in the Gympie mines, their combined efforts resulting in 3,972 tons of quartz being raised, giving them 5,824 oz. of gold, worth £20,643, an average of about £82 per man.

A very good return was recently obtained by a tribute party from the *Australasian*, 38 tons yielding 231 oz.

The usual statement giving particulars of crushings, dividends, calls, &c., relative to the various mines is appended (Table A).

Gympie Drainage Board.

The secretary reports as follows:—"A general assessment of 2s. per acre was made on all gold-mining leases in the drainage area, embracing 1,578 acres 2 roods 38 perches. The overseer made periodical inspections of the doors, and a general overhaul of these was made, when most of them were retarred and the blanketing renewed. Owing to the Eastern Nos. 2 and 3 Smithfield Company breaking through into the old United Smithfield workings a dam was put in the Nos. 2 and 3 Smithfield at the 200-ft. level, and air escape pipes were fixed to the brace above flood mark. The South Glanmire and Monkland broke through to No. 1 South Great Eastern, and it was necessary to construct two dams at the 730-ft. level in the latter mine. A dam, with double doors, was put in at 920-ft. level, about 400 ft. from the shaft of No. 1 South Great Eastern."

Kilkivan Field.

Practically the only mining effected was for minerals other than gold, and this will be referred to under that heading. About a dozen men were engaged in searching for alluvial gold in the old workings, but with little reward.

Yabba Field.

This field has for years been almost deserted. A gold-mining lease is held here, but, being under exemption, nothing was done.

Nanango Field.

A little alluvial gold was obtained, but there was no other mining. The Golden King Company has disposed of all its property and machinery to Messrs. Moxon and Co., who have established a saw-milling plant on the old battery site.

Marodian Field.

There is little to report relative to gold-mining on this field. I am informed that nothing was done on the Marodian Gold Mining Company's leases, and I received no crushing return from this field during the year.

Glastonbury Field.

There is but little change here. Four claims were worked, employing six men, who raised during the year 133 tons of stone, for a total yield of 163 oz. of gold.

There is also a small quantity of stone awaiting crushing, as the battery has been hung up for want of water.

Companies.

Twelve new gold-mining companies were registered in this office during the year, with a nominal capital of £153,143.

Minerals other than Gold.

Owing chiefly to the fall in the price of copper, mining therefor in the districts under my charge has much declined in comparison with the previous year.

The *United Reefs Copper Company*, at Blacksnake, near Kilkivan, did a little work early in the year, but then closed down, and the mine has since remained idle.

A prospecting area for copper near Kilkivan was worked by two men, who raised 5 tons of copper ore, which gave a return of 12 per cent. of copper. The area is, however, now abandoned.

Mr. Wallmann has been prospecting for cinnabar at Kilkivan with four men. A quantity of the ore obtained, in order to ascertain its value, will shortly be shipped to Germany.

At Gooranjan, two prospecting areas for copper were worked for some time, but then abandoned.

About 20 tons of ore were raised, it is stated, which gave an average return of 13 per cent. of copper.

Several prospecting areas for copper were taken up on the portion of the Woolooga Estate, which was opened to mining, but little has lately been done there, however. From one of these areas a parcel of 2 tons gave a return, I am informed, of 28 per cent. of copper, while another of 10 tons proved 5 per cent. ore only.

The *Blue Bell Copper Mine*, at Amamoor, ceased work during the year. Much difficulty was experienced with water, and, although pumping machinery was procured, this proved inadequate. A shaft was sunk to a depth of about 93 ft., and levels driven, but financial difficulties then precluded a continuance of the work. There is, however, I believe, some prospect of operations being resumed here.

I am informed by Mr. Hunter, Inspector of Mines, who inspected the *Culgoa Copper Mines* early last year, that at the time of his visit about 40 men were working there as tributers on Messrs. Turner Bros.' property. He states, however, that since copper fell in value a few men only have found employment there, and the only return received by me was for the March quarter.

At *Mount Mudloo Copper Mine*, on the Marodian field, Messrs. Spicer Bros. extended their main tunnel, and sunk a winze to test a deposit of scheelite, which they state is showing in small quantities, but that the copper ore is of low grade. They are about to put 20 tons of ore through their battery, to ascertain the percentage of scheelite carried by the lode.

From a claim known as *Mount Mudloo No. 1 East Extended* about 7 tons of copper ore, which it is stated gave a gross return of £33, were forwarded to smelters.

The *Sunnyside Copper Mining Company*, at Marodian, sent away for treatment 12 tons of ore, which, I am advised, returned an average of £17 10s. 6d. per ton, and 2 tons which gave 14 per cent. of copper. Two shafts were sunk on this property to a depth of 90 ft. and 60 ft. respectively, and another lode was worked by an opencut. This lease has now been under exemption for some months, however.

A little prospecting for antimony was carried on, the returns showing that at Neardie about 4½ tons of ore were obtained, while from a prospecting area at the Chatsworth, now abandoned, nearly 2 tons of similar ore were raised.

The accompanying Table C gives particulars of yield and value of minerals other than gold.

Produce.

The amount of quartz treated at the mills was 162,780 tons 10 cwt., for a yield of 74,461 oz. 8 dwt. of gold, of the total value of £263,082 1s. 5d., an average of £3 10s. 7d. per oz. Upon comparison with the figures of the previous year, there is a decrease of stone crushed of 52,900 tons, and of 52,830 oz. of gold therefrom. The cyanide works treated 2,302 tons of new tailings, for 1,458 oz. 4 dwt. 6 gr. of bullion, worth £3,718 9s. 5d.; while old tailings were 1,731 tons, for 321 oz. 7 dwt., valued at £873 18s. 4d. Gold from concentrates amounted to 560 oz. 9 dwt. 12 gr., its value being £1,978 11s. 10d. Returns forwarded by assayers show that 564 oz. of alluvial gold, worth £1,980 15s., were purchased. Gold recovered at metallurgical works was 288 oz. 12 dwt., of a value of £1,185. The total yield of gold from all sources was, therefore, 77,654 oz. 0 dwt. 18 gr., the value of which is £272,818 16s. The value of minerals other than gold is returned at £3,270 10s. 2d.

Dividends and Calls.

Dividends paid amounted to £65,102 3s. 6d., being £111,911 1s. 1d. less than in 1906. Calls totalled £50,463 18s. 4d., a decrease on the previous year of £4,857 1s. 11d.

Population.

A considerable number of miners left the district in order to obtain employment elsewhere, having been discharged from several mines in which the number of hands were being reduced. The return shows that 1,297 men were working in the Gympie mines during the year, being a decrease on the previous year of 332. Those engaged in mining for minerals other than gold were also reduced—viz., from 155 to 30.

As most of these men have left for other fields, there is consequently some reduction in the total population, which I now estimate at 15,974.

Revenue.

Revenue collected amounted to £6,508 9s. 1d., being an increase, compared with the receipts of 1906, of £1,280 17s. 8d.

Holdings under Mining Tenure.

At the close of the year there were 154 gold-mining leases and applications in force, embracing a total area of 3,394 acres 2 roods 28 perches; 5 mineral leases were held, their gross area being 370 acres; miners' homesteads numbered 2,692, the aggregate area of these being 27,175 acres 3 roods 30 perches.

It may be noted that 235 homestead leases, holding 4,422 acres 3 roods 20 perches, have now been endorsed under section 85 of "*The Mining Act of* 1898," in respect of which no rent is payable.

Accidents.

I am pleased to state that there was no fatal accident in connection with mining during the year, while in 1906 there were two.

The total accidents occurring were 18 (being one less than in the previous year), and of these eight only were reported as serious, the remainder being considered as not serious.

Future Prospects.

The prospects of the northern, or Two-mile, portion of the Gympie field are certainly bright, and favourable developments may reasonably be expected in that locality in the near future.

In the Monkland and eastern part of the field I do not anticipate much alteration during the current year. Some of the mines there are likely to materially increase their yield, whilst others may not do quite so well.

Upon the south side there are signs of some improvement, and the large amount of prospecting being carried on generally is proof of ample confidence in the future.

Table A.

RETURN OF MEN EMPLOYED, CRUSHINGS, VALUES, DIVIDENDS, AND CALLS, GYMPIE AND GLASTONBURY GOLDFIELDS, FOR YEAR 1907.

Mine.	Number of Men Employed.	Tonnage.	Yield.	Estimated Value.	Dividends.		Calls.	
					Amount per Share.	Total.	Amount per Share.	Total.
		Tons cwt.	Oz. dwt. gr.	£ s. d.		£ s. d.		£ s. d.
Australasian Tribute	6	94 0	264 4 0	970 15 11				
Black's New Zealand Syndicate ...	5	10 0	26 18 6	94 15 1	...	...	£10	190 0 0
Cahill and party	5	22 0	12 17 6	43 15 8				
Columbia Extended	...	...	...	...	...	...	1s. 0½d.	4,427 1 8
Columbia No. 3 North	...	...	...	...	...	...	5d.	1,666 13 4
Columbia and Smithfield No. 1 North	13	1,322 10	910 3 12	3,343 18 5	...	...	1½d.	600 0 0
Columbia and Smithfield No. 2 North	25	2,174 0	4,844 14 12	17,657 0 2	4s. 6d.	10,800 0 0		
Columbia Smithfield	14	942 0	800 5 0	2,829 12 8				
Crown Extended Claim	2	20 0	5 1 6	17 12 7				
Curtis, H.	2	...	8 4 18	28 5 6				
Driver, A.	2	3 14	56 8 18	197 10 7				
Eastern Miners	4	...	...	...	...	...	£11 per 1,000	1,320 0 0
Ellen Harkins Amalgamated ...	...	...	...	...	...	...	2d.	500 0 0
Glanmire and Monkland South ...	95	19,188 0	6,657 8 12	23,958 18 8	3d.	1,500 0 0		
Glanmire and Monkland South Tribute	...	...	...	...	...	...	2d.	500 0 0
Glanmire North Tribute Co. ...	...	...	...	...	...	...	7d.	1,283 6 8
Glanmire North Tribute parties ...	10	82 10	78 17 6	276 19 11				
Glanmire 1 North Tribute parties ...	22	523 3	765 4 6	2,674 7 8				
Glanmire Reserve Tribute	23	492 10	249 5 12	871 7 5	...	...	5d.	937 10 0
Glastonbury	6							
Doran Extended	...	45 0	43 8 12	155 5 9				
Glastonbury P.C.	...	19 0	15 17 18	51 11 5				
Little Glastonbury	...	8 0	10 7 6	34 18 1				
Tonbine Extended	...	61 0	90 14 0	299 4 6				
Great Eastern, The	...	...	...	...	...	...	1d.	189 11 8
Great Eastern and Orient Tribute ...	25	37 0	63 6 12	217 1 0				
Great Eastern Tribute	7	141 0	83 15 18	290 14 4				
Great Eastern 1 North Tribute ...	8	114 13	309 17 0	1,094 17 1				
Great Eastern 1 South	15	734 10	315 11 18	1,124 14 6	...	...	4d.	1,000 0 0
Great Eastern 2 South	193	30,147 0	9,206 11 0	30,921 17 9				
Great Eastern 3 South	...	...	...	...	£25 11 6 per 1,000	846 15 1	1¼d.	312 10 0
Great Hibernia	...	...	...	...	...	...	...	299 2 6
Great Northern	16	118 0	190 17 6	647 19 8	...	...	10d.	1,895 16 8
Great Northern Extended	8	...	...	...	...	...	7d.	1,400 0 0
Home Rule and Hilton Extended ...	...	...	...	...	...	...	...	510 18 6
Home Rule and Hilton New ...	10	7 12	6 8 12	22 1 0	...	...	...	674 7 9
Home Rule 1 North	...	...	...	...	...	...	1d.	166 13 4
Homeward Bound and Hibernian ...	4	10 0	3 12 0	12 13 6	...	...	5½d.	1,283 6 8
Lady Mary 7 South	5	142 0	181 5 0	648 9 4	...	...	3¼d.	1,426 5 0
London and Bristol 1 North ...	...	24 0	36 17 6	131 14 1				
Louisa No. 1 South Syndicate ...	...	5 0	0 15 0	2 12 6				
Maori Tribute, Black and party ...	5	...	3 10 6	12 11 5				
March Syndicate	...	5 0	1 18 0	3 16 5				
Mead, C.	...	...	8 14 0	31 15 1				
Milner, M.	...	...	3 5 0	11 0 0				
Miller, D.	...	...	11 4 18	39 8 5				
Monkland, United 7 and 8	11	29 0	10 3 18	36 1 1	...	...	1s. 1½d.	2,025 0 0
McFie, J.	...	5 0	1 0 0	3 10 0				
New Dawn	30	1,246 0	776 17 12	2,409 2 11	...	...	1s. 4d.	3,005 0 0
New London Syndicate	...	37 19	52 4 0	182 12 8	...	...	£3	55 10 0
Nicholl's Lease, Combined Tributes	26	698 3	1,536 14 12	5,358 14 2				
Oriental and Glanmire	63	2,837 0	4,091 11 12	14,419 7 1	3d.	1,200 0 0		
Oriental and Glanmire East ...	18	1,194 0	723 8 18	2,538 13 3	...	...	5d.	1,666 13 4
Oriental and Glanmire North ...	5	162 0	189 5 12	644 16 5	...	...	10½d.	2,625 0 0
Oriental and Glanmire 1 North ...	20	842 17	392 14 6	1,424 1 10	...	...	4½d.	1,800 0 0
Oriental and Glanmire 2 North ...	6	...	...	...	...	...	2d.	1,200 0 0
Oriental and Glanmire 1 South ...	35	2,353 0	2,187 11 6	7,868 0 2				
Oriental Consols	15	44 15	209 1 12	746 13 4	...	...	10d.	4,166 13 4
Oriental Extended	...	...	...	...	...	...	5d.	1,666 13 4
Phœnix Eastern Tribute	6	190 0	249 5 12	887 9 4	...	...	3d.	625 0 0
Phœnix Golden Pile	...	...	...	...	...	...	1d.	200 0 0
Phœnix 1 North	10	104 10	100 2 12	347 1 4				
Phœnix 1 North Tribute	5	143 0	329 7 12	1,191 13 8				
Phœnix 3 North Tribute	3	92 10	57 7 18	209 5 7				
Phœnix 4 North	15	529 10	709 16 0	2,264 5 5				
Phœnix 4 North Tribute	8	72 10	57 8 18	205 3 0				
Phœnix 5 North Tribute	6	553 0	445 2 18	1,606 10 5				
Phœnix 6 North Tribute	...	39 2	20 18 18	75 10 5				
Sadowa	...	...	...	...	...	...	...	545 4 7
Scottish Gympie	317	87,150 0	28,049 14 6	99,530 5 1	1s. 1½d.	37,125 0 0		
Smithfield and Phœnix Golden Pile	16	592 10	247 8 0	888 15 10	...	...	1s. 7½d.	3,900 0 0
Smithfield Eastern 2 and 3 Tribute	10	369 0	573 7 18	2,032 4 8	3d.	600 0 0	0½d.	100 0 0
Smithfield Eastern 2 and 3 Subtributes	16	236 9	512 9 6	1,849 9 2				
Smithfield North	20	998 0	2,857 8 6	10,110 17 4	2s. 6d.	5,880 10 0	7d.	1,400 0 0
Smithfield 1 North	21	5,433 0	4,224 6 0	15,397 18 2	2s. 9d.	6,600 0 0		
South Scottish and Oriental ...	...	...	...	...	£12/10/3 per 1,000	494 18 5	0½d.	150 0 0

Table A.—*continued.*

RETURN OF MEN EMPLOYED, CRUSHINGS, VALUES, DIVIDENDS, AND CALLS, GYMPIE AND GLASTONBURY GOLDFIELDS, FOR YEAR 1907—*continued.*

Mine.	Number of Men Employed.	Tonnage.	Yield.	Estimated Value.	Dividends.		Calls.	
					Amount per Share.	Total.	Amount per Share.	Total.
		Tons cwt.	Oz. dwt. gr.	£ s. d.		£ s. d.		£ s. d.
Stephens, R.	...	...	22 15 0	82 2 0				
Two-mile	9	...	...	...	...	...	7d.	1,400 0 0
Victory 1 North	8	251 0	357 13 6	1,296 6 9	...	...	1d.	200 0 0
Victory 1 North Tribute	2	65 13	49 12 18	178 0 3				
Victory 2 North	...	...	...	...	1d.	55 0 0		
Williamson, R.	...	...	8 13 12	32 0 5				
Wilmot Extended	...	...	...	...	...	...	10½d.	3,150 0 0
Wilmot Extended Tribute	...	18 0	147 8 18	546 3 7				
		162,780 10	74,461 8 0	263,082 1 5	...	65,102 3 6	...	50,463 18 4

Table B.

CYANIDE AND ALLUVIAL GOLD RETURN.

Class.	Amount Treated.	Yield therefrom.	Value.
	Tons cwt. qr.	Oz. dwt. gr.	£ s. d.
Cyanidation—New tailings	2,302 0 0	1,458 4 6	3,718 9 5
Old tailings	1,731 0 0	321 7 0	873 18 4
	4,033 0 0	1,779 11 6	4,592 7 9
Alluvial	...	564 0 0	1,980 15 0

Table C.

RETURN SHOWING MATERIAL TREATED AT METALLURGICAL WORKS.

Place.	Tonnage.	Gold.		Silver.		Copper.		Antimony.	
		Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value.
	Tons cwt. qr. lb.	Oz. dwt.	£	Oz. dwt.	£ s. d.	Tons cwt. qr. lb.	£ s. d.	Tons cwt. qr. lb.	£ s. d.
United Reefs, No. Liability, Blakesnake	1,087 0 0 0	288 12	1,185	816 6	99 7 6	16 4 0 22	1,621 0 0		
Culgoa	70 0 0 0	...	...	...	...	8 10 0 0	800 0 0		
Prospecting Areas, &c.	58 0 0 0	...	...	...	...	8 9 1 0	525 8 4		
Neardie (63 per cent. ore)	4 13 2 4	..	...	..	...	...	...	2 18 3 19	159 11 10
Chatsworth (63½ per cent. ore)	1 18 3 22	...	..	...	...	...	...	1 4 2 25	65 2 6
	1,221 11 5 26	288 12	1,185	816 6	99 7 6	23 3 1 22	2,946 8 4	4 3 2 16	224 14 4

Total value of Minerals other than gold—£3,270 10s. 2d.

P. M. HISHON, Warden.

HERBERTON (WALSH AND TINAROO) FIELD.

The sudden and large depreciation in the market price of copper, tin, and lead has caused many of the mines with low-grade ores to shut down, except those that are worked on a fairly large scale. Notwithstanding this decline in the price of metals, it is satisfactory to note that the value of the product from this district has been well maintained, the total being £873,157, a decrease in value when compared with the previous year of £19,953, but if compared with the year 1905, a large increase of £188,608 is shown. The introduction of more machinery of a better type has been the means of producing, in many instances, an increase in the production of the raw material, and which has to some extent counteracted the fall in price. In the tinfield the production shows a marked increase for the year. There were treated 106,361 tons of tin ore, which produced 3,432 tons of tin, valued at £313,383; whereas the produce for the previous year was 83,890 tons of tin ore, yielding 2,855 tons of tin, valued at £275,137, thus showing an increase of 22,471 tons of ore produced and 577 tons of tin, and in value £38,246. The value of the product from the Chillagoe smelters shows an increase of £30,676, this year being £259,818, as against £229,142 for the previous year. Mount Molloy shows a decrease of £43,182, the smelter being closed at the latter end of the

year until the railway is finished. O.K. also shows a decrease of £8,487 in value, although a large increase in the tonnage treated. Silver shows an increase of 139,561 oz. and £14,338 in value, the produce being for the year 488,992 oz., worth £59,715, and, for 1906, 349,431 oz., worth £45,377. Lead also shows a considerable increase of 2,674 tons, and in value £30,049, the figures being 4,369 tons for this year, worth £63,210, and, for 1906, 1,715 tons, worth £33,161. The chief producer in the district for silver and lead is Mungana.

One of the chief incentives towards the advancement of this mining district is the increased railway facilities. The extension of the Stannary Hills tramline to Irvinebank, which was completed in May, is much appreciated by the mining community and also by passengers. The line has been severely taxed by the increased traffic, but has done the work well. A total of 8,696 passengers and 61,782 tons of freight were carried over it during the year. The railway from Biboohra (a station on the main Chillagoe line) to Mount Molloy was started in May last, and the rails have been laid for about 15 miles. The early wet season has somewhat impeded operations, but the completion of it to Mount Molloy is expected in February, a distance of 21 miles. This line will greatly facilitate and cheapen the carriage of goods, fluxes, and other materials for the mine. The Etheridge-Chillagoe Railway was also started from Almaden (a station on the main line, 20 miles from Chillagoe) for the Etheridge Goldfield, and at the close of the year the permanent survey was completed and pegged for 72 miles, earthworks completed for 42 miles, and rails laid 32 miles; and already passengers and goods are being conveyed on the completed portion. This railway, when finished, will, I think, increase the traffic to the port of Cairns to a very large extent.

The traffic on the Chillagoe line has considerably increased during the year. For the last nine months of the year the receipts were £88,641, as against £66,638 for the corresponding period of the previous year; and for the month of December the receipts were £9,565, as against £7,911 for the same month of 1906.

The diamond-drill has proved of considerable success in various parts of the district in discovering ore-bodies, chiefly at O.K., Mungana, and Zillmanton; and the Keystone driller has been of immense assistance in discovering the tin-wash under the basalt at the Deep Lead near Herberton. A considerable amount of prospecting has been done in outside places. The Mitchell River Gold and Antimony Company started the erection of their plant in May, and operations for the treatment of the produce of the mine will be watched with considerable interest. At Mount Spurgeon and Woollooman Creek, and the Mount Garnet Sluicing Company's ground, machinery has been erected and a large amount of prospecting has been done, which should produce results in the coming year. The district, on the whole, may be looked upon as being in a decidedly flourishing condition, although the depreciation in the price of minerals has to some extent curtailed the incentive to prospect that occurred when the metals were of high values.

The chief producers of tin for the year are:—

	Tons Ore.	Tons Tin.	£
Stannary Hills	38,770	770½	87,667
Vulcan	8,385	393	25,860
Tornado	908	84	8,138
Gilmore	2,069	318	22,172
Great Northern	2,440	68	6,910
Good Friday	227	25	2,970
Smith's Creek	14,841	379	36,681
Governor Norman ...	2,255	60	3,994
Dalziell's	3,061	115	10,380

Chillagoe.

The town of Chillagoe and its surroundings have considerably improved during the year. Good and substantial buildings have been erected, new shops have been opened, and in the town and neighbourhood better accommodation has been provided for the workmen, which is a step in the right direction, for during the summer months, when the weather is hot and sultry, the men who are working through the daytime become more contented if they can, after their day's work, retire to a fairly decent dwelling. The population has increased since the previous year, being now 1,531, an increase of 247.

The Chillagoe Company's Mines and Smelting Works, with Mungana, are the mainstay of the place. The company has just completed the erection of their new plant, known as the Huntington-Heberlein process; and, although a few minor alterations had to be made, at the close of the year the plant was running fairly satisfactorily. The plant has cost about £60,000, and is built into the side of a hill, where large excavations had been made. Above the plant, rails are laid, and the engine and trucks bring the material to be treated, which is tipped into a rock-breaker, passes through a ball mill, and is elevated by a bucket-belt, and discharged into mixing bins, from whence it is run through two Edwards's roasting furnaces, after which the material is hoisted and tipped into converter kettles, where, after about twelve hours' desulphurising process, the kettles are inverted, and the material emptied on to a platform, and after being broken up is railed to the lead furnace for treatment. The company has erected three lead furnaces and a new copper furnace. A very fine electric-power plant has been erected, and is running most satisfactorily, being used for the new plant.

From the company's mines, Redcap, Zillmanton, and Ruddygore, 12,500 tons of ore have been treated during the year, producing 401 tons of copper, valued at £25,072; 31,638 oz. of silver, valued at £3,941; and 10 tons of lead, valued at £134. The chief supplier to the smelting plant is the Mungana Company's mines. The value of all material treated at the company's smelters during the year is £259,820, which, notwithstanding the large market decrease in the value of metals, shows a satisfactory increase in value, when compared with the previous year, of £30,678.

A good deal of trouble has been experienced at the Zillmanton Mine through a rush of water, which flooded the bottom level, and operations were suspended for some time. The new shaft is down 360 ft., and it is well-equipped with a 12-inch Cornish pump and a large winding engine. A good deal of prospecting has been done here with the diamond-drill, and with fairly good results. A lode was cut about 1,000 ft. west of the shaft.

The Ruddygore Mine is the chief producer of the company's mines. The ore is in large quantities, of low-grade, but payable. It is worked by an open-cut and tunnels to the shaft, which it is intended to sink to 200 ft. Machinery is being erected on the mine, and before long a considerable increase in the output may be expected.

The Morrison Mine, at Redcap, has also produced a fair amount of ore. The lode averages about 5 ft. wide, and has been driven on for about 300 ft. The company has recently built a branch line to Mount Lucy, a distance of two miles, where ironstone flux for the smelter is now being obtained.

Mungana.

The most productive properties of the district are the Mines at Mungana, at the head of the Chillagoe Railway—the Lady Jane and Girofla, and owned by the Mungana (Chillagoe) Mining Company,

Limited. These mines have produced for the year 19,687 tons of ore, yielding 550 tons of copper, valued at £34,027; 181,084 oz. of silver, valued at £22,307; and 2,270 tons of lead, valued at £30,978 —the total value of the produce for the year being £87,312, as against £72,853 for 1906, being an increase of £14,459.

Lady Jane Mine.—The Saddler shaft, which has been connected with the Lady Jane Mine by two drives, both of which, as well as the shaft, are in solid limestone, has been sunk to a further depth of 350 ft. During the last six months 821 ft. of driving, cross-cutting, and rising has been done. On the surface a large 15-in. Cornish pumping plant, a 24-in. by 14-in. direct first-motion engine, a 110-h.p. Babcock and Willcox water-tube boiler, and a massive concrete brace have all been erected at the Saddler shaft, which is connected with the Lady Jane ore-bin by a well-supported overhead tramway. All hauling will now be done through the Saddler shaft. Owing to the large amount of timbering required on the property, it has been found necessary to install a sawmill plant, which is now being erected, and will be driven by a 12-h.p. horizontal engine. Another feature of economy, which has recently been added, is a 12-ft. gap lathe. In order to push on with development work as rapidly as possible, five large air-drills of the latest type have been added to the air-drilling plant.

Girofla Mine.—The development work for the last six months consisted of 569 ft. of sinking, driving, cross-cutting, and rising. The Girofla shaft has been sunk to a further depth of 465 ft. since the 30th June last, and it is expected that the 510-ft. level will be reached before the end of January. During sinking operations the shaft passed through a large body of ore, about 33 ft. below the 410-ft. plat. On the surface another set of plunger workings have been added to the pumping plant, and a Babcock and Willcox water-tube boiler of 110-h.p. has been added to the plant.

O.K. Copper Mine.

The development of this company's mine has been pushed forward without interruption throughout the year, with the result that, although about 16,000 tons of ore were mined, the reserves of ore in sight are practically what they were at the beginning of the year. The main shaft has been sunk an additional 100 ft., making a total depth of 260 ft. This shaft has been equipped with new poppet-legs, winding gear, and cages of the best modern construction. A compound two-stage air-compressor, of nine-drill capacity, is also in course of erection. The prospecting work done by the diamond-drill during the earlier months of the year proved that the ore-bodies worked in the upper levels go down. Although of smaller size and lower grade than the exceptionally rich ore met with nearer the surface, they should be profitably worked, as their composition and greater density will permit of substantial reduction in the cost of mining and smelting.

About 400 ft. of driving and cross-cutting has been done at the 200-ft. level. The south drive has cut the main ore-body, of fair-grade ore, at about 103 ft. from the shaft, and a considerable body of good grade between this and the 150-ft. level, opposite the shaft, has been opened up by crosscut and winze ready for stoping. The Gully shaft ore-body, about 250 ft. north of the main workings, has been cut by a drive at the 250-ft. level, and the prospecting of the lode proved by the diamond-drill on the company's northern lease is also proceeding.

The company's reduction works, which include a 72-in. by 36-in. water-jacket blast furnace and a converter stand for Bessemerising the copper matte, of 4 tons nominal capacity, with necessary blowing engine, boilers, pumps, &c., has been much improved during the year by the building of a large brick stack and flue-dust chamber, and doubling the boiler capacity. In addition to these improvements, it has been found possible, by discarding the reheating furnace between the blast furnace and converter vessel, and tapping the matte direct from the former to the latter, to effect a considerable saving in the cost of producing blister copper.

Owing to early rain, sufficient stocks of fuel and flux were not obtainable for a continuous run during the wet season, and the works were idle for two months for this cause, but during the ten months of actual smelting 16,567 tons of ore were reduced, and the result of matte treated by the converter was a yield of 1,424 tons of blister copper, averaging 99 per cent., thus giving an average extraction of 8·5 per cent. on the ore. During the dry season just ended the ten traction engines owned by the company did good work, thus enabling the manager to accumulate sufficient wet season supplies to avoid stoppage next year, although it will be necessary to store the bulk of the copper at the mine until the road to the railway terminus at Mungana (46 miles) is dry enough for traffic. The policy of the directors has been conservative, only one dividend, amounting to £16,872, having been paid during the year, but the financial position is strong. The company's reserve and wet season stores in hand amount to upwards of £35,000.

The O.K. Blocks, Limited.

This company is working a 20-acre lease, situated about 60 chains south-east from the main workings of the O.K. Mines. During the year the shaft has been sunk from 60 ft. to 104 ft. deep, and equipped with steam pumps and winding gear. The lode has been driven on at the 100-ft. level for a distance of 120 ft., varying in width from 2 to 9 ft. The ore is a black sulphide, similar to that in the upper levels of the O.K. Mines, but more ferruginous and of somewhat lower copper contents. It has been followed down by a winze in the floor of the drive to a total depth of 150 ft. from the surface, where it is again being driven. During the year 478 tons of ore were sold to the O.K. Company, and about 200 tons more, estimated to yield 10 per cent., is now lying at grass awaiting a more settled condition of the copper market.

The Mitchell River Gold and Antimony Company.

This company is erecting a mill of a capacity to treat 40 tons per day of the auriferous antimonial lode which runs through their property, situated 120 chains from the northern side of the Mitchell River, near its junction with the Watson. Briefly stated, the process is as follows:—The ore from the mine is passed through a breaker and ball mills, by which it is reduced to 20-mesh size. It is then leached in mechanically-stirred dissolving pans, with a warm solution of caustic soda to dissolve the antimony. The antimony solution is separated from the resulting sands by filter-pressing. The sands are sent to cyanide vats to extract the gold, while the solution is stirred cold in precipitating pans with carbonic acid gas, the chemical results of which is the precipitation of the antimony in the form of sulphide, which is collected by the filter-press from the solution as a brown mud, which can be either sold as 70 per cent. pure or easily reduced to the metallic state by smelting with iron. This process, which gives excellent laboratory results, should be a cheap one, as the caustic soda solution coming from the precipitating pans is readily regenerated by treatment with the burnt lime obtained as a by-product in the generation of the carbonic acid gas.

The buildings have been completed, and most of the machinery for crushing and leaching is in position awaiting the final adjustment by an expert, who is shortly to arrive under instructions from Messrs. McArthur and Co., of Glasgow, who are the patentees of the process. Should the results on a large scale approach those obtained in the laboratory, the success of the plant will be of far-reaching importance, as it will not only permit of the recovery of gold known to exist in many of the antimony ores of this district, but will also give a commercial value to antimony ores of considerably lower grade than the 50 per cent. which is the minimum grade saleable as raw ore at present.

Koorboora.

The branch battery belonging to the Irvinebank Mining Company, Limited, and situated at Koorboora, ran full time during the year, the supply of water latterly being taken from the mines, as the stored water failed in August. During the year this mill crushed 5,620 tons of stone, for a yield of 376 tons of concentrates, valued at £29,602, showing an increase over last year of 118 tons in the quantity crushed and 55 tons in the output of concentrates, and also an increase in the value of £638.

Developments of more or less importance have taken place in various mines there, notably in the *King Arthur Mine*, where a good chute of 6 per cent. stone has been located at 80 ft. deep. Work in the Neville Wolfram Mine has been carried on chiefly at and below the 200-ft. level, with fair results.

At the *Tennyson* Mine a good body of tin-silver-lead ore has been developed at 120 ft. deep, and the *Railway* and *Sid* Silver-lead Copper Mines have continued to turn out payable smelting ore. About 70 men find employment with the company here, and about 30 men are working lode or alluvial shows on their own account.

Tate.

At the Tate branch of the business carried on by the Irvinebank Mining Company the year's work is represented by the sluicing of 13,500 tons of dirt, for a yield of 24 tons of stream tin, the average assay being about 74 per cent. for metal. Water for sluicing was available up to the middle of April, and about 30 wages men were employed. About the same number of men found work for themselves stream-tinning in the various creeks when water was available, but during the dry weather the number of men in the immediate vicinity of the Tate decreased considerably. A new find of wolfram, on the Red River, was accountable for the exodus from this centre.

Linedale West Chillagoe Copper Mines.

The mines here belonging to the Irvinebank Mining Company, Limited, have given employment to an average of 15 wages men during the year. Vigorous prospecting work has been carried on to a depth of 180 ft. in the Lamington Mine, where a winding plant was erected. A large number of men worked shows on their own, with more or less success, but, owing to the fall in the price of copper, and the distance (26 miles) from Mungana, all work at the end of the year had been practically suspended, and most of the mines abandoned.

Mount Molloy.

This company's mine has produced during the year from the mine and smelters £61,456 worth of copper, silver £105, also limestone £995, and iron-stone £1,184, totalling £63,740. The company has also declared in dividends £22,500.

During the latter portion of the year the smelters have been shut down, probably due to the low price of copper.

A railway from Biboohra to the mine is in course of construction, but the progress is slow, only about twelve miles of rails having been laid since May last. This line will, when completed, considerably help in the reduction of the cost of production, and will do away with the expense of horse transport of fluxes, coke, stores, &c.

The main shaft is to be sunk to 500 ft. A new plant has recently been erected, which consists of a new winding engine, new Babcock and Willcox boilers, and a 15-drill air-compressor.

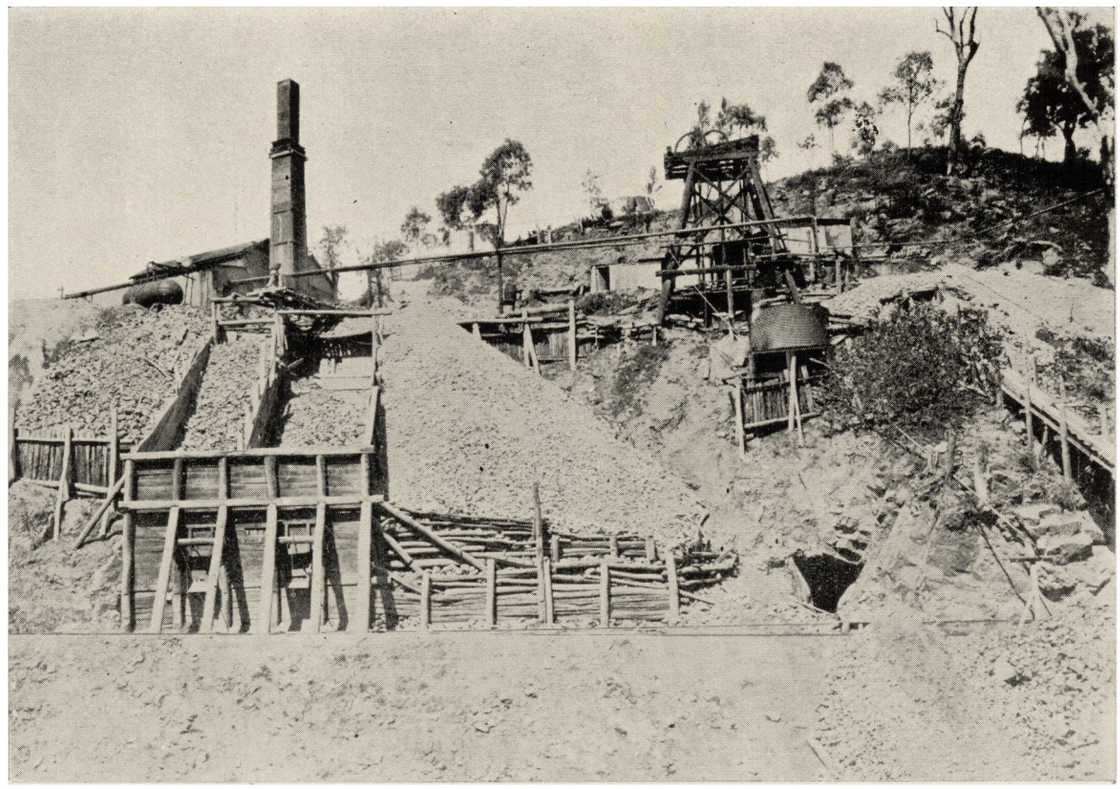
Stannary Hills.

The Stannary Hills Mines and Tramway Company, Limited, has done excellent prospecting and progressive work during the year in the mines. From the *Ivanhoe* Mine 11,937 tons of ore were sent to the mill, worth 4·3 per cent.; 1,358 ft. of driving, sinking, and rising were carried out, with very satisfactory results, as is proved by only 30 ft. of sinking having been done to produce the quantity of ore mentioned. At 30 ft. below No. 6 level (bottom level) the lode has been proved in one place to be over 40 ft. long, with an average width of about 35 ft. Another winze has been sunk 150 ft. from this lode further south, exposing a body of ore about 10 ft. wide, and proved at present to be 30 ft. long, and the lode is strong in both faces. The average value of these ore-bodies is over 5 per cent. From the Eclipse Mine 174 tons were produced from what little prospecting work had been done, but, not being satisfactory, the work has been stopped. From the *Kitchener* Mine 9,394 tons of ore were despatched to the mill during the year, the average value being 1·9 per cent. 714 ft. of rising, sinking, and driving have been done. There is still a large body of ore to be broken from above the tunnel level, of an average value of 2 per cent. to 2½ per cent. From the *Extended* Mine 746 tons were sent to the battery, most of which was produced from prospecting work. The general manager is of opinion that present appearances in this mine would lead one to believe that there is a large body of ore to be obtained above the tunnel level; below this level no work has been done. From the *Arbouin* Mine 16,283 tons have been treated, of an average value of 0·94 per cent. Owing to the heavy fall in the price of tin and the low value of the ore from here, this mine has been stopped for the present, with the exception of a little prospecting work. From the *Young Australia* 172 tons have been milled. The lode averages about 2 ft. in width, of a value between 5 and 6 per cent. There is a considerable quantity ready to be broken down. Prospecting work has been carried on at the Ironclad, with good results.

Work has been continuous at the company's mill during the year, and 38,770 tons of ore were treated for a yield of 770½ tons of tin concentrates (70 per cent.), valued at £87,667. At the close of the year the mill was stopped in order to effect repairs, but will be started again at the end of January, when it is anticipated that, owing to improvements effected in the crushing plant and saving appliances, a larger output will take place.

The company's tramway has been kept busy, and the quantity of material that has gone over it during the year shows what a great advantage to a mining district this mode of locomotion is. No less than 8,696 passengers and 61,782 tons of freight passed over the tramway during the year.

In the company's workshop a large amount of money has been spent; a foundry has been added, which, though small, has made the shops as complete



IVANHOE TIN MINE, STANNARY HILLS, NORTH QUEENSLAND.



KITCHENER TIN MINE, STANNARY HILLS.

as any in the district. They are now able practically to do all the work in connection with the mines and tramway plant.

A new boiler has been added to the Ivanhoe Mine, and an additional locomotive has been purchased, which is expected to be running on the line in two or three months' time.

SMITH'S CREEK PROPRIETARY TIN MINES, NO LIABILITY.

This company has shown a considerable increase in the output from the mine compared with the previous year, and the prospecting and operations generally for the year are of a most satisfactory nature. At the main shaft from the 300-ft. level the drive south has been advanced 108 ft., which makes the total distance from the shaft 257 ft. At a point 190 ft. from the shaft a vertical slide or fault was met with, crossing the lode at an angle of 35 degs. The first 40 ft. driven passed through ore carrying 2½ per cent. of tin oxide, and on the first contact with the slide the tin contents of the ore improved considerably, but in driving with the slide the ore was poor, and work in the drive was suspended. A level has been driven north for a distance of 50 ft. on the eastern limit of the ore-body. The material broken in driving carried, on an average, 1 per cent. of tin oxide, and the present face is poor. A prospecting crosscut was driven out east from the main level south to prove the ground between the main level south and the drive north on the eastern limit. At a distance of 25 ft. it broke through into the latter drive. The material passed through, although not payable, showed tin throughout. The winze in the bottom level is 128 ft. from the shaft, and is sunk to a depth of 14 ft. near the centre of the ore body, the east end of the winze being 16½ ft. from the eastern wall and the western end 14½ ft. from the western wall. It was sunk before the timbers were put in, and carries good tin. The rise in the back of the main level was advanced 20 ft., and its connection with the winze from the level above is 48 ft. from the bottom of the level.

The material passed through contained ore of more than average grade. The crosscut east off the main drive south was commenced about 52 ft. from the south end of the main drive, and it has been driven 36 ft. through country, and for the present has been discontinued. The stopes from the south-east crosscut maintain their size and value, and have produced a fair proportion of the ore sent to the mill. The main drive south at the 200-ft. level has been extended 75 ft., making the total distance from the shaft 221 ft.; 24 ft. of this driving was through ore of a highly payable nature, but at 162 ft. from the shaft a fault cut the ore off at right angles with the drive, and the driving beyond this point has been through barren rock. A prospecting crosscut was driven west on the course of the fault; the first 6 ft. was through good ore. The winze in the bottom of the main drive has been sunk 48 ft. during the year, making the total depth 52 ft., at which point communication was made with the rise from the level below. The east side of the winze was in good ore for the whole of the distance, but at a depth of 12 ft. a bulge of quartz came in from the west; as sinking continued, however, it was found to be only a band of quartz, and that ore extended behind it. The stopes of this level continue to hold good, and have produced a fair proportion of the ore sent to the mill.

For the year 14,841 tons of ore have been treated, for a return of 379 tons 11 cwt. of black tin, valued at £36,681.

IRVINEBANK.

The extension of the Stannary Hills tramline to Irvinebank has supplied a long-felt want. Previous to its being built the difficulty of obtaining a sufficient quantity of firewood for the mines was severely felt.

The Vulcan.—This mine has produced for the year 8,385 tons of ore, yielding 393 tons of tin, valued at £25,860. No dividends have been declared. The main shaft was sunk another 170 ft., making a total of 1,270 ft. In sinking from the 1,050-ft. level 2 or 3 ft. of rich ore was cut at a depth of 1,212 ft. After sinking another 50 ft., to be used as a well-hole, they have opened out a chamber at 1,212 ft., with the intention of proving the ore, which runs north-east and south-west; and, as this is virgin ground for about 200 ft. from where they expect to meet the ore worked on the higher levels, the developments will be watched with more than usual interest. From this chamber they will also extend a drive for 200 ft., where they expect to find a continuance of the ore-body worked on the 1,050-ft. level. During the year work (most of it prospecting) has been carried on in nearly all the levels, more particularly at the 200-ft. and 900-ft. levels, with fairly encouraging results. The bulk of the ore being broken at present is being taken from the 906-ft. level, where the ore-body has widened out to three or four times the size it was thought to be a few months ago, and there has also been a material improvement in the quality. The crushings during August, September, and October were unusually poor, occasioned by the management's desire to prospect a very large formation at the 700-ft. level, but, as the outcome was less than 1 per cent., and unpayable, it was left to a later date.

At the *Tornado*, Sheppard Brothers raised some very nice ore during the first six months of the year, which was all got within 90 ft. of the surface. Later on a tunnel was drive in lower down the hill to tap this at a depth of 150 ft. Several pipes of ore were got in the tunnel, and a fairly good ore-body has been located in cross-cutting, but there is some doubt as to this being the same as worked by the Sheppards. From the Tornado shaft 908 tons of ore were taken, yielding 84 tons of tin, valued at £8,138.

At the *Governor Norman*, prospecting work has been continued, with a view to further proving the extent of the ore-body, and about 100 ft. of sinking and 300 ft. of driving have been done. The ore broken is comparatively poor, but it is easily handled as far as breaking and crushing is concerned. It is also hoped that a further saving will be effected by the construction of a tramway from the mine to the mill, which line is now under construction.

At the *Great Southern*, prospecting work has been resumed in some of the old workings; about 60 ft. of sinking and 80 ft. of driving have been done. Recently there has been some nice ore found in one of the first shafts sunk on the property.

At the *Jumna*, about 100 ft. of sinking has been done during the year, the ore produced being crushed at the Star of the South mill. The prospects of this mine have considerably improved during the year, and the workings are now thought to warrant the erection of a winding plant.

At the *Victoria*, a silver-lead mine at the old camp near Montalbion, the prospects were far from reassuring during the early portion of the year, but, after sinking about 100 ft. through a zinc zone, they got on to good galena ore again, the present face being about 4 ft. 6 in. wide.

Above the town of Irvinebank a very fine dam has been built by the Irvinebank Mining Company, known as the Ibis. It is built of solid concrete to a

depth of 60 ft., and water is laid on to Irvinebank through 4-in. diameter piping.

About two miles from Irvinebank the Go-Ahead Syndicate has erected a five-head mill.

At the *Endeavour Mine*, about two miles east from Irvinebank, a good body of high-grade tin ore was opened up during the year, and at one time three shifts of men were at work. The mine produced during the year 1,287 tons of ore, yielding 59 tons of tin, valued at £6,245.

The Vulcan Hope Company has constructed a dam on a good site near the Mount Agnes Mine, and has recently purchased a battery.

The all-round fall of metal values has checked prospecting to a considerable extent, and in many places tin is being held in anticipation of higher returns being available shortly.

Gurrumba District.

The Gurrumba battery (ten head of stamps) has had a successful year, treating ore from the Irvinebank Company's Mine, and also a large quantity of public ore. Practically all the ore from Gurrumba, Ord, and Emuford districts is crushed here. No additions to the mill plant have been found necessary during the year. Two new bins have been erected, and a large tailings dam has been built below the battery in Wet Creek.

The *Adelaide* Mine has been one of the mainstays of the mill during the year. It is worked on the opencut system, the ore being sent down passes into tunnels beneath. The size of the body, conditions generally, and the nature of the lode stuff permit of it being mined and crushed cheaply; so that, although low-grade, a considerable profit has been made on the year's operations. Most of the ore has been broken at the No. 1 opencut. Two 40-ton bins and one of 10-tons capacity have been erected on the mine. A third tunnel is now being put in at the southern end of the lode, where good ore has been located above. The Adelaide Mine is two miles from the mill, and ore is carted by drays. For the year 4,747 tons of ore have been crushed, averaging 1-2 per cent. tin oxide.

Dalziell's Tin Mine.—A large quantity of ore was broken in the main chute above the tunnel level (170 ft.). Extensive prospecting, with north and south drives and winzes, has been carried on at the main tunnel level, proving a big low-grade body, which is, however, unpayable. In the last month of the year prospecting on the south side of the opencut near the surface revealed a promising make of payable ore, which is now being worked with payable results.

Village Blacksmith.—From this mine two crushings were obtained, yielding 9 per cent. and 4 per cent. Prospecting located a flat bed of good ore below the old stopes. At the Boulder No. 2 lease a shaft has been sunk 110 ft., the bottom of which is in fair ore.

A number of smaller shows have been worked in the Gurrumba district, the ore occurring mostly in bunches in the granite. These are very irregular, as a rule. The *Prince of Wales* Mine, owned by Schworer, has yielded some good parcels, and has been one of the most successful of the smaller mines. The ore occurs as a small rich seam in the granite, and crushings yield about 20 per cent. tin oxide.

Ord District.

The *Gilmore* Tin Mines have had a very successful year, caused chiefly by the high value of the ore, which has yielded from 10 per cent. to 24 per cent. black tin concentrates. The year's work has proved the Midas to be the most important of the group. A considerable amount of development work has been done. A straight shaft was sunk to 163 ft. At the 84-ft. level this was connected to the Dolly Gray shaft by a drive. In this drive a winze has been sunk in promising lode stuff. At the 115-ft. level a crosscut was put in to the Midas lode, and a drive put in along the lode. A winze was sunk in the lode to 53 ft., inclining a little from the vertical. Intermediate drives were put in at 47 ft. on the ore, proving a length of 54 ft. by 6 ft. of good ore, which is lasting strong underfoot. A connection is now being made with this level by a short crosscut from the Dolly Gray shaft. At the surface near the Dolly Gray a new formation carrying good values is being opened up, with promising results. Most of the good ore raised for the year came from the upper levels of the Midas, and the Dolly chute has contributed a considerable quantity. The Gilmore Mines have produced 2,069 tons, yielding 318 tons, valued at £22,172 12s. 8d., and has paid in dividends £6,750.

The *Gladstone* Mine has been bought from the Ord Syndicate by the Dalziell's Company, and is now being worked with fair results. Tributers who have been picking over the old camps have had several good crushings. Of the smaller mines in the Ord district Livesey's *Puzzler* and Chapman and Joyce's *Last Chance* have had a number of good crushings. These are small chutes in quartzite country, and have yielded good values. A number of smaller shows of similar nature have also been opened up.

At *Emuford* a number of small mines have been opened up during the year, mainly chlorite and tourmaline lodes in quartzite country. Thomson and Maher in the latter part of the year have worked near the town a small lode, which has yielded two good parcels, worth 20 per cent. and 25 per cent. respectively. *Volkman's Mine* has also been opened up, with encouraging results. A considerable amount of work has been done by the Emuford Company at their new mill, which it is expected will be completed early in 1908. In this neighbourhood Dalton and Wade's *Last Call* has yielded good returns. The tin occurs in ribbonstone, in what appears to be a big flat bed in granite country.

Weinert's Silver-lead Mine.

This mine has produced for the year 1,121 tons 11 cwt. 3 qr. and 13 lb. of lead ore, containing 62,809 oz. of silver and 471¼ tons of lead, which realised £8,914 9s. 7d. At the mine the No. 1 winze has been sunk 70 ft., making the total depth from the surface of 180 ft. This winze was sunk on the lode the whole way, the lode keeping at an angle of 35 degs., bearing south. The lode in the bottom has kept very clean. Drives 38 ft. each way have been extended on the lode with very good results, there being fully 2 ft. of good ore showing in each face. It is intended to push these drives out as far as possible, so as to open up two good blocks for back-stoping before continuing to sink. From the adit level two winzes have gone down 50 ft. on the lode. No. 2 winze is situated 100 ft. south from the No. 1, and No. 3 North is also 100 ft. from No. 1, both in very rich ore. The lode varies from 1 ft. to 3 ft. wide. A good deal of stoping has been carried on from both these winzes. The lode has been opened up on the adit level for 250 ft., on good ore. The work of haulage has, up to the present, been carried on by whip, but a portable boiler is now at the mine, ready for use, and it is anticipated that 150 tons of ore will be despatched monthly from the mine to London.

The Star Silver-lead Mine.

This mine is being worked and prospected by the Glen Linedale Syndicate. The last work done on it was by the Montalbion Company, the carbonate ores only being taken out. The lodes are very promising, and are large and consistent, averaging from 15 in. to 3 ft. wide. It is estimated that there are about 25,000 tons of sulphide ore in sight, which will require concentrating. There are six men employed on this mine.

Sulphide Copper Mine.

At this mine the No. 1 shaft has been deepened 60 ft. in country rock. The shaft has been sunk about 15 ft. north from the lode, which is worked from crosscuts south from the shaft, which are 30 ft. apart. The size of the pipe of ore varies from 10 ft. to 25 ft. in length by 3 ft. in width, and the total depth of the shaft is 145 ft. About 110 tons of ore have been won, worth about 18 per cent. of copper and 10 oz. of silver. The No. 2 shaft has been sunk on an iron gossan lode. The shaft is quite distinct from No. 1. At 35 ft. sulphide copper was met with, the lode being 5 ft. wide, and was worth 10 per cent. copper when first struck. The shaft was continued down on the lode to 60 ft., which proved the lode to be going strong. Owing to the fall in the price of copper, it was deemed advisable to cease work. There are at grass about 50 tons of ore, which is estimated to go 7 per cent. copper. This property has recently been disposed of to Mr. Moffat for the Mount Molloy Company.

Silver Valley.

The *Lancelot* Freehold Tin and Copper Mines, Limited, treated during the first five months of the year 240 tons of tin ore and 340 tons of seconds and tailings, for a yield of 16 tons of tin-bismuth ore, estimated value being £1,450. In the Lancelot Mine no sinking was done, but 148 ft. was driven in the various levels without result. Stoping was continued in Nos. 2 and No. 4 intermediate levels east and No. 5 level east. The diamond-drill bored in the early part of the year 135 ft., making the total length of the borehole 346 ft., but the lost lode behind the western main fault was not picked up.

At the *Magnum Bonum* Mine a rise of 41 ft. was driven through the old workings, and some patches of fair tin ore were struck.

The tunnel at the *Storm King* was extended 36 ft., with little encouraging results.

All the Lancelot mines are under exemption, and the company has a scheme of reconstruction now under consideration.

Fossilbrook.

The total number of alluvial miners at this camp during the year did not exceed 30. The total quantity of tin won was about 20 tons. The only tin lode that is being worked in the vicinity is situated about 2½ miles in a north-easterly direction from what is known as the Four-mile, and it is owned by Simpson and party, who have also a small two-stamp battery. They obtained, while the water lasted, about 7 tons of tin. In working this lode another mineral was struck, which is supposed to be monozite. A good patch of wolfram is being worked up the Lynd River, about ten miles from Fossilbrook, and has yielded for the year about 10 tons.

Mount Spurgeon Alluvial Tin Mining Company, Limited.

This company started operations about the beginning of June, and have erected manager's and foreman's residences, blacksmith's shop, tin shed, magazine, and workships, &c.

The No. 1 tunnel has been deepened for a distance of 96 ft. In November they started No. 2 tunnel, at a level of 45 ft. below the No. 1, and at the end of the year they had driven and timbered 95 ft. An overshot dam has been erected, 33 ft. wide by 14 ft. 6 in. deep, in Turner's Creek, and 20 chains of head races have also been constructed; 12 chains of fluming have been built with sawn timber, 2 ft. wide and 12 in. deep. The low-level race in Turner's Creek has been widened and deepened 18 chains. A dam has been built in Sandy Creek to convert water on to No. 1 face. A tailrace 3 ft. wide and 1½ chains long has been put in Shannessy's Creek. About 1,400 ft. of galvanised-iron column pipes, with nozzles, have been put in position. Six men have been employed on the range repairing the track and crossing over McLeod River. No machinery will be required, and the manager expects work to be in full swing early in January, 1908, when the No. 2 tunnel will be finished.

Mines in and around Herberton.

At the *Great Northern* Freehold operations have been carried on continuously throughout the year. In the principal workings, known as the East Star, no important development has been made, work being chiefly confined to stoping out the comparatively poor ore-bodies in the high levels. These, although not supplying anything that might be regarded as sensational outputs, have contributed largely to the amount of tinstone produced in the immediate neighbourhood.

The opening up of a new shoot of ore in the vicinity of the workings known as the No. 3 has proved of some importance. This, the manager thinks, is a continuance of the east lode, although on what appears to be a faulted branch of that lode. The ore from the surface to a point 60 ft. in the shaft has been fairly rich; below that the formation has increased in size, and proved to a depth of 80 ft., and which is important in determining an increased length of tin-bearing country.

At the *Southern Cross* lease, which is connected with the Great Northern Company's property, work has been continued during the greater portion of the year, and various small seams of tin were operated on, and some crushing material furnished to the mill. The work done has been mainly of a prospecting nature, with the object of tracing the tin below the fault on which the surface deposits ended. Recent heavy rains having damaged the workings, exemption was applied for. The company's mill has been going fairly well throughout the year, chiefly on their own stone. To obviate the stoppages which occur regularly during the dry periods, a dam has been put in the river below the mill, and although the work of erection was interrupted by the unusually early rains, it has been raised sufficiently high to throw back a good sheet of water, sufficient to tide over the dry months and enable the company to run the mill regularly. Provision has been made for an increased height of this weir, to ensure a still greater supply of water during the dry season.

At the *Cuprite Consolidated* Mine, Watsonville, work has been continued during the year, chiefly being the completion of the main adit level to connect the original T Claim workings with the Lamond shaft. A complete system of drainage has now been established, which enables the hitherto abandoned stopes of the Lamond ground being worked at much less cost.

The *Bradlaugh* Mine has treated 49 tons 9 cwt. of tin ore for 3 tons 19 cwt. 23 lb. tin. During the latter portion of the year the developments in this mine were looking exceedingly well. The lode in the winze, which is being sunk through the 105-ft. level, is 3 ft. wide, and estimated to yield 15 per cent. of

tin. The drive at the bottom level of the mine is 230 ft. from the surface, and contains the same quality of ore as the winze. About 70 tons of ore is raised at the mine, estimated to yield 15 per cent. of tin.

Another mine near Herberton, which is looking very promising, and which is deserving of being worked on a much larger and systematic scale than it has been, is that of the *New Anniversary* Copper Prospecting Syndicate, Limited. The old shaft was originally 90 ft. deep, and has now been cleaned out, timbered, and put in working order from the 40-ft. level. In this shaft 7 ft. was sunk, and there is now about 2 ft. of ore in the bottom, estimated to contain about 10 per cent of copper. At the 60-ft. level in this shaft the eastern drive was in about 30 ft., and it has now been extended a further 16 ft., making a total length of 46 ft. on an average of 2 ft. 6 in. of ore, averaging 13 per cent. copper and 9 oz. silver. In this drive stoping was done to a height of 20 ft. At the 65-ft. level, in the same shaft, the western drive was in 80 ft., the last 20 ft. being away from the lode. At 60 ft. a crosscut was put in for a distance of 2 ft., and the lode, 4 ft. wide, and averaging 11 per cent., was again found. There have been taken out of this shaft about 300 tons of ore, which bulked 13 per cent. copper and 9 oz. silver. Another old shaft on the eastern side of the creek, and about 150 yards from the first shaft, was about 75 ft. deep, and has been sunk another 40 ft. and timbered to the surface. This shaft was abandoned. No. 3 shaft is situated about 210 ft. west of the first shaft on the same lode, and has been sunk 65 ft. The ore came in at about 40 ft., and at 50 ft. a drive was put in towards the old shaft for a distance of about 30 ft., on 5 ft. of ore, averaging 19 per cent. There is a width of 5 ft. of ore still in the face. A crosscut was also put in at the same level from the shaft in a north-westerly direction, on a chute of ore 4 ft. wide, containing 20 per cent. copper. This is in a distance of 20 ft., and is still on ore. The ore raised from this shaft amounted to about 200 tons, averaging 19 per cent. copper and 9 oz. silver. There are still 86 tons of ore at grass. Approximately, about 93 tons of metallic copper and 5,000 oz. silver have been raised during the year. A whip pole and walk have been erected at Nos. 1 and 3 shafts, a storehouse has been built, and a galvanised-iron shed erected over the ore paddocks at Nos. 1 and 3 shafts. Altogether, there are nine faces, all on ore, and which would employ a large number of men if fully manned.

Herberton Tin Syndicate, Limited.—The whole of the plant of the T. B. T. Mine, near Herberton, was purchased by this syndicate, and has been erected on their property, near by which a beautiful dam has been constructed, and everything points to a successful run during the coming year if economical management is displayed. Good work has also been done underground. The cutting up of the granite bottom and forming the tunnel connecting B shaft with A shaft, or main shaft, is completed, and the men are now being employed cutting the timber and laying rails. This will enable the manager to work from C shaft, and so discharge the wash in this locality first into the tube mill. At B shaft a considerable quantity of wash is being won, all of good quality; and during the wet season they are conducting the water to sluice the wash at the shaft, so as to ground-sluice the product and do away with carting. At C shaft faces of tin are showing, and there is being produced a large amount of tin wash, which is of good quality, averaging about 50 lb. to the cubic yard. From this shaft southward to Wet Gully a tramway has been laid on the surface, and a flume from A shaft has been laid across the gully to conduct the water to the north side of the gully for the purpose of sluicing the product from C shaft. This should considerably cheapen the cost of production. Boring has been carried on with the Keystone driller from No. 10 bore on the Racecourse lease across to within 600 ft. south from A shaft, thus proving the ground held by the syndicate westward. In the No. 11 bore they were unfortunate enough to lose the bit and stem. No. 12 bore westwards from No. 11 bottomed on the granite without having shown any signs of river bed. No. 13 bore, about 120 ft. west of the last, bottomed on 8 ft. of good tin-bearing wash at about 100 ft. No. 14 bore has proved exceedingly hard, and is down about 75 ft., with every indication of being in the basalt flow which is usually found covering the river bed. The work done throughout the year by the bore has been highly satisfactory, and the boring plant, winding gear, and the tube-mill machinery and the winding plant at B shaft are all in good repair, and working well.

The St. Patrick Syndicate's property, which was sold at the end of 1906, has been formed into a syndicate of 130 shares of £25 each. The ore at the bottom of the shaft found by tributers is looking well, and gives every promise of successful work being carried on.

The *Good Friday* is another tin mine near Herberton which has produced payable results during the year.

Woolooman Creek.

The plant which was erected to treat the alluvial wash has been removed across the river, and on to the Extended ground. During the year 3,200 tons of wash were put through the mill for £505 worth of tin. The material in the Poverty lease was rather disappointing; the quantity was very limited. The developments on the extended ground (a 20-acre lease) has warranted the plant being removed. The developments consist of a small tunnel, driven 170 ft. across the lead under the basalt and 90 ft. of levels along the lead, with an average of 3½ ft. of wash, which prospects from 14 to 20 lb. of tin to the yard. The manager anticipates profitable returns. Operations will commence early in February.

The *Doherty* lease has been let on tribute, and the tributers are busy treating the wash with their disintegrating machine. An average of 23 men have been employed in this locality during the year on these works, and in the surrounding neighbourhood about 60 miners have found employment tin-sluicing; all are doing fairly well.

At the *Brothers United* a fair amount of tin has been obtained.

Gold-mining.

There is very little gold-mining in the district, the Russell River and Towalla being the only locality where the gold was obtained, and from the Chillagoe smelters, being as follows:—

	Oz.	dwt.	gr.	Value. £	s.	d.
Russell River ...	203	15	0	823	9	10
Towalla	8	19	0	25	4	7
Chillagoe Smelters ...	367	2	18	1,469	0	0

The Final Struggle, or what is now known as the *Minerva*, is the only mine working on the Mareeba Goldfield, but the progress is slow. Nothing has yet been found.

Mining Companies.

There were 15 mining companies registered at the Warden's office, Herberton, during 1907, as follow:—

The Mitchell River Gold and Antimony Company, Limited, 150,000 shares at 10s.; capital, £75,000; registered office, Cairns.



VIEW AT CHILLAGOE WORKS.

Showing Assay Office (centre), Old Smelters (on right), and the New Huntington-Heberlein Works (on left).

Weinert's Silver Lead Mines, Limited; 20,000 at 10s.; £10,000; Herberton.

The New Anniversary Copper Prospecting Syndicate, No Liability; 75 at £10; £750; Herberton.

The Go-Ahead Battery and Mining Syndicate, No Liability; 1,000 at £10; £10,000; Irvinebank.

King of the Ranges Tin Mining Company, Limited, 7,000 at £1; £7,000; Herberton.

The Dead Finish Tin Mining Syndicate, No Liability; 700 at £12 10s.; £8,750; Irvinebank.

Rowland's Brilliant Tin Syndicate, Limited; 600 at £5; £3,000; Herberton.

Aunty Janet Tin Mines Development Syndicate, No Liability; 5,000 at £1; £5,000; Cairns.

Northern Anniversary Copper Company, No Liability; 4,800 at 6s. 3d.; £1,500; Gympie.

Dorothy Tin Mining Sydicate, No Liability; 3,000 at £1; £3,000; Irvinebank.

The Captain Copper Prospecting Syndicate, Limited; 100 at £10; £1,000; Herberton.

Woollooman Creek Tin Company, Limited, No Liability; 360 at £10; £3,600; Irvinebank.

Weinert's East Orient Silver Lead Mines, Limited; 32,000 at 5s.; £8,000; Herberton.

Emu Creek Tin Mining and Milling Company, Limited; 1,000 at £10; £10,000; Irvinebank.

Lady Mary Company, No Liability; 100 at £20; £2,000; Irvinebank.

Produce.

The value of the output of minerals from the district for the year is £873,157 5s. 6d., which shows a decrease of £19,953 12s. 7d. when compared with the previous year. Below is the value of the minerals produced:—

	Value, 1906. £ s. d.	Value, 1907. £ s. d.
Gold ...	2,887 11 3	2,318 4 5
Copper ...	389,018 14 8	317,404 0 2
Silver ...	45,377 12 0	61,531 4 10
Lead ...	33,161 14 10	63,210 16 3
Mill Tin ...	275,137 12 0	313,383 10 10
Stream Tin ...	110,542 9 10	80,858 12 4
Wolfram ...	22,979 10 1	16,404 5 6
Bismuth ...	487 10 7	145 3 3
Antimony ...	711 15 10	240 0 0
Molybdenite ...	1,950 6 10	403 7 11
Limestone ...	7,765 11 6	11,299 10 0
Ironstone ...	3,090 8 8	5,880 10 0
Silver Lead ore ...		78 0 0
	£893,110 18 1	£873,157 5 6

Dividends.

The total amount declared in dividends during the year is £60,732, from the following mines:—

	£
Mount Molloy	22,500
Gilmore	6,750
Right Bower	1,800
New Anniversary, copper	225
Weinert's, silver	3,000
Endeavour and Leslie	2,000
Dalziell's	4,500
Sulphide, copper	360
Rowland's Brilliant...	225
Smith's Creek	2,500
O.K.	16,872
Total	£60,372

Mining Tenements.

At the close of the year there were 736 mineral leases and applications in force, comprising a gross area of 8,411 acres, being an average of 11 acres 1 rood 28 perches, being an increase of 164 in number and 830 acres in area when compared with the previous year. Miners' homesteads and applications in force at the end of the year totalled 774, of which the gross area was 2,658 acres 1 rood 16 perches, being an average area of 3 acres 1 rood 28 perches per holding, and an increase in number of 178, but a decrease in area of 501 acres. Two gold-mining leases were in force, containing 30 acres; 3,189 miners' rights were issued for the year, and 13 business licenses.

Revenue.

The collections at the Warden's office for the year were £7,548 19s. 2d.; when to this is added the sum paid for the Chillagoe concessions (£2,000) and rents received in Brisbane (£767 4s. 3d.), the total collections come to £10,316 3s. 5d., an increase of £1,440 10s. 2d. compared with the previous year. The collections of the clerk of petty sessions were £2,502 4s. 1d., and of the land agent £1,466 11s. 8d., which makes the total collections at Herberton office £14,284 19s. 2d., being an increase of £757 10s. 4d. when compared with the previous year.

Population.

I estimate the total population of the Walsh and Tinaroo mining district at 15,312, which shows an increase of 2,535 when compared with the previous year. The schedule attached to this report shows the population of the various centres of this district. The most noticeable increase is at Almaden, due to the starting of the Etheridge Railway from that place, where at the close of the year 1906 the population only numbered 109, while now it is 1,016. Chillagoe shows an increase of 247, Irvinebank 211, Nymbool 206, and other centres show small increases.

Accidents.

Considering the extensive mines and works that there are in this district, it is gratifying to be able to record so few casualties of a serious nature, and which speaks well for the careful management that exists. Thirty accidents were reported during the year. Some of them were of a trivial nature, but I regret to report that two of them were fatal. One occurred in the Queenslander Mine, on 13th February, to a miner named John Lyons, who went back into the face after certain shots had been fired. Shortly afterwards the men at the plat heard a light report, and they found the body of Lyons about 10 ft. from the place. The head was completely severed and blown to pieces, but the rest of the body was uninjured. From the position of the body it is somewhat of a mystery how the accident occurred.

The other fatal accident occurred to a man named John Johnson, who was struck on the abdomen by a steel rail at the Chillagoe smelters on 28th February. He died from the effect of the injury in the Chillagoe Hospital on 4th March, 1907.

General Remarks.

The district is prosperous, although not to the extent that it was at the end of 1906, when copper was at £112 (now £62), tin at £200 (now £124), and lead £18 to £20 per ton (now £13 10s.). Consequent on this large fall, the same amount of prospecting is not at present being carried on, and numbers of leases and claims that were yielding good profits from low-grade ores in the early portion of the year are now abandoned or under exemption as being not payable at the present price of metals. One great advantage that has accrued during the last two most prosperous years is the introduction of better and more up-to-date machinery, whereby some of the lower grade ores can be treated at a profit even at the present price of minerals, and the building of tramlines and railways has materially helped to lessen the cost of producing the industrial metals. I look forward with confidence to a great future for this mineral district, which I believe at the present time is practically only in its infancy.

No. 1.

RETURN OF TIN, WALSH AND TINAROO FIELD, YEAR 1907.

Mine or Owner.	Ore Treated.	Yield.	Value.
	Tons cwt. qr. lb.	Tons cwt. qr. lb.	£ s. d.
Lancelot	625 19 0 0	15 8 3 2	1,450 0 0
Roman (New Era)	6,696 10 0 0	56 16 1 3	6,255 0 11
Smith's Creek	14,841 0 0 0	379 11 0 0	36,681 0 0
Tourmaline	2,104 0 0 0	37 12 1 21	3,150 0 0
Vulcan	8,385 0 0 0	393 4 0 18	25,860 0 0
Endeavour and Leslie	1,287 4 0 0	59 2 0 17	6,245 8 6
Sampled lots	557 16 3 6	81 15 0 27	8,204 0 0
Right Bower	269 18 1 21	72 8 3 25	5,065 0 0
Elsie	69 7 1 23	25 8 1 2	3,035 0 0
Palazzi	26 9 0 0	0 18 2 6	88 0 0
Busbridge and Fox	8 13 0 25	0 10 1 9	47 0 0
Mount Agnes	49 17 2 0	2 3 3 20	187 0 0
Ethel Mary	12 6 3 16	0 6 2 20	26 0 0
Linklater	5 4 2 25	0 10 3 0	56 0 0
Bray and McLean	33 12 0 6	2 4 2 1	243 0 0
A. Sugden	9 6 1 24	0 3 3 11	12 0 0
W. McCamley	8 18 3 6	0 9 1 26	42 0 0
Lass o' Gowrie	131 8 3 9	27 8 2 19	2,609 0 0
E. J. Hampson	39 11 2 5	3 6 3 20	354 0 0
Jas. Brown	10 17 2 21	0 13 3 3	80 0 0
Poseidon	8 13 2 5	0 10 2 14	57 0 0
Robt. Jones	13 13 1 14	0 13 2 6	66 0 0
Mount Petersen	1,033 13 2 0	33 1 1 0	2,675 0 0
Tornado	908 1 1 17	84 1 3 12	8,138 0 0
J. Oliver	13 12 1 0	2 5 0 8	200 0 0
Horn and Abrahams	36 0 0 0	4 11 1 15	522 0 0
Young and Cross	7 19 2 16	0 8 0 6	42 0 0
Bonazzi and Starkie	10 19 1 8	0 6 1 20	22 0 0
George Claim	6 0 2 24	0 9 0 14	32 0 0
Brilliant	69 6 1 25	3 7 2 25	334 0 0
Powell	15 3 2 0	0 5 0 13	20 0 0
Forster and Murphy	47 1 0 0	1 17 3 16	187 0 0
S. Farrelly	7 4 0 14	1 4 2 22	95 0 0
Easton	11 19 2 16	0 6 2 9	22 0 0
Miller and party	8 14 1 20	0 10 3 3	56 0 0
Norma Syndicate	10 5 1 16	0 9 0 2	30 0 0
M. Fox	19 15 2 12	1 10 2 26	130 0 0
A. Sheppard	11 9 0 0	1 2 2 21	124 0 0
Tyrconnel	23 18 3 26	1 6 1 18	100 0 0
Norman	263 8 1 0	4 7 0 19	366 0 0
T. and T. Claim	19 19 0 0	0 9 3 17	30 0 0
R. Wyatt	23 8 3 20	2 7 2 16	192 0 0
Governor Norman	2,255 14 0 25	60 6 3 18	3,994 0 0
Valetta	375 5 1 0	15 0 1 17	1,117 0 0
O'Shea Bros.	10 6 0 0	0 19 0 8	66 0 0
Dover Castle	100 4 1 3	41 8 2 22	2,709 0 0
Lady Agnes	61 5 2 12	10 9 2 9	902 0 0
O'Connor and party	14 16 1 14	0 18 0 5	88 0 0
E. Rowe	8 16 3 26	0 9 2 14	27 0 0
Lambert and party	10 7 2 7	0 5 0 6	24 0 0
Two "C's"	11 19 2 13	1 3 1 16	103 0 0
Berry and Trembath	25 15 1 24	2 5 2 5	209 0 0
Excelsior	149 5 2 16	6 9 1 10	488 0 0
St. Patrick (H. Johnstone)	56 2 2 5	7 19 3 17	750 0 0
Johnstone and Knight	8 10 3 6	1 0 1 11	55 0 0
R. Turner	9 3 2 7	3 5 1 4	338 0 0
Jack-in-the-Box	88 15 2 16	3 16 2 14	330 0 0
W. Claridge	9 18 1 26	0 11 1 22	50 0 0
Lauridsen	10 13 1 0	0 11 0 9	54 0 0
Martin	5 10 0 0	0 8 1 4	36 0 0
Keogh	7 8 0 0	1 3 2 25	129 0 0
Rose of Tralee	19 0 1 6	2 16 3 0	261 0 0
Geo. Young	25 16 1 26	1 0 0 23	81 0 0
Powell and Linde	15 10 2 0	0 4 3 15	21 0 0
W. Peters	11 16 2 0	0 7 2 8	26 0 0
J. Boyd	10 0 0 0	0 6 2 26	23 0 0
Bombardieri	61 7 0 0	5 2 2 3	450 0 0
Remington	27 16 2 5	0 16 1 5	65 0 0
Savage and Rodgers	10 4 0 9	1 7 3 21	115 0 0
J. McIntyre	11 14 3 0	2 9 1 17	168 0 0
Norman Rhule	9 7 0 25	0 5 3 12	13 0 0
Savage and Co.	8 12 2 27	1 4 3 12	74 0 0
Davis and Co.	8 3 2 0	0 13 3 14	39 0 0
Mount Vesuvius	34 19 0 0	2 3 1 21	69 0 0
Great Northern	2,440 0 0 0	68 1 0 12	6,910 11 0
Southern Cross	59 8 2 0	1 5 2 0	132 15 0
Lady Gladys	45 6 1 0	0 14 2 16	73 4 3
J. Fagan	6 12 3 0	0 8 0 25	47 6 6
Matte Grosse	15 15 2 0	0 2 3 27	18 19 10
Solution	13 2 0 0	0 7 0 15	44 16 0
Bradlaugh	49 9 1 0	3 19 0 23	500 0 0
Chance	13 0 0 0	0 11 3 17	58 13 0
Lovely Nancy	49 7 3 0	2 16 5 0	290 4 9
Black King	157 1 3 0	4 1 1 24	507 5 0
Skyscraper	4 7 2 0	0 6 3 19	37 0 0
Good Friday	227 14 2 0	25 5 0 9	2,970 4 6

No. 1—*continued.*

RETURN OF TIN, WALSH AND TINAROO FIELD, YEAR 1907—*continued.*

Mine or Owner.	Ore Treated.	Yield.	Value.
	Tons cwt. qr. lb.	Tons cwt. qr. lb.	£ s. d.
Stenhouse	13 16 3 0	1 9 0 20	163 3 0
Anti-Socialist	30 15 2 0	2 10 0 5	286 4 0
Ironclad	82 16 1 0	5 3 1 25	587 14 6
Good Luck	26 15 1 0	1 7 2 17	171 0 0
St. Patrick	8 9 1 0	1 8 3 4	178 9 6
Alice Harrod	55 15 0 0	0 19 1 19	112 4 0
Dead Goat	4 13 0 0	0 2 3 16	15 13 6
Easter Monday	15 11 0 0	2 7 3 21	263 13 0
Brett	11 0 0 0	0 2 0 4	10 10 0
Amber	3 10 0 0	0 2 1 21	12 15 0
Madden	8 19 0 0	0 3 1 15	17 0 0
Stannary Hills	38,770 0 0 0	770 10 0 0	87,667 0 0
Adelaide	4,747 0 0 0	53 11 3 22	4,111 0 0
Pandanus Extended	52 10 0 0	1 1 3 13	95 5 0
Dalziell's	3,061 10 0 0	115 4 0 5	10,380 0 0
Day and party	12 10 0 0	0 7 4 12	33 0 0
Clark and Bromfield	13 0 0 0	0 5 2 2	24 10 0
Globe	231 6 0 0	17 1 3 27	992 0 0
Downs and party	8 10 0 0	0 8 2 22	43 0 0
Torpy's Titanic	44 5 0 0	1 11 3 26	183 10 0
Torpy's Densford	67 0 0 0	2 0 3 24	221 14 9
Torpy's Black Knob	15 10 0 0	0 19 0 0	94 0 0
Torpy's Saurian	25 10 0 0	0 16 1 4	76 0 0
Long and Fleming	8 15 0 0	0 3 3 6	17 15 0
Prince of Wales	51 5 0 0	10 3 3 21	1,024 8 6
Orient	19 0 0 0	0 5 2 1	27 10 0
San Francisco	10 0 0 0	0 5 3 14	19 0 0
Gilmore	2,069 18 0 10	318 3 3 14	22,172 12 8
Lights o' London	35 15 0 0	2 11 1 10	260 0 0
Adelaide North	100 9 2 0	5 12 0 21	609 4 10
Gladstone West	13 5 0 0	0 17 2 1	75 10 0
The Chance	77 17 0 0	3 7 3 12	286 15 3
Gladstone (Ord Syndicate)	337 5 0 11	19 15 2 18	1,645 0 0
Standard	4 15 0 0	1 5 2 24	126 0 0
Bell Booth	19 10 0 0	0 17 3 2	92 6 6
H. B. Livesey	53 15 0 0	4 6 3 21	362 0 0
Luxton Syndicate	35 0 0 0	1 15 3 2	179 15 4
Edmondston	5 15 0 0	0 4 3 13	23 10 0
Kingston	11 10 0 0	0 4 2 6	23 10 0
Portsmouth	43 10 0 0	2 4 2 8	256 6 0
Sorley	7 5 0 0	1 1 2 5	116 0 0
Amber	28 0 0 0	1 13 0 0	180 0 0
Althaus and party	9 15 0 0	0 6 3 8	21 0 0
Nero	8 5 0 0	0 7 0 0	30 0 0
Stafford and Mascall	14 0 0 0	0 15 3 3	49 18 6
Maori Boulder	44 7 0 0	0 19 2 1	73 1 6
Thompson and Maher	22 11 0 0	5 3 0 17	367 0 0
Boulder West	49 7 0 0	1 10 3 6	167 6 0
Dalton and Hogan	8 5 0 0	0 7 1 8	21 0 0
John Owens, junr.	10 10 0 0	0 3 0 14	10 5 0
Valentine's	8 16 0 0	0 9 1 14	54 0 5
Emrose and party	9 5 0 0	0 10 0 12	36 10 0
The Native	9 0 0 0	0 10 3 1	36 2 6
Percy Whereat	5 12 0 0	0 10 3 11	25 14 0
Village Blacksmith	247 18 0 0	18 3 1 16	1,680 0 0
Langton	9 10 0 0	0 16 0 14	46 0 0
Armstrong, Ledlie, and Stillman	4 13 1 0	0 14 2 7	48 0 0
Surprise	53 10 0 0	1 1 1 11	110 0 0
Zam-Buk	121 15 0 0	6 8 2 23	557 0 0
Jasper and Lawrence	27 0 0 0	1 7 0 14	141 0 0
C. E. de Jarlais	21 5 0 0	0 14 0 2	71 13 0
Whereat and party	31 10 0 0	0 11 0 26	52 0 0
Frisco	94 0 0 0	1 12 2 22	138 0 0
Last Call	139 10 0 0	5 1 0 3	569 7 9
Last Chance	111 2 0 0	7 3 0 21	667 0 0
Scottish Hero	37 10 0 0	2 1 2 7	285 15 0
Mount Marjorie	157 10 0 0	7 16 0 21	861 10 0
Aunty Janet	10 5 0 0	0 5 2 16	23 0 0
R. Volkman	6 0 0 0	0 9 3 21	31 0 0
Langton Tribute	9 5 0 0	0 18 3 8	47 5 0
Barrett and Marvel	20 2 0 0	1 6 1 22	72 0 0
Bell and party	21 9 3 0	0 15 3 19	40 0 0
Dalnotter	619 2 3 7	14 1 3 24	1,196 0 11
Shakespeare	476 18 0 0	13 16 0 22	1,018 18 11
Tennyson	272 16 3 14	14 6 2 6	812 10 8
Southwick	266 13 0 14	28 17 2 19	2,529 14 2
Venture	53 5 0 0	2 5 0 6	210 4 9
Merlin	17 11 0 0	0 6 3 7	17 0 0
Iolanthe	34 17 3 0	1 2 3 4	85 16 5
Never-Can-Tell	5 0 3 0	0 3 0 2	11 12 4
Telegraph	170 5 0 14	4 8 3 7	182 19 7
Franklin	6 0 0 14	0 8 1 2	37 4 1
Parkes	7 11 1 4	0 4 1 5	16 10 8
Mount Success	59 10 2 0	3 4 2 27	270 5 10
Truss	4 19 2 0	0 4 3 12	24 15 5

No. 1—*continued.*

RETURN OF TIN, WALSH AND TINAROO FIELD, YEAR 1907—*continued.*

Mine or Owner.	Ore Treated.				Yield.				Value.		
	Tons	cwt.	qr.	lb.	Tons	cwt.	qr.	lb.	£	s.	d.
Martha	7	14	2	0	0	9	0	2	38	6	6
Muddle	179	0	3	21	8	1	0	25	740	18	2
J.A.	4	3	0	0	0	5	3	10	23	4	3
Pioneer	181	11	1	14	6	11	3	10	652	19	5
Welcome	66	17	0	7	5	16	2	7	369	10	6
Try Again (Ludlow)	14	2	0	0	0	6	3	27	32	3	2
Leary	20	7	2	4	0	15	3	11	65	2	3
Light Brigade	6	7	0	0	0	4	3	18	24	6	1
Kate	7	2	2	0	0	3	2	7	16	11	3
The Star	5	3	3	26	0	3	3	19	19	4	1
Jago	36	17	2	0	5	4	0	15	490	1	7
Millview	11	11	0	0	2	11	3	11	290	0	0
Dead Finish	170	4	3	2	15	4	0	21	1,146	0	0
Two Jacks	58	10	2	0	3	2	3	14	225	0	11
Goodwin	5	10	0	0	0	2	0	13	10	0	0
Bismarck	7	14	2	0	0	5	0	23	25	0	0
Alicia	31	7	2	21	1	6	0	5	110	1	11
Native Rose	5	1	2	12	0	2	2	19	13	0	0
Atlantasaurus	47	2	2	21	7	1	0	17	671	6	0
Garbutt	9	9	2	26	0	5	0	10	20	7	1
Fairplay	326	1	3	14	15	17	3	3	1,081	0	7
Duffer (Newman)	14	6	2	0	0	7	1	5	37	9	4
Mary Ann	5	8	2	0	0	8	2	18	32	9	6
Parsifel	11	10	0	4	0	19	0	17	88	18	1
Revenge	42	17	3	7	1	4	3	22	93	5	11
Myrtle	6	13	3	0	0	8	1	10	44	3	11
Sunset	7	15	2	0	0	3	2	26	17	14	6
Rosalind	7	18	0	0	0	3	2	25	17	19	11
Who'd-a-Thought-It	18	0	1	14	1	0	2	17	97	9	9
Venus	3	15	1	0	0	2	2	7	11	18	3
Mountain Maid	10	17	2	0	0	7	3	16	29	19	10
Pleisiosaurus	39	1	3	14	1	4	0	7	79	0	2
Two "B's"	5	4	2	14	0	4	3	1	17	0	0
Borunda	3	4	0	8	0	5	1	22	20	8	5
Two Joes	8	6	3	14	0	5	3	13	17	0	0
March Fly	75	0	0	0	4	12	2	20	520	0	0
St. Patrick (Parr and Hassett)	182	7	2	0	3	3	0	27	294	0	0
Emslie	14	0	1	16	0	7	0	18	34	0	0
Duffer (F. Werner)	37	15	3	0	0	18	1	18	45	0	0
Hard Hit	30	17	3	0	2	10	3	23	237	0	0
F. Ellis	4	11	0	0	0	10	2	10	45	0	0
Bonnie Dundee	50	1	1	0	0	17	1	25	75	0	0
F. Hopkins	16	10	2	0	0	17	0	8	80	0	0
Summers Extended	12	6	2	0	0	2	1	15	11	0	0
Sunlight	88	18	0	0	1	10	2	12	145	0	0
Alhambra	1,433	15	0	0	18	12	3	14	1,220	0	0
W. Smith	14	15	0	0	2	13	2	15	112	0	0
John Manly	5	15	0	0	0	5	2	11	16	0	0
Casemore	6	0	0	0	0	3	1	2	13	0	0
Bendon and Green	79	11	3	0	4	10	0	3	378	0	0
John Sims	12	16	0	0	0	8	1	11	24	0	0
The Ney	36	15	1	0	1	5	2	1	114	0	0
Merrie England	40	8	0	0	1	0	0	0	80	0	0
Federal	4	5	0	0	0	7	0	10	30	0	0
Dalcouth	52	6	1	0	2	10	1	11	248	0	0
J. P. Lister	76	6	3	0	3	15	1	24	325	0	0
Rosé of Coolgarra	24	1	0	0	1	8	0	13	87	0	0
The Nelson	19	15	0	0	0	10	1	8	49	0	0
The Confidence	12	12	0	0	0	5	1	21	26	0	0
Queenslander	44	8	1	0	1	18	2	21	152	0	0
Somerville	16	10	1	0	0	15	0	0	80	0	0
Always Can Tell	15	9	0	0	0	7	3	11	35	0	0
The Briton	22	11	1	0	0	12	2	10	56	0	0
Josephine	20	5	0	0	0	5	0	6	16	0	0
The Hardup	20	1	0	0	0	13	2	11	64	0	0
Day and Ryle	5	0	2	0	0	7	0	8	40	0	0
Mount Fraser	116	2	3	0	3	18	3	7	342	0	0
Dooley and Donohue	13	18	1	0	0	10	2	11	48	0	0
Keefe and Neil	20	5	0	0	0	12	2	3	57	0	0
The Sheepyard	25	10	3	0	0	17	1	10	83	0	0
Jones and Dredge	9	10	1	0	0	11	0	1	54	0	0
Christy and party	4	5	2	0	0	5	0	10	27	0	0
Baldy Green	191	2	1	0	5	8	0	11	265	0	0
Stapleton and Barrett	52	18	0	0	2	15	0	25	232	0	0
Wandering Digger	5	11	0	0	0	5	2	18	21	0	0
M. Inglis	4	1	2	0	0	5	2	9	25	0	0
Try Again (T. Murray)	6	2	0	0	0	5	0	0	23	0	0
Starlight	11	13	0	0	0	8	0	0	39	0	0
W. Bain	8	15	2	0	0	3	0	0	14	0	0
New Light	22	8	3	0	0	14	2	18	54	0	0
Walkover	30	14	0	0	0	13	3	5	55	0	0
Tranby	5	2	3	0	0	4	2	0	20	0	0
The Tommy Smith	4	16	0	0	0	2	3	16	9	0	0
True Blue	110	1	1	0	2	16	3	3	245	0	0
Extended	15	9	1	0	0	9	1	24	42	0	0
Cook Bros.	179	13	0	0	12	15	1	13	1,117	0	0

No. 1—*continued.*

RETURN OF TIN, WALSH AND TINAROO FIELD, YEAR 1907—*continued.*

Mine or Owner.	Ore Treated.				Yield.				Value.		
	Tons	cwt.	qr.	lb.	Tons	cwt.	qr.	lb.	£	s.	d.
Homeward Bound	38	3	2	0	1	13	3	15	170	0	0
Linden	25	10	2	0	0	13	3	22	64	0	0
Erin	18	5	0	0	0	8	3	24	30	0	0
Lindblom	12	3	0	0	0	6	0	27	13	0	0
Waster	4	13	0	0	0	9	2	14	29	0	0
Daylight	6	18	3	0	0	5	0	14	10	0	0
Talisman	177	4	2	0	4	19	2	23	482	7	0
Jumna	1,418	15	0	0	40	1	3	11	3,741	0	0
Rejected Tin Claim	10	0	0	0	0	7	3	24	36	0	0
Sunbeam	14	10	0	0	0	9	1	8	45	0	0
Ingram and Thompson	10	0	0	0	0	7	2	8	35	0	0
Star of the South	447	0	0	0	9	1	0	16	671	0	0
M. Laurens	22	0	0	0	0	10	2	19	50	0	0
W. McAnley	65	0	0	0	1	7	2	25	124	0	0
No. 1 Star	60	0	0	0	0	19	2	17	70	0	0
R. Knight	10	0	0	0	1	15	0	19	175	0	0
Hidden Treasure	42	0	0	0	0	8	3	2	28	0	0
Punjaub	59	0	0	0	0	17	3	9	85	0	0
Chance	57	14	0	0	2	1	1	0	175	0	0
Neptune Wolfram Co.	16	18	0	0	0	5	2	20	40	0	0
Bonsor	6	10	0	0	0	8	0	21	50	0	0
Perseverance	68	0	0	0	2	13	3	23	254	0	0
Tungsten-Wolfram	10	0	0	0	0	5	1	27	40	0	0
Mount Albert	36	10	0	0	2	16	3	26	285	0	0
Alexandria	91	17	0	0	4	16	3	7	580	17	6
Hit-or-Miss	6	0	0	0	0	11	0	13	58	14	0
Trial	2	9	0	0	0	8	2	8	49	0	0
Cuprite	30	0	0	0	1	7	1	24	151	3	0
Irish Girl	43	18	3	0	4	4	0	3	441	0	0
Amy	22	13	0	0	1	3	1	15	140	6	0
Great Western	34	13	0	0	2	14	3	27	207	15	0
Sloan Extended	13	7	0	0	3	12	1	24	416	11	0
Caledonia	21	16	0	0	2	9	3	16	288	4	0
Stannary	6	3	0	0	0	13	2	7	71	5	0
Gladstone	2	7	0	0	0	8	2	9	51	0	0
Welcome Home	28	6	0	0	0	16	3	4	89	3	0
Consolidated	81	9	0	0	7	9	1	11	746	14	6
Rosalie	100	4	0	0	5	14	3	8	656	3	6
Golconda	6	5	0	0	0	12	2	0	73	0	0
Klondyke	10	0	0	0	1	1	1	7	117	0	0
Peters	6	0	0	0	1	1	0	8	121	0	0
Brilliant	30	1	0	0	3	17	2	12	447	10	0
Brilliant Central	2	10	0	0	0	4	1	7	22	15	0
M. and R.	5	0	0	0	0	9	0	2	47	7	0
Federation	3	16	0	0	0	6	2	14	33	2	6
Morse	4	15	0	0	0	4	3	5	25	5	0
North Australian	17	9	0	0	0	13	1	4	70	0	0
Mount Ormonde	17	0	0	0	0	15	2	23	82	2	0
T Claim	2	6	0	0	0	4	0	15	16	10	0
Day's	18	0	0	0	0	16	0	24	89	15	0
Long and Waterman	5	12	0	0	0	15	0	25	88	5	0
Harvey and Montgomery	25	12	0	0	0	9	0	2	51	2	0
Kangaroo	21	0	0	0	2	5	2	9	261	15	6
Roos	16	6	0	0	1	9	1	8	172	0	0
Gordon	5	10	0	0	0	10	0	18	53	0	0
Finnigan	5	6	0	0	0	18	1	0	97	5	0
Great Vulcan	8	0	0	0	2	0	3	4	241	0	0
Hillview	5	0	0	0	0	3	1	26	18	10	0
Morris Bros.	6	0	0	0	0	4	0	20	22	0	0
Young	6	6	0	0	0	19	2	0	101	0	0
Spear Claim	5	0	0	0	1	5	1	10	115	0	0
W. Peters	12	0	0	0	0	10	0	15	50	0	0
Dead Horse	140	0	0	0	1	14	0	12	145	0	0
S. Maxwell	11	0	0	0	0	2	2	20	12	0	0
Clark and Strauss	48	2	0	0	1	10	1	19	153	0	0
Wild Cat	20	0	0	0	0	13	2	20	60	0	0
Hadleigh Castle	34	2	0	0	6	4	0	11	560	0	0
Roos Bros.	36	0	0	0	2	1	1	12	186	0	0
Eureka	54	0	0	0	2	5	0	0	255	0	0
Hansford	11	0	0	0	0	13	0	0	65	0	0
Hudson	1	10	0	0	0	3	0	0	15	0	0
W. Griffin	18	13	0	0	4	0	0	0	600	0	0
Phœnician	30	2	3	1	4	8	0	23	313	0	0
Morning Light	29	5	0	0	2	15	0	6	284	0	0
	106,361	11	2	2	3,432	1	3	11	313,383	10	10
Stream Tin	...				726	9	3	24	80,858	12	4

No. 2.

SUMMARY SMELTER RETURNS, WALSH AND TINAROO FIELD, DURING YEAR 1907.

Smelter.	Ore Treated.	Copper.	Value.	Gold.	Value.	Silver.	Value.	Lead.	Value.	Limestone.	Value.	Ironstone.	Value.	Total Value.
	Tons cwt. qr. lb.	Tons cwt. qr. lb.	£ s. d.	Oz. dwt. gr.	£	Oz. dwt.	£ s. d.	Tons cwt. qr. lb.	£ s. d.	Tons cwt.	£ s.	Tons cwt.	£ s.	£ s. d.
Chillagoe.														
Chillagoe Mines Redcap ... Zillmanton ... Ruddygore ...	12,500 16 0 0	401 16 1 9	25,072 2 5	...	...	31,638 2	3,941 13 6	10 6 2 10	134 7 2					
Mungana	19,687 6 0 0	550 13 1 20	34,027 14 3	...	...	181,084 5	22,307 9 1	2,270 4 3 2	30,978 4 5					
Purchased	10,909 16 0 0	318 6 3 11	19,939 19 6	367 2 18	1,469	151,240 16	18,352 17 1	1,743 7 0 3	25,402 13 6	9,684 16	6,521 10	5,708 4	4,696 10	259,818 14 0
Lead Matte	6,036 14 0 0	656 9 3 8	40,517 13 6	...	...	70,661 4	8,518 0 3	...	...					
Redcap Flux	1,302 16 0 0	36 1 0 5	2,258 4 7	...	...	3,336 0	416 4 10	...	...					
Girofla Flux	6,914 12 0 0	22 8 0 6	1,396 1 6	...	...	41,039 15	4,930 9 1	345 19 1 14	5,390 8 7					
By-products	39 0 0 0	38 3 1 4	2,403 9 0	...	...	9,152 13	1,144 1 9	...	...					
Mount Molloy.														
Mount Molloy Mines	14,010 13 0 22	678 7 3 15												
Sweet William ...	251 12 0 0	37 0 3 6	61,456 0 0	...	...	840 0	105 0 0	...	...	1,245 12	995 0	1,048 10	1,184 0	63,740 0 0
United North Australian	150 8 0 0	11 18 0 0												
O.K.														
O.K. Mines	16,081 0 0 0	1,362 16 0 0												
O.K. Blocks	270 0 0 0	15 0 0 0	124,274 0 0	...	...	...	...	...	...	3,997 0	3,783 0	...	...	128,057 0 0
O.K. Surprise ...	254 0 0 0	25 0 0 0												
Purchased	11 0 0 0	1 0 0 0												
Omitted from 1906 ...	...	33 0 0 0	3,001 9 9	...	...	...	...	...	...	...	...	...	...	3,001 9 9
	88,419 13 0 22	4,188 1 2 0	314,346 14 6	367 2 18	1,469	488,992 15	59,715 15 7	4,369 17 3 1	61,905 13 8	14,927 8	11,299 10	6,756 14	5,880 10	454,617 3 9

No. 3.

WOLFRAM RETURN, WALSH AND TINAROO FIELD, YEAR 1907.

Mine or Owner.	Ore Treated.	Yield.	Value.
	Tons cwt. qr. lb.	Tons cwt. qr. lb.	£ s. d.
Koorboora Mill—			
Neville	997 9 0 13	22 14 0 11	2,764 18 4
Oliver	2 12 1 6	0 13 2 17	74 0 0
Kerr's Query	10 2 2 14	0 2 2 15	8 0 0
Leavy's	5 1 0 13	0 5 2 0	18 0 0
Anastasia Extended	5 16 0 8	0 3 1 9	18 0 0
Bischoff Mill—			
Wellington	24 3 0 0	2 15 1 15	339 10 0
Gardiner	4 0 0 0	0 10 2 22	70 0 0
Pandora	22 6 0 0	0 15 0 21	75 15 0
H. Forester	7 18 0 0	0 8 3 18	42 0 0
Wilesmith	2 17 0 0	0 11 1 6	70 12 6
Big Rock	12 16 0 0	0 15 3 20	105 0 0
Watson	3 5 0 0	0 11 1 0	79 0 0
Never-can-Tell	4 9 0 0	0 2 2 10	12 0 0
Gibbs	3 16 0 0	0 9 1 21	58 0 0
Deacon	10 0 0 0	1 16 0 25	220 0 0
Great Northern Mill—			
Great Northern	8 0 0 0	0 10 3 8	64 0 0
Syndicate	6 4 0 0	0 7 0 19	47 0 0
Star Battery—			
Callaghan and James	4 0 0 0	0 10 2 20	60 0 0
Leahy's	7 0 0 0	0 2 0 10	16 0 0
H. Edmonds and Co.	5 0 0 0	0 6 2 6	35 0 0
J. Birmingham	9 0 0 0	0 3 2 7	21 0 0
Youngstem and Hendy	6 0 0 0	0 14 0 20	84 0 0
Austin	8 0 0 0	0 4 2 0	27 0 0
J. Carmody	11 6 0 0	0 11 2 24	70 0 0
Cotter and Nicol	6 0 0 0	0 5 0 0	30 0 0
	1,187 1 0 26	36 12 1 16	4,408 15 10
Purchased Wolfram	...	99 1 3 19	11,995 9 8
Total	...	133 14 1 7	£16,404 5 6

No. 4.

PURCHASED ORES, WALSH AND TINAROO FIELD, YEAR 1907.

Description of Ore.	Quantity.	Value.	Silver Contents.	Value.
	Tons cwt. qr. lb.	£ s. d.	Oz.	£ s. d.
Lead	256 7 3 27	1,305 2 7	11,722	1,469 9 6
Molybdenite	3 9 2 8	403 7 11	...	...
Copper	348 17 2 7	3,057 5 8	2,806	345 19 9
Bismuth	0 8 1 4	145 3 3	...	...
Antimony	19 19 3 15	240 0 0	...	...
	629 3 1 5	£5,150 19 5	14,528	£1,815 9 3
Value of silver	...	1,815 9 3		
Total value	...	£6,966 8 8		

SILVER LEAD ORE TREATED AT KOORBOORA BATTERY.

—	Ore.	Yield.	Value.
	Tons cwt. qr.	Tons cwt. qr. lb.	£ s. d.
Tennyson Mine	27 5 3	6 14 2 6	78 0 0

No. 5.

Return of Reduction and Smelting Machinery, Walsh and Tinaroo Field, Year 1907.

| Locality. | Steam. | | | | Works. | Reduction Works. | | | | | | Concentrating and other Works. | | | | | | | | | | | | | | | | | | Furnaces. | | | | Other Appliances. | | | | | | | | | | | | | | | | | | | | | | | | | | Sundries. | | | | | | | | Estimated Value. |
|---|---|---

No. 6.

Population Return, Walsh and Tinaroo Mineral Field, Year 1907.

Town or Camp Centre.	Miners.		Non-Miners.	Mercantile.	Domestic.		Total European.	Asiatics.		Total Asiatics.	Grand Total.
	Lode.	Alluvial.			Women.	Children.		Chinese.	Others.		
Almaden	5	5	769	41	77	105	1,002	7	7	14	1,016
Atherton	...	...	270	18	100	200	588	333	16	349	937
Bakerville	40	6	20	2	15	14	97	6	...	6	103
Bamford	41	30	4	8	40	62	185	8	3	11	196
Biboohra	...	...	87	9	21	50	167	4	...	4	171
Bismarck Gully	...	9	...	...	...	...	9	...	...	...	9
Black's Creek	...	83	...	...	...	...	83	2	...	2	85
Bolwarra	...	...	...	4	3	9	16	...	...	...	16
Boonmoo	5	2	14	2	7	15	45	1	1	2	47
Bullock Creek	3	2	1	2	...	...	8	...	...	...	8
Calcifer	5	...	...	...	2	6	13	...	...	...	13
California Creek	30	55	10	5	24	44	168	1	...	1	169
Carrington	...	...	140	3	60	80	283	80	2	82	365
Chillagoe	90	...	687	31	275	417	1,500	20	11	31	1,531
Clohesy	1	...	...	...	...	...	1	...	...	...	1
Coolgarra	55	23	21	6	41	51	197	1	1	2	199
Crooked Creek	6	...	4	4	11	8	33	...	...	...	33
Dry River Junction	2	25	2	...	6	10	45	3	...	3	48
Emu Creek, Irvinebank	28	17	4	...	5	8	62	...	...	...	62
Emu Creek, Mount Garnet	10	40	2	3	10	41	106	...	...	...	106
Emuford	40	25	9	3	24	16	117	4	...	4	121
Eight-mile, Wolfram Camp	50	2	...	1	3	7	63	...	...	...	63
Evelyn	...	5	27	2	16	19	69	4	...	4	73
Federal	...	11	...	...	4	2	24	1	...	1	25
Fischerton	...	48	5	3	17	36	109	...	...	...	109
Fossilbrook	12	170	10	7	20	20	239	4	3	7	246
Gorge Creek	...	...	...	...	...	...	...	3	1	4	4
Gunnawarra	...	...	5	...	2	3	10	1	...	1	11
Gurrumba	40	50	7	10	40	100	247	7	...	7	254
Harper's Siding	10	...	...	...	3	9	22	12	...	12	34
Herberton	60	35	60	14	144	280	593	8	4	12	605
Innot Hot Springs	3	51	7	3	10	17	91	3	...	3	94
Irvinebank	330	15	470	38	445	560	1,858	16	44	60	1,918
Jumna Creek	25	7	6	...	8	14	60	3	...	3	63
Koorboora	41	13	19	20	72	131	296	1	...	1	297
Lappa	3	10	...	1	3	6	23	...	...	...	23
Mareeba	...	...	230	75	180	470	955	22	7	29	984
Mareeba Goldfield	4	...	...	...	2	4	10	...	...	...	10
Mitchell River	...	37	6	1	4	2	50	...	...	...	50
Montalbion	9	...	14	...	5	8	36	13	...	13	49
Moonmin	10	6	2	...	10	25	53	...	...	...	53
Mount Alto	...	10	...	...	...	...	10	...	...	...	10
Mount Babinda	3	3	...	...	...	...	6	...	...	...	6
Mount Carbine	90	60	20	8	50	60	288	2	...	2	290
Mount Fraser	...	8	...	...	...	...	8	...	...	...	8
Mount Garnet	15	48	27	17	66	111	284	14	...	14	298
Mount Holmes	2	4	...	...	...	...	6	...	...	...	6
Mount Lewis	...	8	...	...	...	...	8	...	...	...	8
Mount Molloy	185	20	138	15	100	80	538	7	...	7	545
Mount Spurgeon	12	10	...	...	2	...	24	...	...	...	24
Muldiva	20	...	...	1	3	5	29	...	...	...	29
Mungana	196	...	102	12	99	120	529	12	6	18	547
Nigger Creek	...	70	4	...	25	40	139	5	...	5	144
Northedge	...	...	12	...	20	15	47	...	...	...	47
Nymbool	116	20	50	10	70	150	416	12	...	12	428
O.K.	300	...	100	14	94	80	588	13	2	15	605
Orient Camp	70	...	8	3	22	27	130	2	...	2	132
Redcap	42	...	15	5	30	45	137	6	...	6	143
Red Hill	...	5	...	...	...	...	5	...	...	...	5
Rocky Bluffs	...	2	52	2	12	35	103	1	4	5	108
Russell	...	6	2	1	2	6	17	...	...	...	17
Silver Valley	50	20	20	4	16	11	121	...	...	...	121
Six-mile	3	4	2	...	1	2	12	...	...	...	12
Stannary Hills	195	5	70	15	120	135	540	8	3	11	551
Tate	...	...	2	...	1	2	5	...	...	...	5
Tinaroo	9	13	...	...	...	...	22	...	...	...	22
Tolga	...	...	200	4	80	80	364	80	15	95	459
Towalla	...	1	...	...	...	...	1	...	...	...	1
Upper Nettles Creek	7	45	...	...	9	12	73	...	...	...	73
Valley of Lagoons	...	...	5	...	2	4	11	2	...	2	13
Watsonville	60	10	20	7	56	115	268	2	...	2	270
West Chillagoe	20	...	3	1	7	7	38	...	...	...	38
Woollooman Creek	26	14	1	...	2	...	43	2	...	2	45
Woodleigh	...	...	5	...	2	...	7	1	...	1	8
Wadetown	...	...	8	2	5	14	29	...	...	...	29
Zillmanton	40	...	3	2	6	13	64	2	...	2	66
Total	2,426	1,168	3,785	435	2,611	4,018	14,443	739	130	869	15,312

No. 7.

RETURN OF MINING APPLIANCES, WALSH AND TINAROO FIELD, YEAR 1907.

Locality.	Steam Power.						Air Compressors.		Mining Machinery.			Winding Gear.		Poppet-heads.	Lathes and Saw Benches.	Water Races.	Estimated Value of Entire Plant.
	Boilers.		Engines.		Winches.												
	No.	H.P.	No.	H.P.	No.	H.P.	No.	H.P.	Rock Drills.	Dynamos.	Pumps.	Double.	Single.				
																	£
Bakerville ...	2	24	1	12	...	...	...	...	...	...	3	1	...	1	...	...	500
Chillagoe ...	15	352	5	180	9	112	2	100	10	...	6	2	70	7	1	3	19,270
Glutton Gully ...	3	90	2	80	...	...	...	...	...	...	3	...	...	...	...	1	3,000
Herberton ...	3	52	3	28	1	10	2	20	4	...	4	2	1	2	1	...	3,000
Irvinebank ...	2	50	5	108	1	8	2	40	6	...	5	3	...	1	1	...	6,176
Jumna	...	...	...	...	...	...	...	...	...	...	...	1 w	him	1 po	le	...	40
Koorboora ...	2	30	2	26	...	...	...	...	...	...	1	2	...	2	...	...	900
Mount Garnet ...	4	98	4	94	...	...	1	60	7	...	2	2	...	3	...	...	6,000
Mount Molloy ...	4	189	...	...	...	...	1	...	8	...	2	4	1	2	...	...	10,080
Mungana ...	12	685	4	200	1	12	1	216	16	...	5	7	...	4	...	...	13,064
New Era ...	1	9	1	9	1	4	...	...	...	...	...	1	...	1	...	...	300
O.K. ...	...	..	...	...	...	...	1	60	6	...	...	2	1	1	1	...	1,500
O.K. Blocks ...	1	25	...	...	1	8	...	...	...	...	...	1	...	...	...	...	425
Ord	1	15	...	...	1	10	...	...	...	...	...	...	1	1	...	...	400
Silver Valley ...	1	15	1	15	...	...	...	...	1	...	1	...	1	1	...	...	800
Smith's Creek ...	3	176	1	100	1	...	1	10	7	...	1	1	1	...	2	...	3,600
Stannary Hills ..	4	230	2	25	5	70	1	30	7	1	10	...	1	4	2	...	12,000
Tornado ...	1	35	1	25	...	...	...	...	...	...	1	1	...	4	...	...	2,000
Watsonville ...	...	...	1	8	...	...	...	...	...	...	1	...	...	1	1	...	360
Weinert's ...	1	10	...	...	...	...	...	...	...	...	...	...	1	...	...	...	250
Mareeba ...	...	...	1	8	...	...	...	...	...	...	...	...	1	...	...	...	300
												TOTAL ...	...	...		£	83,965

No. 8.

RETURN OF DIVIDENDS DECLARED, WALSH AND TINAROO FIELD, YEAR 1907.

Company.	No. of Dividends.	Amount.		
		£	s.	d.
Mount Molloy, Limited	9	22,500	0	0
O.K. Copper Development Syndicate, No Liability	1	16,872	0	0
Gilmore Tin Mining Syndicate, No Liability	5	6,750	0	0
Weinert's Silver Lead Mines, Limited	6	3,000	0	0
Dalziell's Tin Mines, Limited	3	4,500	0	0
Smith's Creek Proprietary Tin Mines	1	2,500	0	0
Endeavour and Leslie Tin Mining Syndicate, No Liability	4	2,000	0	0
Right Bower Tin Mining Company, No Liability	3	1,800	0	0
Sulphide Copper Mine	2	360	0	0
New Anniversary Copper Prospecting Syndicate, Limited	3	225	0	0
Rowland's Brilliant Tin Syndicate, Limited	1	225	0	0
		60,782	0	0

F. P. PARKINSON, Warden.

HODGKINSON FIELD.

As I anticipated in my last annual report, there has been a very large increase in the return of minerals for the year 1907. During 1906 the total ouput only reached £58,476, whereas 1907 returns showed a total value of £88,710, leaving the substantial increase of £30,234. This increase, as may be seen from the returns, was not wholly due to greater production, but more especially to the higher prices prevailing throughout the year. Particularly is this proved in the case of wolfram, as, though 23 tons less were produced, there was an increase in the value of over £28,000; and, again, with antimony, of which 68 tons less were produced in 1907, yet the value shows an increase of over £700. This latter mineral, the mining of which in the beginning of the year gave great promise of reviving the almost deserted portions of this field, about the month of May became practically valueless, and several places which had become busy centres were again abandoned. As much as £22 per ton had been offered on the field, and great things were being hoped for in the production of antimony. During the few months in which the price remained from £15 to £22 per ton there were somewhere about 150 men employed in antimony mining alone, and Thornborough especially benefited by the change, as a good deal of payable antimony was discovered in the immediate vicinity, Woodville, Northcote, Kingsborough, and Thornborough being the principal centres. There was every appearance of a splendid year, but the slump in

the price was the cause of all the antimony mines being closed down. Wolfram has undoubtedly been the saviour of this field. It has been acountable for nearly three-fourths of the value of the mineral production of the year, and has given employment to an average of 550 men. Applications by the individual miners for a claim of one man's ground are, however, becoming less frequent, and the Irvinebank Mining Company are the owners of almost the whole of Wolfram Camp. In fact, with the exception of Larkin and party's, P. Vallely's, and the claim known as Nicholls's, there are practically no other claims of any importance in which the company named are not interested. This company has not been slow either in taking advantage of its chances, and has already erected an 8-h.p. winding plant on one of its principal claims, the Wheate. They have also erected a most effective and up-to-date plant for the treatment of their stone on the ground; and, judging by present appearances, the majority of the claims at Old Wolfram Camp seem to have fallen into very capable hands.

During the month of December several applications were received in this office for licenses to prospect for coal. The land applied for is situated at the foot of Mount Mulligan, and adjoining Prospecting Areas No. 2 and 3.

General Grant Lease (Cecil Syndicate).—This property during the past year produced 2,348 tons 10 cwt. of quartz, for a yield of 1,384 oz. 1 dwt. of gold. The total yield from this mine up to date has been 24,038 tons 3 cwt., for a yield of 21,835 oz. 2 dwt. of gold.

Grant and Caledonia Leases.—The work in these leases during the past twelve months has been carried on principally by tributers, who during the year crushed 222 tons for a yield of 159 oz. 8 dwt. of gold. They have since raised, and are at present engaged putting through, a crushing of 250 tons. This parcel of stone was raised between the 600 and 750 ft. levels.

New Monarch Gold Mining Company.—This company, since they resumed work in September last, have been sinking their underlie shaft, which up to date is down to 63 ft. They have also everything in order for the removal of their winding plant from its present position to the site of their present workings.

Southern Cross.—The shareholders in this claim during the past year treated 95 tons 5 cwt. of quartz, for a yield of 298 oz. of gold. They have since raised a parcel of 60 tons, which they are at present engaged carting to the Reconstruction mill, Kingsborough, for treatment.

Woodville.

Queenslander.—This property consists of a lease of 25 acres. Work in this lease commenced in July last. The lessees started work in an old underlie shaft, which they have enlarged to a uniform size of 7 by 4 ft., and have retimbered to a depth of 214 ft. Some 8 or 10 ft. more has to be sunk to reach the bottom of the old workings. An 8-h.p. engine and a 10-h.p. boiler have been placed on the mine, and the erection of same has been completed. The engine-shed and blacksmith's shop are also erected, together with truck road from the surface to the bottom of the present workings. This mine at the present time has a stock of firewood and mining timber enough to see them through the wet season.

Dagworth Extended.—This property has been continuously worked during the past twelve months by four men. The work has been confined to sinking, driving, and stoping. The shaft has been sunk to a further depth of 100 ft., the total depth now being 216 ft. The level at the 90 ft. has also been driven in a south-westerly direction a further distance of 30 ft., total distance from shaft being 70 ft. Stoping has also been carried on. The reef showing in the stope and drive is small, but it prospects for 30 dwt. per ton. During the year the shareholders cleaned up a crushing of 75 tons for a yield of 117 oz. 17 dwt. of gold, valued at £3 16s. per oz. They have about 30 tons of stone equal to their last crushing in their paddock.

Home Rule Extended.—This claim has been worked during the whole of the year by four men. They were engaged driving and stoping, and raised a crushing of 220 tons. Their last crushing, of 144 tons, yielded 85 oz. 19 dwt. of gold.

Coal Prospecting Area No. 2.—This area is situated at the foot of Mount Mulligan, and was applied for in February last by Charles Arbouin and W. J. W. Richards, who has since worked it constantly with three men. Work in this area has been confined to driving a tunnel on the coal formation into the mountain. The tunnel is now in a distance of 223 ft., and 30 ft. under the main bluff of the mountain. The formation driven through up to the present has been very much disturbed, but in the face of the drive there appears to be a change for the better, the coal being much cleaner and of a better quality. The work already done has proved the existence of a coal seam that is well worth prospecting.

Antimony Mines, Woodville.

Previous to the slump in the price of antimony in July last, there was a fair amount of developing work being carried on in these mines, which are principally owned by the Irvinebank Mining Company, giving employment to a great number of men. In Mineral Lease No. 81 the lessee sank a shaft to a depth of 46 ft., and started drives both east and west to a distance of over 40 ft. each way. There is a strong body of ore going down in the bottom of the shaft, and both the levels show a good face of ore.

In Mineral Lease No. 82 there was also a fair amount of developing work carried on in the way of sinking and driving, exposing a lode of antimony ore fully 2 ft. thick in the shaft. The mine known as the Jackson, which holds the reputation of being one of the best antimony producing claims on the whole of this field, is at present lying idle under exemption, pending a rise in the price of antimony.

Bamford and Wolfram Camp.

During the past year mining in both these centres was extra brisk, the majority of the claims producing wolfram, molybdenite, and bismuth in payable quantities. At Wolfram Camp, the claim known as Murphy and Leisner's produced a fair quantity of molybdenite, and the claims owned by Larkin and party were also worked at a profit.

The holders of the Forget-me-not claim (Nicholls's) during the past year did a fair amount of developing work. They started driving a tunnel to intersect the bottom of their main shaft, at a depth of 105 ft. from the surface. The tunnel will have to be driven a distance of 350 ft., 211 ft. of which is already completed. They have also been working their mine at a profit, producing minerals enough to defray all expenses, including the driving of the tunnel.

Population.

The following is my estimate of the present population of the field:—Miners, 744; carters, &c., 35; tradesmen, &c., 40; women and children, 600; total European population, 1,419; Chinese miners, 30; gardeners, tradesmen, &c., 40; total Chinese population, 70. Total population, 1,489.

Revenue, Etc.

The revenue for the year is as follows:—Warden's, £1,123 4s. 6d.; clerk of petty sessions, £646 10s. 10d.; land agent, £6. This is an increase of £271 8s. 8d. on the revenue for 1906.

On the 31st December, 1907, there were 65 miners' homestead leases in force, embracing an area of 1,117 acres; 13 gold-mining leases, area 242 acres; 44 mineral leases, area 537 acres; 9 garden areas, area 24 acres; 6 machine areas, area 21 acres.

Accidents.

During the year a slight accident occurred in the Cecil Mine to a miner named C. Quill, through the falling of a rock, which struck him on the small of the back, causing a nasty wound. Quill was laid up for a short time, and subsequently recompensed by the syndicate for the injury.

Conclusion.

In conclusion, I may state that the future prospects of this field greatly depends on the price of the various minerals, and the introduction of capital to develop some of the numerous gold mines that are at present lying idle.

Statistics of crushing and mineral returns attached hereto.

Hodgkinson Field—Gold Yield for 1907.

Name of Mine.	Total Crushed.		Yield of Gold.	
	Tons	cwt.	Oz.	dwt.
General Grant	2,348	10	1,384	1
Grant and Caledonia	222	0	159	8
Monarch	13	10	6	1
Union No. 1 North	100	0	51	12
Union No. 1 South	60	0	41	8
Home Rule	144	0	85	19
Southern Cross	95	5	298	0
Commonwealth	37	0	25	14
Margaret	8	10	41	18
Flying Pig	8	5	5	0
Mount David	8	0	39	18
Tyrconnell	18	0	29	4
Dagworth	75	0	117	17
Total	3,138	0	2,286	0

Average value per oz., £3 9s.

	Tons	cwt.	Oz.	dwt.
General Grant—Cyanide (average value per oz., £2 8s.)	2,322	0	318	0
Monarch—Concentrates (value per oz., £4 4s. 11d.)	5	0	19	10

Hodgkinson Field—Mineral Returns for 1907.

Mineral.	Quantity.			Value.		
	Tons	cwt.	qr.	£	s.	d.
Wolfram	409	0	0	64,356	0	0
Molybdenite	63	0	0	8,019	0	0
Bismuth	5	10	0	1,554	0	0
Bismuth and Wolfram	10	10	0	1,218	0	0
Scheelite	2	4	0	320	0	0
Antimony	390	0	0	6,356	0	0
Copper ore	94	0	0	701	0	0
Silver-Lead ore	266	0	0	3,396	0	0
Tin ore	101	10	0	2,790	0	0
	1,341	14	0	£88,710	0	0

Machinery used in Mining, Steam-winding.

Name of Mine.	Horse Power.	Cylinder.	Winding Gear.
General Grant	40	Double	Double
Grant and Caledonia	16	"	"
Reconstruction	16	"	"
Monarch	14	"	"
Wheate (wolfram)	8	"	"
Queenslander	8	"	"
Dagworth	8	Single	Single
Home Rule	7	"	"
Black Ball	3	"	"
	120	...	...

MACHINERY USED IN REDUCTION.

Name of Mill.	Horse Power.	No. of Stamps.	Berdan Pans.	Wheeler's Pans.
Reconstruction	20	10	2	...
Clyde	16	15	1	1
Emily	20	10	2	...
Home Rule	14	10	2	...
Union	14	10	2	1
Monarch	25	10	2	...
General Grant	40	10	...	...
Hercules (hung up)	16	16	...	...
Victory (hung up)	8	6	1	...
Perseverance (hung up)	14	15	2	...
Black Ball (hung up)	14	10	1	1
	201	122	15	3

	Horse Power.	No. of Rolls.	Krupp Table.	Frue Vanner.
Byrne's Creek (wolfram)	30	2	1	1
	Set of Jigs., 1.		Classifier, 1.	

J. WILLIAMS, Warden.

HORN AND POSSESSION ISLANDS.

I regret having but little to report for the past year on mining operations in the district under my supervision. The lease on Possession Island was given up and the battery removed to Horn Island, where prospects for a time appeared hopeful; however, after giving the ground a good trial, operations have ceased, and I am informed exemption is to be applied for after the holidays, on the ground that the workings are not payable, several reefs which showed well at or near the surface not carrying payable gold as they went down. That gold in small quantities can be found in many places is undoubted, but it is in insufficient quantities to warrant any considerable amount of expenditure. It is possible that a party of tributers may persevere for a time on the Narupai reef, and some of the miners who had been employed by the company have pegged out claims in the neighbourhood. A prospecting claim has also been taken up on Hammond Island, but nothing payable has as yet been reported. One or two small parcels of wolfram have been brought here from near Cape Direction, but this will show in the Cooktown Warden's report.

HUGH MILMAN, Warden.

HUGHENDEN FIELD.

With the exception of the operations of the Blantyre Coal Mining Company, who are now making strenuous efforts to overcome the strong flow of what is evidently artesian water which they have struck in their shaft, there is no mining of any description carried on in this district.

Hitherto the above company have not been able to cope successfully with the water, but they hope that, as soon as work begins after the usual Christmas recess, their new pumps will enable them to continue sinking their shaft, when they expect very shortly to strike a seam of coal 4 ft. 6 in. in thickness. It is to be hoped that this company will be successful in working the coal at Blantyre, as it will mean a very big reduction in the cost of working all mines at Charters Towers and Cloncurry, as well as the Queensland Northern Railway and other industries where fuel is largely used.

J. W. W. JACKSON, Warden.

JORDAN CREEK GOLDFIELD.

I have the honour to advise that there is little of importance to record for the year 1907.

Although the Wyandra Gold Mining Company did some little preparatory work at the commencement of the year on their property at Jordan Creek, they soon discovered that it required the outlay of considerable capital to test and work their mine properly; hence they have since had the mine under exemption, and have now obtained a further six months to raise capital to sink a main shaft.

Alluvial mining was considerably retarded through there being very little rain for seven months of the year—a most unusual occurrence for this district—hence the total quantity for the year is only 126 oz.

No accidents occurred during the year.

There is nothing further of importance to record.

JNO. D. SULLIVAN, Acting Warden.

KANGAROO HILLS MINERAL FIELD.

The mineral yield of this field for the year 1907 shows a decided decrease, the total production being valued at £24,190, as compared with £35,800 for 1906. The decrease is largely due to lack of water and reduced values prevailing towards the end of the year, necessitating the closing down of the mills at Waverley and Red Hill. The Mount Brown Company's mill, at Ewan, has worked steadily during the twelve months under review.

Tin Mining.

At Ewan, the *Cleopatra* has been sunk to a vertical depth of 150 ft., and the fact of fair-grade ore occurring in the bottom levels at that depth is encouraging to all concerned in the industry in that locality.

From the *Christmas Gift* some highly payable crushings have been taken, and the main shaft is now down over 60 ft. on the lode.

The *Eureka*, at a depth of 60 ft., shows the lode 5 ft. in thickness.

The *Great Boulder* is a new find, on the southern side of the Running River, within the granite country. The ore is very rich, but irregular.

The *Mount Kidston* is about eight miles south-east from Mount Brown, in granite country. The ore-body is apparently in large dimensions. A shaft has been sunk to a vertical depth of 64 ft., from which about 400 tons of ore were obtained, estimated to contain 3½ per cent. tin. The ore-body now shows 34 ft. in length by 27 ft. in width, with no sign of the hanging-wall.

At Waverley operations for the year were chiefly confined to the Rob Roy and Guy Mannering leases. At the *Rob Roy* several shafts have been sunk, the main shaft being down 120 ft., with a fair body of ore showing at this depth. Some rich bunches of 300 and 400 tons have been taken out, averaging 6 per cent.

The *Guy Mannering*, which has been a constant producer of high-grade ore, petered out at a depth of 120 ft.

At the *Separation* the main shaft is down 80 ft., and some highly payable crushings, averaging 8 per cent., have been obtained.

There exists in and around Waverley thousands of tons of low-grade ore, which, under favourable conditions, should be worked in a profitable manner.

Red Hill.—The Waverley Company have during the year erected a ten-head battery complete, with all the necessary concentrating apparatus, at Red Hill, situated on Pineapple Creek. The properties consist of two leases, 60 and 10 acres respectively. The whole of this area is tin-bearing. The surface contains a quantity of free tin and also a percentage of clinker-carrying tin. Some 6,000 tons have been treated, having been taken on a face, and has panned out about 12 lb. to the yard. With economic working, this leaves a substantial margin of profit. A powerful pump has been installed, and it is proposed to pump water from Pineapple Creek to reduce the dirt before taking it to the battery. A pumping plant has been installed at Spring Gully, with a view to reducing the surface at that end of the lease.

During the year a 20-acre lease has been taken up on Fifteen-mile Creek and a company formed to work the Deep Lead. The tin occurs in high country, and at a depth of 40 ft. good wash was found. Several prospecting shafts have been sunk, and have proved an extensive area of wash. A tunnel has been driven 200 ft., and a tramline laid and the country drained, the water being caught in a dam and used for sluicing purposes. The average depth of wash is about 5 ft., and the tin is of excellent quality.

Hidden Valley.—On the *Black Cap* two shafts have been sunk 35 ft. and 25 ft. respectively, the ore-body showing 4 to 8 ft. in width at the bottom. About 150 tons of ore have been raised.

Dredging.—During the year 15 applications, comprising 1,394 acres of the various river and creek beds, were received. On some of the areas boring operations with a view to determining the value of the wash have been carried on. Should results prove sufficiently encouraging, no doubt dredging plants will be installed. Early in the year a company was formed to work a dredging claim taken up on Sandy Creek. The plant consists of a 20-h.p. Robey portable boiler and engine, two 6-in. centrifugal (sand and nozzle) pumps, with necessary piping, steel sluice boxes, &c. Work was carried on for some time. The wash was good, but the large quantity of boulders in the creek bottom greatly hampered operations. Parties interested are satisfied that the wash is rich enough, provided the ground can be handled cheaply. The plant is hung up until after the wet season.

Copper.

Apart from a few small shows, the main work in this metal was done on the *True Blue* and *Mount Theckla* leases, owned by Messrs. Lennox and Rannie. Operations on the former property were confined mainly to development work. The main shaft is down 100 ft. vertical; the lode has been cut at this depth, and levels have been driven for 50 ft., showing 6 to 8 ft. of ore. The "firsts" ore obtained, shipped to London for sale, averages 20 per cent. copper and 55 to 60 oz. silver per ton. The "seconds" are crushed and concentrated at Mount Brown battery, the ore being reduced 6 to 1. The concentrates average 24 per cent. copper and 80 to 90 oz. silver per ton, and usually about 16 per cent. lead. The high silver values in most copper ores in this district help materially in making headway against adverse conditions—cost of transit to the coast, &c. The Mount Theckla has been worked on tribute with good results.

Wolfram.

Isabella.—This mine is at Waverley, and is owned by Alexander and Baillie. The main shaft is down 60 ft., and a tunnel connects with same 16 ft. from the bottom. The ore-body is large and regular, and the property shows great promise. The only other wolfram show working in the district is situated on the Running River, and is owned by F. Krumholz. Not a great deal of work has been done on this lease, but the owner is very satisfied with his prospects.

Statistical.

The revenue for the year totalled £702, including £52 15s. for sale of miners' rights, an increase of £302 9s. 11d. as compared with 1906.

Mineral leases in force on 31st December last and applications therefor numbered 39, with a gross area of 629 acres 2 roods. During the year 16 applications for mineral leases were received, comprising 283 acres.

H. MORRIS, Warden.

MACKAY FIELDS.

Mount Flora.

The Mount Flora district has on this field received the largest amount of attention during the year at the hands of mining investors, speculators, and miners. From the beginning of the year, for about nine months, owing chiefly to the high price of copper, this district was a scene of great activity, and it was estimated that there were at least 150 miners on the spot on one occasion. At one time, in addition to three mineral freeholds, there were 22 prospecting areas, covering 2,261 acres, being prospected for copper. As soon, however, as the price of the metal dropped, a number of these areas were abandoned, and after the proclamation of the mineral field others were converted into leases, which are being held under exemption pending arrangements being made for treating the ores locally.

On my visit to the field in November many of the miners had left, and, on account of my not being able to procure a horse, I was not able to visit the outside shows; but from what I did see of the district I was much impressed with the possibilities of the field. I went down the shafts on the Mount Flora Freehold and the Marjorie, and I am of the opinion that, given fair conditions for working and reasonable expenses in the disposal of the ores mined, there are good prospects before these and other mines.

The future of the district, however, depends greatly on there being some means of treating the ore on the field, so as to concentrate it, as, owing to the absence of railway communication, the land carriage of 70 miles to the railway is prohibitive except in the case of very high-grade ores. Even with copper at £100 a ton copper ore of 25 per cent. was hardly payable, and many of the ores in the locality must necessarily go below that percentage.

Efforts at the present times are being directed towards the erection of reverberatory furnaces on the field, and there seems a reasonable prospect that at an early date at least one company will commence smelting operations. There are a good many tons of second and high grade ores at grass awaiting treatment, assaying from 8 per cent. upwards and variously estimated at up to 800 tons. As the ores mostly contain silver and gold in small quantities, these ores should all pay for treatment on the field to matte or blister copper. In anticipation of the early erection of smelters, 11 minerals leases have been taken up on the field, and four limited liability companies are at work there, whilst some of the freeholds are being let on tribute.

A township has been laid out at Mount Flora, and several stores, hotels, and residences have been erected.

The chief producer has been the *Mount Flora Freehold*, from which about 440 tons of ore were sent away during the year, for a return of 93·2 tons copper, of the value of £8,224; 2,428 oz. silver, of the value of £304; and 14·5 oz. gold, of the value of £57. As the first shipment of 153 tons was not assayed for silver and gold, it is reasonable to suppose that the silver and gold returns should have been higher. This mine was worked up till August, when it was closed down owing to the fall in copper, and efforts were made to float the concern into a company to treat the ore, but these efforts have not been successful so far. There are three lodes of rich ore on the property, which have all been worked for copper during the year, and at the time of closing down large quantities of ore were in sight. Some 46 men were employed on this property.

Adjoining this freehold on the north is the *Fairview Mine*, the property of the Mount Flora Copper Company, Limited, a leasehold of 66 acres. Operations on this property have mainly been directed towards driving a tunnel into the hill with the view of intersecting the lodes existing in the freehold. Several seams of ore have been passed through in driving, and about 10 tons of mineral raised.

At the *Monarch*, *Sunbeam*, *True Blue*, *Marjorie*, and other properties tunnelling operations and shaft sinking have been carried on, with more or less success, to prove the lodes existing on these properties. With the erection of smelters all these properties should be able to turn out sufficient ore to make them payable.

Mount Spencer.

On this field the Pinevale Syndicate have conducted extensive operations on their Pinevale and Bong Bong properties. The syndicate now hold in leases 160 acres at Pinevale, 80 acres at Ben Mohr, and 80 acres at Bong Bong.

At *Pinevale* tunnelling operations were carried on for over 700 ft. into the mountain, when the rock-drills had to be stopped for want of water, and operations confined to the raising of rich ore from a winze put down some distance back in the tunnel. During tunnelling the lode was traced along its length, varying in width and richness. Some 96 tons of ore were disposed of for a return of 22·6 tons copper, of the value of £1,478; 838 oz. silver, of the value of £98; and 5 oz. of gold, of the value of £20. About 90 tons of ore are at the present time awaiting shipment.

Two parcels of shares were disposed of locally, and it is now proposed to issue another parcel of 1,880 preference shares locally, and to give the Queensland shareholders representation on the directorate.

Blackrock Creek.

During the year prospecting work was carried on upon the coal licenses in this neighbourhood, and at the end of the year the properties were placed in the hands of a Charters Towers and Townsville company, who have commenced boring operations to prove the extent and width of the seams of coal. Five men are at work on the properties, and during December the calyx drill bored a distance of 111 ft. Assays and trials of the coal seem to prove it of good quality, and if the coal lives at any depth the properties should prove valuable ones, as there is deep water within about 5 miles from the properties.

Cattle Creek.

In this locality prospecting for copper is being carried on by the Silver King Company and several local syndicates, but the properties are not sufficiently developed to enable one to say anything definite as to their future prospects.

On the Eungella, Grasstree, and Nebo Goldfields there has been practically no work done during the past twelve months. Attention was paid to both the Eungella and Grasstree fields by officials from the Mount Morgan Company, but the results of the assays taken were not such as to warrant their going on with the claims. The only claim on Eungella at present being worked is the Coral-tree, lately taken up by Mr. Robards.

Alluvial.

Five ounces of alluvial gold, of the value of £15, were purchased by the banks during the year. No alluvial gold was reported to me.

Population.

	Mount Flora.	Mount Spencer.
Miners	97	20
Carters, &c.	10	2
Tradesmen	6	2
Women and children ...	30	12
	143	36

REVENUE, ETC.

The revenue for the year amounted to £777, as compared with £98 for 1906, an increase of £679.

There were 225 miners' rights and 4 business licenses issued, as compared with 53 and 1 respectively for 1906.

Leases in force on 31st December, 1907:—1 gold-mining lease, area 40 acres; 21 mineral leases, aggregate area 703¼ acres, average area 33¼ acres; 7 mining homestead leases, aggregate area 7¼ acres.

I anticipate that there will be a further improvement in the production of copper for the year 1908, unless any further large decline in the price of that metal occurs.

I append the usual statistical returns.

PRODUCE—1907.

—	Ore.	Copper Contents.	Value.	Gold Contents.	Value.	Silver Contents.	Value.
	Tons	Tons	£	Oz.	£	Oz.	£
Mount Flora Freehold	440	93	8,224	14·5	57	2,428	304
Small parcels	6	1	92	...	...	...	...
Pinevale	96	22·6	1,478	5	20	838	98
Silver King	9	.36	23	...	...	135	17
Alluvial	...	...	...	5	15	...	...
Total	551	116·96	9,817	24·5	92	3,401	419

Total value of produce from districts, £10,228.

B. C. MACGROARTY, Warden.

MOUNT MORGAN.

The following is the product of the field for the year 1907:—

		Value.
Gold	150,874 oz. ...	£619,213
Copper	4,713 tons ...	385,705
Fireclay... ...	1,400 tons ...	560
Ironstone ...	611 tons ...	153

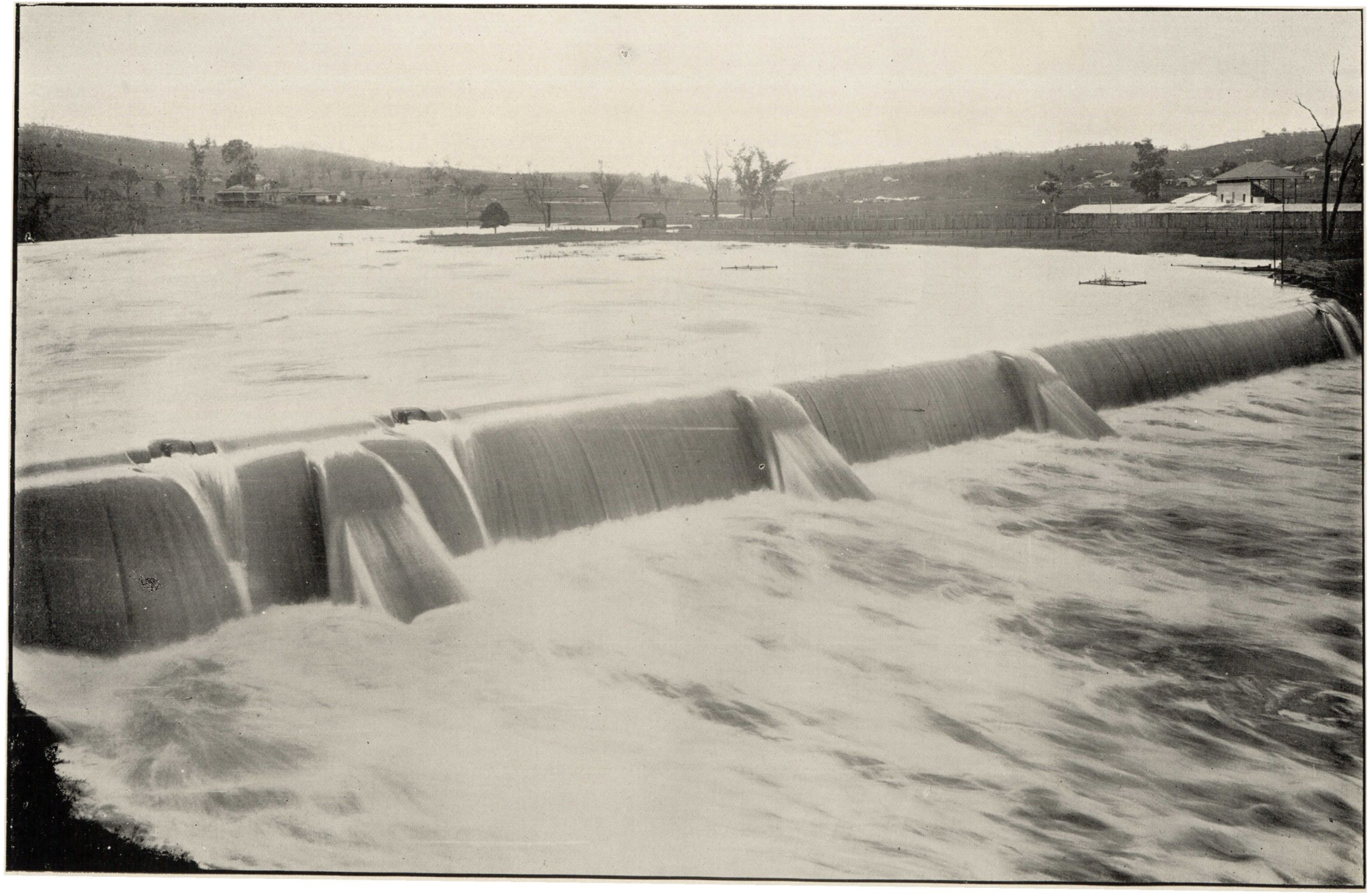
a total value of £1,005,631, exceeding that of 1906 by £207,779. Although this result is gratifying, and bears out the prediction expressed at the beginning of the year regarding the operations of the Mount Morgan Gold Mining Company, the expansion is not so great as anticipated. It was confidently hoped that a third furnace would be running for at least eight months, and the quantity and value of gold and copper from this source would be considerably in excess of the actual returns. Unfortunately, scarcity of ironstone and coke prevented the realisation of this hope, and necessitated the institution of a steamer service for the transport of ore from Iron Island. The reserves of fuel and flux now in hand is, with the regular supplies coming forward, sufficient to warrant the blowing in of another furnace, and it is expected this will be done at the end of January. Another condition which produced a marked effect on the returns was the pronounced fall in the price of copper, bringing the average value of the metal considerably below that of the preceding year.

A perusal of the returns from the smaller mines is not encouraging, and, except at the Mount Morgan Extension Mine and the Mount Morgan North Prospecting Company's properties, present appearances do not indicate a more healthy condition in the immediate future. The value of metals obtained from mines other than the Mount Morgan was less than ½ per cent. of the total value.

From a general point of view, the past year was a satisfactory one. Business expanded on a firm basis, and transactions in town and suburban properties evidenced an appreciable advance in values. At one time the outlook was rather serious owing to the probability of a water famine, but fortunately a heavy fall of rain occurred in the middle of November, and saved the situation. Possibly the recurrence of well-filled dams and tanks may obliterate the memory of an anxious time prior to the late rains, but there appears to be fairly strong evidence, both from a domestic and mining point of view, that the present system of water supply is a precarious one for a town of the magnitude of Mount Morgan, bearing as it does such promise of permanency and expansion. If the cost of a pumping scheme from some unfailing source is not absolutely prohibitive, it seems to be a fair business proposition to pay a water rate for the construction and maintenance of an efficient scheme, the existence of which would materially reduce the cost of insurance, lessen the danger of epidemics and fires, and obviate any fear of a shortening of hands at the works.

The following table supplies all information relative to produce, values, dividends, and calls:—

—	Quantity Treated.	Gold.		Copper.	
		Yield.	Value.	Yield.	Value.
	Tons.	Oz.	£	Tons.	£
Mount Morgan G.M. Co.—					
Chlorination	233,533	96,695	391,348	...	...
Smelters	132,364	52,493	222,975	4,333	360,487
Precipitates	474	275	1,168	368	24,146
		149,463	615,491	4,701	384,633
Fireclay	1,400	...	560		
Ironstone	611	...	153		
General—					
Mills	314	252	893		
Cyanidation (old tailings)...	1,359	706	1,080		
Alluvial	...	392	1,502		
Concentrates	17	52	212		
Precipitates	60	9	35	12	1,072
		1,411	3,722		
Total gold	...	150,874	619,213		
Total copper	...	...	...	4,713	385,705
Total value of all produce	...	...	...	...	1,005,631
Dividends	...	...	...	...	237,500
Calls	...	...	...	...	924



No. 6 DAM, MOUNT MORGAN.
Capacity, 83,000,000 gallons.

Mount Morgan Mine.

Gold Workings.—At the mundic and west works 233,533 tons of ore were chlorinated for a yield of 96,695 oz., valued at £4 0s. 11d. per oz., an increase in the quantity of ore treated and a decrease in the yield, the average recovery per ton having fallen from 9·36 to 8·28 dwt. This decline was expected, as the higher grade of oxidised ore on the eastern side of the opencut has been worked out to its junction with the sulphides, leaving a poorer quality of stone to be mined at the western side. Any improvement in the value of ore handled at the west works may only be occasioned by the discovery of isolated patches of richer stone. Both steam shovels are located on the 363-ft. level, which forms the present basis of operations. They are used alternately or together, according to their suitability for the work in hand.

Nearly one-third of the sulphide ore sent to the mundic works was obtained from the eastern workings in the opencut, the steam shovels having removed sufficient of the overburden to permit of its extraction without impediment, and as the opencut is deepened and widened a larger quantity will become available. The ore here is rather better in quality than that obtained from the underground portions of the mine, and possesses the additional advantage of being mined more easily and at less cost. The greater part of the sulphide ore from the underground workings was mined at 512, 574, and 650 ft. levels, smaller quantities being raised from the 450, 750, and 850 ft. levels.

A total of 247,000 tons of waste and overburden were removed from the various gold workings, partly by hand and partly by the steam shovels.

Coal pockets of 1,400-ton capacity were erected close to the mundic works, and an electric elevator has been provided to raise coal to the boiler-house bunkers.

At the west works a firewood storage flat, having a capacity of 5,000 tons, was constructed, together with the necessary railway loops and sidings for connecting with the Government line.

The old refinery, which has been in use since the start of the mine, having become more or less obsolete, an up-to-date plant has been constructed at the site of the old lower works. This new refinery is 142 ft. long, 78 ft. wide, with ash concrete walls 12 ft. high and 19½ ft. thick. Duplicate arrangements for handling the charcoal are installed, so that the gold from the mundic and west works may be kept entirely separate. At each end of the building is a furnace 38½ by 12 by 2½ ft., for burning off the charcoal as it comes from the respective works, after which the residue is fluxed and melted in two reverberatory furnaces, measuring 8 by 5 ft. Four pot furnaces, each 8 in. in diameter and 3 ft. deep, for smelting gold bullion, are situated in the centre of the building, and connected with the main flue by an undercast. A strong room, 14 by 12 ft., and built of reinforced concrete, offices, and weighing rooms, face the furnaces. A Dodge crusher 12 by 8 in. and rolls 14 in. in diameter, driven by motor, are used for dealing with slag and other products. An electrolytic process for refining the gold bullion is now being installed.

Copper Workings.—From the 750-ft. level 85,190 tons of ore were obtained, and from the 850-ft. level 35,600 tons. This, together with 11,574 tons of metalliferous flux ore, were smelted, for a return of 4,333 tons of copper, worth £360,487, and 52,493 oz. of gold, valued at £222,975; giving an average value of £4 8s. 2d. per ton of ore treated, an advance of 14s. 10d. on last year's recovery.

At No. 1 chamber, on 750-ft. level, the first cut is complete, and measures 400 by 60 ft.; the second has been taken out for a distance of 380 ft., with a width varying from 65 to 70 ft., and is practically complete; while the workings on the third cut measure 50 by 60 ft. In No. 2 chamber the first cut, 650 by 60 ft., is complete, except for a little filling and timbering; the second cut is out for a distance of 350 ft., with a width varying from 60 to 80 ft.; and the third, 110 by 70 ft.

On the 850-ft. level 950 ft. of driving was done during the year. The chambers, which are situated directly below those on the 750-ft. level, are being gradually extended to their full size from the main drives, and at present form irregular openings on the sill cuts.

The following additions to the reduction plant were completed during the year:—One blast furnace, measuring 190 by 48 in. at the tuyeres; one Parson's turbo-blower for the converters; two electrically driven Commersville blowers for the blast furnaces; an extra row of bins for storing coke and fluxes; and extensions to the various sheds and buildings. The small rectangular movable forehearths (for separating copper matte from slag) have been discarded, and large stationary circular ones have taken their place.

A new relining mill has been erected at the converter house, and an installation of compressed air for tamping the lining in the vessels has proved an unqualified success.

Just behind the copper ore bin level a brick reverberatory furnace, to deal with the flue dust, was erected, together with the necessary sheds and storage bins, and appliances for raising the material to the bins. The dust is reduced here to a matte slightly under 20 per cent., and then sent to the general smelters for further treatment.

When the extra storage equipment is finished the works will be capable of treating about 20,000 tons of ore per month, and when the basic ore from Many Peaks is available to take the place of barren fluxes now used the capacity will be further increased about 30 per cent.

The copper precipitation canals were extended, and a new pumping main laid for delivering the waste liquor to the works for sluicing out the tailings.

The main ore shaft is being extended to the 950-ft. level, where oreways will be put in from it underneath the chambers on the higher levels.

During the year 2,291 ft. of levels were driven, and 1,225 ft. of sinking and rising completed.

One fatal accident occurred, but the inquiry proved that it was not occasioned by any negligence of the company's officers.

A new shaft to connect with all levels in the mine has been commenced on the 450-ft. level, near the Linda tunnel. It is intended for the use of men and supplies only, and has been designed to allow the ordinary surface trucks being sent down loaded to any point in the mine, thereby effecting a considerable economy in time and working cost. The dimensions are 13¾ by 6½ ft., giving two compartments 7 ft. and 6 ft. wide, clear of all timbering and divisions. It was completed to a depth of 260 ft. at the end of the year.

Fireclay.—A new quarry, containing material of an excellent quality, has been opened on Mineral Lease No. 31. Up to the present 1,400 tons have been mined. About 200 tons a month are supplied to the copper works for lining converter vessels, and the balance is sent to the brickyard.

Central Power Station.—A new Parson's turbo generator of 400 kilowatte capacity, making four in all, was installed. The old system of arc lighting by the "series" system has been entirely done away

with, and all lighting and power for the works and mine is now supplied from the 550 volt circuit.

The boiler plant has been increased by the addition of a Babcock and Willcox boiler of 250-h.p., fitted with a chain grate mechanical stoker and superheater.

A brick stack has been built to provide draft for extensions to the boiler plant and to replace the smaller stack, which has been used up to date; it is 145 ft. high, octagonal in shape, with an 8 ft. opening at the top. Two hundred thousand bricks were used in the construction of the shaft and 300 cubic yards concrete in the foundation.

WATER SUPPLY.—The height of the big dam (No. 7) was increased 3 ft., adding 60,000,000 gallons to its capacity.

A new dam has been erected on Mundic Creek to catch the storm water on that locality; it is 30 ft. high, built of concrete, and has a capacity of 11,000,000 gallons. It has been connected to the gold reduction works by means of a 6-in. steel pipe line 4,500 ft. long.

The following table gives the capacity of the different dams and the quantity stored therein on 1st January:—

Number.	Capacity. Gallons.	Quantity stored on 1st January. Gallons.
4	8,000,000	7,500,000
5	15,000,000	15,000,000
6	83,000,000	73,000,000
7	270,000,000	9,000,000
Mundic Creek	11,000,000	2,000,000
Total ...	387,000,000	106,500,000

CHANGING-ROOM.—In pursuance of their policy to consider the comfort of the employees as far as possible, the company have erected a new changing-room near the Linda tunnel. The building is of corrugated iron, 100 by 30 by 28 ft., with an annexe 14 by 30 ft. for a bathroom, fitted with ten showers. The main dressing-room is 82 ft. by 30 ft., and contains 504 lockers, and the furnace-room is fitted with over 220 ft. of sheet iron flue for drying clothes.

GENERAL.—In addition to mining and reducing ores on this field the company's operations extend to various centres in other districts where the necessary fluxes are mined.

Limestone is obtained from Marmor, about 27 miles southerly from Rockhampton, on the Southern Railway line. During 1907 the average train tonnage was increased to 750 tons per week; the storage capacity of the bins was enlarged from 600 to 1,200 tons by extending them to a length of 180 ft., and thus expediting the work of loading the railway wagons.

Ironstone is produced at Iron Island, one of the Duke group in the Northumberland Islands. The company mine and break the ore, and convey it by steamers to Rockhampton, where it is put direct into railway wagons and railed to the mine. The ore is mined in the quarry on the eastern side of the island by opencut, and trucked to the breaker-house, where it is passed through a 9 by 15 in. Blake rock-breaker and reduced to 4-in. pieces. From the breaker it passes to a bin of 600 tons capacity (equal to the carrying capacity of the two steamers now in use), and from there trucked on to the wharf and discharged by shoots into the steamers. The monthly tonnage has gradually increased since February last, and in December over 4,000 tons were sent to the mine, where reserves are being accumulated to provide against delays in transport during the heavy weather, which generally prevails in the early months of the year. The reserve in hand amounts to about 3,000 tons.

The company recently acquired a working option over the Columbia Coalmine, about three miles north-westerly from the Bluff railway station, on the Central Railway. The old workings being inaccessible, a new shaft was started about one chain easterly of the supposed deepest part of the old underlie. A seam of coal, 4½ ft. wide, was cut at a vertical depth of 63 ft. Two feet of carbonaceous shale was then passed through, and underlying this a coal seam 7½ ft. wide was met. The top coal is much softer than the lower, and both contain few bands. Prospecting is continuing.

In November, 1906, the company secured the right of mining on the Many Peaks Reward Claim (Gladstone district) on a royalty basis, and have also acquired a mineral lease of 75 acres adjoining the claim. The ore mined from these areas is particularly suitable for smelting in conjunction with the Mount Morgan ore, and its metallic contents are sufficiently valuable to leave a small margin of profit after payment of all mining, transport, and reduction charges. The average width of the lode is about 50 ft., and it is well suited for mining at low cost, as all the ore to the 480-ft. level can be won by tunnels driven in at the foot of the hill. The development work for 1907 includes 389 ft. of driving and 31 ft. of rises. When the necessary railway connection from Boyne Valley to the Rockhampton-Gladstone line is effected, from 70,000 to 80,000 tons will be transported annually to the smelters at Mount Morgan.

The following table shows the quantities of material treated since the formation of the company, the total yield and value of gold and copper recovered, the amount of dividends paid per share, and the total amount of dividends paid:—

—	Quantity Treated.	Gold Yield and Value.		Copper Yield and Value.	
	Tons.	Oz	£	Tons	£
Ore chlorinated ...	3,194,878	3,167,194	12,764,689	6,820	577,488
Copper ore and metalliferous flux smelted	223,180	82,102	348,748	1,292	92,827
Copper precipitates ...	1,427	1,023	4,343	8,112	670,315
Totals	...	3,250,319	13,117,780	...	£7 0s. 7d.
Dividends, per share	...	...	...	...	£7,029,166
Do. total ...	...	...	...	...	

In the previous report reference was made to the proposed erection of an electrolytic refinery by the company, and the advantages which would accrue from such an undertaking. Since then several investors have joined with the company in the forma-

tion of the Electrolytic Refinery and Smelting Company of Australia; a site has been secured at Port Kembla, and the erection of the works is now proceeding under the superintendence of the manager (Mr. B. Magnus), and it is anticipated the plant will be running in eight or nine months. The plant will consist of a smelter capable of turning out 20 tons of blister copper per day, and a refinery plant capable of refining, electrolytically, 40 tons of copper daily. The plant is so designed that, by a slight alteration, the capacity of every department can be doubled. Two 100-ton refining furnaces will be erected. The power plant will consist of five Babcock and Willcox 250-h.p. boilers, economisers, superheaters, automatic stokers, and induced draft fans. This will be the first plant in Australia to use induced draft for the power-house, thus having a power-house absolutely free from chimneys. The engine-room will contain two 900-h.p. triple expansion Belliss and Morcom engines directly connected to two Westinghouse electrolytic generators; also two 150 kilowatte power units, together with air-compressors and turbo-blowers for the smelter. The plant will generate about 1,600-h.p. The works will find employment for 250 to 300 men.

Victor.

The results obtained in 1906 inspired a hope that this mine would prove a remunerative venture; but, unfortunately, only the first two crushings in 1907 were payable. Calls were made regularly until the capital was exhausted, and as very few shareholders expressed a willingness to provide further capital, the company has gone into voluntary liquidation, and the mine is now idle.

Imperial.

The company formed to work this property expended little money or energy in that direction. Very little *bonâ fide* mining was performed, the shaft being mainly used as a well to provide a supply of water for the Victor mill. The advancement of this mine was evidently contingent on successful results from the Victor Mine, and at present there is no indication of the owners resuming operations.

Moonmera Mines.

Prospecting has been continued on some of these areas during the year, but I am not aware that the results were of a particularly encouraging nature. Strenuous efforts have been made to form a company to develop the properties; apparently success has not yet attended the endeavour.

Mount Morgan Extension.

In the early part of the year the Sugar Loaf Gold Mining Company disposed of their properties to the Mount Morgan Extension Company, who surrendered the two gold-mining leases, and reapplied for the areas and adjoining land as a mineral lease. The avowed object of the company is to continue the straight shaft for several hundred feet, and drive levels at various points, in the hope of cutting the copper-gold ore-body now being worked by the Mount Morgan Company. Work was commenced last October; the mine was unwatered, the old workings secured, and sinking by hand-drillers is now in progress.

Population.

I estimate the population of the field as under:—

Quartz miners, gold	530
„ „ copper	440
Alluvial „	50
Carters, machine attendants, &c. ...	2,000
Tradesmen and other males	850
Women and children	8,200
	12,070
Chinese gardeners, &c.	170
Total	12,240

Revenue, Etc.

The revenue remitted from this office was £2,033, and £112 was paid in Brisbane. The main cause of the decrease was the decision of the Mount Morgan Company not to pay rent on 480 acres held by them as water-right leases. Royalty amounting to £3,970 was paid through the Warden at Rockhampton, making the total mining revenue from this field £6,115.

Six hundred and twenty-one miners' rights and three business licenses were issued.

Leases in force—26 gold-mining leases, area 761 acres; 14 mineral leases, area 567 acres; 1,856 homestead leases, area 7,762 acres.

Crushing Returns, 1907.

Mine.	Ore Treated.	Gold Yield.
	Tons cwt.	Oz. dwt. gr.
Bedford	5 0	2 10 0
Just-in-Time	3 0	8 10 0
Lady Dudley	10 0	5 3 12
Lamington	68 0	66 7 17
McAll	3 0	0 18 0
Mountain Maid	5 0	3 4 0
Queen of the Valley	2 0	3 4 0
Roxburgh	10 10	47 2 0
St. Gothard	5 0	2 12 12
Scott	4 0	6 2 0
Struck Oil	50 0	3 12 0
Victor	149 0	103 8 0

W. M. LEE-BRYCE, Warden.

MOUNT SHAMROCK, MOUNT STEADMAN, AND BIGGENDEN DISTRICTS.

Not much progress has been made on the above mining fields during 1907, and at present mining matters are dull.

A good start was made on Mount Shamrock Mine during the earlier part of the year, and for a while prospects looked very promising, but this

state of things did not last, and at present the mine is under exemption. However, all the gold won on the field during the year came from the Mount Shamrock field.

Mount Steadman has still three claims working, and the holders are very sanguine of ultimate success.

A party of miners are again trying the Paradise field, and mining plant has been recently placed there. The old Plunger shaft has been retimbered and pumped out. The same party has taken up a gold-mining lease and four extended quartz claims on this field. Progress will be watched with much interest.

Stanton Harcourt still supports a number of old miners, but the returns from that field do not, in my opinion, give the correct amount of gold won, as a quantity of it, of which there is no record, goes through Childers.

The Biggenden bismuth mines have been working during the latter part of the year at driving a tunnel to connect the main shaft with the mill, but no crushing has taken place. It is rumoured that this mine is changing hands. At the present time they are under exemption for a month.

The Commonwealth prospecting mineral area has during the year been turned into a lease. Plant is being erected for its systematic working.

A prospecting mineral area at the Bluff, near Biggenden, has been turned into a lease during the year, and work is being carried on vigorously. No returns are yet to hand.

The Graphite Mine at Mount Bopple is being well worked, and is turning out a first-class property.

One accident happened during the year, by which a miner lost an eye through a piece of stone he was breaking up hitting him.

The season has been good, and the health on the field everything that could be desired.

F. VAUGHAN, Warden.

MULGRAVE GOLDFIELD.

In reporting on the Mulgrave Goldfield, I have the honour to state that at present the field exists almost only in name. During the past year I have never seen anyone from it nor heard of any gold being obtained.

There is one lease on the field—namely, the Walter Hodgson, on which during the past year nothing has been done; and two hydraulic claims—one known as the Joss Syndicate, and the other a claim applied for by Messrs. Tait and Fuller in April last—of which the same may be said. During the year a lease (the Ophir) was applied for on Freshwater Creek, for working copper, but since the fall in the price of metals I believe work has come to a standstill.

On the 2nd of December last a prospecting protection area for some land about 20 miles south of Port Douglas was granted, where tin is said to exist, but as yet no reports have come to hand.

I understand the average number of men on the field during the past year has been five.

No accidents have occurred, nor disputes arisen.

The rainfall has been good. During December alone it has exceeded 30 in.

Ninety-four miners' rights have been issued by this office, and the sum of £56 19s. 4d. sent to the Treasury.

PETER G. GRANT, Warden.

RAVENSWOOD.

Progress.

During the past year the progress of the field, on the whole, has been steady and settled, taking it all round. Although not so apparent as in the previous year, the development work done in the chief mines has been actually greater, and there has been very much more prospecting of new ground in outside places than at any other period within the past ten years. The general high price of minerals other than gold—chiefly copper, silver, and tin—at the beginning of the year, gave a healthy impetus to prospecting, mainly in the ranges at and beyond Argentine and at the heads of the Star River. Several extended copper claims were applied for in that quarter, and quite a number of prospecting areas as well. A few leases for copper were also lodged by Charters Towers speculators, who put on men to open up the ground, but before the surveys were executed the price of that metal had fallen so suddenly that the rents of copper leases of this current year have not been paid, and virtually the "shows" referred to have been abandoned. The same applies to some copper leases and claims retaken up near the Kirk Diggings. They, with a couple of exceptions only, after fair working tests had been got, have been thrown up as not being payable at the current rates of that metal. In silver, lead, and tin things have been much the same, and for similar reasons. The little tin-working there is in my district is confined chiefly to stream tin in the gullies and upper branches of the Big and Little Star Rivers. These workings are confined to single miners or parties of two or three at most. The earnings of these "tin-scratchers" are at all times precarious; yet, in this particular branch of mining there has been, I am informed by Mr. George Rannie, a decided progress as regards both extent and profitable results.

With every advantage in cross-cutting and driving to try and cut the main lode (the Sunset reef), prospecting operations were well kept up in the Deep Mines leases during the past year. This was also at the greatest depth from the main shaft 1,520 ft. vertical. The southern crosscuts and drives were extended right up to and into one part through the large main lode (the "Buck") that traverses these leases east and west, but without the hoped-for success. So also have the northern crosscuts and drives been extended during the year without cutting anything payable. It is, I believe, now agreed on all sides that the main shaft is not deep enough by some hundreds of feet to cut the Sunset reef, particularly when judged by the depth of the new shaft (the No. 2) on that line, and the grade that would necessarily carry it into the Deep Mines ground. But to sink this 1,520 ft. vertical shaft,

say, 500 ft. extra, would mean not only increased capital, but, I fear, new and more powerful machinery. No doubt this will be undertaken at some future date, or a new shaft sunk in a better position, probably much more northerly. In the Sunset and General Grant lines there has been excellent progress made in mining through the whole of the past year.

At the Eight-mile (Hillsboro'), Sandy Creek, and Donnybrook camps the mines have done, as a whole, fair honest work, whilst at the Kirk Diggings and Rochford camps progress has been made in the chief mines, and a deal of excellent development work gone on with. The mines most worthy of notice are the Three Sisters Extended claim, the Sisters Extended (South) lease, the Crescent P.C. lease, at Kirk Diggings; and the Hadleigh Castle, the Commodore, Albion, Morning Star, Evening Star, Lady Jane, Aunt Mary, and many others at and around Rochford. But little has been done, I regret to say, in the way of progress at the other outside camps, such as Mount Success, Grass Hut, the Near and Far Fannings, Piccadilly, and Six-mile (Argentine), although in each instance they have kept working away, more or less, during some parts of the year, although, I fear, not profitably. The London P.C. lease, which was shut down at the time of my last report; the Overlander, which had just begun work again, the Silvery Wave, the Premier and J.R.D. leases, at Hillsboro' (idle so long previously), the Yellow Jack, and several others continued work after short exemption in some cases, and, through their united operations, help me to affirm that there has been a steady progress in gold-mining, at any rate, over the fields.

GOLD-MINING.

The Sunset.—The Sunset (one of the group owned by the New Ravenswood, Limited, a British company, registered in Queensland), employs by far the largest number of hands of any single mine on the field. This mine is worked by a main underlie shaft, 900 ft., and one vertical, 556 ft., the latter being the new shaft (better known as "No. 2"). The average thickness of the reef is given to me as 8 in. The general dip is north-east and the strike north-west to south-east. The angle of dip becomes much greater towards the north end of the lease, the new vertical shaft being, it is said, 60 degs. in places. On this mine is the power-house, from which the General Grant lease is also being worked, and has on it the whole of an electrical equipment, with a 12-h.p. electrical engine. There are nine levels, driven north and south on the old underlie, the deepest of which is over 900 ft. One of the north levels is connected with a south level from No. 2 shaft. The new vertical shaft, at the end of December, was down 556 ft., being 150 ft. sunk during the year, besides extensive cross-cutting, driving, and stoping. In this lease there was an average of 131 men employed during the year, besides the usual proportion of hands engaged at their mill and other works. The machinery on this mine is given as two double-winding gears, five steam engines, aggregating 132-h.p., and one large boiler at No. 2 shaft, 40-h.p.; nine rock-drills are employed. The approximate value of the machinery is £8,000. The total quantity of quartz crushed during the year is returned at 13,086 tons, yielding gold at battery 13,385 oz. 18 dwt., with concentrates won additionally of 3,846 oz. 11 dwt. Work was carried on very systematically during the greater part of the year, under Mr. Phillpotts as acting general manager, the general manager having been called away to London on a visit to his directors, &c. This mine served to keep 20 head of their battery going all the year pretty constantly.

The Grant (Lease No. 553, 40 acres).—This is a smaller vein than the Sunset, more regular in size, and generally richer and very constant in its yields. It runs nearly north-east to southwest, and somewhat parallel with the Sunset, but angling into it southerly, and is a distinct reef in front of the Sunset. The dip is south-east, and the mine is worked from a vertical shaft 110 ft. deep; then on the underlie, which is down over 800 ft. at present. The No. 9 South level connects with the workings of the Grant and Sunset Extended lease adjoining, from the shaft of which several crushings have been raised from the Grant. The vein worked is consistently regular rich vein, stated to average nearly 6 in. thick, and goes generally over 4 oz. per ton at the mill, besides the concentrates, which are always good. The mine has been constantly worked during the year, and the average men employed numbered 61. Towards the latter part of the year a deal of the work has been centred in the northern drives and stopes. The machinery is given as—one double winding gear, one steam duplex pump, three boilers, aggregating 130-h.p., and two engines 36-h.p. Most of these, outside the winding engine, are in the power-house. There are three rock-drills. The value of machinery is set down at £3,000. They crushed 2,294 tons during the year, yielding at the battery 5,873 oz. 16 dwt.; with concentrates, 1,394 oz. 9 dwt. I understand that this mine is looking very well in all its faces, and is one that can be thoroughly depended upon as a good gold-yielder at all times.

Mellaneur, Black Jack, and Shelmalier (Lease No. 750, 50 acres, New Ravenswood, Limited, Northern Group).—There are two distinct lines worked, the former (Mellaneur) strikes northerly, and dips easterly, while the Jack strikes nearly east and west, and dips south. They are worked separately—the Black Jack by an underlie shaft, and the Mellaneur by a straight for about 200 ft., and then on the underlie for about 300 ft. There are within this lease three main shafts, of a depth of 300, 140, and 114 ft. respectively. The steam engines employed are two, aggregating 50-h.p.; two double winding gears, and three steam pumps, with three large Cornish boilers (equal to 75-h.p.), one air-compressor, and three rock-drills. The latter are moved occasionally to work at the other mines of the company. The machinery is valued at £2,000, and the average number of men employed for the year in both mines is set down at 22. They crushed 906 tons during the year, and the yield of gold at the battery was 986 oz. 6 dwt., together with 207 oz. extra from the concentrates. The stone, which is white and but slightly mineralised, from the Black Jack is crushed, and its concentrates only are saved. Nothing is got from the plates as yet, but the quality of the ore is said to be improving gradually as they go deeper. In this mine the work is prospecting only. They have a steam winch working at the main winze going down from No. 4 level at 250 ft. in west from the underlie. The formation is large, up to 9 ft., and the hanging-wall and footwall veins are likely to unite after a time, as judged by their dips. The Mellaneur has given some nice crushings (apparently payable) during the past year, and no doubt will improve as they drive on the reef. The Shelmalier vein is not being worked. The company reduced their acreage by cutting off and abandoning the greater part of the Shelmalier line, and retaining the main shaft, its engine-house and machinery in the reduced lease for future use, if necessary. This group of mines has been worked in the past year more energetically and persistently than in previous years, and, seemingly, with better profit. Although much of the results go in prospecting the "Jack" as well as developing the

Mellaneur, the improved returns in the latter give better scope to the management to open up the ground in both.

The Deep Mines and Saratoga (Leases Nos. 406 and 537).—This also is owned by a British company, and contains 57 acres, there being 50 acres leased and 7 acres of freehold rights (over allotments in Macrossan street) extra; total, 57 acres. They have been cross-cutting by contract into the Grant lease adjoining, and in towards the main dyke (the "Buck") during the greater part of the year; also, driving the main level north at the deepest level (1,536 ft. vertical), and generally have been prospecting under partial exemption; but, so far, without any luck. There are three veins that have been tested in different levels from the main shaft, but none of them are payable *per se*. The average thickness of the three veins would be perhaps from 4 in. to 5 in. Some of the stone is fairly good, but too thin to pay, and the larger vein (the deepest) is very poor and "hungry" stuff—almost worthless. They did not crush any ore during the year. An average of seven men have been employed, under partial exemption. They are still cross-cutting. The reef strike is north-west to south-east, and the underlie is north-east at a pretty steep grade in the deepest part. The powerful machinery is very complete, and in excellent order. As needed they pump water to their battery on the mine from Elphinstone Creek, at a point about a quarter of a mile distant, and supply air from their big compressor to the No. 2 new shaft of the Sunset Mine. The machinery is a 50-h.p. steam engine, one double winding gear, two steam pumps, three large Cornish boilers (aggregating 90-h.p.), one air-compressor, and two rock-drills. Its value is put down at £6,000. The crushing mill on this mine (five head of stamps, 1,200 lb. each), with all the latest improvements for gold-saving, has been utilised as a public crushing battery during the year, and appears to be well patronised, giving full satisfaction. The value of the mill is put down at £7,000. The steam-power is conveyed to the battery from the boilers placed on the mine at the main shaft, a distance of about 100 yards. What may be done in future in the way of deepening this shaft we are unable to tell, but whatever *is* done, the future of this town depends very greatly on the result.

The London P.C. (Lease No. 399).—This is held by a limited company, and embraces at present 18 acres (united). At the date of my last annual report this mine had shut down, as being unpayable, on six months' total exemption. Later on Mr. John Moran, of this town, for himself and five others, took the mine on a five years' tribute, and, approaching the Government, got £250 advanced to them (on agreement to repay) chiefly to assist in fixing up and repairing machinery, relaying roadway, repairing pumps, &c., and towards procuring firewood to unwater the mine. Mr. Moran, after a time, organised a sub-party, up to 28, and went thoroughly to work. They unwatered the workings in about six weeks, but they had paid out and contracted debts for material and firewood of £20 above this loan of £250, besides their own free labour, before it arrived. However, that gave them "breathing time" with their creditors, and they raised a first crushing of 116 tons, yielding 80 oz. off the plates only, of a value of £220, which was not quite up to expectation, and gave them nothing whatever for their own labour. Nothing daunted, the same hands (only two or three went out) tackled the mine again, and raised a second crushing of 128½ tons, yielding 127 oz. off the plates, valued at £350. In this they got, I learn, about 5s. per diem each for the time spent in getting this crushing out. Now, again, they have about 125 tons going through the Deep Mines mill, and will crush with it all they raise until the crushing is completed. The stone is said to be looking a bit better than the last parcel. They have been employing on an average 27 men. Some of the stone in the No. 5 South levels is good enough to be picked and put aside as "prill" ore, bagged and sold at the mine for cash. It goes up to £28 a ton. The tailings and slimes, too, are sold here, and, better still in the way of economy, the tributers now crush here, thus saving railage to Charters Towers, as in the past, and double cartage. They have up to the present, crushed 265 tons for a total realisation of £974 19s. 5d. During their time they have crosscut into the footwall 145 ft., to try and pick up what they deem to be the main lode, but have been as yet unsuccessful. After cleaning out the mine they drove north the No. 5 levels about 35 ft., and have driven the south levels about the same distance. They also put up two rises of 83 ft. (aggregate), and stoped on each side of these. The mine and machinery are in good working order; but not having cut the main lode sought for in the crosscut, Mr. Moran says he will have to drop the dead work *pro tem.*, and get a couple of crushings out (from Nos. 4 and 5 South) to pay for the "tucker" of the miners working. They all thoroughly believe in this mine. Unfortunately, the gold is silvery and of poor value when obtained (seldom exceeding £2 15s. per oz.). The machinery on the mine is given as one double winding gear, about 16-h.p., three Knowles's steam pumps, two Cornish boilers, 20-h.p., and one colonial boiler, 25-h.p.; one large double air-compressor, and three rock-drills; value of machinery, £2,800. There are still 28 men working, including those at the mill.

The London North (Lease No. 558, 15 acres).—This company, with office at Charters Towers, worked its mine chiefly by a tribute of six men up to the Christmas holidays, under the management of Mr. Thos. Upton. The strike is nearly north and south, with an easterly dip, worked by a main vertical shaft of over 300 ft. They have been driving and stoping chiefly on their northern side. The reef averages about 7 in. Some of the stone is larger, but very white and free from mineral. They crushed for the year 264 tons, yielding at the mill 223 oz., besides concentrates, sands, and slimes extra, and a little prill ore as well. Their prill ore assays for £23 10s. per ton at the mine. It only cleared expenses to the company, and, having a slight overdraft, they decided to sell outright. This is stated to have been done to a small local syndicate (Strathdee and Co.), of six or seven shareholders of £25 each; but the property has not been transferred at this office. Since this purchase, I am informed that it has been again let on tribute, of two years, to Messrs. Burke, Upton, Hams, Galton, and others, who are now at work bailing it, the water having been allowed to rise during the holidays. The machinery is put down as—one 25-h.p. boiler, with one steam engine, 10-h.p., one double winding gear, and one Tangye pump; total value, £600. If this be anything like the true value, the purchasers who got it and the mine for £350 have a fair margin to go upon in the future. It is not a mine likely to pay largely, as there is too much "in and out" in the reef, but no doubt will give tributers a fair return for their labour. There is a good party on it to work constantly, and I have hopes that the yields will increase in the current year.

The Grand Junction Consols (Leases Nos. 503 and 520).—This mine, 14 acres in extent, has been exempted all the year, except as regards bailing conditions, and went into voluntary liquidation. It

has on it exactly the same machinery as given in my last annual report—valued at £2,000. It was lately purchased by Mr. A. L. Wilson, general manager for the New Ravenswood, Limited. It adjoins the Sunset lease. It is understood that this mine will be worked later on, in conjunction with the New Ravenswood, Limited's, southern group of leases. The trend of the golden chute from the new No. 2 shaft of the Sunset appears to go right into this lease, at a depth on the underlie greater than the Junction people had reached when they sold. This will prove to be a most useful acquisition, both as to ventilation and general convenience of working, when the Sunset gets a little deeper, to take away and ease off the Junction's water.

The Grant and Sunset Extended (Lease No. 549, 40 acres).—This is a limited liability company, with office at Charters Towers (Thorp, secretary). The strike is west of north, and dip north-east, with a high-grade on underlie. Their main shaft is down to 917 ft. vertical, with a cut in on the reef at 565 ft., and another at 492 ft. They have been working constantly all the year, driving and stoping, with an average of 22 men. They crushed 582 tons of mundic ore at Charters Towers mills, for a yield off the tables of 331 oz., besides concentrates and sands. They also sold 17¾ tons of prill ore at the mine for £371 15s. They have done an immense lot of work cross-cutting, stoping, and driving in the various levels and faces, but their work is chiefly confined to the 765-ft. vein (the main vein). As the mine has gone into the list of dividend-payers, with fair prospects ahead, we have good hopes for the future from this mine. But they need a cheaper way of milling than taking the ore to Charters Towers. The machinery is exactly the same as stated in last annual report. The average width of the reef is 6 in. There is a 35-h.p. engine, one double winding gear, one Knowles's duplex steam pump, two large Cornish boilers, aggregating 50-h.p., one air-compressor, and two rock-drills; total value, £2,150. The mine and machinery are in first-class order, and all the hands are employed who can be profitably put on. They have for a long time past used coal only at the furnaces, instead of firewood, and the manager speaks highly of it as a fuel; but, owing to their chimney shaft not being built to any great height, and being well under and on the side of a hill, the smoke in certain winds is a decided nuisance to immediate neighbours.

The Overlander (Lease No. 741, 7 acres).—The tributers who were working at the date of last annual report continued on to near the Christmas holidays, and then disputed and dissolved. They put through 188 tons for the year, of an average value of £7 6s. 7d. per ton. Their chief work was confined to the drives on the northern side of their main shaft. They have rearranged the party. Mr. Dorratt has again taken the management, and I expect good work with fair results. It has paid fairly all through. The reef is north to south, dipping east 45 degs. The average size of reef is 5 in. Their shaft is straight to 40 ft., and then on the underlie to 130 ft. There is a deep well-hole in the straight shaft, which catches nearly all the water, and thus keeps the underlie dry. They pump it from this, and conduct it away to a great distance by pipes. In this manner they have completely controlled the water, which to the company before them was such a nuisance. The machinery is valued at £350. I hope for a fair and continued return from this mine.

The B. B. Extended (claim).—This is two men's ground on the northern end of the Shelmalier line. It has an underlie shaft 65 ft., and the strike of the reef is north with a dip east about 45 degs. The average size is 6 in. A second shaft has been begun, and is 10 ft. down. There is no machinery—only a windlass and skids. They crushed 48 tons for 58 oz. off the plates, with sands and concentrates added. It is a fair small show, and payable.

The Silvery Wave Extended (claim).—This mine is on part of the old Union Jack Lease No. 635, north of and near to the township. It is practically a new show, and operations began with a main shaft, on the underlie, from the surface. It is four men's ground. There have been six crushings taken out and treated at the owners' mill here. The reef averages over 12 in., and the stone has been chiefly red and rubbly until lately, but they are coming to the mundic. They are 150 ft. down on it, and their chief workings are to the south, by a main drive, now in about 70 ft. They have started a winze at the end on the chute. They have been employing an average of five men. They put through 306 tons for 79 oz. of gold off the plates, which yields £2 5s. per ton. The chief value lies in the tailings, and but little is got from the plates. Application was made to the Government at the start of this claim for a loan for deep sinking of this shaft, but the assays then procured were so low that they did not justify any grant at the time. I learn that the Barton Brothers may again renew their application when they get down to the water level—in perhaps six months or so. The mine is worked very energetically, and, having their own mill, they have of course all the profits. There is a vertical shaft also, down 40 ft. The machinery is of the total value of £300. This is a property that seems to be "coming," as the crushings are improving every time they go to the mill. On the south another claim, 800 ft. by 400 ft., has been registered by George Trehearn, Chas. Burnes, and party. The position of both mines appears to be a frontage line (or "split-off") on the north end of the old Shelmalier line of years ago, and a part that was never sunk upon previously. These claims are in good hands now, and will get a fair practical trial by all the holders.

The Coronation Extended (united claim).—This mine had a small Government subsidy for a while, but it has been discontinued. The reef being worked is a branch of the main dyke (or "Buck"), about 8 ft. through. The mine is now exempted, but the owners get and crush a few tons occasionally. The men employed are put down at an average of three. There are three shafts of, 50 ft., 80 ft., and 90 ft. respectively. There is on it (rented) machinery of the value of £200. Mr. Hunt crushed only 10 tons just at the time of the exemption, and got 4 oz. 18 dwt. off the plates. This is a good "half-ounce" property, which, with capital, should be made payable from its size, but the owners, not having the means to exploit it, are trying to procure a Southern flotation, which at the present time is well nigh out of the question.

The Golden Hill (Lease No. 415, 25 acres).—The strike is east to west, and the reef appears to be nearly vertical. There is a body, almost 30 ft. through, of ferruginous quartz (like ironstone) at the surface, and the mundic is of a pale iron quality. It is on the main dyke (the "Buck"), the mother reef of Ravenswood. They put down the main shaft 110 ft., and crosscut into and through the reef 30 ft. from wall to wall. They treated 513 tons, giving at the mill 96 oz. free gold, value £3 per oz.; gross value, £288. There is said to be

little or nothing in the tailings. An average of five men were employed, merely prospecting. The mine is under six months' exemption, and is held in view of a successful flotation. The machinery is valued at £250. The property is here held to be a very valuable one, through the numerous golden leaders all over it, but as a mining proposition would require at least a capital of £30,000 to provide requisite machinery and develop it.

The Painui P.C. (Lease No. 580, 12 acres).—A tribute party tried this property early in the year, but could not see their way to work it to a profit, and therefore threw it up. The rent for 1908 is not paid, and I am notified that it will not be paid; the lease will, therefore, be forfeited.

The Union Jack (old John Bull, No. 540, 12 acres).—This property is at Sandy Creek, Evlinton. It is held chiefly as a machinery site to protect the old John Bull crushing mill, partly dismantled, and the different shafts and poppets, &c., of the lease. The mine itself is flooded, and all the workings "drowned out." The machinery yet undisposed of is valued at £500.

The Yellow Jack (Lease No. 758, 20 acres).—This is also at Evlinton, and has during the year been well and constantly worked by the Italian syndicate who owns it. The reef is north to south, with dip to west of 30 degs. There are two shafts, one (vertical) 600 ft., and the second 166 ft. (straight), and then on the underlie 170 ft. more. It is the latter that is being worked. The reef is about 6 in. on an average. They have driven their northern levels, and stoped well up to the surface on that side of their shaft. They crushed 112 tons for 361 oz. at the mill, and employed an average of six men. The machinery is valued at £300. This is a profitable "working man's" holding, and it is said to pay the Italians handsomely.

The New Premier Consolidated (Eight-mile, or Hillsboro'; Lease No. 538, 50 acres).—This is a registered company. They are applying for a new lease, reducing their area from 50 to 18 acres. They did not work very energetically during the year, and were part of the time under exemption. They appear to have crushed 72 tons for 183 oz., of the value of £3 per oz.; total value, £549. The average of the reef is only about 6 in., but the stone is of excellent quality, and, when picked, goes very high indeed by fire assay. The mine has three shafts; the main shaft is (vertical) 300 ft. The machinery is powerful and very perfect. There are three engines, 45-h.p., and three large Cornish boilers of 47-h.p. (aggregate), one double and two single winding gears, one air-compressor, and four rock-drills, the whole valued at £3,000. They employed six men, on an average, when working. The mine is now let on tribute to John Gorman and party (six working men) for a long period, and they are backed by six more in the town. They have at present about 40 tons below in the stopes ready to take to the surface at any time, and it is expected to go from 4 to 6 oz. They will crush only after they get 100 tons. They are at present confining themselves to opening out the ground preparatory to stoping, and when their drives are ready for stoping will go ahead quickly. It is a good "take," and should pay handsomely, as all the men working are practical miners, who know the ground intimately, and the run of the best-quality stone.

The Premier P.C. (J.R.D., Lease No. 291, 4 acres).—The tributers who did so well in this property threw it up on account of internal dissensions, the reef, too, having eased off for a time. It lay idle for a time, and Mr. John Roger Davies, who had previously held it for years, took a tribute from his mates, and is working it now. I learn it is payable. It is the frontage reef on which the last company's lease was taken up, and the strike is north-east to south-west, with a dip to the north-west of about 50 degs. They put through 107½ tons for 255 oz. from the mill, but the prill ore sold locally is not given separately. This must have been equally rich at least, as the reef has always gone 4 oz. per ton and over. It is only 4 in. to 6 in. thick, and patchy at that. The average number of men employed is set down at three. The machinery is valued at £200. The mine is now working, and the rent for 1908 has been paid.

The Donnybrook Blocks (United Leases Nos. 338, 344, &c., 50 acres).—This property is being reduced in area to 8 acres by a new lease application. (It is an English proprietary, in Mr. A. L. Wilson's office.) The tributers (J. Judge and five others) have been working all the year constantly. The leader they are following is very thin (about 3 in. thick), but is very rich. They hope it may lead them on to the lost main reef. There are two shafts—one 110 ft. (straight), and the other, on the straight and underlie, 350 ft. They crushed at Burne's Commonwealth mill, Brookville, 82 tons for 396 oz., and the sands and slimes are bought by Burnes, and given in his cyanided sands return, but not separately. It has, however, paid Mr. Judge and mates handsomely, and they are continuing on the tribute. The average number of men working is five. The machinery is valued in all at £500. The rent for the current year (1908) has been paid.

The Erin's Hope P.C. (Lease No. 717, 20 acres.—This mine has not been working, and is not exempted, and the rent is not paid; but there is machinery still on it. It ceased working about September last after crushing, in three small lots, 18 tons, for 44½ oz. The reef is small; old pillars were worked out and parts left at shaft, which is 416 ft. vertical. The mine has not been prospected fully yet; and, there being an excellent shaft and workings opened. I look forward to its being retaken up and worked again in better times.

The Erin's Hope No. 1 West (claim).—They crushed 36½ tons of brown stone for 76 oz. 6 dwt., exclusive of sands. The mine is payable, and is working now. No machinery is used.

Left Behind Extended (Brookville).—This property is two men's ground (400 ft. by 400 ft.) The reef strike is north-east and south-west, with dip to south-east of 45 degs. It is about 4 in. thick, of red stone, and worked with windlass only, between two shafts of 40 ft. and 32 ft. deep respectively. Crushed 43½ tons for 62 oz., exclusive of residues. It is held to be payable, and is now working. They are not yet to the water level.

The Tingleairy Extended (claim, 600 ft. by 400 ft., three men).—This mine is beyond Brookville, at Trieste Camp. The reef strikes east to west, and dips north at an angle of about 45 degs. The vein is almost 6 in. thick. Their main shaft is 50 ft. deep. They crushed 33 tons for 66 oz. off the plates, and sold the sands, &c., to Mr. Burnes's cyanide works. Their operations are chiefly on the south end of the claim, in a fair chute. Their machinery is valued at £150. The mine is being worked by a tribute party, who claim to make more than wages.

The Genoa (Lease No. 547, 10 acres).—This mine is held by a company here, and is under exemption at present. The rent for 1908 is not yet paid. They last worked it by tribute in the higher levels, but it did not appear to pay the party. Two crushings of 50 tons, put through before exempting, went 50¾ oz. off the plates, with

residues extra, which sold for £22 10s., equal to 5½ oz.; in all, 56 oz. of £4-gold. There is no machinery on the mine at present.

With regard to THE KIRK AND ROCHFORD CAMPS, at the Kirk Camp there was a rush for a time in the early part of the year for copper claims, and a few lease applications as well, but these, when tested and put under terms on option to Mr. Thorp, of Charters Towers, gradually "fizzled out." The price of copper coming down suddenly, and the percentages not coming up to expectations, were the cause. There are only two claims working for copper there now; but in gold these places have held their own well, and, in fact, are coming to the front fast, particularly the Kirk Camp. The chief mine there is—

The Three Sisters Extended (claim, six men's ground, 1,200 ft. by 400 ft., Carl L. Breitkreuz, owner).—The strike is nearly north to south, with a western dip, very steep. The main shaft is now about 700 to 710 ft. deep, with the chief levels driven south, as the trend of the chute is southerly. They have not driven or stoped much to the north. The reef averages about 15 in. of heavy mundic. The machinery is a 12-h.p. engine, with a 25-h.p. boiler, and one double winding gear. The shaft is very strong and straight, well timbered, but rather small and confined; in fact, it should be cut down for deeper work. The machinery is valued at £500. They bail with buckets, and the water is not now troublesome. They crushed 1,477½ tons at the owner's mill—the Elizabeth, on Pandanus Creek, close handy—for a yield of 1,727 oz. of gold, valued at £4 per oz. The concentrates are sold to Messrs. Graham and Mathieson (as agents), bagged, and carted into the Kirk railway siding, to be sent to the Sulphide Corporation, Limited. This mine is looking well in all of its southern faces, and is stated to be highly payable. The concentrates are of a very high value indeed, and bring up the tonnage value, which goes about 6 to 7 dwt. only at the mill. The average number of men working is 25.

The Sisters Extended No. 1 South (New Moon Lease, No. 457, 12 acres).—This is a limited company. The shaft is nearly vertical, and now down fully 657 ft. The chief workings are north (next to Breitkreuz's boundary), and the company lately struck a 15-in. whitish reef, but put through no crushing during the past year. I understand that they are carting to the mill at the present time a fair-sized trial crushing. Their average working has been with ten men. Their machinery is valued at £300. Their calls are generally 1d. per month, and made with much regularity. It is expected that they will soon be on the list of dividend-payers.

The Crescent P.C. (united leases, Nos. 693 and 746, 29 acres).—This mine is also at the Kirk Diggings, and is held by a company. Their main shaft is nearly vertical, and is down now about 650 ft. The workings are fairly extensive throughout, and they have employed an average of 21 men during the year. The reef averages 8 in. in thickness of rather hard quartz, but showing often a little gold to the eye. They crushed 508 tons for 140 oz. at the mill. This is without residues. Their machinery is valued at £160. It is stated the mine is looking well throughout at the present time.

The Hadleigh Castle and Commodore (Lease No. 629, Rochford).—This is owned by Mr. Carl L. Breitkreuz. The strike is east and west, dipping 45 degs. to the south. The area (20 acres) embraces both lines of reef. The working on the Hadleigh line is at 166 ft. The reef there is small, and they are merely prospecting the mine in various places for bigger operations hereafter. The work in the Commodore is on tribute, I learn, and eight men are just now working in the 750-ft. level westerly. The machinery is valued at £150. There is also old mill machinery of the value of £100 in addition, on the Hadleigh; total value, £250. They crushed a few small parcels, making 42½ tons, and giving, at the Elizabeth mill, 62 oz., all told, of gold; value, £4 per oz. The average on both mines for the period they were working was seven men. It is expected that the Commodore workings will turn out satisfactory in a short time. The reef is 6 in.

The Aurelia Extended (claim).—This claim is situate on a patch of golden country worked many years ago at Thacker's Range, near the Burdekin, and on Fanning Downs. It is four men's ground (800 ft. by 400 ft.), and owned by a Charters Towers syndicate. They have worked it very constantly. The srike is north to south, dipping west 45 degs. The reef is fair-looking stone, but thin, being up to 4 in. only. Their main shaft is 96 ft., with two drives in from the underlie. They have on it a boiler and pump; value, £100. The water is troublesome. They lately crushed 17 tons for 10 oz. off the plates. The residues equalled in value about 5 oz. more. The syndicate got exemption, on the grounds of trying to form a stronger party. They then let the ground to tributers, who, in driving north, cut some very good golden stone near the boundary, and these tributers have, with some others, taken up 400 ft. by 400 ft., as a No. 1 North extended claim on it. Both claims will be worked separately. An average of three men were employed. Two leases on the south boundary are also being applied for now.

At and around Rochford and Kirk Diggings there are many other holdings, chiefly extended claims on old ground, such as the Albion Extended, Morning Star, Lady Jane, Aunt Mary, Himalaya, Alabama, Trust-and-Try, and many others that have been worked off and on during the year with varying results. Some of them are now exempted as non-payable. In each case they are of limited extent, being all under four men's holdings. They act as feeders to Breitkreuz's mill, and, on the whole, appear to give employment to a number of "fossickers" to some benefit.

The Grass Hut Extended (claim, four men, 800 ft. by 400 ft., is exempted).—At this camp, at Sala's Siding, and at Far Fanning Camps, there are several fair shows as extended claims, such as Dead Horse Extended, the Christian Kruck P.C., Mount Melba, and many others. Of these it is sufficient to say that, whilst each appears to be kept working for a return seldom up to wages, there is nothing in any one of them sensational enough in its yield to justify the holders in paying rent for it as a lease, or to form a company.

Mount Success (Lease No. 709, 40 acres).—This lease has been partially exempted from time to time. The results were in no way satisfactory. It, as a large low-grade proposition, requires a large amount of capital to work it. They have expended up to £4,000 in continued prospecting, and in trying parcels of the ore, but to no benefit whatever, and are now seeking six months' exemption, which I have recommended, to enable the holders to try and procure capital. They did not treat any material during the year, although they have a deal of ore raised and stacked at their several paddocks. It is a very large body of seemingly cupriferous ore, with both gold and silver in it, and requires a large reducing power on the ground to begin with, and the adoption of a special method of treatment. The main shaft (vertical) is 200 ft. down, and the cross-cutting has never been fully defined yet, although

they cut in up to 20 ft. in width. I have good hope of seeing this property worked in a big way yet.

The GOLDEN VALLEY CAMP is about a mile away from Mount Success, in a pocket or gorge. Fair work has been done on the two or three holdings there. The chief holding is—

The Golden Valley P.C. (Lease No. 720, 12 acres).—Messrs. Barclay and party have done good work on this line in the past twelve months. The reef strikes east to west, and dips south about 35 degs., and is worked on the underlie. The outcrop is on the edge of a small creek, which, when it rises, flows over and down their workings. This year they have suffered a little by flooding. They have three shafts on their lease—viz., the underlie, 370 ft.; a block (vertical) shaft, 200 ft.; and another, No. 1 West, of 190 ft. They have a 12-h.p. boiler and two duplex steam pumps. The machinery is valued at £250. They have been averaging in labour for the year six men and a boy. They have been granted exemption for four months, through flooding, and purpose diverting the creek. They appear to have put through 126¾ tons, yielding 433 oz. It was crushed at Charters Towers, where their tailings were disposed of. They own a small mill—the Hope to Prosper—situate about 1¾ mile distant, on Spring Creek, but have not used the mill on their own ore so far, which ore, with 15 miles' cartage to Ravenswood Junction, is certain to be picked carefully. I believe they will treat the poorer stuff at their own mill, and cyanide there also. The mill is valued at £500, but is not now working; at least I have had no returns from it lately.

Golden Valley No. 1 East (Lease No. 745, 12 acres).—This is held by a Ravenswood syndicate, and they have been working very constantly. The reef is from 3 in. to 6 in. Their main working shaft is an underlie 206 ft. in depth. They work a whim. They are driving and stoping, mostly towards the P.C. They appear to have treated, at Charters Towers, 90¼ tons, which gave 182 oz. off the plates. They sold their sands and sludges for £132 (equal to 33 oz. more, of £4 gold. They have been employing on average six men and a boy.

The Golden Valley No. 1 West Extended.—This is a claim (800 by 400 ft.), held by five men. It has been worked part of the year to no advantage, and exempted for six months, which has terminated. It is now being applied for under Regulation 17, having been unworked for 30 days. Other numbers here (east and west) appear to be thrown up as not payable. No doubt the heavy wet season has had much to do with this.

At the FAR FANNING (Arthur's Creek Camp) there is a small mill, owned by Mr. John Hoolan, and called the Mount Melba mill. It crushes from time to time for the public, and the owner holds an extended claim—the Mount Melba—close to this mill. The strike is east and west, dipping shallow southerly. It is a very large formation (over 20 ft.), with threads of mundic through it; but it contains a large percentage of waste or mullock. It is shot down in bulk and then hand-picked. The reef is in a sandstone formation. There were several old shafts on this claim when taken up, and the men at work shift from one shaft to another as it pleases them. At the mine are a boiler and two pumps, valued at £100. The returns show 322 tons treated for a yield, at the owner's own mill, of 259 oz. He does not appear to cyanide any sand as yet. The show is said to be payable. The average hands working were five. The mill is valued at £600.

The chief location at the ARGENTINE CAMP is the Six-mile, about four miles north-west from the township. Here there are a few miners living. The *Argentine Extended* (claim) is held by Mr. Wm. Couling, and on it he has a small mill—the Venture—six-stamper, of the value of £200. Whilst working his mine, to hold the ground, he has not crushed any ore during the year. He merely stacks it as too poor to treat. There are two shafts (vertical), 45 and 30 ft. respectively, and the strike of the reef is north and south, dipping west. *McCafferty's P.C. Extended* and a few other claims are working occasionally only.

At PICCADILLY CAMP there has been very little doing during the past year. The male portion of the community has decreased very greatly. The majority of the families are, however, still there, while the fathers work elsewhere, some at prospecting the surrounding country and others at Argentine, Dotswood Station, and Far Fanning. The chief mine working is the *Piccadilly P.C.* and *No. 1 West Extended* (united), 800 by 400 ft. Their shaft is 500 ft. on the underlie, with a very easy grade. They have two other shafts on the claim—one 90 ft. and the other 70 ft. The vein is very thin (about 3 to 4 in.), and has slatey walls, clean and sound. It requires very little timber. The underlie has cut into the Block claim, and both are worked from the P.C. The machinery on the mine is a 16-h.p. boiler with a 12-h.p. engine, a single winding gear, three pumps, not used in the mine, and two 100-gallon tanks (on trucks) for bailing the underlie; value in all, £500. They run the Phœnix mill, of four stamps, which is close to this mine, and the value of it is placed at £500. They crushed 287 tons during the year, yielding 534¾ oz., with concentrates additional, of a value of £888. They grind their concentrates, and do not cyanide. The average number of men working for the year is put down at 12. There are four other extended gold claims at or near this mine, all working more or less, but the returns merely give a living, as far as can be judged. There are 26 miners, with a population of, say, 60 souls, and unfortunately the children have no school there. The location, I regret to state, is not improving, and beyond this one line of the Piccadilly I do not expect much from it in the current year.

OTHER MINERALS.

There has been a great slump in minerals other than gold all over this field during the middle and latter part of the year through the falling off in values of metals. As noticed in opening my report, stream tin-mining is the only mineral outside gold that appears to have been adhered to. This is carried on by men working singly, fossicking or "tin-scratching," in the gullies at the heads of Running Creek, Lassie Creek, and other tributaries at and near Ewan, also on the western branches of the Big Star River; but the quantities actually won are very problematical, as the "scratchers" move about from gully to gully, and make no definite returns. They sell all their tin locally, in very small parcels, to storekeepers and packers, who take it to Ingham, and resell it there, I learn, so there is every chance of at least some of it being duplicated in the Ingham returns. I have allowed a few tons for that. The information I get is through Mr. Geo. A. Rannie, J.P., of Ewan, and a packer (Mr. R. Guild), of Tara Vale, both reliable. Mr. Guinnane's pack teams, which come from Ingham to Ewan every month or so with stores, take back tin. The copper prospecting areas, claims, and leases at the Star River and its heads taken up in the year are nearly all abandoned through the fall in price of that metal. Some have even had a refund of their survey fees through abandonment before surveys are completed.

ANTIMONY "SHOWS."—Extended claims, areas, and even leases are now unworked. Mr. Joshua

Wellington's lease (30 acres), at the head of the Four-mile Creek, is not working, nor will it be, and the rent is unpaid. There has been a complete collapse in the efforts to get out this metal through the fall in prices. The same is strictly applicable to workings in silver and lead. The show taken up by Gorman, Brangan, and others at Mount Wright, a claim 1,000 by 350 ft., to which I referred in my last report, and which was assisted by Government subsidy, has long since been thrown up as unpayable, and the machinery removed. The same remark also applies to a claim (subsidised slightly) held by Watson, Lidgate, and Smythe, adjoining King's old freehold, at Totley (One-mile). They worked steadily, put on some machinery, and sank the straight shaft sufficiently to prove the holding unpayable. The ore cut out, and what was there turned into iron pyrites of no commercial value, so they gave it up, and removed their machinery. I have noticed previously that, of the copper shows at the Kirk, on Pandanus Creek, only two are now working, and they are held by Shanks Bros. and their family, who were obliged to take them back again, as the option given to Mr. Thorp of purchasing each after six months' trial did not eventuate. Any rents of leases for "minerals other than gold" now unpaid will, I fear, not be paid, and the areas will have to be forfeited after March next.

Mining Accidents.

There was no fatal accident, and I am pleased to report that there has been but one accident of a nature at all serious reported to me during the year. It occurred to the manager of the Silvery Wave (Louis Franklin), in July. He had a slight fall of earth on to him, at the end of a drive, and got hurt on the back and shoulder, sufficient to confine him to his quarters for a couple of weeks. There was no inquiry held, as there was no necessity therefor. Two other accidents are stated to have occurred in the Crescent Gold Mining Company's workings at Kirk Diggings, to two miners, Sam Carson and Thomas Gaffin, the first in February and the other in November. They were not reported at this office, but from a return kindly sent me by the Inspector of Mines at the end of the year were reported to him direct. Each miner appears to have been laid up over 14 days. They appear not to have been serious enough as to need official inquiries.

Produce of the Field.

The yield from ore crushed at the mills for 1907 is 26,632 oz. 9 dwt. 12 gr. from 24,203¼ tons, at £2 16s. per oz., giving a value of £74,569 3s. 2d. To this we add gold from cyanide works, 6,066 oz. 18 dwt. 21 gr. (bullion), at £1 8s. 7d. per oz., giving £8,670 16s. 5d., together with 15,793 oz. 10 dwt. 6 gr. at nearly £3 11s. 9d., amounting to £62,346 13s. 4d. from concentrates; making a total of £145,586 12s. 11d. The alluvial gold is 436 oz. 6 dwt. 10 gr., at nearly £3 10s. 10d., amounting to £1,544 15s. 8d., which, added to the above, shows a full value of £147,131 8s. 7d. Then we have further crude ores sent to smelters—51 tons 13 cwt. 1 qr., at £4 per oz. on 204½ oz., equal to £817 12s. 8d. The grand totals are 49,133½ oz., for an entire value of £147,949 1s. 3d. This is an increase of 2,174 oz. on the previous year (1906), and a decrease in total value of £5,078 1s. 10d.; but in this it is observable that we treated 5,965 tons less than in 1906. There is a big increase in ounces from the Sunset Mine, as one item (something like 1,656 oz.). The balance would come from outside camps like Brookville, the Kirk, and Mount Success. It is pleasing, however, to be able to record an increase of even ounces in the yields, although the value of the gold in our chief mines appears to be getting poorer each year as they go down on them. Again, they are much more exact in their true values now than hitherto, as they sell their concentrates at the true assay values.

The dividends within the year, as supplied me, were three, and came from the New Ravenswood, Limited—one (an interim) of 2d. and two of 6d. each, which on the capital amounts to £11,612 14s. 2d. in the aggregate. This is most encouraging.

Estimated Population.

There has been again another slight decrease in the population—of 264 Europeans and about 38 Chinese. Of the Europeans, 79 less were engaged in gold-mining and six less in mining for other minerals. Of other persons—like carters, tradesmen, their wives and children—there appears to have been a decrease of some 179. This is exclusive of Chinese. The Europeans, as in 1906, appear to have migrated to Northern fields, some to settle down in agricultural pursuits at and around Atherton, whilst a few have gone to Charters Towers. The entire population is 4,102, being—Europeans, 3,939; and Chinese, 163.

Revenue.

The amount received during the year from all the offices totals £2,386 9s. 7d., being a small decrease of £281 upon 1906. If the dividend duties were collectable as such instead of being included as income tax, and were recorded here, our revenue would be much in excess of 1906. Taking the field as it is, and the decrease in population, &c., the revenue as a whole is sound, whilst the expenses of office, &c., have not increased.

Gold and Other Tenures.

The gold leases and applications in force at the end of the year were 45, embracing an aggregate area of 745 acres, being an average of 16 acres 2 roods 10 perches, and four leases less than in 1907, with a lesser gross area of 98 acres. The mineral leases (chiefly copper) at the end of the year were seven, with an area of 290 acres, being an increase of four new lease applications, with an increased area of 130 acres. There were 542 miners' homesteads and applications, covering an area of 1,636 acres, and averaging 3 acres. This is a decrease of 12 homesteads, but an increase of 102 acres, arising from a few larger-sized homesteads. There are three mineral homesteads, aggregating 50 acres, an average of 16½ acres, same as last year. There were some 70 gold claims, chiefly extended, and about 15 mineral claims of a like nature applied for during the year, most of which were registered, but some of them are now abandoned again. Eight prospecting areas (gold) and nine of other minerals were lodged here and granted during the past year.

Machinery on Mines and at Mills.

The total value of machinery on leases and claims, as fixed by the owners in the respective returns, is £37,730, being a decrease of £2,461 for the year. This falling off is easily accounted for—first through depreciation, and then through the sale of several small plants which have been taken off the field to Charters Towers and elsewhere. The total value of machinery at mills and reducing works is £85,400, being a decrease of £700, which would be none too much to allow for the wear and tear and other depreciation for the year. There appears to be also a decrease of £150 in cyaniding machinery, but as against all this there is a large quantity of new machinery lying at the works for the Elmore vacuum concentrating process, for

further reducing the tailings, and which plant is now in course of construction at the works of the New Ravenswood, Limited. Finally, there is in all machinery on mines and at mills a total value of £124,720, being £3,311 decrease on last year.

Prospects of the Future.

It is always dangerous to prognosticate, and markedly so as to the near future of a goldfield, the "ups and downs" of which change so greatly, even in a year. Our prospects are certainly far from bright just at present, but anything may arise any day to alter that state of affairs. In gold, I have no doubt whatever that we shall be able to hold our own as in the year just ended. The whole outlook, although a little clouded perhaps, is far from being one of despondency, and the many efforts now made through prospecting new ground, as well as the retaking up of old "shows" on lines of reef that have lain in abeyance for many years, point in the direction of a better state of things in mining within this current year. Our chief mines—the Grant and the Sunset—are yielding handsomely, and must, by the appearance of the different drives and faces now open, continue to do so all through the year. Their yields are decidedly higher from each ton of ore raised (attributable, no doubt, to the additional quantity won by the tube mills) although the value of the gold is not so high as hitherto. Extra miners are certain to be put on as the different levels off the new shaft of the Sunset are opened out, and there are good chances, too, of a number of more men being early engaged in the London P.C., the London North, and the Grant and Sunset Extended leases. The outlook for this year is, I think, healthy all over the field. I expect better returns from Mr. Breitkreuz's properties at the Kirk diggings and at Rochford. We are also likely to get dividends from the Sisters Extended No. 1 South, and from the Crescent Mines there. Brookville, too, and the locations near it have workers, who generally keep pegging away until they find something payable. There is now no sudden rush for leases; but there is a strong, determined effort being made by several careful men—men with means—to first take up claims, in the extended form, work them, and, if proved payable, extend them in both depth and length into leases before attempting flotations of any kind. This is the class of men best suited to this old field of half-worked shows, where our reefs are rather small and require economic working and careful testing up to a certain stage before inviting the capitalist to join in. When more of this is experienced we shall have better, surer, and much more genuine flotations. I am of opinion there will be a still greater certainty of a larger quantity of gold coming in in this than in the past year. Some should come from the Premier Consolidated, at Hillsboro', and there may be a better effort made to search for and find it at both Argentine and Piccadilly. I do not expect much from "other minerals" at present rates. The splendid rains have given our little local stock-keepers better heart, and they will again invest in mining as they always have done. I decline, therefore, to take a despondent view of the outlook, and believe we will at the end of this year be found "on top."

Comparatively, the general health is, and has been, good for the whole year.

Schedule A.

Comparative Return of Estimated Population, Ravenswood Goldfield and Mining Districts connected therewith, for the Years 1906 and 1907.

Year, &c.	Europeans.						Chinese.					Grand Total Population of District.
	Gold Miners.		Other Minerals.	Total Miners.	Other Persons.	Total Europeans.	Quartz Miners.	Alluvial Miners.	Total Miners (Chinese).	Other Persons.	Total Chinese.	
	Quartz.	Alluvial.										
1906	685	20	37	742	3,461	4,203	...	99	99	102	201	4,404
1907	597	29	31	657	3,282	3,939	...	85	85	78	163	4,102
Increase, 1907	...	9	...	...	...	...	...	...	...	...	...	...
Decrease, 1907	88	...	6	85	179	264	...	14	14	24	38	302

Schedule B.

RETURN SHOWING THE QUANTITY OF STONE TREATED AT THE MILLS FROM THE VARIOUS MINES OF THE RAVENSWOOD GOLDFIELD, AND THE YIELD OF GOLD THEREFROM, DURING THE YEAR 1907.

Mine.	Tonnage.	Yield.	Mine.	Tonnage.	Yield.
	Tons cwt. qr.	Oz. dwt. gr.		Tons cwt qr.	Oz. dwt. gr.
All Serene	9 0 0	3 16 0	London P.C.	244 10 0	207 0 0
Argentine, No. 1 South ...	5 10 0	6 3 0	London North	314 14 2	255 15 0
Argentine, No. 2 North ...	6 8 0	4 1 0	Lucky Day	3 0 0	1 9 0
Aurelia Extended	16 15 0	9 16 0	Mellaneur	548 0 0	583 15 0
Barrabba Creek	8 0 0	3 2 0	Meyer's Extended	20 0 0	1 2 0
Barrier Extended	4 0 0	1 0 0	Mickery Extended	27 0 0	7 8 0
Battle Axe	3 10 0	3 6 0	Molly Bawn	14 0 0	21 15 0
B. B. Extended	54 10 0	61 3 0	Mountain Maid	9 0 0	3 7 0
Black Jack	197 0 0	(Concentrates only)	Mount Melba	390 0 0	494 3 12
			Mount Success	7 9 0	8 15 0
Britannia Extended	8 0 0	3 8 0	Mount Wright	39 2 0	34 7 12
Crescent P.C.	582 5 0	211 16 0	Never-too-Late	5 0 0	16 1 0
Canadian Extended	39 0 0	9 2 0	New Iniquity	5 0 0	5 10 0
Canton Extended	103 0 0	28 10 0	New Ravenswood (headings)	247 0 0	236 5 0
Caroline Extended	7 0 0	3 15 0	Nolan's Gully	30 10 0	40 16 0
Centipede Extended	3 0 0	0 15 0	Overlander (tribute) ...	235 10 0	407 10 0
Christian Kruck	5 15 0	23 15 0	Painui (headings)	14 0 0	8 4 0
Do. No. 1 West ...	6 12 0	6 10 0	Percy Extended	40 10 0	19 6 0
City of London	11 10 0	6 4 0	Perseverance	3 0 0	0 16 0
Columbia Extended	4 0 0	7 9 0	Piccadilly P.C. and No. 1 W.	254 10 0	361 12 0
Coronation	10 0 0	4 8 0	Piccadilly 2 and 3 W. ...	53 0 0	95 8 0
Daisy Extended	4 10 0	7 10 0	Pioneer P.C.	5 1 2	38 2 0
Dalglish Extended	6 0 0	14 0 0	Politician (headings) ...	17 0 0	5 4 0
Dam Extended	3 0 0	3 17 0	Premier Consolidated ...	71 0 0	122 0 0
Donnybrook P.C.	9 0 0	8 14 0	Premier J.R.D. ...	107 10 0	255 0 0
Do. Block (tribute) ...	82 0 0	395 12 0	Red Streak	97 10 0	31 15 0
Eclipse Extended ...	4 0 0	3 0 0	Rochford	7 10 0	4 7 0
Eight-Mile	4 0 0	2 19 0	Rocky P.A.	14 12 0	38 4 0
Elizabeth Extended	22 0 0	21 15 0	Sala Siding (Emmerson) ...	64 0 0	60 6 0
Ellen Boss Extended	15 0 0	12 5 0	Sauer Kraut	0 0 1	3 7 0
Erin's Hope P.C.	18 0 0	44 6 0	Shannon	6 0 0	6 0 0
Do. No. 1 West ...	36 10 0	67 1 0	Shelmalier Extended ...	14 0 0	7 2 0
Fanning (various)	103 4 0	135 10 0	Silvery Wave	306 0 0	78 7 0
Fanny Parnell	8 0 0	3 7 0	Southern Cross	16 0 0	9 5 0
General Grant	2,370 0 0	6,048 10 0	Star of Hope	3 0 0	1 15 0
Genoa P.C.	50 0 0	48 18 0	St. Paul's Extended	6 0 0	3 0 0
Golden Hill (Buck)	552 0 0	75 11 0	Sunday Extended	20 0 0	14 5 0
Golden Valley P.C.	126 15 0	432 7 0	Sunrise Extended	6 0 0	1 6 0
Do. East	90 5 0	187 19 0	Sunset	13,086 0 0	13,385 18 0
Governor Blackall	3 10 0	3 16 0	Three Sisters Extended ...	1,481 10 0	420 17 0
Grant and Sunset Extended ...	581 0 0	341 10 0	Tingleairy Extended ...	33 0 0	66 0 0
Grass Hut (various)	228 16 0	123 16 0	Trieste (headings)	76 0 0	32 11 0
Grass-tree Hill	17 18 0	16 10 0	Tri Towers	8 0 0	3 0 0
Greenstone	2 0 0	1 7 12	Uncle Jack	58 0 0	89 6 0
Hadleigh Castle	41 5 0	47 15 0	Uncle Tom	40 0 0	12 8 0
Himalaya Extended	14 0 0	2 13 0	Valley Queen	55 10 0	17 15 0
Hosford's Mistake	7 0 0	8 12 0	Welcome Extended	36 10 0	39 6 0
Irish Girl (headings)	22 0 0	5 10 0	Who'd-ha'-Thought-It ...	34 0 0	31 14 0
Jolly Waterman	16 0 0	39 15 0	Yellow Jack	108 0 0	274 0 0
Kirk (various)	17 5 0	36 8 0	Young Native	13 0 0	18 8 12
Lady Mary Extended	29 0 0	26 18 0	Surface lots from various places	240 4 0	82 8 12
Do. South	22 0 0	21 16 0			
Lady Louisa	24 0 0	12 0 0			
Left Behind Extended ...	42 10 0	66 14 0	Total	24,203 6 1	26,632 9 12
Do. No. 1 North ...	10 10 0	3 7 0			

Schedule C.

RETURN OF PRILL ORE, CONCENTRATES, ETC., TREATED AT THE SMELTERS, ETC. (AND RETURNED MONTHLY BY THE VARIOUS AGENTS AND SECRETARIES, ETC.), ALSO CYANIDE AND ALLUVIAL GOLD, FROM THE RAVENSWOOD GOLDFIELD DURING THE YEAR 1907.

Where Treated, Etc.	Material.	Tonnage.	Yield.
		Tons cwt. qr.	Oz. dwt. gr.
Aldershot and Illawarra	Nil	...	...
Cockle Creek	Prill ore	51 13 1	204 8 2
Ditto	Concentrates	3,972 18 3	15,569 19 15
Purchased by Assayers at Charters Towers and Ravenswood	Concentrates	62 19 0	223 10 15
Total prill ore	...	51 13 1	204 8 2
Total concentrates	...	4,035 17 3	15,793 10 6
Total treated at smelters	...	51 13 1	15,997 18 8
Cyanided	New sands	12,278 4 1	6,066 18 21
Alluvial gold	...	...	436 6 10
Total gold (smelters, cyanide, and alluvial) ...	...	...	22,501 3 15

W. G. KELLY-CUSACK, Warden.

ROCKHAMPTON FIELDS.

The rainfall for 1907 was much below the average, and amounted in the twelve months to 26·87 in., of which nearly two-thirds, or 17·13 in., fell in the first six months. The four months, July to October inclusive, were dry, and during none of those months did the rainfall amount to 1 in.; while September was absolutely rainless. In November and December the fall were heavier, amounting to 3·54 and 4·42 in. respectively.

The gold yield of the fields in my district show no improvement, and there has been a marked falling off in the quantities of stone and tailings treated as well as in the production of gold. In 1906 the grand total of quartz, sands, and tailings treated was 9,381 tons 19 cwt. for 1,903 oz. 13 dwt., and in 1907 1,306 tons 5 cwt., yielding 929 oz. 5 dwt., a diminution of 8,075 tons 14 dwt. of material treated and 974 oz. gold. In part, the reduction of the quantity of auriferous material handled may be accounted for by the cessation of the operations of the Canoona Gold Recovery Syndicate, which put through in 1906 4,000 tons of old Canoona tailings. The production of alluvial gold for 1907, as compiled from the bank returns, was 232 oz. 1 dwt. 15 gr.

Canoona.

But little has been done on this field since the Canoona Gold Recovery Syndicate suspended operations. The field may be credited with the producduction of 22 oz. alluvial and 21 oz. 15 dwt. reef gold.

Cawarral.

On this field 304 tons of stone were crushed for 478 oz. 12 dwt., an average of over 1½ oz. to the ton of material treated. The crushings, however, were small, the largest being 126 tons 10 cwt. from the Annie United Mine, yielding 330 oz. 6 dwt.

Morinish.

The crushing returns for the year show 78 tons 15 cwt. of reef stone crushed, for 137 oz. 9 dwt. The largest was from the Lady Florence No. 2—34 tons 5 cwt. for 52 oz. 18 dwt.—and the richest stone, 7 tons, from the English Bee, giving 23 oz. 19 dwt. Alluvial gold amounting to 109 oz. 4 dwt. was won on this field during the year.

Other Fields.

Ridglands has produced 26 oz. 1 dwt. of alluvial gold by puddling.

At Rosewood there was a quiescent year. Alluvial gold to the amount of 50 oz. 1 dwt. 21 gr. has been recovered.

At Stanwell no mining has been done. A prospecting area for copper was taken up, but speedily abandoned.

There are no operations to record at Ulam.

Oaks View.

The whole of the work at the Oaks View Gold Mining Company's ground has been of a developmental character. At the close of 1906 operations were commenced to form an inclined shaft, intended to reach the deeper portions of the mine at or below the water-level, and so situated that all parts of the mine could be worked from it. The shaft is 12 ft by 7 ft. in area, provided with a double tramway and steam winding gear, and is in every way a good and substantial piece of work. It has been carried down some 350 ft., and penetrates formations lower than any yet worked in the locality. Unfortunately, an inflow of water during the latter part of the year has compelled the attention of the management to be directed to the dewatering of the mine, to the exclusion of all other work. Hence the owners have been, so far, unable to realise the benefits to which their enterprise should have entitled them. The other claims in the vicinity of the Oaks View are dormant, and practically awaiting the opening up of the deeper levels below the water-line in the Oaks View Company's ground.

Copper-mining.

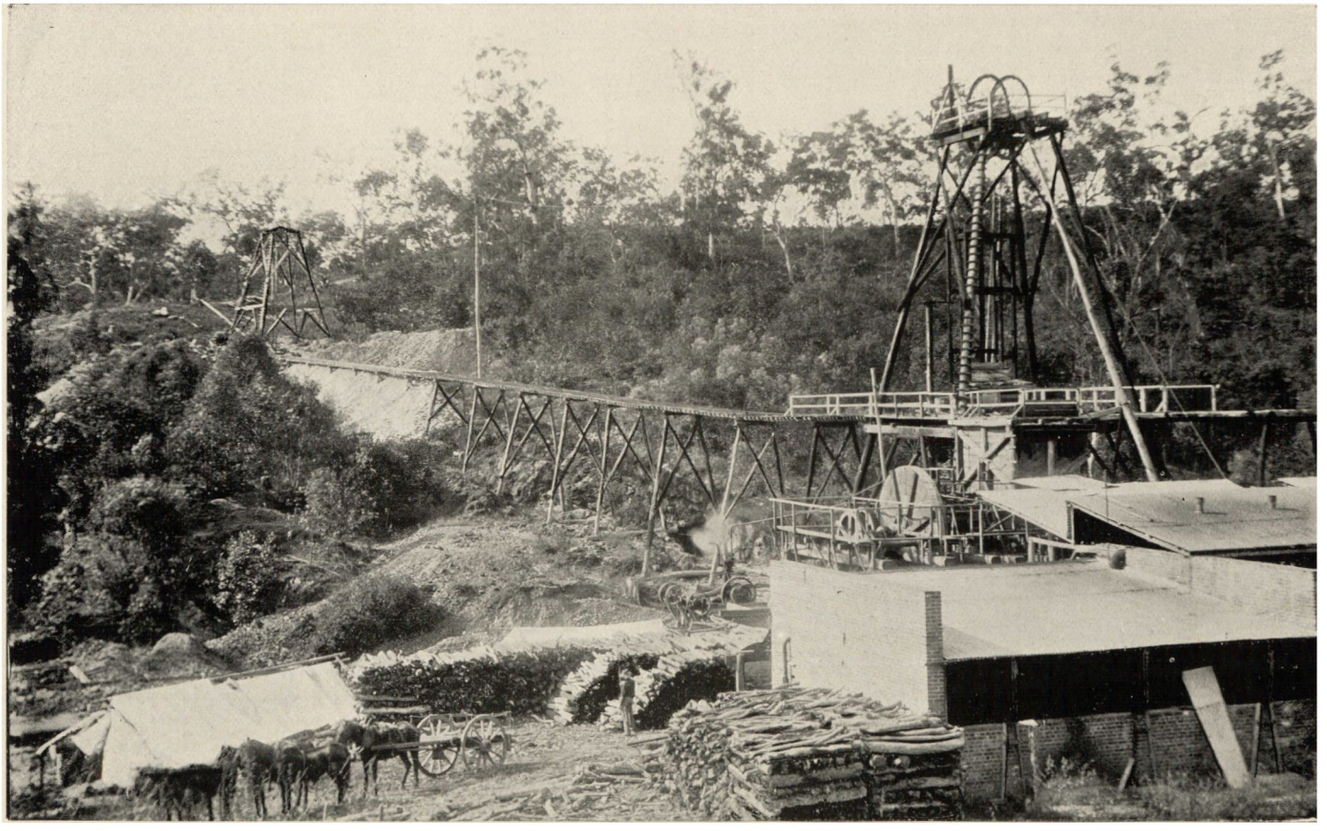
The event of the year, as affecting the mining industry in my district, was the formation in May last of a powerful limited liability company with a capital of £500,000, which took over the group of leases at Mount Chalmers, formerly the property of Philip Charley and A. S. R. Osborne. The total area held by the company is 177 acres 3 roods 15 perches. Possession was taken in May, 1907, and since then a vigorous and systematic exploration of the ore-bodies has been made. It has been ascertained that at the 150-ft. level the ore-body extends some 330 ft. nearly north and south, and 120 ft. from east to west, and on this level the southern limit of the ore has not been reached. A level has been made at 225 ft., and the ore indications are as satisfactory as in the upper levels. Concurrent with development work underground, many additions have been made to the working plant. The south shaft has been provided with the appliances to make it the main ore-way of the mine. The ore from the shaft is tipped into a bin, from which it passes to an ore-breaker, and thence is carried by a belt-conveyer to a series of bins, which are also arranged to receive ironstone and limestone fluxes. The ore and fluxes are run up to the feed-floor of the smelters by a double tramway, about 710 ft. long, up a rising gradient of about 1 in 4, operated by a pair of 14-h.p. winding engines. At present one unit of the smelting plant has been erected, consisting of a 42-in. by 84-in. water-jacket blast furnace, of a capacity equal to 100 tons per diem. A pair of Babcock and Willcox water-tube boilers, equal to 120-h.p., fitted with all modern improvements, and a pair of vertical blowing engines, supply the blast for the smelter. Besides these necessaries, an electric light plant has been provided, and at the close of the year all these matters were in a forward condition, so that actual smelting would be possible early in the new year.

A mile or so from this mine are the freehold properties known as the Mount Warminster Lead and Copper Mines, Limited. During the year a large amount of mining and development work has been effected, amounting, in shafts, drives, and other developments, to 743 ft., in the course of which operation 1,193 tons of rock were removed, and 77 tons of ore raised. Owing to the depreciation of copper, the proprietary for the time being have reduced operations.

The activity in copper prospecting, occasioned by the high rates obtainable for copper during the latter part of 1906, as might be expected, have fallen off in response to the fall in values; and of six copper shows registered as mineral prospecting areas in 1907 not one remains in force.

Miscellaneous Mining.

As a concomitant of the introduction of smelting works for copper at Mount Morgan and Mount Chalmers, mining for fluxes has been greatly stimulated, and there has been a large production of limestone and ironstone. Altogether 27,484 tons of ironstone have been raised, of which the major quantity was obtained from Iron Island, which yielded



VIEW OF THE GREAT FITZROY MINE, CENTRAL QUEENSLAND.

18,597 tons. The other principal producers are the mines at Kabra, affording 3,540 tons, and the Mount Morgan Company's leases at Mount Etna, which produced 5,263 tons. The bulk of this production was used at the Mount Morgan works.

A small lease was taken up in October last by a prospector, in the neighbourhood of Cawarral, to mine for ironstone, with the intention of supplying ironstone flux to the Mount Chalmers smelter, but no developments have been reported.

The limestone flux raised amounts to 68,266 tons for the year, wholly the production of the Marmor limestone quarry of the Mount Morgan Gold Mining Company. At this quarry what is called the "milling system" has been introduced, which has greatly increased the output. A detailed description of the system as operated at the Marmor quarry appears in my November report, given in the "Mining Journal" for that month.

A new production has to be noted this year—viz., chrome iron ore, of which 105 tons crude was raised, estimated to produce 84 tons. The ore was obtained at a place on the Emu Park Railway line called Tooker's Hill.

Coal-mining.

No great activity has been displayed in this branch of mineral production during the year. In the Dawson River Valley the most important operations that have been carried out are those effected by the Government on the ground formerly held by the Dawson River Anthracite Coal Prospecting Company. A substantial shaft was put down to a depth of 260 ft., and between 250 and 300 tons of coal were taken out for testing purposes, but the result of the tests have not been made public. The only effective colliery operating on commercial lines in the Central District is the Bluff Colliery, on the Central Railway, in the Mackenzie River basin. During the year the mine has been connected by a siding and branch line with the Central Railway, affording facilities for the disposal of the output. Additional machinery has been erected and a substantial dam constructed to ensure water supply. Underground the workings have been opened up and extended so that a production of not less than 1,000 tons per month can easily be effected. The last quarter of the year yielded 3,228 tons, and the total output for 1907 was 11,143 tons of marketable coal. As the coal is obtained from a reward lease of Crown lands, it pays a royalty of 1d. per ton, amounting to £46 8s. 7d. for 1907. An effort is being made at this mine to utilise the slack by converting it into coke by the Heskett process, the main feature of which is the addition of a heavy hydro-carbon oil to powdered coal, the mass being then treated in inverted brick retorts. Experimental operations at Rockhampton gave satisfactory results, and the coke produced was highly valued as a foundry coke under the tests to which it was subjected.

Settlement.

The activity displayed in the developing of the Great Fitzroy Gold and Copper Company's mine at Mount Chalmers has been the determining factor in settling quite a population in the vicinity of the mine; and, to encourage it as much as possible, I early determined to limit the area of the homesteads granted to 1 acre within a certain distance of the workings. During 1907 83 applications were lodged for land at Mount Chalmers, of which 67 have been approved. A site has been set aside for a police station, and the Livingstone Shire Council is providing a sanitary service, for which an area of 40 acres is being set aside as a depôt in connection with the service.

Accidents.

Seven mining accidents occurred in 1907, the same number as in the previous year; but the fatal accidents were two, instead of four. One resulted from a fall from the top of the limestone bins at Marmor quarry on 20th September last, and, so far as the evidence shows, was occasioned by the deceased missing his hold when stepping off a ladder into the winch house. He was carrying in his hand a "billy" of tea, which may have occasioned the mishap. The other fatal accident was occasioned by the premature explosion of a blast in a drive in the Great Fitzroy Gold and Copper Mine, and is attributable to the recharging of a "butt-hole" soon after the first explosion, before the rock had time to cool, and neglect of the common precaution of pouring water into the bore-hole. Of the other five accidents, three involved more than 14 days' disablement; the others did not. Recovery ensued in all these cases.

Miscellaneous.

I append a statement of the various applications made during the year 1907, and the fields or localities to which they refer:—

Reef Claims: Total received, 17; total registered, 15—Cawarral, 14; Morinish, 1.

Alluvial Claims: Total received, 1; total registered, 1—Rosewood, 1.

Auriferous Sands Claims: Total received, 8; total registered, 5—Canoona, 1; Cawarral, 1; Morinish, 1; Rosewood, 2.

Gold Prospecting Areas: Total received, 4; total registered, 2—Morinish, 1; outside a goldfield, 1.

Residence Areas: Total received, 10; total registered, 1—Cawarral, 1.

Water Rights: Total received, 3; total registered, 2—Canoona, 1; Rosewood, 1.

Miners' Homesteads: Total received, 88; approved, 72—Cawarral, 2; Mount Chalmers, 67; Ulam, 3.

Gold-mining Leases: Total received, 4; approved, 2—Cawarral, 1; Mount Morgan, A Division, 1.

Mineral Leases: Total received, 11; approved, 10—Cawarral, 4; Mount Chalmers, 6.

Coal Prospecting Areas: Total received, 16; licenses granted, 2.

The cash received in this office during the year 1907 amounted to £906 8s. 8d., a small increase on the previous year's collections; besides which £4,041 6s. was paid to this office for royalty on gold by the Mount Morgan Gold Mining Company, Limited.

Tables (A, B, and C) giving particulars relating to mining in the Rockhampton district are annexed hereto.

Table A.

RETURN OF GOLD, ROCKHAMPTON DISTRICT, FOR THE YEAR 1907.

Field and Mine.	Quantity Treated.	Yield.	Value.
	Tons cwt.	Oz. dwt.	£ s. d.
Cawarral—			
Annie United	126 10	330 6	990 18 0
Dead Finish	39 10	12 10	37 10 0
Helena	10 0	4 5	12 15 0
Lady Margaret	52 10	99 5	298 15 0
Long Tunnel	65 0	31 1	92 15 0
Mount Aubrey	3 0	0 9	1 10 0
Reef near Pluto	8 0	1 16	7 16 0
Morinish—			
Connor's Relief No. 1 ...	8 10	11 14	45 12 7
Connor's Relief P.C. ...	10 0	14 0	54 12 0
English Bee	7 0	23 19	139 8 0
Howeward Bound ...	4 10	3 15	14 3 0
Jubilee	3 10	7 8	29 12 0
Mary Florence No. 1 ...	34 5	52 18	166 1 7
Mary Florence P.C. ...	11 0	23 15	90 19 9
Total Reef Gold ...	383 5	617 1	1,982 7 11

Field and Mine.	Quantity Treated.	Yield.	Value.
	Tons cwt.	Oz. dwt.	£ s. d.
CYANIDE RETURNS.			
Tailings.			
Cawarral—			
Annie United	103 0	43 15	71 6 8
Helena	75 0	19 17	34 14 9
Lady Margaret	37 0	12 10	25 0 0
Long Tunnel	36 0	17 8	38 3 0
Mixed	295 0	64 7	130 2 3
Reef near Pluto	6 0	4 9	11 2 6
Total Tailings ...	552 0	162 6	310 9 2
Old Tailings.			
Cawarral—			
Annie United	211 0	50 15	97 0 8
Mixed	160 0	109 11	148 6 0
Total Old Tailings ...	371 0	160 6	245 6 8
Grand Total	1,306 5	929 13	2,538 3 9

Table B.

RETURN OF MINING MACHINERY IN THE ROCKHAMPTON DISTRICT DURING THE YEAR 1907.

Mineral Mined for.	Name of Mine.	Situation.	Engines.	Horse Power.	Single Winding Gear.	Double Winding Gear.	Air Compressors.	Rock Drills.	Pumps.	Value.
										£
Gold	Annie United	Cawarral	1	10	...	1	...	...	...	100
	Lady Margaret	,, ...	1	4	1	...	...	...	...	75
	Mary Florence, P.C. ...	Morinish	1	4	1	...	...	...	...	100
	Oaks View United	Oaks	1	16	...	...	...	...	...	400
	Hector	Mount Morgan, A. Division	...	...	1	...	1	2	2	500
Copper	Great Fitzroy Gold and Copper Mine	Mount Chalmers ...	3	100	...	2	1	8	...	4,500
Limestone ...	Marmor Quarry	Ulam	1	20	1	...	1	7	2	800
Coal	Bluff Colliery	Duckworth, Q.C.R. ...	2	23	1	1	...	...	1	450
	Dunstan and Dawson Valley	Dawson River	2	15	1	...	...	...	...	200
			12	192	6	4	3	17	5	£7,125

Table C.

RETURN OF REDUCING MACHINERY IN THE ROCKHAMPTON DISTRICT DURING THE YEAR 1907.

Mineral Treated.	Name of Plant.	Situation.	Steam Engines.	Horse Power.	Stone Breakers.	Stampers.	Crushing Rollers.	Huntington Mills.	Berdan Pans.	Wheeler Pans.	Arrastras.	Brown and Stans. Concentrates.	Shaking Tables.	Agitators.	Wilfley Tables.	Jiggers.	Furnaces.	Dams and Reservoirs.	Pumps.	Value.
																				£
Gold	Annie Battery ...	Cawarral ...	1	14	...	10	...	...	2	1	...	...	...	...	...	...	...	1	...	1,000
	Pluto ,, ...	,, ...	1	14	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	1,000
	Cawarral ,, ...	,, ...	1	14	...	10	...	...	...	...	...	1	...	...	...	...	...	...	...	600
	Granite Mill ...	Morinish ...	1	16	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	300
	Hunter's Gully Extended	,, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	50
	Tom Thumb Battery	Ulam	2	14	..	10	...	...	2	1	3	...	1	1	...	...	...	...	1	150
	Puddling Machines	Ridglands ...	2	18	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	300
	Oaks View Battery	The Oaks ...	1	20	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	150
	Hector Battery ...	Mount Morgan, A. Division	1	15	...	...	...	1	1	...	...	2	...	...	1	...	...	...	...	1,500
Copper	Great Fitzroy Gold and Copper Mine	Mount Chalmers	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	2	...	9,500
Limestone ...	Marmor Quarry	Ulam	2	130	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	800
			13	245	2	40	2	4	5	2	3	3	1	1	1	2	1	3	2	£15,350

CHRIS. FRANCIS, Warden.

ROMA DISTRICT.

On 1st January, 1906, there was in force in this district a coal-mining license, in the name of Charles Arnold, on Bungeworgorai Creek, upon which, however, no development work has since been done, and which is now forfeited.

A mineral lease was granted to the Mineral Oil Company in respect of an area situated in the town of Roma. In the early part of the year this company let a contract to the Intercolonial Boring Company to put down a bore, at schedule prices, to a maximum depth of 4,500 ft. Boring operations were commenced on 3rd July last, and continued to the present time. The drills are now working at a depth of 2,000 ft. There is nothing of interest to report in connection with this bore, except that water has been struck yielding 150,000 gallons per day, and the whole of the bore has been cased, perforated casing being put down where the water was met with.

During the year referred to there has been no prospecting work carried on in the district for gold or other minerals, with the exception of the putting down of the bore on the Mineral Oil Company's property already referred to.

An application was lodged for a prospecting area for coal near Chinchilla, but, as it transpired that a portion of the land applied for formed part of an agricultural farm, the application was refused.

WM. HARRIS, Warden.

STANTHORPE, PIKEDALE, AND OTHER FIELDS.

PROGRESS.

The year 1907 opened with a good deal of promise. Many applications for mineral leases, dredging claims, and prospecting areas were granted, but, owing to the slump in the price of minerals, several shows are now lying in abeyance. Great hopes were entertained for the Pikedale Mine, which was started at the beginning of the year, but, so far, nothing sensational has occurred, and, judging from current reports, it will be some time before work is commenced, owing to the difficulty in raising further capital. Several propositions in dredging which were about to be worked when the price of tin was high, are now lying idle, owing to the fall in price of that mineral, holders preferring to await the return of a better price than that now ruling.

For some time the want of water has been keenly felt, and progress has been retarded. The Spring Creek dredge has not been able to commence sluicing up to the present. The Paddock Swamp Dredge Company are getting very short, and the Rover Company have about 20 ft. of water in their dam.

Alluvial tin miners are raising and stacking their washdirt awaiting the wet season.

The Silver Spur Mine has in 1907 again been the largest producer, having treated 7,231 tons of ore for minerals, to the value of £25,749.

The Silver Spur Proprietary Company sent their engineer up to locate a site for the shaft, which, I understand, is about 20 ft. from the southern boundary of the Silver Spur Mine. The prospects of this mine, according to those best able to judge, are good. I trust that the company will turn out as expected, as it means a great thing for Silver Spur, which at present is a very thriving centre.

The tin railed for the year was 324 tons 8 cwt. 1 qr. 15 lb., of the value of £32,784 9s., being an increase in the output of 13 tons 18 cwt. 1 qr. 15 lb., but a decrease in value of £1,845 17s. 7d. on the year 1906. Wolfram to the extent of 1 ton 1 cwt. 3 qr. 4 lb., of the value of £108 18s., was railed during 1907.

Sundown Tin Mine.—Owing to the very decided fall in the price of tin, the development operations proposed by those interested in this mine had to be suspended. I have been informed that Messrs. Kershaw and Dodds, who have arranged for an extended option from the owners, intend pushing work on vigorously during the coming year, it being their intention to erect a crushing plant at the mine, and, believing that the tin market will shortly recover, they look forward to the successful development of this property.

Ballandean Queen Silver-lead and Copper Mine.—Work has been suspended on this mine during the past month, owing to a break-down in the machinery. The repairing of the same has now been effected. The ore-bin at the crusher has been enlarged, and is full of good-looking ore, which will be crushed in due course, and from which good concentrates are expected.

Silver Spur Copper Mine.—During the last two or three months of the year, this mine was worked on tribute. Some 60 tons of ore were raised, which gave bulk returns of 22 per cent. The tributes have now expired, and it is the intention of the owner to thoroughly prospect the mine at an early date.

Silver Spur Mining Company, No Liability.—For the year 1907 this company treated 7,231 tons of ore for a yield of 151,972 oz. silver, 224 oz. gold, 77 tons 18 cwt. 1 qr. 16 lb. of copper, 83 tons lead, 1,467 tons limestone, and 96 tons ironstone, of the value of £25,749. The lode in this mine varies in thickness from 1 to 20 ft., and should continue for years to come the leading producer of this field.

Silver Spur Proprietary Company.—The necessary capital has been raised to commence operations, and a site has been selected, about 20 ft. from the southern boundary of the parent company. Winfield and party have the contract for sinking the shaft 150 ft., with the option of continuing to 300 ft.

Pikedale Mine.—The annual report of this mine, received by me from the general manager, is as follows:—"Mine: Work underground was started at the middle of the year, and was distributed among the shafts, covering 400 yards along the lodes. No. 1 shaft: The 50-ft. level has been extended 50 ft., the ore in face assaying 4 per cent. copper, 7 per cent. lead, and 20 oz. silver per ton. No. 8 shaft (main engine shaft): No. 2 level extended to 50 ft., and No. 1 stope started. The ore here is 9 ft. wide, and is chiefly mineral, with some gangue and calcite mixed. The average assay is 3 per cent. copper, 5 per cent. lead, and 19 oz. silver. This section of the mine is high in zinc, averaging about 20 per cent., for which a special treatment plant has been erected. No. 3 level has been driven 50 ft., and is just entering the ore above mentioned,

which extends to No. 13 shaft. No. 13 shaft: Continued to a depth of 112 ft. At the bottom a drive has been carried south 30 ft. and north 15 ft. 6 in., leaving 140 ft. to connect with No. 3 level at No. 8 shaft. The ore is from 6 to 8 ft. wide throughout these workings, and assays from 3·5 to 8 per cent. copper, the same for lead, and 24 to 50 oz. silver per ton, with little zinc. A dam has been constructed, giving a depth of 12 ft. of water, and damming same back for a distance of about a quarter mile. From the mine 430 tons were treated, for a yield of 4,916 oz. silver and 13 tons 2 cwt. of copper, of the value of £1,331." Since the above report was received, a letter has come to hand from the manager, stating that he does not know when he will restart Pikedale, as the resumption of operations depends upon the outcome of contemplated arrangements.

Rover Dredge.—For the year there were treated 73,057 tons of earth, for a yield of 18 tons 8 cwt. of tin, of the value of £2,256. The dredge only worked a portion of the year, much delay having taken place awaiting the arrival of the two new Robey portable engines and the dismantling of the old plant. The main dam contains about 20 ft. of water, which will ensure work being carried on for some good time.

Stanthorpe Proprietary Dredge operated on 377,300 tons of earth, for a yield of 60 tons of tin, for the year.

Spring Creek Tin Dredging Company.—This dredge has not yet been able to commence sluicing operations. The necessary piping did not come to hand until late in December. All of it has now been put into position, and the dredge only awaits rain to make a start. The machinery and barge have had finishing touches put on to them, and are now in perfect order.

Dalcoath Tin Dredging Syndicate.—A syndicate (of about 20 shares) has been formed to work this area, which consists of about 108 acres. Only portions which were known to be poor were bored by the former owner; now the whole of the area is about to be bored in a systematic manner. The low price of tin for some time has blocked capital from taking over the property, and thus prevented it from being worked.

Commodore Group (Lease 85, Bonnar's).—During the year good progress has been made at this mine. The shaft has been continued to a depth of 112 ft. The owners intend sinking the shaft another 50 ft., to satisfy themselves as to the lode underfoot. Samples, taken from 53 ft., gave a return of 12 per cent. copper, 1 oz. 12 dwt. 16 gr. of gold per ton. At 74 ft. the ore-body was 3 ft. wide, which assayed 1 oz. 11 dwt. 8 gr. gold per ton. At 112 ft. there was ore 3 ft. 4 in. wide. At this depth operations were suspended until after the Christmas holidays. A new whip-pole is about to be erected, also a smelter. There are about 120 tons of ore at grass.

Lease 86 (Commodore P.C.).—At present this mine is under exemption. When operations are commenced, smelting will be done on the ground at the smelter about to be erected. Further capital is being raised, so that no delay will occur after the exemption expires.

Gold-mining.

Macdonald Goldfield.—A prospecting area of 400 by 400 yards has been registered in the name of R. Tinnock. There is a shaft, about 60 ft. deep, which has been cleaned out; about 3 tons of ore at grass. This mine is situated about eight miles from the Commodore Copper Mine, and about 25 miles from Silver Spur. The field was abandoned until the present area was taken up.

Pikedale Goldfield.—The only work being done is by James Murphy, the registered owner of a prospecting area on the Blackfellow reef. On my return from Fairview Station I had a look at the workings. Quite a number of shafts have been put down, varying from 30 to 100 ft. deep, all of which are about half-full of water. Murphy was doing a bit of surfacing at the time of my visit. This mine is situated about 28 miles from Stanthorpe.

Bonanza Prospecting Area.—This claim is situated on Fairview Station, about three miles from the homestead, and distant about eight miles from the Blackfellow line of reef. The reef in No. 2 shaft is about 20 in. wide at water-level, and prospects fairly well. In No. 1 shaft, which is about 45 ft. deep, there is about a foot of stone on the footwall, which also gives fair prospects. In No. 3 shaft, I took a sample from the western level, which prospected poorly. From the reef in the level being driven towards No. 1 shaft, which is about 9 in. wide, I obtained good prospects. The whole of the district around show in places large outcrops of quartz, and I am informed from all the creeks gold can be found. This line of reef is on the western fall of Herries Range.

The mineral leases in force at present are 17, with an area of 538 acres 2 roods 38 perches; dredging claims, 8, area 482 acres 3 roods 25 perches; miners' homesteads, 74, area 931 acres 0 roods 20 perches; claims applied for, 38, of which 13 were registered.

The amount of revenue from the Warden's office for the year was £824 2s. 2d., being an increase of £448 1s. 7d. over 1906; clerk of petty sessions, £384 13s. 4d.; lands office, £3,378 14s. 10d.; total, £4,587 10s. 4d.

WM. TAIT RUSSELL, Acting Warden.

TENNINGERING (MOUNT PERRY), BOOLBOONDA, GAETA, AND REID'S CREEK FIELDS.

The year 1907 has been pregnant with changes for Mount Perry and district. During the early part of the year the tide of general prosperity was at full flood. The population had steadily increased. The mines were being worked as vigorously as possible. Shops and dwelling-houses were being speedily erected, and so great was the demand for them that four-roomed cottages were bespoken at a rental of 10s. a week before building was commenced, and were occupied as soon as completed. The paysheet of the Queensland Copper Company alone had increased to £7,000 a month. The Factories and Shops Act was brought into operation, and steps were being taken to create a municipality. Then came the fall in the price of copper from £110 per ton in March down to £55 per ton in October, a fall of exactly a half in a little more than half the year. There is no occasion to dwell on the reaction that must inevitably follow on such a remarkable change in the market for the metal which is the primary production of the district. We are now experiencing a severe set-back; mining operations are being carried on more soberly, and business is stagnant. However, after summing up calmly and carefully, there appears to be no ground for taking a pessimistic view of the situation, for several reasons, as will be seen hereafter.

During the year the Queensland Copper Company have erected a plant at their smelting works for desulphurising and sintering very fine ores, the

quantity of which is increasing. The process used is an Australian invention, and is practised extensively and successfully at the works of the Wallaroo and Moonta Gold Mining Company. They have also erected a new steel chimney, 120 ft. high and 5 ft. in diameter, the object being to prevent the loss of fine ore as flue dust, and, by expelling part of the sulphur, to produce a matte richer in copper contents than hitherto. The new blast furnace erected in the previous year has improved the smelting generally, and, together with the other improvements just enumerated, has enabled the company to recover over 93 per cent. of the copper contents of the ore treated. This fact is most significant.

The production of copper and precious metals has largely increased during the year owing to the successful development of the Palmers section of the Normanby Mine, which is now producing on a scale similar to the old Mount Perry Mine, and will probably become a still more important mine in the current year. There appears to be every prospect of maintaining the present satisfactory output, and when the Milne shaft is completed and other intended equipments installed at the Normanby Mine, it is almost certain that further improvements in output will be recorded.

The treatment of outside parcels of ore is now being made a specialty by the Queensland Copper Company. Smelting charges have been reduced, and miners of all classes of copper, silver, and gold ores are being encouraged. This is of great importance to the whole district, especially to the men on the Boolboonda field, where the number of good lodes is almost unlimited within a few miles of the railway, and transport to Mount Perry therefore easy, so that parties of practical miners without capital will be able to make a good living.

The construction of the Boyne River Railway, when completed, will be an important factor in the smelting industry of Mount Perry, as the Queensland Copper Company have secured leases at Many Peaks, from which they will then be able to draw supplies of metal-bearing fluxing ore for mixing with the siliceous ores of this district. The necessity of having to mine barren limestone to use as a flux, which for so long has been a heavy drawback to the company, will then be obviated.

Owing to the quarry at Daylesford not yielding a sufficient supply of limestone, work was suspended there at the close of the year, and arrangement made to obtain the required supply from extensive deposits situated near Mount Larcombe, pending the completion of the Boyne River Railway.

All the foregoing facts tend to show that the Queensland Copper Company are conducting their operations on sound business lines, and have confidence that the bedrock price of copper has been touched, and that they are in a position to withstand a sudden and severe shock such as we have just experienced, and that the welfare of the district, which is entirely dependent on the company, is still safe, even with the price of copper down to £60 per ton. After all, the prospects of Mount Perry are brighter than might appear to be the case at first sight.

Tenningering Field.

Mount Perry Mine (Queensland Copper Company, owners).—Productive mining has been carried on at the Kennedy shaft of this mine on the usual lines, the ore obtained being won from the 8th, 9th, and 10th levels. In addition to the extension of these levels, winzes have been sunk from the 10th level to the depth it is intended to put in the 11th level (at 1,150 ft. from the surface). The driving of that level has been commenced from these winzes, and it is intended to have it completed by the time the new main shaft (the Milne) reaches that depth. The sinking of the Milne has been pushed on throughout the year, and it has now reached the depth of the 8th level. On the surface at this shaft a powerful winding engine, by Walkers Limited, with a Lancashire boiler, has been erected and enclosed in suitable buildings. A new air-compressor, by Thompson, of Castlemaine, Victoria, is on the ground ready for erection; also most of the material for the permanent headgear, and the erection of both will be proceeded with as soon as possible.

Normanby Mine (Queensland Copper Company, owners).—At the shaft at the southern end of this property extensive driving has been done at the 2nd level, 350 ft. below the surface, and a regular output maintained from the ground opened up. In addition to the driving, a winze has been sunk below that level to a depth of 450 ft. from the surface, and the continuation of payable ore proved to that depth. On the surface the headgear has been completed, and facilities provided for handling the ore raised. The Palmers shaft, at the northern end of the Normanby property, has been deepened about 110 ft., and a new level (No. 3) opened at a depth of 260 ft. below the surface, and the lode proved payable thereby for a distance of about 460 ft. The No. 2 level has been extended several hundred feet, and the necessary winzes made for blocking out the ground ready for systematic working. From this shaft a regular and increasing output of smelting ore has been obtained throughout the year of good quality, and it is expected that this mine will shortly prove to be the most valuable of all the Queensland Copper Company's possessions. On the surface an improved ore-sorting plant has been erected, and the road to the smelter repaired. About 1,100 ft. north of this shaft a tunnel is being driven from a gorge, and will intersect the 3rd level. A means of drainage of the surface waters (which have been troublesome) will thus be provided, and it will also be utilised as a transport outlet for the ore above that level, while the shaft is being enlarged and renovated and the equipment improved. A prospecting shaft, 8 ft. by 4 ft., has been sunk on the lode further north, which is now about 100 ft. deep, and it is intended to open out and test the ground at 150 ft.

Harper's Hill Mine (the Normanby Syndicate, owners).—At what is known as White's shaft 209 ft. of sinking was done during the year, making the total depth 343 ft., and 481 ft. of driving was done with satisfactory results, a strong lode of good ore being found all the way. Some stoping was done in No. 1 level. The northern shaft has been sunk from 192 ft. to 296 ft., and 654 ft. of driving accomplished with good results. During this driving the old Harper's Hill workings were broken into, when carbonic acid gas was met with, but was safely and successfully combated. The Manning shaft was deepened 56 ft., and the drives were extended 274 ft. Considerable difficulty was also experienced here with bad air. The Virgin shaft was also deepened 100 ft., and 500 ft. of driving was done here. An up-to-date concentrating mill has just been erected at Harper's Hill, at a cost of several thousands of pounds, and is ready to work. A large dam has also been constructed. The owners appear to have great confidence in Harper's Hill, and are making every effort to develop the mine and get it into good working order.

Globe Mine.—This mine is situated about two miles north-east of Harper's Hill. It has been worked profitably on a small scale for several years. During the last twelve months some capital has been spent in developing it. There are two shafts—the Bill Bailey, which has been deepened 100 ft. on a large lode of high-grade ore, and a new shaft, called the Junction, which has been sunk 65 ft., and a level driven 75 ft. and stoped 30 ft. upward, yielding ore containing 30 per cent. copper, 8 dwt. gold, and a little silver.

Boolboonda Field.

This field is becoming more important. There is now a population of 400 persons on it, quite a number of whom are the holders of small claims, from which they derive a living by surface mining, sending their ore to Mount Perry smelting works for treatment. As there is practically no limit to the lodes on the Boolboonda field, the number of these miners should increase considerably now that smelting charges are being reduced by the Queensland Copper Company. The township of New Moonta, situated on this field, has grown, and now embraces two hotels, four stores, butcher, baker, &c., and a telephone office.

The *New Moonta Mine* (Queensland Copper Company, owners) is still producing good ore. The main shaft has been sunk a further 120 ft., and a new level (No. 4) opened, but has not yet been driven far enough to intersect the ore shoots worked at the upper levels. No. 3 level has been extended, and winzes sunk below it to the depth for No. 4 level.

Gibb Copper Mine.—This mine only came into existence at the beginning of the year, and has been worked vigorously since. A total of 212 ft. of sinking has been done, 686 ft. of driving, and 249 ft. of stoping. Good ore is showing, and the mine promises well. A concentrating plant has been erected, and began work in November. A quantity of ore was treated, and over 56 tons of concentrates obtained. About 60 tons of ore are at grass, which is now being concentrated. Judging from what has been done, this property should ultimately develop well, and become a good producer.

The 399.—A syndicate was formed last May to develop this property, which has been lying dormant for 30 years. Operations were begun, five shafts sunk, and some driving done. Three payable lodes were struck, giving good percentages of copper, with some gold and silver. Like a number of other good shows on this field, all that is required to make it profitable is the capital to work it properly.

The Boolboonda field may make itself better known in the future.

Gaeta Goldfield.

Very little has been done on this field during the year. The Gaeta Pioneer Gold Mining Company suspended operations in the beginning of the year, and has gone into liquidation. The township is now almost deserted. There is some talk of the company reconstructing, and again working the mine.

Reid's Creek Goldfield.

There is little or no alluvial work being done here now, but there is a slight revival in reefing. A two-head stamp battery has been erected by the holder of some of the claims, but the engine (a 4-h.p.) was found to be inadequate. A new 10-h.p. engine has been sent for, and a trial crushing will be put through as soon as it arrives. About 52 tons of stone are at grass ready for crushing.

Mining Accidents.

Three mining accidents were reported during the year. One was caused by a fall of stone in the Mount Perry Mine (Kennedy shaft), and can be classed as serious. The other two were not serious. No inquiries were held. There was also a fatal accident at the smelting works. A workman who was tarring the roof of the smelter fell to the ground and was killed instantaneously.

Produce of the Field.

The total quantity of ore produced and treated at the Queensland Copper Company's works, Mount Perry, was 17,944 tons, which yielded 1,973·895 tons of copper, 103,304 oz. of silver, and 3,946 oz. of gold. This is a substantial increase on last year's operations, especially in gold, notwithstanding the failure of Gaeta to contribute its quota towards the grand total.

Revenue, Etc.

The amount of revenue collected and remitted to the Treasury, including survey fees, was £504 9s. 10d. The number of miners' rights sold, 262.

Population.

It is extremely difficult to give a correct estimate of the population of a mining field, unless there are only a few persons on it, as is the case at Boolboonda, where everyone is acquainted personally with all the inhabitants, who number exactly 400 on that field. At Mount Perry, in many instances six or eight persons are living in a two-roomed bag-hut, and are here to-day and gone to-morrow, having lost their employment in the mine or at the smelter, as the case may be; or have found that the cost of living at Mount Perry was so high that it was to their advantage to go elsewhere, where the same wage could be obtained and living considerably cheaper. However, after going into the matter carefully, the population of Mount Perry is estimated at about 3,000; Boolboonda, 400; Harper's Hill, 200; Gaeta, 60; Reid's Creek, 15; total ,3,675.

Tenures.

The tenures in force at the end of the year were six gold-mining leases, comprising an area of 114 acres; 20 mineral leases, comprising 423 acres, 15 of which were taken up during 1907; 26 miners' homestead leases; 66 reef claims; 38 residence areas; 14 business areas; 3 machine areas; and 3 prospecting areas.

Value of Machinery.

The total value of all machinery on the field at the end of 1907 was about £34,670.

Prospects of the Future.

As I stated before, after summing up carefully, there appears to be good reason for believing that the prospects of Mount Perry are satisfactory. At all events, we are safe if the price of copper keeps up to £60 per ton.

Return Showing the Quantity of Material Treated from the Various Mines and the Yield therefrom and Value.

Where Treated.	Mine.	Ore.	Copper.	Silver.	Gold.
		Tons	Tons.	Oz.	Oz.
Mount Perry	Mount Perry	7,195·0	895·1	36,510	278·3
,, ...	Normanby	6,006·0	547·1	24,225	861·9
,, ...	New Moonta	1,409·0	109·1	17,400	672·0
,, ...	Harper's Hill	1,111·9	68·9	10,218	563·9
,, ...	Globe	35·6	8·1	170	11·0
,, ...	The Gibb	54·7	8·2	630	25·6
,, ...	The 399	2·8	·4	46	4·8
, ...	From 54 small claims	2,129·0	336·995	14,105	1,569·9
		17,944·0	1,973·895	103,304	3,987·4

W. TASKER, Acting Mining Registrar.

THARGOMINDAH (DUCK CREEK) AND NEIGHBOURING OPAL FIELDS.

The approximate number of miners employed at Duck Creek, Sheep Station Creek, and surrounding parts is about five. There were seven miners' rights issued.

The quantity of opal recovered was about 260 oz., valued at £270. The opal was disposed of at White Cliffs (New South Wales) and Adelaide (South Australia), also by small private sales.

Grass and water were scarce during part of the year.

There were no new finds of any importance during the year.

The average depth of workings was about 8 ft.

The prospects of the industry of opal-mining are not very good at present in this part of the district. Men are scarce in the Western district, and wages for droving, shearing, and general station work being good, keeps men to a certain extent from working on the opal fields, especially when no new finds of any importance have been made.

GEO. PERRY, Acting Mining Registrar.

TOWNSVILLE MINERAL FIELD.

In the months of March, April, and May seven new mineral claims were registered, and one new mineral lease. Twenty acres have been applied for and granted.

It appears from the mineral production that my expectation of renewed activity on this field was fulfilled, at least during the early part of the year, but at present, owing to the west season, work is practically at a standstill.

There appears to have been about 24 men employed, and the production of minerals, so far as my knowledge extends, represents—Wolfram, £2,541 2s. 2d.; molybdenite, £63 8s. 6d.; bismuth, £32 3s. 9d.; in all, to the value of £2,636 14s. 5d.

There have been no mining accidents during the year.

The total revenue collected for the year amounted to £70 7s. 6d., comprising the following items:—70 miners' rights, £17 10s.; transfers of claims and of shares in leases, £8 2s. 6d.; rents and survey fees, £43 5s.; copies of Acts and regulations, 10s.; office fees, £1.

The appended statement shows the quarterly production of the various minerals won.

ORE PRODUCTION.

Ore.	March Quarter.		June Quarter.		September Quarter.		December Quarter.		Annual, 1907.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	T. C. Q. L.	£ s. d.	T. C. Q. L.	£ s. d.	T. C. Q. L.	£ s. d.	T. C. Q. L.	£ s. d.	T. C. Q. L.	£ s. d.
Wolfram ...	2 8 1 2	340 18 10	10 13 2 17	1,830 3 6	2 2 0 16	297 14 2	0 14 1 19	72 5 8	15 18 1 26	2,541 2 2
Molybdenite ...	0 1 2 14	11 7 6	0 3 1 6	19 4 0	0 3 0 7	9 0 5	0 5 1 5	23 16 7	0 3 1 4	63 8 6
Bismuth ...	Nil.	Nil.	0 3 1 6	25 15 0	0 0 3 8	6 8 9	Nil.	Nil.	0 4 0 14	32 3 9
Totals ...	2 9 3 16	352 6 4	11 0 1 1	1,875 2 6	2 6 0 3	313 3 4	0 19 2 24	96 2 3	16 5 3 16	2,636 14 5

J. A. BOYCE, Warden.

WARWICK FIELDS.

PROGRESS.

There has been practically no change to note since last report. The returns of mining operations prove that mining is very quiet.

TALGAI GOLDFIELD.

The *Big Hill Gold Mining Lease* crushed 300 tons for a return of 6 dwt. per ton, and 60 tons from other parts of the same reef for an average of 4 dwt. per ton. The company's crushing power is too small to treat such low-grade ore; with increased machinery, this mine should become a large employer of labour. The number of hands employed is six. The plant now at the mine consists of a five-stamp battery and 16-h.p. engine; also a portable engine, 10-h.p., and vertical boiler, 3-h.p.; also concentrating tables; estimated total value, £1,000.

The *Gladstone Mine* (proprietor, William Hart). Two men have been employed at this mine during the year. A winding and pumping plant has been erected; also a five-stamp battery. Fairly good quality stone is being raised, and good returns are expected during the coming year. Estimated value of winding plant and machinery, £800.

St. Patrick Extended (Clare and Collett, owners).—Two men have been employed during the year raising stone from shallow levels and prospecting new ground. It is intended to sink a further depth of 100 ft., where it is expected the reef will be struck. Capital is required to test the reefs at a depth. The lodes invariably widen as they go down, and the shoots of gold continue, but heavy water comes in at a depth of from 100 to 150 ft.

On the Palgrave, Leyburn, and Canal Creek fields no mining operations have been reported during the year.

PRODUCE, ETC.

The returns show an increase on 1906, 360 tons of stone yielding 102 oz. of gold, value £3 10s. per oz., as against 200 tons for 86 oz. 10 dwt. in 1906; 48 tons of old tailings yielded 5 oz. gold. Bank returns: 86 oz., value £3 10s. per oz.

POPULATION.

The population numbers 250 Europeans.

The revenue shows a slight falling off on the preceding year, being £171 19s. 9d., as against £200 6s. 8d. for 1906.

Holdings: Gold-mining leases in force, 31st December, 1907, six; total area, 49 acres; average area, 8 acres 0 roods 6 perches. Mining homestead leases, 121; gross area, 3,371 acres; average area, 29 acres 3 roods. Ten mining homesteads were applied for during the year 1907; of these, five were accepted and five rejected.

MINERALS OTHER THAN GOLD.

The only returns are those from Mrs. Grieve, of Silverwood, which shows that 377 tons of limestone was the output for 1907; value, £1 per ton; men employed, 4.

PROSPECTS.

The prospects for 1908 are encouraging, as there is every likelihood of capital being introduced to thoroughly test some of the fields.

P. W. PEARS, Warden.

ANNUAL REPORT OF THE CHIEF INSPECTOR OF MINES.

Mines Department,
Brisbane, 1st March, 1908.

SIR,—I have the honour to submit my report for the year ended 31st December, 1907.

The report deals with the following subjects:—

Section I.—Development, output, &c.;
Section II.—Labour employed, wages;
Section III.—Accidents;
Section IV.—General remarks;
Section V.—Reports of inspectors.

The information contained in Sections I. to III. is in the nature of a summary, and statistical tables containing full details with respect to the subjects dealt with are attached to Section IV., which includes also the reports of the Boards of Examiners under the Mining Act, and a register or list of the mines and collieries in the State.

SECTION I.

Development, Output, &c.

METALLIFEROUS MINES.

During the year 15 new mines commenced operations, 22 old mines were reopened, and 35 mines were closed. Particulars of these and other changes are shown in the register of mines attached, which has accordingly been revised so as to include all the principal mines working and contributing to the output.

The quantity and value of the various classes of ores raised during the year was: From gold mines, 673,576 tons, having an average value of £2 9s. 6d. per ton; from copper mines, 266,250 tons, having an average value, including gold contents, &c., for the whole period of £4 16s. per ton. Owing to the variation in the price of copper, there was a considerable difference in the returns from ore dealt with during the first half and second half of the year, the average for those periods being £5 8s. and £3 19s., respectively.

Particulars with respect to other mines are as follows:—Silver and silver-lead ores, 47,000 tons; manganese, 1,116 tons, valued at £4 per ton; antimony, 983 tons, valued at £8 per ton; wolfram,, bismuth, and associated minerals, 12,000 tons; lode tin, 99,000 tons. Owing to sufficient data not being given in the returns, the average value of the silver-lead ores and the two last-mentioned classes of ore cannot be accurately ascertained. Deficiencies also occur in the case of returns relating to alluvial tin, so that there is very little accurate information as regards the average value of dredge and alluvial material. The quantity dealt with was, roughly, about 600,000 cubic yards. In addition to the metalliferous ores referred to above, 24,327 tons of ironstone and 35,808 tons limestone for flux was obtained from the quarries and various sources of supply, the value returned representing an average of 13s. 7d. per ton in the former case and 7s. 11d. per ton in the latter.

The development work carried out during the year in gold, copper, and other mines, as recorded by returns made to the various mines offices, is shown in table hereunder. For gold mines a considerable total is shown, but as no records are available for previous years it is impossible to say to what extent the work is being advanced.

For copper mines, the largest results are shown in the case of the Mount Perry, Mackay, and Cloncurry districts, and the returns show a falling off in the amount of work done during the latter part of the year, as may be seen from the following totals:—

Copper Mines.	Shaft Sinking.	Drives and Crosscuts.	Other Development.
	Feet.	Feet.	
1st Half-year ...	5,722	16,216	5,560
2nd Half-year ...	4,756	13,415	4,126
	10,478	29,631	9,686

The absence of returns from several mines, which were closed for reasons referred to above in connection with the value of the ores, is the chief cause of the smaller total.

DEVELOPMENT.—METALLIFEROUS MINES.

District.	Gold Mines.			Copper Mines.			Other Mines.		
	Main Shaft Sinking.	Main Drives and Cross-cuts.	Other Development.	Main Shaft Sinking.	Main Drives and Cross-cuts.	Other Development.	Main Shaft Sinking.	Main Drives and Cross-cuts.	Other Development.
	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
Gympie, Kilkivan, &c.	1,960	20,740	8,444	174	682	254	...	...	...
Stanthorpe—									
Copper mines	...	...	..	18	255	127	...	...	...
Silver mines	...	...	...	...	...	...	99	33	261
Mount Shamrock, Degilbo, &c.	22	142	...	86	50	250	...	...	...
Mount Perry, &c.	...	...	...	1,657	5,634	1,545	...	...	...
Gladstone—									
Gold mines and Copper mines	279	1,157	353	391	3,441	464	...	...	..
Silver mines	...	...	...	...	...	...	65	89	50
Manganese mines	...	...	...	...	...	...	6	91	..
Rockhampton	1,032	1,116	620	327	2,707	1,765	...	...	...
Mount Morgan	...	388	565	110	1,610	513	..	...	...
Clermont	928	10,231	115	...	1,401	...	...	...	...
Mackay, Mount Flora, Mount Spencer	...	...	...	1,814	2,494	476	...	...	..
Charters Towers, Carrington, Stockyard Creek, &c.—									
Gold mines and Copper mines	5,022	32,892	14,106	284	332	...	...	...	...
Tin mines	...	...	...	...	...	...	60	240	...
Ravenswood—									
Gold mines and Copper mines	3,004	7,356	3,247	215	142	72	...	...	...
Silver mines	...	...	...	...	...	...	124	...	...
Antimony mines	...	...	...	...	...	...	26	...	...
Bowen, Normanby, &c.—									
Gold mines	...	62	150	...	...	...	...	...	...
Silver mines	...	...	...	...	...	...	53	133	...
Kangaroo Hills—									
Copper mines	...	...	...	...	161	56	..	...	...
Tin mines	..	...	...	...	...	...	227	252	395
Wolfram mines	...	...	...	...	...	...	63	50	6
Walsh and Tinaroo—									
Copper mines	...	...	...	314	2,180	1,364	...	...	...
Silver mines	...	...	...	...	...	...	184	350	328
Tin mines	...	...	...	...	...	...	1,309	4,374	7,246
Wolfram mines	...	...	...	...	...	..	40	12	12
Hodgkinson—									
Gold mines	485	260	210	...	...	...	...	...	...
Silver mines	...	...	...	...	...	...	100	120	40
Antimony mines	...	...	...	...	...	..	502	520	170
Wolfram mines	..	...	...	...	...	...	2,253	2,885	1,767
Cooktown, Coen, Palmer, &c.—									
Gold mines and Copper mines	100	245	507	278	111	132	...	...	...
Tin mines	...	...	...	...	...	...	...	...	220
Cinnabar mines	...	...	...	...	...	...	28	14	334
Horn Island	137	172	...	...	...	...	...	...	...
Croydon—									
Gold mines	1,180	2,961	778	...	...	...	...	...	...
Tin mines	...	...	...	...	...	...	125	78	86
Etheridge—									
Gold mines and Copper mines	1,083	1,683	1,032	289	586	192	...	...	...
Silver mines	...	...	...	...	..	...	940	332	277
Cloncurry	...	...	...	4,521	7,845	2,476	...	...	...
Total Gold mines	15,232	79,385	30,127	...	...	...	...	...	...
Copper mines	...	...	...	10,478	29,631	9,686	...	...	...
Silver mines	...	...	...	...	...	...	1,565	1,057	956
Tin mines	...	...	...	...	...	...	1,721	4,944	7,947
Wolfram mines	...	...	...	...	...	...	2,356	2,947	1,785
Antimony mines	...	...	...	...	...	...	528	520	170
Manganese mines	...	...	...	...	...	...	6	91	...

The table above includes all mines, as arrangements are not yet made for compiling separate tables for the producing and non-producing mines. Such a system is advisable, in order to afford an exact record of the work being done in the latter class of mines, which has an important bearing on future mineral production.

The total value of metalliferous ores and flux raised in 1907 was £3,868,292, and the value of non-metalliferous minerals, other than coal, £44,260, the corresponding figures for 1906 being £4,004,055 and £21,310.

COLLIERIES.

The number of collieries contributing appreciably to the output during the year was 27. Four new mines commenced operations, three old mines were reopened, and three suspended operations.

The statistical record discloses an increase in the quantity of coal raised, also an increase in the quantity of coal and coke imported for the year 1907.

Increased Production.—The following particulars of the output for eight years show that the total has been larger each year since 1902, and that the increase last year was considerably above the average:—

	Screened Coal.	Unscreened Coal.	Small Coal.	Total Tons.
1900	...	...	...	497,123
1901	..	...	...	539,472
1902	...	...	...	501,531
1903	...	...	...	507,801
1904	...	...	...	512,015
1905	147,435	326,750	55,141	529,326
1906	274,057	263,512	69,203	606,772
1907	382,131	335,717	65,424	683,272

A comparison of the quantity and value of coal raised in the several coal-mining districts of the State, with the figures for 1906, is as follows:—

	1907. Tons Raised.	1907. Value per Ton at Pit's Mouth.	1906. Tons Raised.	1906. Value per Ton at Pit's Mouth.
		s. d.		s. d.
Ipswich and Darling Downs	591,174	6 1½	509,989	5 2½
Wide Bay and Maryborough	77,921	8 4	86,634	8 0¾
Rockhampton and Central District	14,077	11 6¾	10,079	11 2½
Other District (Nundah)	100	...	70	...
Total ...	683,272	6 6	606,772	5 8½

It will be seen from the above comparison that the increase in the quantity of coal raised during the year, which amounted to 76,500 tons, was almost entirely due to the larger output of the Ipswich districts, as the contribution from the Darling Downs is comparatively small.

The output of the Wide Bay and Maryborough districts shows a decrease, owing to the Torbanlea collieries not being worked during the year, and possibly also to an industrial dispute which arose in that district early in the year.

The yearly increase in the production of the Ipswich mines is due to the efforts made to supply the growing demand by more vigorously working the collieries, and, in some cases, installing coal-cutting machinery. Roughly, about half the output of the district is sold for bunkers, and although figures for the actual total are not available, nearly all the coal for this purpose is shipped over the Railway Wharf, and the records furnished by the Commissioner for Railways for two years are as under:—

	1907. Tons.	1906. Tons.
Bunker coal	232,165	172,499
Cargo coal	101,554	92,268
Other purposes	6,500	6,700
	340,219	271,467

The difference shown above in the case of bunker coal and cargo coal, which is largely shipped for coaling vessels in other ports, accounts for four-fifths of the increase in production.

The total quantity of Queensland coal shipped to foreign countries amounted only to 3,019 tons, practically all in one cargo of 3,000 tons to Valparaiso. This branch of the business owners have not cared to develop to any extent, though opportunities are not wanting, but the trade available without seeking outside markets is, under existing circumstances, sufficient to fully occupy the collieries at present.

The increased demand for bunker coal as indicated above, has been brought about by the rapid growth of shipping in the port, which is shown by the tonnage of shipping leaving Brisbane having increased by 270,835 tons in 1906 and 218,513 tons in 1907, when compared with the preceding years.

The total figures for the three years under consideration are—

	Total Tonnage of Vessels leaving Brisbane.
1905	1,349,502
1906	1,620,337
1907	1,838,850

As the annual increase is made up by large vessels, some of which take from 1,000 to 2,000 tons, the large requirements in this direction can be readily understood.

It must be remembered, however, that a larger proportion of oversea vessels coal at Brisbane than was formerly the case, owing to the action of the Government in assisting the industry by a rebate of dues for shipments in excess of a certain quantity. The demand was also increased to some extent by industrial disturbances in New South Wales northern coal districts, and stimulated by the low price of the Queensland product.

Increased Value.—A reference to the figures above will show the higher average value of the coal raised in the various districts during the year, the largest difference—11d. per ton—being in the case of the Ipswich district. A certain proportion of the increase is possibly the result of conditions giving rise to a general tendency for the price of coal to go up, but there are other reasons to account for the higher value in 1907 when compared with the previous year, since, owing to the former slackness of trade contracts had been let at a very low figure,

and the value in 1906 was much below the average, as will be seen on reference to the following figures:—

	Average Value at Pit's Mouth per Ton.
1900...	6·11
1901...	7·0
1902...	6·10
1903...	6·5½
1904...	6·6
1905...	5·10½
1906...	5·8½
1907...	6·6

Somewhat similar conditions as regards price to those prevailing in 1906 continued in the early part of 1907, but later in the year, by the united action of miners and owners, an agreement was arrived at with certain steamship companies and other customers with whom contracts had been made, which enabled the selling price of coal to be generally raised.

The total value of coal raised in 1907 was £222,135, the corresponding figures for 1906 being £173,282.

Increased Imports.—The large annual increase in the quantity of coal and coke imported into the State is a matter which has been pointed out in previous reports. The following particulars show the amount for coal since 1900:—

	Coal Imports Tons.
1900	31,085
1901	25,743
1902	38,622
1903	24,543
1904	21,188
1905	27,885
1906	52,465
1907	68,547

With the exception of 1,575 tons of coal from New Zealand, the imports above were from New South Wales. The ports of discharge of quantities of coal over 1,000 tons were as follows:—

	Coal. Tons.
Bundaberg	2,967
Rockhampton	1,989
Mackay	1,952
Townsville	51,080
Cairns	7,179
Thursday Island	2,609
Other ports	771
	68,547

It will be seen that the bulk of the coal was landed at Townsville, for consumption locally and at Charters Towers. As a considerable amount of coal was imported as above, even during the years 1904 and 1905, when the business of most of the Queensland coal-miners was in a most depressed condition, no doubt certain questions of shipping are involved in the matter, and it is difficult to say, in the absence of exact data, to what extent, if any, the increasing trade is due to a shortage of local supplies. In the case of coke, however, which is almost entirely imported for smelting purposes, some of the largest consumers have endeavoured to obtain Queensland coke, which meets all requirements satisfactorily, before placing orders in New South Wales, but, so far, without much result.

The following particulars of the imports of coke since 1900 show the large annual increase for the last three years:—

	Coke Imports. Tons.
1900	56
1901	5,765
1902	850
1903	11,999
1904	6,478
1905	9,823
1906	22,661
1907	34,013

The principal ports of discharge along the Queensland coast were as follows:—

	Coke. Tons.
Rockhampton	18,345
Townsville	221
Cairns	15,444
Other ports	3
	34,013

The large quantities at Rockhampton and Cairns were required in connection with smelting operations at Mount Morgan and in the Chillagoe, Mount Molloy, and O.K. districts.

Some steps are being taken to increase the size of one of the coke-making plants in the Ipswich district, but the entire production of coke in the State last year only amounted to 8,280 tons—less than one-fifth of the quantity required.

Prospecting, &c.—The coalfields of the Central District have been receiving some further attention. There has been some prospecting work going on in the neighbourhood of the Bluff Colliery, which is now an important producer. The question of utilising the Bluff coal for coke-making purposes is being investigated.

Exhaustive tests were made at Mount Morgan towards the end of the year of the Dawson coal, which yielded an evaporative efficiency somewhat higher than ordinary bituminous coal; but, as indicated by the earlier tests, the coal possesses certain properties as regards difficulty of burning, which render it unsuitable for use under ordinary conditions, and the question whether the superiority of evaporative power would be sufficient to balance the expense and inconvenience of making special arrangements for burning, is one which depends largely on the price at which the coal could be obtained.

The Blantyre coal shaft, near Hughenden, towards the end of the year penetrated 2½ ft. of coal, and it was intended to bore from the bottom of the shaft to the second seam.

Coal, said to be of good quality, was discovered during the year at Mount Mulligan, to the north of the Chillagoe Railway, and a small quantity used for local purposes, but the deposit is a considerable distance from the railway.

A renewed interest is being taken in the search for coal in the Cook district, and some prospecting is being done with a view to locating new outcrops near the Cooktown Railway, more to the west of those previously tried.

At Nundah, near Brisbane, some further work towards driving a tunnel has been done by the Nundah Coal and Gravel Company, and some small shipments of coal have been obtained for trial purposes.

SECTION II.

Labour Employed, Wages, Etc.

During 1907 the average number of men employed in connection with the mines, mills, and reduction works, &c., in the State was 21,890, the average in the previous year being 23,047. The proportion employed in the several districts of the State is shown in table hereunder:—

NUMBER OF MEN EMPLOYED IN CONNECTION WITH MINES, MILLS, AND REDUCTION WORKS, ETC.

Classification.	Southern Division.	Central Division.	1st Northern‡ Division.	2nd Northern Division.	3rd Northern Division.‡	Total, State.
Mines*	3,216	3,607	5,057	4,698	886	17,374
Mills	118	130	601	223	105	1,177
Smelting and chlorination works† ...	29	678	16	289	...	1,012
Workshops	59	172	212	218	4	665
Miscellaneous, on surface	173	688	461	304	36	1,662
Total—1907	3,595	5,275	6,347	5,732	1,031	21,890
1906	3,848	5,399	6,902	5,884	1,014	23,047

* Including tributers, prospectors, &c. † Attached to mines. ‡ Includes Cloncurry.

From this table it will be seen that the average for the year shows a decrease of 1,157. The records with respect to tributers, prospectors, and others engaged in work of a like nature, are, however, somewhat uncertain, and more than one-third of the difference is accounted for in the returns relating thereto. The falling off in the average number of paid employees was, therefore, not so large, the difference in the returns of average number in this respect being 637.

Attached to Section IV. of the report is a table showing the maximum and minimum rates of wages and average earnings per shift for the various classes of labour. A computation of the amount paid in wages to employees by mining companies, &c., is complicated by many difficulties in obtaining necessary data, owing to different systems of management, &c. An approximation to the total, therefore, can only be arrived at, and, excluding secretaries and others not actually engaged on the mines, as well as tributers, prospectors, &c. The approximate amounts are as under:—

	£
Officials and staff on mines, mills, and reduction works	119,330
All other employees on mines, mills, and reduction works	2,001,270
Total salaries and wages ...	2,120,600

In the table above, the largest decrease is shown in the case of the Southern and 1st Northern Divisions which include Gympie and Charters Towers, and are those most affected by the falling off in the gold yield. The number of men employed in coal mines in the Southern Division increased during the year, and towards the end of the year the hewing and wages rates were advanced by agreement between owners and employees.

In the Central and far Northern Divisions, which are chiefly responsible for the output of metal and minerals other than gold, there was not much change in the total number of employees; an examination of the returns indicates that an increase in the number of miners was approximately balanced by a decrease in the number of hands employed in connection with the treatment of the ores.

The report received from the Central Division indicates that there was a large demand for all classes of mine labour during the first half-year, and it was not until the last few months of the year that the effect of an unfavourable metal market made itself felt, and several mines were closed. Very similar conditions prevailed in the 2nd Northern Division—*i.e.*, the Herberton and Chillagoe districts—and the Inspector of Mines in that division makes the following remarks on the subject:—

"The demand for mine labour of all kinds in this division, which was somewhat acute during the first half of the year, slackened considerably during the second half, owing to a general—and, in some instances, very severe—decline in the prices obtainable for the industrial metals.

There is, nevertheless, always room for capable men in almost every mining capacity.

The extraordinary wet season now prevailing will induce numbers of men—now earning wages—to leave regular work, and return to the independent life enjoyed while engaged searching for or working alluvial ground. Numbers of men, during December, 1907, left their work to join the rush to the new alluvial gold area near the Einasleigh River.

These considerations, together with a firmer tone in the metal market, indicate a tendency towards an equal, if not improved, demand for labour to that prevailing during the latter half of the year.

It is not easy to specify what kinds of labour are in most demand, but it is frequently difficult to obtain first-class tin-dressers, mechanical and electrical engineers, and many classes of tradesmen, of whom miners may be adjudged one class."

In the 3rd Northern Division there is a decreasing tendency in the amount of employment available in the Croydon district, and it appears from the reports that improvement in that district depends on the success of certain prospecting ventures now being undertaken. In the case of the Etheridge fields, however, with the railway approaching, it is stated that the prospects in this respect for the year 1908 should be better than in the previous year.

SECTION III.

Accidents.

Full particulars of the accidents reported during the year will be found in the statistical tables attached at the end of Section IV. of the report. The following is a summary of the more important details:—

ACCIDENTS REPORTED.

The total number of accidents reported to the Department during 1907 was 136, being a decrease, compared with the number reported in the previous year, of 34.

FATAL ACCIDENTS.

The number of fatalities in comparison with the previous year was as follows:—

	No. of Persons Killed. 1907.	1906.
Metalliferous mines	13	22
Coal mines	0	0
Mills and reduction works, &c. ...	2	2
	15	24

There were 13 accidents with fatal results in 1907, the number in the previous year being 23.

DEATH RATE.

The death rate per 1,000 persons employed for 1907 and the previous year is as follows:—

	1907.	1906.
Metalliferous mines	0·84	1·35
Coal mines	0·00	0·00
Mills and reduction works	0·44	0·40
All mines, mills, and reduction works	0·70	1·06

It will be seen that the average death rate in 1907 was less than in 1906. Accidents with explosives, falls from staging, and falls of ground, were the chief causes of fatal accidents.

NON-FATAL ACCIDENTS.

	No. of Persons Injured. 1907.	1906.
Metalliferous mines	83	119
Coal mines	24	25
Mills and reduction works	19	14
	126	158

Of the 126 persons injured, 110 were seriously injured—*i.e.*, disabled for more than 14 days—and 16 were slightly injured.

The following table gives the rate of deaths and injuries, &c., for metalliferous mines from 1879 to 1907, and similar information for coal mines is given in diagram attached, with statistics:—

DEATH RATES AND RATE OF INJURIES, METALLIFEROUS MINES, 1879-1907.

Year.	Number of Miners Employed.	Number of Accidents.	Number of Lives Lost.	Number Employed per Life Lost.	Number Killed per 1,000 Men Employed.	Number of Men Injured.	Number Employed per Man Injured.	Number Injured per 1,000 Men Employed.	Number Employed per Man Killed or Injured.	Number Killed or Injured per 1,000 Men Employed.
1879	2,750	51	15	183	5·45	38	72·4	13·8	51·9	19·27
1880	3,046	42	11	277	3·61	31	98·3	10·2	72·5	13·8
1881	3,375	31	14	241	4·15	17	198·5	5·0	108·87	9·2
1882	4,716	30	12	393	2·54	21	224·6	4·55	142·9	7·0
1883	4,350	24	3	1,450	0·69	21	207·1	4·83	181·25	5·52
1884	5,121	40	9	569	1·76	35	146·3	6·83	116·4	8·59
1885	5,471	45	17	322	3·11	33	165·8	6·03	109·4	9·14
1886	6,993	51	7	999	1·00	48	145·7	6·86	127·1	7·86
1887	10,640	47	9	1,182	0·846	41	260	3·85	212·8	4·70
1888	11,049	95	28	395	2·534	79	140	7·15	103·26	9·68
1889	9,889	94	20	495	2·022	83	119·1	8·39	96·01	10·41
1890	9,086	98	17	534	1·871	91	99·85	10·01	84·13	11·89
1891	10,510	97	12	876	1·142	90	116·8	8·56	103·04	9·70
1892	10,323	114	18	573·5	1·744	104	99·26	10·07	84·61	11·82
1893	11,421	85	15	761·4	1·313	73	156·15	6·39	129·78	7·70
1894	12,049	112	13	926·8	1·079	105	114·75	8·71	102·11	9·79
1895	12,019	110	15	801·3	1·248	105	114·47	8·74	100·16	9·98
1896	11,527	102	18	640·4	1·561	88	131·00	7·63	108·74	9·19
1897	12,576	77	15	838·4	1·193	65	193·48	5·17	157·20	6·36
1898	11,245	101	19	591·8	1·689	86	138·75	7·64	107·09	9·34
1899	11,951	93	18	664	1·506	80	149·39	6·69	121·95	8·20
1900	11,804	104	18	655·8	1·525	91	128·71	7·71	108·29	9·23
1901	11,622	118	20	581·10	1·721	101	115·07	8·69	96·05	10·41
1902	11,046	94	16	690·37	1·448	89	124·11	8·06	105·20	9·51
1903	12,715	107	27	470·92	2·123	100	127·15	7·86	100·12	9·82
1904	13,541	104	30	451·36	2·21	95	142·53	7·01	108·32	9·23
1905	15,581	105	23	677·43	1·47	87	179·09	5·58	141·64	7·06
1906	16,273	130	22	739·68	1·35	119	136·74	7·31	115·41	8·66
1907	15,416	92	13	1,186·00	0·84	83	185·73	5·38	160·58	6·22

Accidents in shafts, falls of ground, accidental explosions, &c., and accidents classed under the heading of miscellaneous, were responsible for most of the casualties during the year. A reference to the accident tables will, however, show that it is in connection with shaft accidents and accidents due to falls of ground that the numbers are noticeably less than in the previous year. The casualties due to the former numbered 8, and the latter 41; 23 and 55 being the number in each case in 1906.

One of the shaft accidents occurred when travelling by ladder, one when travelling by cage, and the others when working in shafts.

The difference in the case of fall of ground accidents is chiefly in the Gympie and Charters Towers districts, and is probably, to some extent, due to a certain decrease in the number of miners in those districts; also, in the case of Gympie, to the fact mentioned in the District Inspector's report, that

there has been considerably less work done in places where plumbago floors and wide reefs are the prevailing features. Nearly 30 per cent. of the casualties during the year were, however, due to this cause.

In collieries falls of stone and coal were responsible for half the casualties, and except in so far as remedy lies in method and supervision, preventive measures are difficult in this class of accident, owing to the varying conditions in nearly every instance. In a number of cases the accident was due to a piece of stone or roof falling from a slip or other weakness where a prop might have been placed had it been thought necessary. Whatever the reason of its omission—absence of indication of danger, or error of judgment—the adoption, where possible, of a method of inserting timber supports at short regular intervals, irrespective of the condition of the roof, whether apparently sound or otherwise, would no doubt tend to minimise the number of such accidents.

Such measures are not generally applicable in the working of other mines, but a principle tending to eliminate risks is one to be kept in mind, and in the several metalliferous mines of the State where circumstances have rendered necessary the adoption of special methods of systematic timbering, the proportion of accidents due to falls of ground has certainly been lower than the average in other cases.

The importance of system in the work of supervision necessary to ensure efficient examination and proper precautions being taken, is recognised, and more satisfactory rules are being introduced in some of the principal mines. Such methods could with advantage be used in many other mines, and their more general adoption could be better ensured by appropriate regulations.

The casualties from accidental explosions and blasting accidents numbered 15, the majority of accidents being due to three causes—viz., misfires; drilling into the butt of a hole containing portion of the explosive left from a previous charge; premature explosions.

In addition, two accidents occurred when charging and two when handling explosives.

The Mining Act includes regulations which were framed as a safeguard in most of the above cases of accidents with explosives, and the amendments referred to in previous reports which have now become necessary, would render them more efficient, but there is no doubt that carelessness is more evident in this class of accident than in any other. Against this contingency it is difficult to provide, unless by placing the responsibility more directly on those actually carrying out blasting operations. Certainly regulations imposing duties of supervision are not always effective under such circumstances. The accidents under the heading of "Miscellaneous," which formed about 27 per cent. of the total, were as follow:—Falling and slipping, 5; burning and scalding, 8; inundation of water, 1; sundry, 26; and, while most of them were due to personal misadventure, in certain cases other causes contributed to the accident.

The majority of cases of burning occur at smelting works from splashes of hot matte, or explosions of matte or slag when knocked into water. Accidents of this nature appear to be less frequent when there are mechanical arrangements for handling slag. Those during the year nearly all occurred in the Chillagoe district, and conditions in that portion of the State which give rise to frequent changes in the hands employed, may possibly tend to increase the number.

Accidents classed under the heading "Sundry" mostly occurred when handling ore, material, gear, &c.

The accident at Cloncurry, in which two lives were lost through an influx of water from old workings, would probably not have happened had plans been kept in earlier years in the field's history, a matter which is referred to in another portion of the report.

Accident Statistics.

The statistical tables which will be found attached at the end of Section IV. of the report give particulars of—

- Accidents in all mines and mills, &c., 1907, classified as to cause;
- Accidents in all mines, &c., classified as to cause in detail;
- Accidents in metalliferous mines and mills, &c., for ten years (1898-1907), classified as to cause of accident and district in which accident occurred;
- Accidents in coal mines for ten years (1898-1907), classified as to cause of accident and collieries in which accidents occurred.
- Accident death rate curves for metalliferous mines and collieries.

SECTION IV.

General Remarks.

MINING MACHINERY AND APPLIANCES.

In addition to other work, the Inspectors devoted as much attention as possible during the year to the winding plants, boilers, and machinery used for mining purposes, in order to ensure compliance with the provisions of the Mining Act relating thereto.

One boiler was condemned, and the use of others stopped pending necessary repairs. There were considerable additions to the plant in use, including a number of second-hand winding gears, &c., and these for the most part having been previously under the notice of Inspectors, were found to be properly provided with the various appliances necessary for safety.

The total value of machinery and plant for mining and ore reduction purposes on the gold and mineral fields of the State, including machinery on coal mines which are not in any proclaimed mineral field, was estimated at the end of 1907 at £2,247,612, made up in the several inspection divisions of the State, as follows:—

	£
Southern Division	239,108
Central Division	784,235
1st Northern Division	656,939
2nd Northern Division	423,625
3rd Northern Division and Cloncurry	143,705
	£2,247,612

Particulars of the machines and appliances, &c., erected during 1907 are given in table hereunder, arranged from returns furnished by the various inspectors, but with present facilities much essential information for a comparative record is not avail-

able. It appears, however, that the largest totals, as in the previous year, are in the Central, Herberton, and Chillagoe districts. A total of 36 new boilers were installed during 1907, and steam engines and other prime movers representing an increase of 4,677-h.p.

MACHINERY AND APPLIANCES FOR MINING PURPOSES, INSTALLED DURING 1907.

—	Southern Division.			Central Division.					1st Northern Division.		2nd Northern Division.			3rd Northern Division.			
	Gympie.	Ipswich.	Other Districts.	Mount Perry.	Gladstone.	Rockhampton.	Mount Morgan.	Clermont.	Charters Towers.	Carrington.	Herberton and Irvinebank Districts.	Chillagoe and O.K. Districts.	Hodgkinson and Mount Molloy Districts.	Croydon.	Etheridge.	Cloncurry.	Total.
Boilers	4	9	7	4	7	5	1	...	5	...	10	12	3	...	6	...	73
Steam Engines, Stationary—																	
Reciprocating	4	11	9	5	9	10	2	2	7	...	17	8	3	...	4	13	104
Turbines	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Oil Engines	1	...	...	...	1	2	...	...	...	...	...	1	...	...	...	...	5
Air Compressors	...	...	...	1	3	2	...	1	2	...	...	1	1	...	1	2	14
Dynamos	...	1	1	...	1	...	1	...	...	...	...	...	...	...	...	...	4
Motors	...	4	1	...	...	...	3	...	...	...	...	4	...	...	...	...	12
Mine Hoists—Main	4	5	1	1	1	3	...	...	2	...	5	6	1	...	3	7	39
Auxiliary ...	...	3	...	2	1	2	...	...	2	...	...	...	2	...	2	...	14
Pumps for Mine Drainage ...	...	...	4	...	2	5	...	...	4	...	...	...	...	...	3	...	18
Water Supply ...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	2
Other Purposes ...	...	...	6	...	1	...	...	...	...	...	2	...	...	...	...	...	9
Rock Drills	...	...	1	...	4	...	60	...	...	...	...	5	7	...	...	2	79
Diamond Drills	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Ventilating Fans	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
Coal Cutters	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Rock Breakers—Reciprocating	...	...	1	1	1	2	...	1	2	...	1	...	1	...	...	...	10
Stamps	...	...	...	...	...	...	...	...	...	...	9	3	...	12	...	...	24
Various Dry and Wet Crushers	1	...	...	2	1	...	...	...	...	...	1	...	1	...	...	...	6
Mechanical Concentrators ...	1	...	1	5	2	...	...	...	...	...	4	...	3	...	...	...	16
Continuous Conveyers	...	...	2	1	...	1	...	...	4	...	...	...	...	...	...	...	8
Pumps for Water Supply, &c. ...	...	..	...	...	...	...	2	...	...	...	5	...	...	...	...	...	7
Blowers	...	...	...	...	2	1	3	1	...	...	...	2	...	...	...	...	9
Steam Locomotives	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	3
Traction Engines	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Railway & Tramway Track (miles)	...	...	...	...	...	...	...	...	...	..	14	4¾	10	...	...	...	28¾
Head Gears	2	...	...	1	1	...	...	...	1	2	1	5	2	...	...	...	15
Horse Whims	...	...	...	...	...	...	...	...	...	...	1	2	2	...	...	...	5
Tin-saving and Tin-dressing Appliances—																	
Sluicing (complete equipment)	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	6
Various, at Mills	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	8
Desulphurizing Pots and Kettles	...	...	1		4	...	...	...	...	...	...	8	...	...	...	...	13
Furnaces—Water-jacket Blast...	...	...	...	..	...	1	1	1	...	...	...	...	1	...	...	1	5
Reverberatory and Other	...	...	4	...	2	...	1	...	...	3	...	2	...	...	...	2	14

NEW MACHINERY.

Boilers.—The following are particulars of the boilers erected during the year:—

Water-tube (straight)	10
Tubular (underfired)	4
Tubular (other types)	10
Cornish and Lancashire	5
Vertical	7
Total	36

The above list, it will be seen, includes ten water-tube boilers—one in the Southern, two in the Central, and six in the Herberton and Chillagoe districts. Of the others, eighteen were boilers of small dimensions, eight of comparatively large dimensions. The total number was less than in 1906.

Oil Engines.—The returns for the year show a larger use of oil engines than hitherto, a total of five, two approximating 44-h.p., being employed to drive the air-compressing and crushing machinery at the Mount Morgan Company's Iron Island quarry, one in connection with a small ventilating plant at the Many Peaks Mine, and the others for two small crushing mills—one situated in the Gympie district and the other at Fossilbrook, in the Chillagoe district.

Machinery for Mining Purposes.—The majority of the new winding gears erected have been the usual type of small mine hoists, the exceptions being at the O.K., Mount Molloy, and Lady Jane Mines, where more powerful plants were required. The new pumps, according to the Inspector's reports, are chiefly of the ordinary duplex type, Worthington, Knowles's, and Gardner make.

The above table includes fourteen air-compressors, twelve of these being for use at copper mines in the several districts of the State, and in most cases including receivers, pipes, and other necessary equipment.

Four new coal-cutters, electrically driven, Jeffrey Goodman and Sullivan machines, were procured for the Blackheath Mine in the Ipswich district.

Ore-reduction Machinery.—The new appliances for ore-reduction purposes have mostly been erected in connection with the copper and silver mines of the State.

In the Southern Division the principal additions were—a reverberatory smelter, zinc furnace, calciner, and necessary equipment for treating the ores of the Pikedale Copper and Silver Mine, and extensions and renewals of furnaces and equipment at the Silver Spur Silver Mine. In the Central District another large water-jacket furnace was added to the Mount

Morgan Copper Works, turbo and rotary blowers, and a reverberatory furnace for treating flue dust. A reverberatory furnace also at Mount Cannindah, with concentrating plant and roasting plant, blast furnaces at the Great Fitzroy and Peak Downs Mines, and concentrating appliances at the Harpur's Hill Mine.

Two reverberatory furnaces and a blast furnace were also built at Cloncurry, and in the Charters Towers district a plant was put up for smelting the ores of the Carrington United Mines.

In the Herberton Division the old blast furnace at Mount Molloy was replaced by a new one, and the Huntington-Heberlein plant at Chillagoe was completed.

Next to copper and silver, the alluvial tin deposits appear to have claimed most attention. Two new plants were put to work in the Stanthorpe district and five in the Herberton and Mount Garnet districts. Those in the Stanthorpe district, and the plant of the Mount Garnet Hydraulic Company, are similar in principle, consisting of centrifugal nozzle and gravel pump, and necessary sluice-boxes, to which the tin-bearing alluvium is elevated by the latter. Two of the plants in the Herberton Division—viz., those of the Wooloomán Creek and Herberton Syndicate—include disintegrating appliances for separating the fine stuff from coarse material prior to final concentration. In the other two, a nozzle is used at Mount Spurgeon, and in the case of the New Dorothy, water is pumped into previously-cut channels, the sides of which are broken down by pick and shovel, and the concentrated material put through a sluice-box.

Most of the other tin-dressing appliances erected in the Herberton district are additional to existing plants, except the Go-Ahead battery at Irvinebank, which is a new five-head mill with all the usual appliances.

One mill, of twelve stamps, was erected at the Huon Gold Mine, in the Croydon Division, the machinery being mostly second-hand.

Technical Examinations.

Examinations for mine managers and engine-drivers under Sections 199 and 222 of "*The Mining Act of* 1898" were held as usual during the year.

Mine Managers' Examinations.—The annual examination by the board appointed to examine persons desirous of obtaining mine managers' certificates was held on the 17th of June and following days, and arrangements made for candidates to sit at Brisbane, Charters Towers, and Cloncurry.

The following table, which gives particulars of the certificates issued since June, 1889, will enable a comparison to be made with previous years:—

Mine Managers' Certificates.

Year.	First Class.		Second Class.			Service.
	No. of Candidates.	No. Issued.	No. of Candidates.	No. Issued. To First-class Candidates.	No. Issued. To Second-class Candidates.	No. Issued.
Previous to 1903 ...	...	9	...	...	13	192
1903 ...	11	6	3	4	3	21
1904 ...	15	8	1	2	1	8
1905 ...	8	6	2	2	1	5
1906 ...	7	2	...	...	...	14
1907 ...	7	2	...	2	...	11

From the above table it will be seen that eleven applications for certificates of service were approved, and seven candidates presented themselves for examination for certificates of competency. Two of the candidates received first-class certificates, two second-class certificates, and three others are eligible on furnishing the board with the necessary testimonials, &c.; with this allowance the percentage of passes was equal to or slightly higher than in 1906.

As regards the various examination papers, the standard hitherto adopted was adhered to by the board. The total number of certificates issued to date is as follows:—

First-class certificates of competency ...	33
Second-class certificates of competency ...	28
Certificates of service	251

Engine-drivers' Examination.—The annual examination by the board appointed to examine candidates desirous of obtaining engine-drivers' certificates were held at all the principal mining centres in the months of April, July, and October.

The following table gives details of the number of certificates issued prior to and during each of the last five years, including also the certificates issued under the Mining Acts in force previous to the 1st of March, 1899:—

Engine-drivers' Certificates.

Year.	First Class.		Second Class.			Total.	
	No. of Candidates.	No. Issued.	No. of Candidates.	No. Issued. To First-class Candidates.	No. Issued. To Second-class Candidates.	No. of Candidates.	No. of Certificate.
Previous to 1903	...	1,545	...	...	655	...	3,017*
1903	79	37	30	13	19	109	69
1904	91	48	47	28	33	138	109
1905	57	24	66	20	36	123	80
1906	74	36	84	26	49	158	111
1907	45	25†	90	7	60	135	92

* Includes 817 certificates of service issued prior to passing of Mining Act of 1898.

† Another certificate may be issued as a result of the last examination.

From the above table it will be seen that the number of first-class candidates presenting themselves was 45, and the number of second-class candidates was 90; the number of first-class certificates issued being 25, and the number of second-class certificates 60. Seven of the latter were issued to first-class candidates. A comparison of the percentage of passes is as follows:—

	1st Class Candidates.	2nd Class Candidates.	1st Class Candidates pass 2nd Class.	Total Candidates gaining Certificates.
	Per cent.	Per cent.	Per cent.	Per cent.
1903 ...	46·8	63·3	16·4	63·3
1904 ...	52·7	70·2	30·7	78·9
1905 ...	42·1	54·5	35·0	65·0
1906 ...	48·6	58·3	35·1	70·2
1907 ...	55·5	66·6	15·5	68·1

The proficiency shown by the first-class candidates at the examination was rather higher than in previous years, owing no doubt to the issue by the board of amended rules and regulations, thereby ensuring a larger percentage of candidates being properly qualified before presenting themselves for examination.

A number of applications by qualified engine-drivers from other States were specially dealt with, so that the applicants received certificates without delay.

Ten cases of over-winding were inquired into during the year, the occurrence having taken place in each instance during bailing or other such operations. The necessity of providing for negligence of this kind being reported whether damage results or not, and the deficiencies of existing regulations in this and other respects, have already been referred to in detail in previous reports.

Ventilation.

The attention directed to the copper deposits and metals other than gold during the last two years has resulted in a somewhat larger proportion of the mining work of the State being carried on in comparatively shallow and moderately cool mines, but the higher temperatures and conditions consequent on great depths necessarily continue in many of the older mines. The conditions as regards ventilation in the various mining districts of the State have already been dealt with at considerable length in previous reports, and recommendations made with a view to amendments of the Mining Act similar to those adopted in several of the other States, where, so far as the matter can be dealt with by legislation, efforts have been made to provide more efficient regulations, which are now required.

The health aspect and question of dust have also been previously referred to. Sprays are now occasionally being used, but there is little likelihood of their being much more generally adopted until the circumstances under which they must be used are specified by regulation. Rock-drilling, with which the dust danger is chiefly associated, increase each year, and there are now between 800 to 1,000 men engaged in the work.

The ventilation of the collieries is dealt with at some length in the annual report of the District Inspector attached, which contains tables showing particulars of the air circulation, temperatures, &c.

Explosives.

The regulations under the Explosives Act recently passed are expected to come into operation almost immediately. They will no doubt be of great assistance in ensuring better arrangements for storage on mines, a matter in connection with which there is frequently room for improvement.

Particulars have been obtained at the various mines offices of the explosives used for mining purposes, but the information furnished was not quite complete in some districts. The following are the approximate totals for the year:—Blasting powder, 107,444 lb.; nitro compounds, 23,930 cases; detonators, 18,439 boxes; fuse, 270,167 coils.

Considering the quantity used annually, complaints as regards quality are comparatively few. The only case in which explosives had to be condemned during the year occurred on the Etheridge Goldfield, where a quantity of blasting gelatine and gelignite was found to have become defective through having been kept too long.

Applications continue to be received from mines in isolated situations for a variation to be made in the regulations so as to enable a larger quantity of explosives to be stored, and in most cases, after investigation, the necessary alteration has been authorised by *Gazette* notice in the usual way.

Plans and Records, Etc.

Compliance with the requirements of the Mining Act relating to the keeping of mine plans is fairly well ensured, owing to their necessity in the working of mines; but, unfortunately, there is no provision at present requiring a copy or tracing to be supplied to the Department. Actually, this is done by the majority of large mines, but the making of tracings in other cases, and keeping plans up to date, is an undertaking of very considerable magnitude, as will be seen from the list of mines attached, most of which are required to keep plans, and the work requires more time than the Inspectors can well devote to it.

Although a plan is always available for use at the Mines Office, it is necessary in many cases for Inspectors to have a separate copy, and, apart from immediate needs, in later years, the question of a record may become one of the highest importance, both for reasons of safety and economy. An instance of the former occurred recently at Cloncurry, in the case of an old mine worked previously to the passing of the 1898 Act, requiring plans to be kept:—An unfortunate accident occurred through breaking into old workings, which in all probability would not have happened had plans been available.

During the last year or two a great many old mines have been reopened under considerable disadvantages, owing to lack of records, which in some cases would have prevented unprofitable expenditure of money, which could have been better employed opening up new mines.

The recording of mine managers' quarterly reports, which is now done, is a step towards an official record of mines, but the amount of detail work in connection with the collection of returns in certain districts where mining operations are of a very scattered nature, and the additional clerical assistance necessary for the proper recording and compilation of the information, are difficulties which at present retard the establishment of a satisfactory system.

Abandoned Shafts.

The question of the responsibility of securing abandoned shafts is one which of late has been raised more frequently than hitherto, particularly in the older fields, such as Charters Towers and Croydon, owing to the decay of timber used, or inefficiency or absence of proper protection, at the time of abandonment.

An unprotected abandoned shaft was responsible for one accident last year, and others previously have been due to the same cause.

A clause in the regulations makes the lessee of a mining tenement responsible for securing shafts at the time of abandonment; but provision is required for both forfeiture and abandonment, and some means of ensuring protection of a permanent character, as the trouble chiefly arises after a lapse of time. The danger at the present time being from shafts abandoned a number of years ago, it has been necessary, in the majority of cases, for the work to be done at the expense of the Department.

Rope-testing.

The system of rope-testing has been extended during the year to the Central and Croydon and Etheridge districts.

Owing to the importance of the matter in connection with the great depths at Charters Towers, it is now necessary for higher-class testing appliances to be installed in that district, and as soon as this is arranged all the Inspector's offices can be properly equipped.

The following table shows the year's record of rope-tests:—

RECORD OF ROPE TESTS DURING THE YEAR 1907, WITH THE MACHINES AT GYMPIE, IPSWICH, CHARTERS TOWERS, AND CROYDON.

Month.	Gympie.		Ipswich.		Charters Towers.		Croydon.	
	No. of Tests.	Condemned.	No. of Tests.	Condemned.	No. of Tests.	Condemned.	No. of Tests.	Condemned.
January	14	1	...	...	24	...	...	...
February	17	2	...	...	3	...	...	...
March ...	7	...	3	...	21	...	...	...
April ...	9	...	1	...	7	...	...	...
May ...	1	...	...	...	13	...	2	...
June ...	6	...	...	...	9	2	1	...
July ...	15	1	2	...	22	...	...	...
August ...	8	...	2	...	21	...	6	...
September	11	...	...	...	18	...	14	2
October	9	...	...	...	25	1	11	...
November	2	...	1	...	13	...	2	...
December	8	...	...	...	5	...	6	...
	107	4	9	...	181	3	22	2

INSPECTIONS, ETC.

The general work of inspection in the main divisions of the State continually occupies the Inspectors, so that little time is available for visiting mining camps in more remote localities. Some attention was, however, given during the year to the small goldfields in the York Peninsula and other isolated mines in the far Northern districts.

Owing to the growing importance of Cloncurry, it was considered necessary to have a resident Inspector in that district, and Mr. A. E. Fryar, Inspector in the Central District, was appointed to the position. The transfer necessitated an addition to the staff, and Mr. Fletcher Young was appointed Assistant Inspector in the Croydon and Etheridge Division, Mr. Warde being moved to Rockhampton to carry on the work in the Central Division.

As will be seen on reference to the annual reports, all important mining operations were kept constantly under observation, accidents investigated, and inquiries conducted, where necessary, by the Inspectors during the year. Inspections were made by myself in the following districts:—Gympie, Ipswich, Oakey, Burrum, Mount Perry, Rockhampton, Mount Morgan, Anakie, Charters Towers, Ravenswood, Herberton, Irvinebank, Stannary Hills, Watsonville, Coolgarra, Mount Garnet, and Chillagoe.

A number of applications for advances under the Mining Machinery Advances Act, and assistance from the prospecting vote, &c., were inquired into, and on these and other matters a number of special reports were furnished by the inspection staff.

In addition to the matters specially referred to in the several sections of the report above, others in connection with the work of inspection are dealt with in detail in the annual reports attached.

Herewith will be found the reports of the Inspectors for the Southern and Central Divisions, and those of the Inspectors of the three Northern Divisions.

I have, &c.,

C. F. V. JACKSON,

Chief Inspector of Mines.

INDEX TO STATISTICAL TABLES, ETC., ACCOMPANYING REPORT.

LABOUR EMPLOYED, WAGES, ETC.

Page 124A.—Table showing the Occupation or Trade of men employed, with rate of wages per shift, and approximat number of men, &c., in the different mining districts of the State.

ACCIDENTS.

Page 124B.—Accidents in all Mines, 1907, classified as to cause.

Pages 125-133.—Accidents in all Mines, 1907, classified as to cause in detail.

Page 134A.—Accident Death Rate Curves for Metalliferous Mines (1897-1907) and Collieries (1894-1907).

Page 134.—Accidents in Metalliferous Mines for ten years (1898-1907), classified as to cause, and as to districts in which accidents occurred.

Page 135.—Accidents in Coal Mines for ten years (1898-1907), classified as to cause, and as to mines in which accidents occurred.

MINES AND ADDRESSES.

Pages 136-149.—List of principal Mines in Queensland, with the name and address of manager, name of secretary, number of men employed, &c.

MINES, MILLS, AND METALLURGICAL WORKS, ETC.

Occupation or Trade, Rate of Wages, and Number of Men Employed, Etc.

METALLIFEROUS MINES.

OCCUPATION OR TRADE.	Southern Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Gympie, Kilkivan, Silver Spur.	Other Districts.	Central Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Mt. Perry, Mt. Shamrock, Gladstone, Rockhampton, Mt. Morgan, etc.	Other Districts.
Mines—										
Managers	...	...	...	50	...	...	...	...	32	...
	s. d.	s. d.	s. d.			s. d.	s. d.	s. d.		
Overseers	...	...	...	...	...	10 10	18 4	11 9	6	...
Shift bosses and overmen	9 0	16 8	10 7	30	...	9 0	15 0	11 6	36	...
Firemen (in coal mines)	...	...	...	...	...	...	...	...	...	...
Bracemen and banksmen	3 6	10 0	7 6	25	...	6 1	8 4	7 1	68	...
Platmen and pit-bottomers	7 0	8 4	7 9	10	...	8 4	8 4	8 4	3	...
Timber-men	8 2	13 2	9 2	26	...	7 6	11 8	9 2	62	...
Roadsmen	...	...	...	...	...	8 0	9 0	8 4	8	...
Engine-drivers	9 10	13 2	10 2	70	...	8 4	11 0	9 10	72	...
Machine-men, stoping	9 10	10 0	9 10½	41	...	9 0	11 0	10 5	143	...
Machine-men, developing	9 10	10 0	9 10½	55	...	9 0	12 0	9 8	211	...
Machine-men, assistants	9 0	9 2	9 0½	100	...	8 0	10 0	8 5	23	...
Hand-men, stoping	7 4	9 2	8 2	261	...	7 0	8 4	8 3	350	...
Hand-men, developing	8 2	10 0	8 2	90	...	7 0	10 0	8 7	187	...
Men working machine coal-cutters	...	...	...	...	...	...	...	...	...	...
Hewers, doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	...	...	...
Hewers, not doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	...	...	...
Truckers and wheelers	3 4	7 6	7 0	200	...	6 0	8 4	7 8	245	...
Mullockers	6 0	8 2	7 3	110	...	6 0	8 4	7 8	50	...
Pumpmen	7 0	9 10	7 10	3	...	8 0	8 0	8 0	1	...
Boys	2 6	5 8	5 0	9	...	2 6	6 8	4 3	77	...
Others not classified	6 8	8 2	...	...	...	6 8	10 0	...	380	...
Tributers, prospectors, syndicates, claim-holders, alluvial diggers, &c.	...	...	...	526	74	...	...	...	702	900
Mills and Cyanide Works—										
Foremen and engineers	9 0	23 4	15 2	11	...	8 4	11 8	9 10	6	...
Amalgamators	5 0	16 6	9 7	10	...	13 4	16 6	14 11	2	...
Assistant amalgamators	6 10	9 10	7 5	6	...	...	...	...	...	...
Engine-drivers	9 10	11 6	10 0	23	...	8 0	12 0	9 7	11	...
Feeders	6 8	10 0	9 5	20	...	5 0	10 0	6 6	20	...
Vanner-men and table-men	7 4	9 10	8 3	9	...	7 6	7 6	7 6	4	...
Truckers	5 6	5 6	5 6	3	...	7 0	8 0	7 9	11	...
Oilers	4 10	8 4	5 8½	4	...	6 0	8 0	7 0	4	...
Cyaniders	...	...	...	...	...	13 4	13 4	13 4	1	...
Fillers	6 8	6 8	6 8	3	...	8 0	8 0	8 0	2	...
Trimmers	7 4	7 4	7 4	3	...	...	...	...	...	...
Labourers	4 10	8 2	6 9	16	...	6 0	8 4	7 1	18	...
Boys	5 0	6 0	5 9	4	...	4 0	5 6	4 10	5	...
Not classified	3 2	3 2	3 2	6	...	6 0	9 0	...	29	17
Smelting and Chlorination Works—										
Foremen	10 6	12 0	11 6	1	...	12 10	14 3	13 7	11	...
Shift bosses	9 0	9 0	9 0	2	...	8 7	14 0	10 7	19	...
Engine-drivers	...	...	...	...	...	9 0	10 0	9 10	18	...
Smelters, furnace-men, &c.	7 0	10 6	7 6	10	...	7 0	9 6	8 2	290	...
Truckers and wheelers	7 0	7 6	7 3	8	...	7 0	7 0	7 0	8	...
Vatmen	...	...	...	...	...	8 0	9 0	8 1	37	...
Testers	...	...	...	...	...	10 0	11 0	10 7	6	...
Samplers	6 8	6 8	6 8	1	...	5 0	11 3	7 1	9	...
Labourers	6 0	7 0	6 3	3	...	5 0	9 0	7 9	195	...
Boys	4 0	5 0	4 5	4	...	2 6	7 0	4 10	45	...
Not classified	...	...	...	...	...	7 0	11 0	9 0	40	...
Workshops—										
Overseers	...	...	...	...	...	...	...	...	...	...
Foremen and engineers	12 0	13 4	12 8	1	...	10 0	16 8	15 0	5	...
Fitters and turners	9 0	13 2	10 2	4	...	6 8	12 0	10 4	20	...
Boiler-makers	...	...	...	...	...	10 0	12 0	10 5	7	...
Blacksmiths	6 0	11 8	9 10	11	...	6 0	11 0	9 9	22	...
Plumbers	7 6	7 6	7 6	...	...	9 0	11 0	10 0	8	...
Drill-sharpeners	5 8	8 2	7 4	10	...	6 8	10 0	9 5	12	...
Moulders	...	...	...	...	...	6 0	12 0	9 6	8	...
Carpenters	8 0	10 10	9 1	4	...	5 0	12 0	10 7	30	...
Sawyers	4 6	9 0	8 6	2	...	8 0	9 0	8 7	6	...
Bricklayers	11 6	11 6	11 6	2	...	6 8	12 0	11 8	10	...
Labourers	6 0	7 0	6 8	4	...	6 8	9 0	7 1	40	...
Not classified	...	...	...	2	...	5 0	8 6	7 8	2	2
Miscellaneous (on surface)—										
Foremen and overseers	...	...	...	...	...	11 0	13 4	12 5	5	...
Crusher-men	6 6	7 4	6 11	4	...	7 6	10 0	8 2	23	...
Sorters and pickers	5 8	5 8	5 8	2	...	2 4	9 0	5 10	47	...
Engine and motor drivers	10 0	10 0	10 0	7	...	8 0	11 0	9 9	40	...
Firemen (at boilers)	5 0	10 0	7 2	24	...	7 0	10 0	8 6	28	...
Firewood-truckers	7 0	7 0	7 0	2	...	7 0	10 0	8 6	2	...
Coke-burners	...	...	...	...	...	...	...	...	...	...
Carters and drivers	6 0	11 0	9 0	17	...	7 0	12 0	9 0	8	...
Quarry-men	...	...	...	...	...	7 6	9 0	7 10	135	...
Stone-breakers	4 10	9 0	6 8	12	...	8 0	8 0	8 0	14	...
Labourers	6 0	8 0	6 5	39	...	6 8	9 0	7 9	232	...
Watchmen	3 2	10 0	7 10	17	...	8 0	8 0	8 0	6	...
Whip boys	3 4	3 4	3 4	1	...	3 4	10 8	4 7	7	...
Apprentices	...	...	...	...	...	1 8	7 0	4 4	30	...
Boys	3 4	5 0	3 11	3	...	3 0	7 0	5 0	48	...
Not classified	1 0	9 0	4 4	...	...	7 6	10 0	...	43	8

OCCUPATION OR TRADE.	1st Northern Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Charters Towers, Ravenswood, Kangaroo Hills, etc.	Other Districts.	2nd Northern Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Herberton, Chillagoe, Principal Centres, Walsh and Tinaroo M.F., Hodgkinson.	Other Districts.
Mines—										
Managers	...	...	...	87	...	...	...	...	90	...
	s. d.	s. d.	s. d.			s. d.	s. d.	s. d.		
Overseers	...	...	...	...	...	...	...	...	...	...
Shift bosses and overmen	11 8	15 0	13 0	84	...	10 0	15 0	11 5	58	...
Firemen (in coal mines)	...	...	...	...	...	...	...	...	...	...
Bracemen and banksmen	8 0	10 10	9 9	63	...	7 0	10 0	9 4	65	...
Platmen and pit-bottomers	8 0	10 0	9 6	33	...	8 8	11 0	9 1	7	...
Timber-men	10 0	11 8	10 10	31	...	8 0	13 0	10 9	19	...
Roadsmen	...	...	...	...	...	...	...	9 0	1	...
Engine-drivers	10 0	13 4	12 0	179	...	10 6	13 4	11 6	52	...
Machine-men, stoping	10 10	11 8	11 7	127	...	10 0	11 8	11 3	20	...
Machine-men, developing	10 10	13 4	11 9	147	...	9 0	14 0	10 0	25	...
Machine-men, assistants	3 4	10 10	8 4	215	...	9 0	10 0	9 8	19	...
Hand-men, stoping	10 0	10 10	10 0	676	...	9 0	11 0	10 1	373	...
Hand-men, developing	10 0	11 8	10 0	371	...	9 0	11 8	10 0	330	...
Men working machine coal-cutters	...	...	...	...	...	...	...	...	...	...
Hewers, doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	...	...	...
Hewers, not doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	...	...	...
Truckers and wheelers	5 0	10 0	8 7	234	...	8 0	10 0	8 10	114	...
Mullockers	5 0	10 0	7 9	243	...	4 2	10 0	8 9	28	...
Pumpmen	10 0	11 8	11 8	7	...	10 0	12 0	10 4	8	...
Boys	3 4	7 6	5 0	84	...	3 4	7 0	5 2	32	...
Others not classified	6 0	12 0	...	410	...	8 6	12 0	...	808	...
Tributers, prospectors, syndicates, claim-holders, alluvial diggers, &c.	...	...	...	1,400	666	...	...	...	1,869	780
Mills and Cyanide Works—										
Foremen and engineers	12 0	20 0	14 7	30	Total, 18.	12 6	20 0	15 8	12	...
Amalgamators	13 4	16 8	13 6	39		...	...	13 4	1	...
Assistant amalgamators	6 8	10 10	8 0	20		...	...	...	...	...
Engine-drivers	7 6	16 8	12 7	61		11 8	15 0	11 1	18	7
Feeders	5 0	13 4	9 4	40		8 0	10 0	9 1	7	1
Vanner-men and table-men	7 6	11 8	9 4	4		7 6	11 0	9 0	23	...
Truckers	8 4	10 0	9 8	5		8 0	11 0	8 8	11	...
Oilers	...	...	...	...		...	...	...	...	...
Cyaniders	8 4	10 0	9 7	21		...	...	...	...	...
Fillers	8 4	10 0	9 11	35		...	...	...	...	...
Trimmers	10 0	10 0	10 0	3		...	...	...	...	...
Labourers	7 6	11 1	9 7	250		8 0	10 0	9 4	33	4
Boys	2 6	6 8	4 10	67		3 4	7 0	5 5	17	...
Not classified	7 6	15 0	10 8	8		...	...	...	84	5
Smelting and Chlorination Works—										
Foremen	10 10	15 0	12 11	Total, 11.	Total, 5.	15 0	20 0	17 4	5	...
Shift bosses	11 0	11 0	11 0			12 0	13 4	12 8	4	...
Engine-drivers	13 4	14 0	13 4			10 0	12 0	11 1	10	...
Smelters, furnace-men, &c.	8 4	9 5	9 5			8 6	12 0	9 11	33	...
Truckers and wheelers	8 0	9 0	9 0			8 0	9 6	8 7	42	...
Vatmen	12 6	12 6	12 6			...	...	...	...	...
Testers	...	...	...			...	...	...	...	...
Samplers	8 4	8 4	8 4			9 0	10 0	9 6	2	...
Labourers	7 0	10 0	8 0			8 0	10 0	8 9	13	...
Boys	6 0	6 0	6 0			5 0	7 0	6 4	11	...
Not classified	10 0	10 0	10 0			8 0	10 6	...	169	...
Workshops—										
Overseers	13 4	16 8	15 0	1	2	...	...	...	...	...
Foremen and engineers	13 4	16 8	15 6	5	3	9 6	20 0	14 3	6	...
Fitters and turners	11 8	13 4	13 3	14	...	10 0	14 0	11 11	21	...
Boiler-makers	...	...	...	...	...	...	...	...	...	...
Blacksmiths	10 0	15 0	12 9	49	6	9 0	14 0	11 0	20	...
Plumbers	11 8	11 8	11 8	1	...	12 0	13 0	12 6	2	...
Drill-sharpeners	8 4	10 10	10 6	28	...	10 0	11 0	10 1	6	...
Moulders	11 0	13 4	11 8	2	...	...	...	10 0	1	...
Carpenters	10 0	13 4	12 10	26	14	8 6	13 4	11 6	25	...
Sawyers	...	...	...	...	...	10 0	13 0	12 0	6	...
Bricklayers	15 0	15 0	15 0	3	4	8 0	12 0	9 2	5	...
Labourers	6 8	10 0	9 6	10	20	7 6	9 0	8 7	35	...
Not classified	6 8	11 8	7 3	18	6	3 4	11 0	...	88	3
Miscellaneous (on surface)—										
Foremen and overseers	11 8	13 4	12 0	4	Total, 172.	9 6	15 0	12 0	13	...
Crusher-men	10 0	10 0	10 0	2		8 0	9 0	8 4	3	...
Sorters and pickers	...	...	...	...		4 6	9 0	8 0	12	...
Engine and motor drivers	...	...	...	...		10 0	16 8	12 6	10	...
Firemen (at boilers)	10 0	13 4	10 2	35		8 0	11 0	9 4	34	...
Firewood-truckers	8 0	8 0	8 0	2		9 0	9 6	9 1	6	...
Coke-burners	...	...	...	...		9 0	9 0	9 0	2	...
Carters and drivers	8 4	10 0	9 3	60		9 0	13 4	10 3	25	...
Quarry-men	...	...	...	...		8 6	10 0	9 0	50	...
Stone-breakers	6 8	6 8	6 8	6		...	...	...	...	...
Labourers	10 0	10 0	10 0	50		8 0	9 0	8 2	133	...
Watchmen	5 0	11 8	9 9	34		8 0	9 0	8 6	1	...
Whip boys	...	...	...	...		4 0	8 0	5 5	12	...
Apprentices	...	...	...	...		...	...	5 0	1	...
Boys	3 4	7 6	6 1	18		5 0	6 0	5 6	2	...
Not classified	...	...	...	78		...	...	...	...	...

OCCUPATION OR TRADE.	Metalliferous Mines: 3rd Northern Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Croydon and Etheridge.	Other Districts.	Coal Mines: Southern Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Maryborough, Ipswich, and Darling Downs.	Coal Mines: Central Inspector's Division. Rate of Wages. Minimum.	Maximum.	Average per Shift.	No. of Men. Rockhampton and Clermont.
Mines—													
Managers	...	...	...	30	...	...	...	...	28	...	...	...	2
	s. d.	s. d.	s. d.			s. d.	s. d.	s. d.		s. d.	s. d.	s. d.	
Overseers	13 4	16 8	14 9	7	...	...	...	...	...	...	...	...	...
Shift bosses and overmen	13 4	14 8	13 10	13	...	6 6	16 0	*	14	...	...	...	...
Firemen (in coal mines)	...	...	...	...	...	6 0	9 0	*	23	...	...	...	...
Bracemen and banksmen	10 0	11 8	11 1	11	...	2 6	8 0	*	58	6 6	8 0	7 5	6
Platmen and pit-bottomers	...	...	...	...	...	5 6	8 0	*	23	...	...	...	...
Timber-men	11 8	11 8	11 8	1	...	6 0	8 0	*	14	...	...	...	...
Roadsmen	...	...	...	...	...	6 0	9 0	*	41	...	...	...	...
Engine-drivers	12 0	15 0	13 3	39	...	6 0	9 0	*	53	8 0	10 0	9 0	6
Machine-men, stoping	...	...	...	...	...	...	...	...	...	...	...	...	...
Machine-men, developing	10 0	10 0	10 0	4	...	...	...	...	...	...	...	...	...
Machine-men, assistants	...	...	...	...	...	...	...	...	...	...	...	...	...
Hand-men, stoping	11 8	11 8	11 8	127	...	...	...	...	...	...	...	...	...
Hand-men, developing	11 8	13 4	12 0	76	...	8 0	8 0	*	14	12 0	12 0	12 0	6
Men working machine coal-cutters	...	...	...	...	...	7 0	8 0	*	7	...	...	...	...
Hewers, doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	*	946	...	...	...	...
Hewers, not doing own wheeling (paid at per ton)*	...	...	...	...	...	...	...	*	98	...	...	...	25
Truckers and wheelers	10 0	11 8	10 0	11	...	4 6	7 0	*	8	...	...	...	...
Mullockers	6 8	6 8	6 8	1	...	...	...	...	...	...	...	...	...
Pumpmen	...	...	...	...	...	6 8	7 0	*	8	...	...	...	...
Boys	5 0	8 4	7 2	6	...	2 0	6 0	*	42	...	...	...	...
Others not classified	10 0	11 8	...	...	...	6 0	10 4	*	69	6 6	10 0	...	6
Tributers, prospectors, syndicates, claim-holders, alluvial diggers, &c.	...	...	...	560	...	...	...	...	...	...	...	...	...
Mills and Cyanide Works—													
Foremen and engineers	13 4	16 8	15 10	4	...	...	...	...	...	...	...	...	...
Amalgamators	...	...	...	...	...	...	...	...	...	...	...	...	...
Assistant amalgamators	...	...	...	...	...	...	...	...	...	...	...	...	...
Engine-drivers	11 8	13 4	13 1	25	...	...	...	...	...	...	...	...	...
Feeders	10 0	11 8	11 4	22	...	...	...	...	...	...	...	...	...
Vanner-men and table-men	10 10	10 10	...	...	...	...	...	...	...	...	...	...	...
Truckers	10 0	10 0	...	...	...	...	...	...	...	...	...	...	...
Oilers	...	...	...	...	...	...	...	...	...	...	...	...	...
Cyaniders	16 8	16 8	16 8	4	...	...	...	...	...	...	...	...	...
Fillers	10 0	13 4	11 1	18	...	...	...	...	...	...	...	...	...
Trimmers	...	...	...	...	...	...	...	...	...	...	...	...	...
Labourers	10 0	13 4	11 2	15	...	...	...	...	...	...	...	...	...
Boys	3 4	7 6	6 10	...	...	...	...	...	...	...	...	...	...
Not classified	...	...	...	17	...	...	...	...	...	...	...	...	...
Smelting and Chlorination Works—													
Foremen	...	...	...	...	...	...	...	...	...	...	...	...	...
Shift bosses	...	...	...	...	...	...	...	...	...	...	...	...	...
Engine-drivers	...	...	...	...	...	...	...	...	...	...	...	...	...
Smelters, furnace-men, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...
Truckers and wheelers	...	...	...	...	...	...	...	...	...	...	...	...	...
Vatmen	...	...	...	...	...	...	...	...	...	...	...	...	...
Testers	...	...	...	...	...	...	...	...	...	...	...	...	...
Samplers	...	...	...	...	...	...	...	...	...	...	...	...	...
Labourers	...	...	...	...	...	...	...	...	...	...	...	...	...
Boys	...	...	...	...	...	...	...	...	...	...	...	...	...
Not classified	...	...	...	...	...	...	...	...	...	...	...	...	...
Workshops—													
Overseers	15 0	15 0	...	Total, 4.	...	...	...	...	...	...	...	...	...
Foremen and engineers	...	...	...		...	8 6	8 6	*	1	...	...	...	...
Fitters and turners	12 0	13 4	...		...	...	...	...	...	...	...	...	...
Boiler-makers	...	...	...		...	...	...	...	...	...	...	...	...
Blacksmiths	12 0	12 0	...		...	7 0	10 0	*	6	...	...	...	...
Plumbers	...	...	...		...	...	...	...	...	...	...	...	...
Drill-sharpeners	10 0	11 8	...		...	...	...	...	...	...	...	...	...
Moulders	...	...	...		...	...	...	...	...	...	...	...	...
Carpenters	12 0	12 0	...		...	6 0	8 6	*	8	...	...	...	...
Sawyers	10 0	15 0	...		...	...	...	...	...	...	...	...	...
Bricklayers	...	...	...		...	...	...	...	...	...	...	...	...
Labourers	9 0	9 0	...		...	4 0	5 6	*	4	...	...	...	...
Not classified	...	...	...		...	...	...	...	...	...	...	...	...
Miscellaneous (on surface)—													
Foremen and overseers	...	...	...	Total, 36.	...	12 0	12 0	*	1	...	...	...	Total, 12.
Crusher-men	...	...	...		...	...	...	...	...	...	...	...	
Sorters and pickers	...	...	...		...	3 6	6 6	*	3	...	...	...	
Engine and motor drivers	...	...	...		...	...	...	...	...	...	...	...	
Firemen (at boilers)	10 0	10 0	...		...	6 0	7 0	*	4	8 0	8 0	...	
Firewood-truckers	...	...	...		...	...	...	...	...	...	...	...	
Coke-burners	...	...	...		...	6 0	11 6	*	19	...	...	...	
Carters and drivers	10 0	10 0	...		...	5 0	6 6	*	6	...	...	...	
Quarry-men	...	...	...		...	...	...	...	...	...	...	...	
Stone-breakers	...	...	...		...	...	...	...	...	...	...	...	
Labourers	9 0	10 0	...		...	6 0	8 0	*	6	6 6	6 6	...	
Watchmen	...	...	...		...	...	...	...	...	...	...	...	
Whip boys	...	...	...		...	3 0	3 0	*	1	...	...	...	
Apprentices	...	...	...		...	...	...	...	...	...	...	...	
Boys	...	...	...		...	2 6	4 0	*	5	...	...	...	
Not classified	...	...	...		...	7 0	7 0	*	...	...	...	...	

* Owing to rearrangement of rates in the last month of the year, complete particulars with respect to average are not available.

DEATHS AND INJURIES—MINES, MILLS, ETC.

Number of Separate Accidents reported and Casualties resulting therefrom.

124B

Classification	Metalliferous Mines.						Reduction Works, Mills, Etc.						Coal Mines.						Totals all Mines, Mills, and Reduction Works.					
	No. of Separate Accidents.	Killed.	Injured.		Total Casualties.		No. of Separate Accidents.	Killed.	Injured.		Total Casualties.		No. of Separate Accidents.	Killed.	Injured.		Total Casualties.		No. of Separate Accidents.	Killed.	Injured.		Total Casualties.	
			Involving 14 days' Disablement.	Involving less than 14 days' Disablement.	No.	%			Involving 14 days' Disablement.	Involving less than 14 days' Disablement.	No.	%			Involving 14 days' Disablement.	Involving less than 14 days' Disablement.	No.	%			Involving 14 days' Disablement.	Involving less than 14 days' Disablement.	No.	%
LADDER ACCIDENTS	1	...	1	...	1	1·04	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	0·71
FALLING DOWN SHAFTS	1	...	1	...	1	1·04	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	0·71
MATERIALS FALLING DOWN SHAFTS	3	...	2	1	3	3·13	...	...	...	...	...	...	...	...	...	...	...	...	3	...	2	1	3	2·13
OTHER SHAFT ACCIDENTS—																								
(*a*) Struck by Cage or Skip	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...
(*b*) Travelling by Cage or Skip	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...
(*c*) Sundry	2	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	2	...
Total	4	...	3	1	4	4·17	...	...	...	...	...	...	...	...	...	...	...	...	4	...	3	1	4	2·84
FALL OF GROUND	28	2	23	4	29	30·21	...	...	...	...	...	...	12	...	9	3	12	50·00	40	2	32	7	41	29·08
GASES IN SHAFTS AND WINZES	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ACCIDENTS IN WINZES AND PASSES	7	1	6	...	7	7·29	...	...	...	...	...	...	...	...	...	...	...	...	7	1	6	...	7	4·96
ACCIDENTAL EXPLOSIONS AND BLASTING ACCIDENTS—																								
(*a*) Drilling into Unexploded Holes	2	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	...	3	...
(*b*) During Blasting Operations	9	2	7	1	10	...	...	...	...	...	...	...	2	...	2	...	2	...	11	2	9	1	12	...
Total	11	4	8	1	13	13·54	...	...	...	...	...	...	2	...	2	...	2	8·33	13	4	10	1	15	10·64
MACHINERY ACCIDENTS	1	...	1	...	1	1·04	4	...	3	1	4	19·05	...	...	...	...	...	...	5	...	4	1	5	3·54
EXPLOSIONS OF GAS	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	8·33	1	...	2	...	2	1·42
FALLS FROM STAGING, BRACE, Etc.	10	3	6	1	10	10·42	...	...	...	...	...	...	...	...	...	...	...	...	10	3	6	1	10	7·09
TRUCK AND WAGON ACCIDENTS	8	1	6	1	8	8·33	1	...	1	...	1	4·76	4	...	3	1	4	16·67	13	1	10	2	13	9·22
MISCELLANEOUS—																								
(*a*) Falling and Slipping	2	...	2	...	2	...	3	1	2	...	3	...	...	...	...	...	...	...	5	1	4	...	5	...
(*b*) Burning and Scalding	...	...	...	...	...	...	8	...	8	...	8	...	...	...	...	...	...	...	8	...	8	...	8	...
(*c*) Inundation of Water	1	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	2	...
(*d*) Sundry	15	...	14	1	15	...	5	1	4	...	5	...	4	...	3	1	4	...	24	1	21	2	24	...
Total	18	2	16	1	19	19·79	16	2	14	...	16	76·19	4	...	3	1	4	16·67	38	4	33	2	39	27·66
Total for the Year 1907	92	13	73	10	96	100·0	21	2	18	1	21	100·00	23	...	19	5	24	100·00	136	15	110	16	141	100·00

DETAILED CLASSIFICATION OF ACCIDENTS.

Details of "Ladder" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
1st Northern.	Charters Towers.	May ...	Mills' United ...	W. Weir ...	Injured. Fell off ladder in stopes and broke his wrist.

Details of "Falling Down Shafts" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
2nd Northern.	Herberton, Chillagoe, &c.	26 June	Granite Knob Claim	Francis Hurley	Injured. Broken arm. He slipped and fell off the ladders in the shaft.

Details of "Materials Falling Down Shafts" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
1st Northern.	Charters Towers.	23 Feb.	Talisman and New Dawn	B. Jones ...	Injured. While timbering shaft, a piece of mullock fell, striking him on the shoulder, causing a lacerated wound.
2nd Northern.	Herberton, Chillagoe, &c.	26 June	Nymbool Queen Claim	J. O'Brien ...	Injured. Skull fracture. O'Brien was in the sink. One of his mates lowered four slabs, and one of the slabs slipped out of the fastenings upon O'Brien's head. Inquiry held.
		12 Aug.	Lady Jane	Fred. Stanbridge	Injured.* Cut hand. A small stone fell out of the shaft while he was in the sink.

Details of "Other Shaft" Accidents.

(*a*) Struck by cage or skip. (*b*) Travelling by cage or skip. (*c*) Sundry.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Central.	Clermont.	28 Aug.	Peak Downs Copper Mine	(*c*) Wm. Malcolmson	Injured. Was loading blunt steel into cage at bottom level, when the cage was unexpectedly pulled away, and he was jammed against roof of plat.

* Did not result in fourteen days' disablement.

Details of "Other Shaft" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Central.	Rockhampton.	26 Sept.	Great Fitzroy Copper Mine	(*a*) James Kelly	Injured.* He leant over guard rail of shaft to speak to man below, when the descending cage struck him, causing scalp wound and cut chin.
1st Northern.	Charters Towers.	May	Mills' United ...	(*b*) F. Martin ...	Injured. Foot jammed while riding on tank in straight shaft.
2nd Northern.	Herberton, Chillagoe, &c.	17 June	Smith's Creek Proprietary	(*c*) Peter Scari	Injured. Broken leg. While in the cage at the surface loading timber, the cage was hauled up, jamming his leg against the collar set of the shaft.

Details of "Fall of Ground" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Southern.	Gympie.	22 Jan.	The Great Eastern Gold Mine	C. Collins ...	Injured. Several scalp wounds, &c. When inspecing old workings, a wall gave way.
		13 June	No. 2 North Columbia and Smithfield Gold Mine	A. Wilson ...	Injured.* Right foot bruised. When working out ground, a piece of stone fell on his foot.
		14 Oct.	The Scottish Gympie Gold Mines	Thos. Carkeet ... Jno. McCormack	Injury to spine, &c. — A flake of rock fell from corner of roof when they were resting against a wall.
	Ipswich.			**Collieries.**	
		7 Mar.	Eclipse Colliery, Tivoli	P. McInally ...	Injured.* Some coal fell on one foot and leg.
		1 May	Fairbank Colliery ...	E. Jones ...	Injured. When holing without sprags, top coal fell.
		27 May	Box Flat Colliery ...	J. Hardie ...	Injured.* When taking down top coal, a piece of the middle stone fell on his foot.
		11 June	No. 2 Pit, Blackheath Colliery	S. George ...	Injured. When holing, some coal fell from a slip.
		11 June	No. 2 Pit, Blackheath Colliery	J. Martin ...	Injured. When working at face, some roof fell from a slip.
		23 Aug.	Rothwell Haigh Colliery	J. Brockie, junr.	Injured. Some coal fell from a slip.
		17 Oct.	No. 3 Pit, Whitwood Collieries	Francis Jehn ...	Injured. Some roof fell.
		20 Nov.	No. Pit, Blackheath Collieries	F. Richards ...	Injured. When lifting bottom coal, a piece of roof fell.
	Wide Bay.	26 April	No. 11 Pit, Howard	John Walker	Injured. When filling a truck, a fall of roof occurred.
		29 June	No. 15 Pit, Howard	T. Pollard ...	Injured. After holing, some coal fell when cutting it.

* Did not result in fourteen days' disablement.

Details of "Fall of Ground" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
		Collieries—*continued.*			
Central.	Rockhampton.	29 April	Bluff Colliery ...	Thomas Morris	Injured.* Cut head. Was holing (or undercutting) face of coal when a fall took place.
		1 Nov.	Bluff Colliery ...	J. Rodgers ...	Injured. Broken rib. While undercutting face of coal removed sprag, allowing coal to fall on him.
	Gladstone.	7 April	Mount Hector Copper Mine	H. Chandler ...	Injured. Working ore in open cut when a portion came away suddenly, knocking him down. He received a cut back.
	Clermont.	16 July	Peak Downs Copper Mine	W. Tibbett ...	Injured. Broken rib. Knocked down through fall of rock from roof.
		12 Feb.	Sapphire Claim (Policeman Creek)	Joseph Bourne	Killed. By fall of ground when working alone in his claim.
	Mount Perry (Tenningering).	25 Sept.	Kennedy Shaft, Queensland Copper Company	R. Huddlestone	Injured. Shoulder and arm bruised and cut. Fall of ground in stopes from unseen head.
	Mount Morgan.	11 Mar.	Mount Morgan G.M. Company	M. Kane ...	Injured.* Cut head. Small piece of rock fell from roof of No. 2 chamber.
1st Northern.	Charters Towers.	15 Jan.	Brilliant Extended G.M.	Geo. Smith ...	Killed. By fall of ground in stopes.
		May	Brilliant St. George G.M.	O. Williams ...	Injured. Cut back by fall of stone.
		June	Brilliant St. George G.M.	T. McEwan ...	Injured. Injuries to foot while pulling down ground.
		Sept.	Stockholm	W. Weir ...	Injured. Leg broken by fall of ground.
		Sept.	Carrington United...	J. Marshall ...	Injured. Slightly, by fall of ground in stopes.
		4 Oct.	Mills' United ...	T. Martindale...	Injured. Slightly, by fall of ground.
		6 Nov.	Brilliant Central ...	G. Bailey ...	Injured. Leg broken by flake falling from hanging-wall.
		20 Dec.	Pfeiffer's Day Dawn	W. Murrell ...	Injured. Slightly, by fall of ground.
		9 Dec.	Victory G.M. ...	H. Haller ...	Injured.* Injuries to hand while working down ground.
	Ravenswood.	15 Feb.	Crescent G.M. ...	S. Carson ...	Injured. Injuries to foot and leg through fall of balked ground.
		10 July	Silvery Wave Extended	L. Franklin ...	Injured. Injured by fall of ground.
		12 Nov.	Crescent G.M. (Kirk Diggings)	T. Gaffin ...	Injured.* Foot slightly injured while working down ground.
2nd Northern.	Herberton, Chillagoe, &c.	20 Feb.	Cecil Syndicate ...	Con Quill ...	Injured. Cut back. When pulling down balked ground, some of it struck him.
		27 Feb.	Ruddygore	Thos. Irons ...	Injured. Cut finger. A stone falling from the open cut struck it.
		1 July	O.K. Copper ...	J. Reynolds ...	Injured. Cut back and leg. While timbering in a stope, a piece of ground fell on him from the hanging-wall.
		31 July	Queenslander (Redcap)	Jas. Hedges ...	Injured. Fractured jaw. Caused by a piece of rock falling from the timber of the plat at the 250-feet level.
		5 Oct.	O.K. Copper ...	Louis Smith ...	Injured. Fractured ankle and scalp wound. When pulling down balked ground, some of it struck him.
		11 Oct.	Buchanan (Welcome Creek)	Michael Keegan	Injured. Fractured spine. After firing a shot, he went into the face before examining the ground overhead. Some balked rock fell on his back.
		23 Nov.	Smith's Creek Proprietary	Thos. Jones ...	Injured. Cut arm. A piece of rock fell and struck it.

* Did not result in fourteen days' disablement.

Details of "Fall of Ground" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
3RD NORTHERN.	Etheridge.	20 June	Jubilee Gold Mine ...	Charles Kunst...	Injured. Was passing under a leading stope immediately after a hole had been fired, some quartz fell, a portion of it striking him.

Details of Accidents in "Winzes and Passes."

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
SOUTHERN.	Gympie.	20 Mar.	Columbia and Smithfield Gold Mine	W. Leahy ...	Injured. When ascending a winze he fell off the ladder.
CENTRAL.	Mt. Morgan.	10 Oct.	Mount Morgan Gold M. Co.	T. Boland ...	Killed. While shovelling ore into pass, he fell into pass and was killed.
		12 June	Mount Morgan Gold M. Co.	W. Teague ...	Injured. Scalp wound and bruises. Was tipping ore into ore pocket, and fell down a distance of 40 feet.
1ST NORTHERN.	Charters Towers.	26 April	Mills' United ...	D. Thompson ...	Injured. Injured by drum of water falling on him as he was taking it up a rise.
		20 Nov.	Mills' United ...	J. Williams ...	Injured. Injuries to head by walking into and falling down winze.
2ND NORTHERN.	Herberton, Chillagoe, &c.	20 Feb.	Dalziel	E. L. Andrews	Injured. Broken ankle. A stone rolled on his ankle while he was shovelling it into a pass.
		20 Nov.	Victoria	Patrick Dale ...	Injured. Bruises and shock. He fell partly down a winze while attempting to hook a bucket to the hauling-rope.

Details of "Accidental Explosions and Blasting" Accidents.

(*a*) Drilling into unexploded holes. (*b*) During blasting operations.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
SOUTHERN.	Gympie.	28 Nov.	Great Northern Extended Gold Mine	(*a*) A. Cartwright	Injured. When using a tamping rod in a hole in which a shot had missed fire, an explosion occurred. Hand hurt.
SOUTHERN.	Ipswich.	Collieries.			
		23 Jan....	Rhondda Colliery ...	(*b*) A. Cochrane	Injured. When firing two shots, after the first one exploded he went back, thinking the other fuse had not spit. It exploded when he was at the hole.
		10 April	Fairbank Colliery ...	(*b*) R. Owens ...	Injured. Lit a piece of fuse when holding some powder in his left hand. Sparks from the fuse ignited the powder.

Details of "Accidental Explosions and Blasting" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Central.	Rockhampton.	14 Feb.	Mount Morgan Co.'s Ironstone P. A., Limestone Creek	(*b*) William McDonald	Injured. Face burnt. McDonald dropped a short length of lighted fuse with a "bull" attached on to exposed powder in a jumper hole. The powder exploded.
		20 Nov.	Great Fitzroy Copper and Gold M. Co.	(*b*) John Comerford	Killed. Fatally injured through an explosion of one of a number of holes he had fired.
	Gladstone.	13 May	Glassford Creek Copper Mine	(*b*) —McMahon	Injured.* Cut over left eye. He was firing nine holes and received injuries through the explosion of one of them before he got safely away.
	Mt. Morgan.	14 June	Mount Morgan Gold M. Co.	(*b*) T. Nichols...	Injured. } Face and hands cut. They were charging a long hole (open cut) when the charge prematurely exploded.
				J. Carberry	Injured. }
1st Northern.	Charters Towers.	4 July	Mills United ...	(*a*) Bertram Grey Cole	Killed. Machine man's assistant. Some dynamite that remained after a missfire was bored into.
				F. Roberts ...	Killed. Machine man. Was in front of the machine when the above charge exploded. Died from the effects. This accident occurred in a rise.
	Ingham.	5 July	Red Hill Tin Mines	(*b*) Thos. Purcell	Injured. Injuries to head, and one eye lost from an explosion of a misfire in an open cut.
2nd Northern.	Herberton, Chillagoe, &c.	13 Feb.	Queenslander (Redcap)	(*b*) John Lyons	Killed. His headless body was found near the face of the west level at 180 ft. deep in the Morrison shaft. The body was uninjured, but the head was blown to pieces. Inquiry held.
		28 Aug.	O.K. Copper ...	(*b*) Cyril Hunt	Injured. Severe cut on abdomen. He was tamping a hole with an iron pipe having a short plug of wood in one end, when an explosion took place.
		30 Oct.	Mt. Molloy Copper	(*b*) Joseph Concleana ...	Injured. Cut thigh; one of several holes which he had lit in the sink exploded just as he reached the top of the winze. A flying stone struck him.
3rd Northern	Horn Island.	22 Nov.	Marupa Lease (Horn Island)	(*a*) M. Larsen...	Injured. Damaged hand; Larsen is stated to have been boring close to the butt of another hole. He bored into it, and exploded the remnant of a charge of nitro compound.

Details of "Machinery" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Southern.	Gympie.	3 Jan.	The Scottish Gympie Gold Mines	Wm. Bush ..	Injured. Took off a blank flange on main steam pipe without first seeing the pipe was empty.
		31 Jan.	No. 2 South Great Eastern Gold Mine	Hy. Loosemore	Injured. Got his foot caught by driving belt in battery while working on platform.
1st Northern.	Charters Towers.	6 Dec.	Brilliant Extended Mill	John Tevelin ...	Injured.* Slight injuries to body while putting on a belt.

* Did not result in fourteen days' disablement.

Details of "Machinery" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
2ND NORTHERN.	Herberton, Chillagoe, &c.	13 June	New Era Mill ...	David Jones ...	Injured. Scalded right arm. The check valve on the water feed pipe came out, and hot water from the boiler followed.
		4 Oct.	Chillagoe Smelters	Robert Hood ...	Injured. Crushed finger. He was greasing a pump in motion when the crosshead caught his finger.

Details of "Explosion of Gas" Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
SOUTHERN.		2 Nov.	Tannymorel Colliery	W. Roach ...	Injured. Went down a shaft being sunk, and lit a match to see the water level below the stage on which they were standing.
				J. Managan ...	Injured. Small accumulation of gas fired.

Details of "Falls from Staging, Brace, Etc.," Accidents.

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
SOUTHERN.	Gympie.	3 April	No. 1 North Smithfield Gold Mine	H. Davies ...	Injured.* The staging on which he was working gave way. He fell on mullock.
		10 May	No. 1 North Smithfield Gold Mine	Jas. Dittman ...	Injured. Fell from the brace on to top of cage at surfuce. Bruised.
		12 June	No. 2 North Columbia and Smithfield Gold Mine	Jas. Edwards ...	Injured. Staging fell when rigging up rock drill. Bruised leg.
CENTRAL.	Gladstone.	22 June	Glassford Creek Copper Mine	Wm. Kerrigan	Injured. Dislocated wrist. Was going down ladderway with steel and fell off.
	Tenningering.	25 July	Harpur's Hill Copper Mine	Robert W. Lete	Injured. Bruised back. Missed his footing, and fell from the rearing of the leading stope to floor of level.
	Rockhampton.	20 Sept.	Mount Morgan Company's Limestone Quarry, Marmor	J. C. B. McCarthy	Killed. While going up a ladder-way to the top of ore bins missed his footing, and fell (30 feet) to the ground.
1ST NORTHERN.	Charters Towers.	9 Feb.	Day Dawn P.C. ...	James Dowker	Killed. While acting as bracemen, he fell through opening in floor of tramway from brace to mullock tip.

* Did not result in fourteen days' disablement.

Details of "Falls from Staging, Brace, Etc.," Accidents—*continued.*

Inspection Division.	Mining District	Date.	Name of Mine.	Employee.	Summary of Report.
2ND NORTHERN.	Herberton, Chillagoe, &c.	18 June	Alhambra (Coolgarra)	T. P. Roberts ...	Injured. Cracked left leg. He climbed to a ledge 20 ft. above the tunnel level to assist in removing timber from a pass, when he slipped and fell down to the level.
		2 July	Kitchener (Stannary Hills)	F. Byrne ...	Injured. Broken left arm. He was barring down ore from a stope, when the ground fell from under him and he was precipitated 40 ft. to next level.
3RD NORTHERN.	Etheridge.	1 July	Ortona Copper Mine, Percy River	Edward Butler	Killed. Was turning a truck with a "strong arm" when he lost his balance and fell off the brace, which was unfenced.

Details of "Truck and Wagon Accidents."

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
		Collieries.			
SOUTHERN.	Ipswich.	14 Jan.	Eclipse Colliery, Tivoli	G. Bames ...	Injured. When wheeling a wagon, his arm struck a prop.
		19 June	Denham Pit, Swanbank Collieries	S. Wilson ...	Injured.* Squeezed between two trucks.
		9 July	New Chum Colliery	A. Roberts ...	Injured. When riding in a wagon down the dip, it stopped with a jerk.
		14 Oct.	Haighmoor Colliery	A. Howie ...	Injured. When bailing water, the empty wagon came off the road and knocked a prop on to him.
CENTRAL.	Mt. Morgan.	24 Jan.	Reduction Works, Mount Morgan Gold Mine	J. Price ...	Injured. Badly lacerated leg. He was riding on an empty truck, going up the tramline, and when going round a curve the truck left the rails, and his leg was caught between the truck and a post carrying a roller.
1ST NORTHERN.	Charters Towers.	23 Feb.	Golden Alexandra	F. Farrelly ...	Injured. Was struck by a truck while walking down underlie, and received a fractured thigh and pelvis.
		26 March	Brilliant St. George Mine	D. Martin ...	Injured. Broke his little toe with a truck while turning it on the plat.
1ST NORTHERN.	Charters Towers.	19 April	Ruby P.C.	J. Willey ...	Injured. Knocked down by truck in underlie. Shoulders injured.
		June	Mills' United ...	J. H. Bryden ...	Injured. Lost top of finger against chute in level.
		26 Sept.	Brilliant Central ...	William Kessel	Injured. Struck by a truck. Two ribs broken.
		8 Nov.	Kelly's Queen Block	John Keith ...	Killed. Struck by a runaway truck in a rising drive.
2ND NORTHERN.	Herberton, Chillagoe, &c.	1 Aug.	Girofla	T. Goodfellow...	Injured.* Leg bruised. He overturned a truck upon himself.

* Did not result in fourteen days' disablement.

Details of "Truck and Wagon" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
3rd Northern.	Etheridge.	16 Aug.	International No. 1 East and General Jackson	Peter Rielly ...	Injured. He was turning a heavy brace truck on a turntable when the former ran on to his leg, fracturing it.

Details of "Miscellaneous" Accidents.

(*a*) **Falling and slipping.** (*b*) **Burning and scalding.** (*c*) **Inundation of water.** (*d*) **Sundry.**

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Southern.	Gympie.	2 Feb.	No. 2 North Columbia and Smithfield Gold Mine	(*d*) Jos. Spiller	Injured. Cut his finger when working out ground. Blood poisoning; it was amputated.
		15 April	No. 1 North Smithfield Gold Mine	(*d*) T. B. Jones	Injured. When starting a machine rock-drill, a small piece of stone hit his eye.
		19 June	No. 1 North Smithfield Gold Mine	(*d*) J. Dittman	Injured. When rolling a piece of stone, it fell on his arm and cut it.
		23 July	Columbia Extended Gold Mine	(*d*) D. Brown ...	Injured. Machine rock-drill column fell on his foot.
		3 Aug.	No. 1 North Smithfield Gold Mine	(*d*) R. Price ...	Injured. When hauling timber up a pass, the rope slipped, pulled his hand against the pulley-block, removing ends of two fingers.
		6 Sept.	Smithfield & Phœnix Gold Pile Gold Mine	(*d*) J. Rees ...	Injured. Machine rock-drill column in falling struck his hand, and broke his little finger.
		14 Oct.	Black's New Zealand Gold Mine	(*d*) J. Leatherand	Injured.* Lost control of a windlass handle. It flew round and hit his forehead.
		26 Nov.	The Scottish Gympie Gold Mine	(*d*) T. Weller ...	Injured. Cut his wrist with a piece of stone when barring down ground.
Southern.	Ipswich.		**Collieries.**		
		19 June	Denham Pit, Swanbank Collieries	(*d*) A. Bates ...	Injured.* Pricked his leg with a pick.
		7 Aug.	Denham Pit, Swanbank Collieries	(*d*) D. Halls ...	Injured. When setting a prop, the cap fell on his hand.
		5 Sept.	Denham Pit, Swanbank Collieries	(*d*) Owen Jones	Injured. When setting a prop, the cap fell on his foot.
		18 Dec.	Blackheath Colliery	(*d*) Robt. Jones	Injured. A piece of coal flew from his pick point and hit his eye.
Central.	Mount Morgan.	13 Jan.	Mount Morgan Company Copper Reduction Works	(*a*) J. Phillipi...	Injured. Fractured thigh. He was running on the slag dump and fell down.
		15 Jan.	Mount Morgan Company Mundic Works	(*d*) J. Brown ...	Injured. Fractured ribs and collar-bone. He was engaged coupling trucks of material train. When coming out from between two trucks, he was caught between one of them and a shed post.
	Mount Morgan.	20 Feb.	Mount Morgan ...	(*d*) C. Fogarty...	Injured. Eye injured; was starting a machine hole, and was struck in the eye by a piece of steel from the bit of the drill.
		5 June	Mount Morgan ...	(*d*) W. Lee ...	Injured. Broken leg; was trucking some long poles, and ran one end against the side of the drive, causing the other to swing and hit him on his leg.
		28 June	Mount Morgan ...	(*d*) — Colless ...	Injured. Crushed toe. He allowed a piece of timber he was handling to fall on his great toe.
		25 Nov.	Mount Morgan ...	(*d*) C. Rithman	Injured. Broken finger. He was shovelling ore and allowed a piece to roll on his finger.
	Biggenden.	2 Feb.	Mt. Shamrock Gold Mine	(*d*) John Bois ...	Injured. Eye injured while using a pick; was struck on the eye by a piece of flying stone.

* Did not result in fourteen days' disablement.

Details of "Miscellaneous" Accidents—*continued.*

Inspection Division.	Mining District.	Date.	Name of Mine.	Employee.	Summary of Report.
Central.	Rockhampton	22 Feb.	Great Fitzroy Gold and Copper Mine	(*d*) Thos. Arnell	Injured. Jarred elbow. He was working the handle of a machine rock drill when his elbow came in contact with the rock immediately behind him.
	Tenningering.	12 Dec.	Queensland Copper Company Smelting Works	(*a*) Wm. Devaney	Killed. He was employed tarring the roof of the smelter, when by some means he fell off and was killed.
1st Northern.	Charters Towers.	29 Jan.		(*a*) Peter Rodgers	Injured. Had his ankle dislocated through slipping down footwall of stope.
		25 March	Brilliant St. George Cyanide Works	(*d*) R. Williams	Injured. Leg broken by a fall of a bank of hard slime.
		May	Mills' United ...	(*a*) Edwd. Morris	Injured. Received cut head through falling off a a pig stye underground.
		June	Rainbow Mill ...	(*a*) Thomas H. Taylor	Injured. Fell from staging.
		Sept.	New Queen Mine ...	(*d*) Olaf Petersen	Injured. Machine (rock drill), slipped and broke his arm.
2nd Northern.	Herberton, Chillagoe, &c.	25 Feb.	Chillagoe Smelters...	(*b*) Charles Gale	Injured. Burns on body and limbs. He knocked hot slag out of the pot into water, and the slag exploded.
		26 Feb.	Smith's Creek Proprietary	(*b*) Joseph Barry	Injured eye. The blacksmith was knocking back a hot rivet, which fitted too tightly. Barry stooped to see if the rivet was coming. It struck him in the eye.
		28 Feb.	Chillagoe Smelters...	(*d*) John Johnson	Killed. While at work at the front of the smelter shed, the end of a steel rail struck him in the abdomen, inflicting internal injuries. Inquiry held.
		4 March	Chillagoe Smelters	(*d*) Hy. Beaver	Injured. Two toes crushed. A portion of the water jacket he was assisting to handle fell on them.
		29 April	Chillagoe Smelters...	(*b*) Chas. Street	Injured. Burnt feet and ankles. Dumped slag into water.
		6 May	Chillagoe Smelters...	(*b*) Jas. Adaway	Injured. Burnt body and limbs. The taphole blew out while he was tapping the fore-hearth.
		28 May	Chillagoe Smelters...	(*b*) J. Colbourne	Injured. Burnt foot, caused by a splash of matte.
		5 July	Chillagoe Smelters...	(*b*) J. McCarthy	Injured. Burns on body by hot matte.
		2 Aug.	Chillagoe Smelters...	(*d*) G. Irvine	Injured. Foot crushed. Steel girder he was moving slipped, and fell on it.
		3 Sept.	Chillagoe Smelters...	(*b*) Thos. Brown	Injured. Burns on feet, caused by hot matte.
		11 Oct.	Chillagoe Smelters...	(*b*) Jno. Lyons	Injured. Burns on body and limbs. He was cooling matte with a hose when some water entered an unexpected cavity and caused an explosion.
Cloncurry.	Cloncurry.	3 July	Great Australian Copper Mine	(*c*) W. Donohue	Killed } Donohue and Skinner, working in the sink of straight shaft, were drowned through inrush of water and *débris* from the 100-ft. level which broke through into old workings.
				Wm. Skinner	Killed }

METALLIFEROUS MINES AND MILLS, ETC., QUEENSLAND

Table showing Number of Persons Killed and Injured—Ten Years—1898 to 1907.

Causes of Accidents.	Classified as to Cause of Accident.																					
	1879 to 1897.*		1898.		1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Ladder accidents ...	9	34	...	3	2	1	1	...	1	4	...	2	..	3	...	1	1	1	...	...	...	1	14	50
Falling down shafts ...	56	60	1	3	6	1	3	2	4	1	1	1	6	...	4	4	4	4	6	...	...	1	91	77
Materials falling, &c. ...	26	113	1	6	2	6	2	12	2	8	1	6	1	4	3	7	..	4	3	4	...	3	41	173
Gases in shafts and winzes	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...
Other shaft accidents ...	16	127	...	9	1	10	3	10	2	13	4	9	2	15	2	8	2	7	2	8	...	4	34	220
Accidents in passes and winzes	6	27	2	1	...	1	...	3	1	3	...	3	...	...	...	2	...	9	...	11	1	6	10	66
Falls of earth and rock...	90	370	8	34	6	25	2	25	5	30	6	28	11	35	12	32	11	27	2	41	2	27	155	674
Accidental explosion of blasting compounds ...	33	119	3	8	...	6	1	7	1	10	4	8	5	9	1	14	4	12	6	16	4	9	75	280
Other blasting accidents	7	45	1	5	...	2	2	5	1	1	...	...	2	4										
Machinery accidents ..	9	73	2	4	...	6	3	2	...	2	...	4	...	15	...	5	...	1	...	4	...	1	14	117
Explosions of gas ...	1	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	4
Falls from brace, staging, &c.	2	33	...	6	...	5	...	4	1	6	...	4	...	2	...	2	...	4	...	7	3	7	6	80
Wagon accidents ...	...	9	...	2	...	8	1	4	...	1	...	...	..	2	...	1	...	3	...	6	1	7	2	43
Inundation of water ...	5	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	8	2
Miscellaneous	5	149	1	5	1	9	...	17	...	15	...	18	...	11	7	13	...	15	3	22	..	17	17	291
Surface works	...	...	...	...	...	...	...	...	2	7	...	5	...	...	1	6	...	4	2	14	2	19	7	55
TOTAL Killed ...	271	...	19	...	18	...	18	...	20	...	16	...	27	...	30	...	23	...	24	...	15	...	481	...
TOTAL Injured ...	...	1,164	...	86	...	80	...	91	...	101	...	89	...	100	...	95	...	91	...	133	...	102	...	2,132

Name of District.	Classified as to District in which Accidents Occurred.																					
Gympie	50	262	3	25	2	36	1	45	4	30	1	23	1	19	3	26	6	17	2¶	21	...	19	73	523
Glastonbury	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3
Mary River	1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2	2
Warwick	1	6	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...	1	6
Nanango	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Stanthorpe	...	2	...	...	...	...	...	1	...	1	...	...	...	2	...	2	...	1	...	...	...	...	...	9
Rockhampton†	17	44	3	4	1	2	5	2	3	13	1	10	2	9	3	5	...	12	5	11	3	14	43	126
Eidsvold	5	35	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	39
Tenningering‡	3	9	...	...	...	1	...	...	...	1	1	1	1	...	1	2	3	1	...	6	1	2	10	23
Gayndah	...	6	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	11
Gladstone	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	3	3	10
Clermont	4	3	1	3	1	...	...	..	...	...	...	1	2	...	..	...	2	2	1	...	1	2	12	11
Mackay§	...	3	1	...	1	...	...	...	...	...	...	...	2	1	...	...	...	...	...	1	...	...	4	5
Normanby	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
Charters Towers ...	105	517	8	23	6	16	7	28	5	34	8	35	9	43	13	31	6	32	9	54	5	24	182	837
Ravenswood	10	75	...	3	...	4	...	3	2	3	1	4	4	4	2	4	1	1	1	1	...	3	21	105
Herberton, Chillagoe, &c.	9	19	...	2	...	4	...	3	4	7	2	4	5	14	...	17	3	15	3	32	2	30	28	147
Hodgkinson	6	22	...	3	1	4	1	2	1	1	...	...	1	1	...	...	...	1	...	...	...	...	10	34
Palmer	6	23	...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...	...	6	23
Cooktown	7	3	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	9	3
Croydon	14	85	2	16	3	8	3	6	1	8	1	8	...	5	4	7	1	9	2	2	...	...	31	154
Etheridge	23	40	1	4	2	2	...	...	...	2	...	3	...	1	2	1	...	...	...	...	1	2	29	55
Woolgar	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...
Cloncurry	...	1	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	1	2	...	2	2	2
Russell	...	..	...	..	..	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...
Ingham‖	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	..	...	1	1	2	
Horn Island	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
TOTAL Killed ...	271	...	19	...	18	...	18	...	20	...	16	...	27	...	30	...	23	...	24	...	15	...	481	...
TOTAL Injured ...	..	1,164	...	86	...	80	...	91	...	101	...	89	...	100	...	95	...	91	...	133	...	102	...	2,132

* Details published in reports previous to 1905.

† Rockhampton includes Mount Morgan.

‡ Tenningering includes Boolboonda.

§ Mackay includes Nebo, Ukalunda, Eungella.

‖ Ingham includes Kangaroo Hills

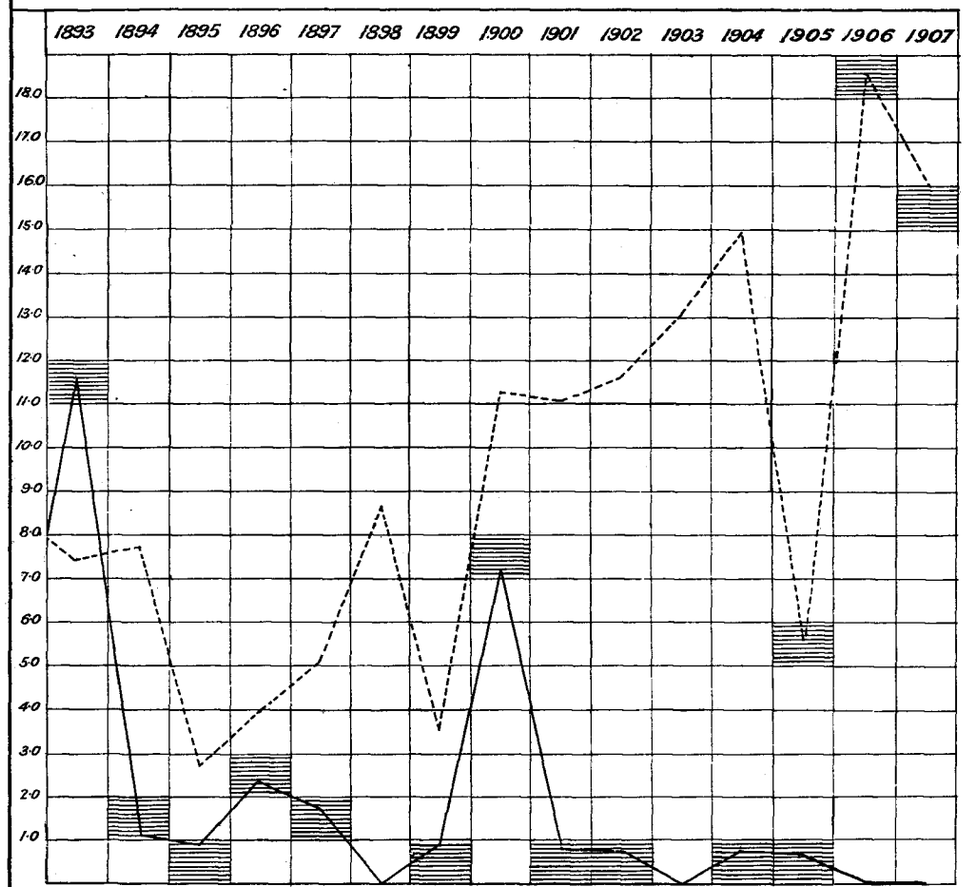
¶ One at Kilkivan.

Queensland

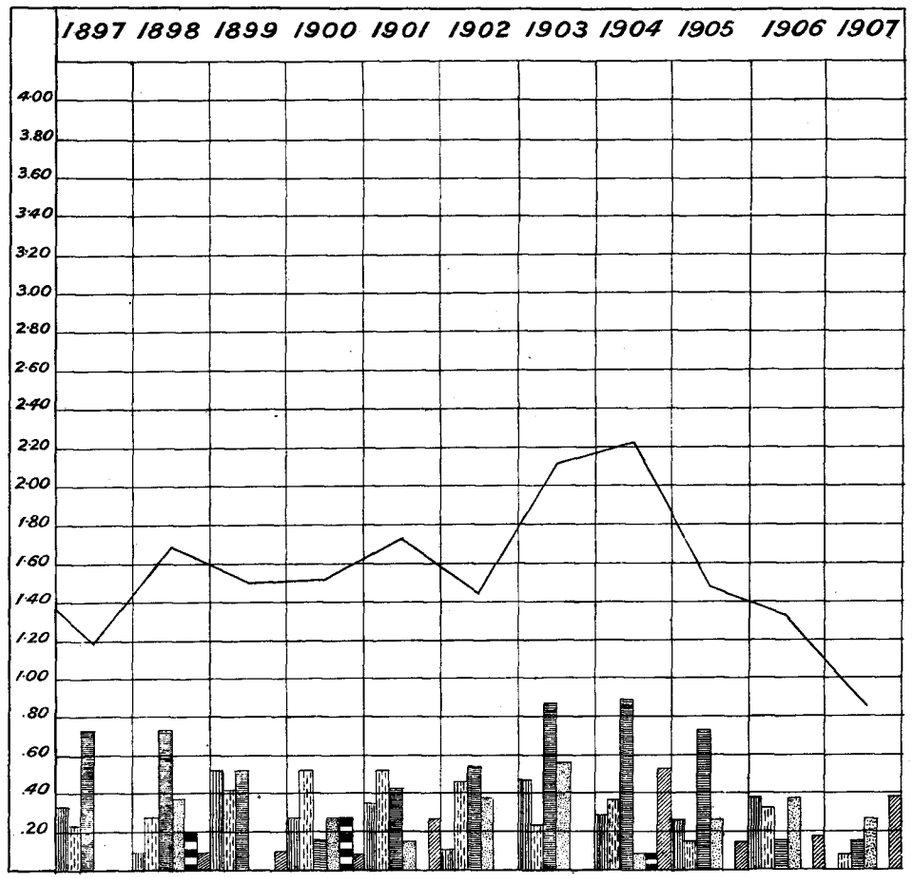
Death Rates from Accidents in Metalliferous Mines & Collieries

Per 1000 Men employed

Coal Mines



Metalliferous Mines



Men falling down shafts shewn thus *Materials and all other shaft, winze and pass fatalities thus* *Falls of earth and rock thus*

Explosion of blasting compounds and all blasting accidents thus *Machinery accidents thus* *All others thus*

Deaths per 1000 all accidents thus *Injuries per 1000 thus*

COAL MINES—QUEENSLAND.

Table showing Number of Persons Killed and Injured—Ten Years—1898 to 1907.

Causes of Accidents.	Classified as to Cause of Accident.																					
	1882 to 1897.*		1898.		1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Rope breaking and men falling down shaft	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
Falling down shafts ...	4	1	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	4	1
Other shaft accidents ...	1	6	...	2	...	...	‡1	3	...	...	...	2	...	...	...	1	..	...	...	...	...	...	2	14
Falls of stone or coal ...	16	23	...	4	...	3	2	6	1	5	...	7	...	8	1	7	1	4	...	12	...	12	21	91
Explosion of gas	2	1	...	...	...	...	6	1	...	1	...	...	...	...	...	3	...	...	...	...	...	2	8	8
Wagon accidents	5	18	...	3	...	...	...	2	..	5	1	3	...	5	...	6	...	2	...	9	...	4	6	57
Blasting accidents	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	5
Machinery accidents ...	1	5	..	...	‡1	...	...	1	...	2	...	1	...	...	...	1	...	...	...	...	...	...	2	10
Miscellaneous, on surface ...	...	3	...	1	...	...	...	...	...	1	...	1	...	2	...	1	...	1	...	1	...	...	...	11
Miscellaneous, underground	...	3	...	1	...	1	...	1	...	...	...	1	...	2	...	1	...	2	...	3	...	4	...	19
Deleterious gases	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Inundation	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	7	...
TOTAL Killed ...	40	...	...	...	1	...	9	...	1	...	1	...	..	...	1	...	1	...	...	...	...	...	54	...
TOTAL Injured ...	...	64	...	11	...	4	...	14	...	14	...	15	...	17	...	20	...	9	...	25	...	24	...	217

Name of Colliery.	Classified as to Mines in which Accidents Occurred.																					
New Tivoli, West Moreton	1	1	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	1	4
Tivoli, West Moreton ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Bundamba, West Moreton ...	1	6	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	1	9
Eclipse, West Moreton ...	9	1	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...	2	...	2	9	10
Q. Collieries Co., Wide Bay	2	7	...	2	...	...	†1	...	...	...	...	2	...	...	...	2	...	3	...	5	...	2	3	23
Torbanlea, Wide Bay ...	3	7	...	1	...	1	5	1	...	...	...	...	...	...	...	..	...	...	...	...	...	...	8	10
Waterstown, West Moreton	3	10	...	1	...	...	1	3	...	1	...	2	...	4	...	3	..	...	...	...	...	...	4	24
Walloon, West Moreton ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Aberdare, West Moreton ..	12	13	...	...	...	...	...	2	...	2	...	1	..	...	...	1	...	...	...	2	...	...	12	21
Basin Pocket, West Moreton	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Mihi, West Moreton ...	...	1	...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Redbank, West Moreton ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	1
Ebbw Vale, West Moreton...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Braeside, West Moreton ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Liverpool, West Moreton ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	1
Nil Desperandum, West Moreton	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	2
Rose Hill, West Moreton ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
West Moreton, West Moreton	...	5	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	..	...	...	...	6
Whitwood, West Moreton ...	1	2	...	...	†1	1	...	1	...	2	...	...	...	3	...	2	...	...	...	...	...	...	2	11
Whitwood, No. 2 Pit ...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	1	...	...	...	1	...	...	...	2
Whitwood, No. 3 Pit ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	..	...	...	...	1	...	3
Blair Athol, Clermont ...	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	2	3
Caledonian, Walloon ...	...	1	...	...	...	..	1	...	...	1	...	1	...	...	1	2	1	...	...	2	...	...	3	7
Dinmore, West Moreton ...	1	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3
Swanbank, West Moreton ...	...	2	...	1	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	5	...	4	...	15
Perkins's Freehold, West Moreton	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	2
Riverbank, Wide Bay ...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3
Bogside, West Moreton ...	...	...	...	...	...	1	...	2	1	...	...	...	...	1	...	1	...	...	...	...	...	...	1	5
Box Flat, West Moreton ...	..	...	...	...	...	1	1	...	...	1	...	...	...	1	...	...	...	1	...	3	...	1	1	8
Tantivy, West Moreton ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Rothwell Haigh, W. Moreton	...	...	...	..	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	3
Tannymorel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
Haighmoor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Mafeking	...	...	...	...	...	...	...	...	...	2	1	1	...	2	...	1	...	...	...	...	...	...	...	6
Fairbank	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	..	...	...	...	...	...	2	...	4
Colton	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Rhondda	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	2
Yahmahnto	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	..	...	...	...	...	1
Borehole, West Moreton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Goodhope, West Moreton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	..	...	...	...	...	...	2
Sunrise, West Moreton ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Newchum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
Blackheath	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...	6
Q. Anthracite Co., Rockhampton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Bluff (Rockhampton) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	...	5
Mammoth (Rockhampton) ...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	1	...	...	...	...	...	1
TOTAL Killed ...	40	...	...	...	1	...	9	...	1	...	1	...	...	...	1	...	1	...	..	...	...	..	54	...
TOTAL Injured ...	...	64	...	11	...	4	...	14	...	14	...	15	...	17	...	20	...	9	...	25	...	24	...	217

* Details published in reports previous to 1905. † One of these on the surface. ‡ On the surface.

QUEENSLAND.

1907.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office.

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
Southern Inspection Division*—						
(c) Australasian Tribute	6	Gold ...	...	Gympie		
(a) (c) Black's New Zealand ...	5	„ ...	E. Hansen ...	„ ...	Sym and Jackson	Mary st., Gympie
Big Hill Gold Mining Co., N.L. ...	5	„ ...	...	Pratten, Warwick	F. F. Groom ...	Commercial Union Chambers, Eagle street, Brisbane
Commodore	10	Copper and gold	— Gazzard ...	Warroo, Stanthorpe		
(a) Columbia Consolidated ...	7	Gold ...	J. H. Wilkinson	Gympie ...	D. C. Moodie ...	Mary st., Gympie
(a) Columbia Extended	14	„ ...	W. Brown ...	„ ...	„ ...	„
Columbia and Smithfield	14	„ ...	R. B. Parkyn ...	„ ...	J. Flood ...	„
Columbia and Smithfield, No. 1 N.	13	„ ...	T. Wilcox ...	„ ...	D. C. Moodie ...	„
Columbia and Smithfield, No. 2 N.	25	„ ...	M. Waddell ...	„ ...	„ ...	„
(c) Columbia and Smithfield, No. 3 N.	4	„ ...	J. Edwards ...	„ ...	„ ...	„
(d) Crown and Phœnix Tribute ...	...	„ ...	(Not working)...	„		
Calgoa	20	Copper ...	G. Turner ...	Kilkivan		
(a) Eastern Miners	4	Gold ...	R. J. Power ...	Gympie		
Ellen Harkins	...	„ ...	(Not working) ..	„		
Enterprise	...	„ ...	(Not working)...	„ ...	E. B. Davidson	Mary st., Gympie
Glanmire Tribute, North	...	„ ...	...	„ ...	Barnes and Webb	„
Glanmire Western Tribute, 1 N....	6	„ ...	...	„ ...	„ ...	„
Glanmire Eastern Tribute, 1 N. ...	14	„ ...	T. O'Mara ...	„ ...	„ ...	„
Glanmire and Monkland, South ...	95	„ ...	J. Jewell ...	„ ...	G. Lewis ...	„
Glanmire Reserve Tribute... ...	9	„ ...	...	„ ...	Barnes and Webb	„
(d) Great Eastern Tribute... ...	...	„ ...	(Not working)...	„ ...	„ ...	„
(d) Great Eastern Tribute, No. 1 N.	...	„ ...	(Not working)...	„ ...	„ ...	„
Great Eastern, No. 2 N.	...	„ ...	(Not working)...	„ ...	„ ...	„
(d) Great Eastern, No. 1 S. ...	...	„ ...	(Not working)...	„ ...	„ ...	„
Great Eastern, No. 2 S.	107	„ ...	J. Harris ...	„ ...	P. J. Conolly ...	(at mine)
The Gympie Crushing Battery ...	9	„ ...	T. Merrin ...	„ ...	E. B. Davidson	Mary st., Gympie
Great Hibernian	...	„ ...	(Not working)	„		
Great Northern	16	„ ...	W. H. Reeve ...	„ ...	Barnes and Webb	„
Great Northern Extended ...	7	„ ...	J. O'Brien ...	„ ...	Sym and Jackson	„
(c) Great Northern, No. 2 S. ...	8	„ ...	T. Brewer ...	„ ...	„ ...	„
(c) Great Western	9	„ ...	...	„ ...	T. W. Bremner	Martin Place, Sydney
Home Rule, No. 1 N.	...	„ ...	(Not working)...	„ ...	Barnes and Webb	Mary st., Gympie
(a) Homeward Bound and Hibernian	4	„ ...	H. Roberts ...	Two-mile, Gympie	F. C. Walker ...	„
Home Rule and Hilton Extended...	...	„ ...	(Not working)...	„ „ ...	D.W.L. Anderson	343 Queen street, Brisbane
Inglewood and Monkland	...	„ ...	(Not working)...	Gympie		
Lady Mary, 7 S.	5	„ ...	T. Nelson ...	„ ...	C. C. Caston ...	Mary st, Gympie
(a) Laing's Syndicate	6	„ ...	D. W. Laing ...	„		
(a) Marodian Gold Mines, Ltd. ...	...	„ ...	(Not working)...	Yorkies, *via* Miva	E. B. Davidson...	„
Nicholl's Lease Tribute	26	„ ...	F. Carver ...	Gympie		
New Dawn	30	„ ...	V.C. Couldery...	„ ...	Sym and Jackson	„
(a) New Home Rule and Hilton ...	...	„ ...	(Not working)...	„ ...	D.W.L. Anderson	343 Queen street, Brisbane
New London Syndicate	5	„ ...	F. Eaton ...	„		
New Wilmot	5	„	D. Thomas ...	„ ...	R. H. Mills ...	12 Federal Chambers, Brisbane
(a) Oriental Consols	14	„ ...	C. Stewart ...	„ ...	Barnes and Webb	Mary st., Gympie
(a) Oriental Extended	6	„ ...	D. Flynn ...	„ ...	G. J. Lewis ..	„
Oriental and Glanmire ...	63	„ ...	J. Rowe ...	„ ...	Sym and Jackson	„
Oriental and Glanmire, No. 1 N. ...	20	„ ...	W. Tweed ...	„ ...	Barnes and Webb	„
Oriental and Glanmire, N. ...	5	„ ...	J. M. Martin ...	„ ...	„ ...	„
(a) Oriental and Glanmire, No. 2 N.	6	„ ...	C. Dillon ...	„ ...	„ ...	„
(a) Oriental Surprise	...	„ ...	(Not working)...	„ ...	„ ...	„
Oriental and Glanmire, 1 S. ...	35	„ ...	R. Arnell ...	„ ...	„ ...	„
Oriental and Glanmire, E. ...	18	„ ...	E. Cross ...	„ ...	„ ...	„
O'Donohue Tribute, 1 S.	...	„ ...	(Not working)...	„		
Phœnix Eastern Tribute	6	„ ...	H. Bradford ...	„ ...	C. C. Caston ...	„
Phœnix G.M. Co., Ltd. (battery) ...	5	„ ...	J. Wilson ...	„ ...	Sym and Jackson	„
Phœnix, No. 1 N.	5	„ ...	G. Jobling ...	„ ...	G. J. Lewis ...	„
Phœnix Tribute, No. 1 N.... ...	5	„ ...	D. Stephens ...	„		

* To address of mine in Southern Inspection Division add "Southern Queensland."

(a) Mines that have been non-producing during the whole of the year. (c) Mines reopened.

(d) Mines n which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
Southern Inspection Division*— *continued:*						
Phœnix, No. 3 N.	4	Gold	T. Williams	Gympie	G. J. Lewis	Gympie
Phœnix, No. 4 N.	15	„	Jas. Brown	„	Sym and Jackson	Mary st., Gympie
Phœnix, No. 5 N.	7	„	J. Mitchell	„	C. C. Caston	„
Phœnix, No. 6 N.	...	„	(Not working)			
(*a*) Phœnix Golden Pile Tribute	4	„				
(*c*) (*d*) Pikedale Copper and Silver (not working)	...	Copper and silver	W. H. C. Lovely, gen. manager	Stanthorpe	...	10 and 10A Citizens' Chambers, Moore street, Sydney
(*b*) Paddock Swamp Tin Mining Co. (dredge)	20	Tin	— Rhodda	Stanthorpe		
Queen's Oriental	...	Gold	(Not working)	Gympie	Barnes and Webb	Mary st., Gympie
(*a*) Queen	4	Silver-lead	G. Osmetti, gen. manager	Ballendean, Stanthorpe	H. Benjamin	Stanthorpe
Rover Tin Mining Co., Proprietary	18	Tin	T. H. Clouston	Stanthorpe	R. G. Finch	Melbourne
Reedy Creek	...	Gold	...	Thane, Warwick		
Smithfield, N.	30	„	P. Williams	Gympie	J. Flood	Mary st., Gympie
Smithfield, No. 1 N.	21	„	T. B. Jones	„	Sym and Jackson	„ „
Smithfield Tribute, Eastern 2 and 3	20	„	T. Cahill	„	E. B. Davidson	„ „
South Smithfield Gold Mining Co., Ltd. (battery)	6	„	J. Wilson	„	Sym and Jackson	„ „
Smithfield and Phœnix Golden Pile	16	„	R. James	„	D. C. Moodie	„ „
Scottish Gympie Gold Mines	317	„	D. E. Reid, gen. manager	„	J. M. Murray	Glasgow, Scotland
Scottish Gympie Freehold	...	„	(Not working)			
Scottish Gympie Consols	..	...	(Not working)			
(*d*) Sadowa	...	...	(Not working)	Two-mile, Gympie	D. W. L. Anderson	343 Queen street, Brisbane
(*b*) Spring Creek Tin Dredging Co.	...	Tin	...	Stanthorpe		
Silver Spur Mining Co., N.L.	95	Silver	Edgar Hall, gen. manager	Silver Spur, *via* Stanthorpe	Edgar Hall	Silver Spur, Stanthorpe
(*b*) Silver Spur Proprietary Co.	...	„	...	„		
Stanthorpe Proprietary Tin Dredging Co., N.L.	20	Tin	W. H. Martin	Kyoomba, Stanthorpe		
(*c*) Two-mile	9	Gold	...	Gympie	G. J. Lewis	Mary st., Gympie
United 7 and 8 Monkland	10	„	B. Treloar	„	D. C. Moodie	Gympie
(*d*) United Reefs	...	Copper	(Not working)	Black Snake, Kilkivan	C. E. Morton	378 Queen street, Brisbane
Victory, 1 N.	7	Gold	R. Middleton	Gympie	D. C. Moodie	Mary st., Gympie
Victory, 2 N.	...	„	(Not working)	„		
Wilmot Extended	10	„	W. Patterson	„	Sym and Jackson	Mary st., Gympie
(*d*) Zealandia	...	„	(Not working)	Yorkies, *via* Miva		
Collieries.						
(*b*) Aberdare (Walker and Co.)	16	Coal	A. Walker	Bundanba		
Abermain (formerly known as Waterstown, W. R. Black)	33	„	T. Johnson	North Ipswich	...	Petrie's Bight, Brisbane
Blackheath (W. R. Black)	150	„	R. Lindsay	Bundanba	...	„
Belmont (A. Bennett)	15	„	A. Bennett	Redbank		
Box Flat (McQueen and Co.)	50	„	J. Hare (W. McQueen, gen. manager)	Bundanba		
Bogside (Auld and Co.)	40	„	H. Doyle (J. L. Auld, general manager)	„	J. L. Auld	Bogside, Bundanba
Bonnie Dundee (Bonnie Dundee Coal Co.)	49	„	W. Dobbie			
(*b*) Bedworth Coal Co.	5	„	J. W. Butler	Rosewood	N. McGee	Wickham street, Gympie
Caledonian (W. R. Black)	30	„	W. Boughan	Walloon	...	Petrie's Bight, Brisbane
(*c*) Dudley (Burrum Co-operative Co.)	5	„	G. C. Martin	Howard	E. J. Stafford	Howard
(*c*) Eclipse (Mrs. J. Wright)	37	„	A. Wright	Tivoli, Ipswich		
Fairbank (Walker and Co.)	62	„	H. Walker	Bundanba	D. S. Anderson	Bundanba
Fernie Creek (Auld and Co.)	32	„	W. Dale (J. L. Auld, general magager)	„	J. L. Auld	Bogside, Bundanba
Federal Colliery (John Wright)	23	„	Peter Hunter (C. Williams, gen. manager)	Oakey		

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List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*†	Name of Secretary.	Address of Office.
Southern Inspection Division*— *continued:*						
Good Hope (Westvale Coal Co.) ...	13	Coal ...	W. Bryant ...	Loamside		
Glencoe (Halls, Ltd.)	14	„ ...	J. F. Hall ...	Rosewood ...	J. F. Hall ...	Rosewood
Gowrie (H. V. King)	29	„ ...	W. Shield ...	King's Siding ...	H. V. King ...	Kingsthorpe
Haighmoor (Stafford Bros.) ...	14	„ ...	J. Stafford ...	Ipswich ...	E. Jones ...	Whitwood Colliery, Bundanba
(*b*) Harris Bros.	3	„ ...	...	Bundanba		
New Chum (Tivoli Coal and Coke Co.)	32	„ ...	M. Jeffrey (J. W. Hetherington, genrl. managr.)	Dinmore ...		M.L.A. Chambers, Brisbane
Orient (Harris and Jeffrey) ...	9	„ ...	H. Harris ...	Walloon		
(*b*) Oakbank	12	„ ...	R. Palmer ...	Bundanba ...	H. Real ...	Ipswich
Rhondda (Eadie and Co.)	55	„ ...	T. Mills (W. Morris, genrl. manager)	„ ...	...	Bundanba
Rothwell Haigh (Stafford Bros.)...	24	„ ...	J. Stafford ...	Tivoli, Ipswich	E. Jones ...	Whitwood Colliery, Bundanba
River Bank (A. Hamilton) ...	32	„ ...	T. Dick ...	Burrum		
Swanbank Collieries (H. G. Noble and Co.)—	...	„ ...	A. Orr, general manager	Bundanba ...	...	Brisbane
Mafeking Pit	45	„ ...	A. Orr			
Denham Pit	60	„ ...	W. Binnie			
(*c*) Torbanlea	5	„ ...	J. Caldwell ...	Torbanlea ...	J. Keene ...	Torbanlea
(*d*) Tantivy	...	„ ...	(Not working)...	Ipswich ...		
Tannymorel (Tannymorel Coal Mining Co.)	20	...	W. Roach ...	Tannymorel ...		
The Queensland Collieries Co., Ltd.—	...	„ ...	C. W. Rankin, genl. manager	Howard ...	W. Reeney ...	Howard
No. 5 Pit	40	...	J. A. Rankin			
No. 11 Pit	55	...	R. Shaw			
No. 15 Pit	35	...	R. J. Harris			
Whitwood (Stafford Bros.) ...	90	...	W. Stafford ...	Bundanba ...	E. Jones ...	Bundanba
Waterstown. (*See* Abermain).						
Central Inspection Division†—						
All Nations	4	Copper ...	T. McLaughlin, junr.	Boolbunda, *via* Bundaberg		
Annie United	8	Gold ...	Ed. Wilson ...	Cawarral		
Annie United Battery	4	„ ...	R. P. Clancy ...	„		
(*a*) (*d*) Bald Hill	...	Copper and gold	(Not working)...	Norton, *via* Gladstone		
Bantam	6	Gold (alluvial)	Jos. Caldwell ...	Black Ridge, Clermont		
Bedford's Reef Lease	4	„ ...	A. B. Elliott ...	Clermont ...	P. S. Risien ...	Clermont
(*d*) Canoona Gold Recovery Syndicate	...	„ ...	(Not working)...	Canoona, *via* Yamba		
Commonwealth	3	„ ...	W. Kirkman ...	Targinnie, *via* Gladstone	W. P. Mellefont	Gladstone
(*d*) Drain's Ironstone Mines ...	...	Ironstone	(Not working)...	Yarwon, *via* Gladstone		
Duke of York	9	Gold ...	Joseph Hamilton	Raglan	A. S. Tompson	Rockhampton
(*a*) Great Fitzroy Copper and Gold Mine	250	Copper and gold	G. H. Lovell ...	Mount Chalmers		
(*d*) Gaeta Pioneer Co., Ltd. ...	...	Gold ...	Under exemption	Gaeta, *via* Gin Gin	Hugh Watt, junr.	c/o H. V. Thorburn, Bundaberg
(*d*) Glassford Creek Copper Mining Co., Ltd.	...	Copper and gold	„ „	Glassford Ck., *via* Miriam Vale	A. A. Slack ...	Wm. Street, Rockhampton
Globe Copper Mine	4	Copper ...	Peter Marshall	Wolca, *via* Bundaberg		
Gibb Copper Mine	10	„ ...	Dr. Bailey ...	New Moonta, *via* Bundaberg		
Helena Battery	8	...	Donald Fraser	Clermont		
Lady Margaret	4	Gold ...	John Shanahan	Cawarral		
Lamington	9	„ ...	S. L. Rhys Jones	Bouldercombe		
(*d*) Light of Day	...	„ ...	(Not working)...	Mount Morgan		
(*d*) Mohawk	...	...	(Not working)...	„ „	J. T. Tilbury ...	Denham street, Rockhampton
Mount Cannindah Copper Mines, Ltd. (Mine and Works)	90	Copper ...	Wm. Shaffrey... (R. C. Philp, genrl. managr.)	Mt. Cannindah, *via* Miriam Vale	Thos. Welsby ...	Eagle street, Brisbane
(*d*) Mount Glassford Copper Co....	...	„ ...	(Not working)...	Glassford Ck., *via* Miriam Vale	Claude Mussen	Elizabeth street, Brisbane

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(*a*) Mines that have been non-producing during the whole year. (*b*) New mines opened during the year. (*c*) Mines reopene.d
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List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
Central Inspection Division*— *continued:*						
Mount Hector Copper Mines, Ltd.	80	Copper and gold	Mathew Caldwell	Mt. Hector, *via* Miriam Vale	A. A. Slack ...	William street, Rockhampton
Mount Miller	14	Manganese	E. Stoneley ..	Calliope River, *via* Gladstone	A. E. Davies ...	Calliope River, *via* Gladstone
Mount Morgan Gold Mining Co., Ltd. (Mines and Works)	...	...	G. A. Richard (genrl. mangr.)	Mount Morgan	Holyoake Wood	Quay street, Rockhampton
Mount Morgan Mine ...	2,825	Gold and copper	J. Bowie Wilson	,,	,, ,,	,,
Marmor Limestone Quarry		Limestone (flux)	J. B. Shaw ...	Marmor (North Rockhampton)	,, ,,	,,
Iron Island		Ironstone (flux)	...	...	,, ,,	,,
(*a*) Many Peaks		Flux ore	L. A. Westcott	Many Peaks, *via* Gladstone	Holyoake Wood	,,
(*d*) Mount Etna Ironstone Mines		Ironstone (flux)	(Not working)...	Olsen's Caves ...	,, ,,	,,
(*d*) Mount Morgan North United	...	Gold ...	(Not working)...	Mount Morgan	A. W. Dear ...	William street, Rockhampton
(*a*) (*d*) Mount Usher	...	,, ...	(Not working)...	Mt. Usher, *via* Rockhampton		
Mount Shamrock Gold Mining Co. (Mine and Mill)	29	,, ...	Wm. Parry ...	Chowey Siding, Gayndah Rly.	Geo. Simpson ...	104-106 Eagle st., Brisbane
Mount Warminster	10	Lead and copper	J. Bruce ..	Mt. Chalmers ..	Wm. Thomson	Bolsover street, Rockhampton
New Idea	2	Gold ...	A. J. Wehlow ..	Clermont ...		
(*d*) New Imperial	...	,, ...	(Not working)...	Bouldercombe		
Normanby Syndicate— Harpur's Hill	53	Copper and gold	E. O'Brien ...	*Via* Mount Perry	David Logan ...	H.O., 16 O'Correl street, Sydney
Native Copper (tribute)	26	,,	J. Dempsey, jun.	,,		
No. 2 West Archer	5	Gold ...	T. Crosisca ...	Targinnie, *via* Yarwon		
(*a*) (*d*) Oaks View G.M. Co., Ltd.	15	,, ...	Under exemption	Canoona ...	A. B. Catt ...	Quay street, Rockhampton
Peak Downs Copper Mine ...	4	Copper ...	J. T. Coates ...	Copperfield (Clermont)	Currie, Buchanan, and Co.	Brisbane
Pine Vale Copper Synd., Ltd. ...	13	,, ...	G. Lloyd Owen	Pine Vale (Mackay)	E. O. Chudleigh	London Office, 20 Copthal Avenue, London
Prosperity...	6	Gold (alluv.)	W. T. Jolly ...	Black Ridge (Clermont)		
Pumpkins	5	,, ...	C. R. Madge ...	,,		
Queensland Copper Company, Ltd. (Mines and Works)—	...	...	J. D'Audley Smith, general manager	Mt. Perry, *via* Bundaberg		
Mount Perry Mine and Works	148	Copper and gold	S. T. Williams	,,		
New Moonta	38	,, ...	T. Hanifan ...	Gillen's Siding, *via* Bundaberg	J. G. Tait ...	London Office, 6 Princess street, London, E.C. Registered Office, Mount Perry
(*a*) (*b*) Many Peaks ...	9	Flux ore	H. Burrows ..	Many Peaks (Miriam Vale)		
Daylsford Limestone Quarry	13	Limestone	S. Francis ...	Daylsford, *via* Gin Gin		
(*c*) Mount Jacob	4	Gold ...	H. Burrows ...	Many Peaks (Miriam Vale)		
Normanby	105	Copper and gold	W. E. Dent ...	Mount Perry ...		
Palmers			D. Cameron ...	,, ...		
Queensland Gold Recovery Works (Cyanide)	11	...	Alex. Sellars ...	Eidsvold ...	Alex. Sellars (proprietor)	Eidsvold
Rejected	6	Gold (alluvial)	Thomas Moore	Black Ridge, Clermont		
(*a*) Star of Hope	2	Gold ...	...	Copperfield, Clermont	P. S. Risien ...	Clermont
Spring's Battery	13	...	W. W. McKean	Springs, Clermont		
Victor	6	Gold ...	T. Smith ...	Bouldercombe...	H. N. Usher ...	T. Briggs and Co., Mount Morgan
Willcocks' Cania Gold Dredging Co., No Liability	5	Gold (alluvial)	Robt. Christie, dredge master	Cania Goldfield, *via* Glassford Creek	Geo. Henderson	232 Albert street, Brisbane
(*a*) (*c*) Mount Morgan Extension Copper Mine	10	Copper and gold	T. Lester ...	Mount Morgan	J. J. Taylor ...	E. D. Miles & Co., Charters Towers

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List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

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Central Inspection Division*— *continued:*						
Collieries.						
Bluff Colliery	37	Coal ...	R. W. Graham	Duckworth, C.Q. Railway	C. M. Tillidge...	c/o W. G. Thompson and Co., Quay street, Rockhampton
(*c*) (*d*) Dawson and Dunstan Valley Coal Mining Operations	...	„ ...	(Not working)...	Boolburra, C.Q. Railway		
Federal Colliery	4	„ ...	Walter Spring	Blair Athol, Clermont		
(*a*) (*d*) Mammoth Anthracite Coal Seam	...	„ ...	(Not working)...	Blackwater, C.Q. Railway	M. Conigrane ...	H.O., Alma Chambers, Adelaide, S.A.
(*a*) (*d*) Wallaroo Anthracite Coal Mines, Ltd.	...	„ ...	(Not working)...	Tryphina, C.Q. Railway	Wm. Thomson	Bolsover st., Rockhampton
1st Northern Inspection Division†						
(*c*) Ambrose Silver Copper ...	7	Silver and copper	T. Barclay ...	Gowrie Creek ...	E. D. Miles and Co.	Mosman street, Charters Towers
Band of Hope G.M. Co.	25	Gold ...	James W. Waldby	Charters Towers	H. Poole ...	Bright's Mining Exchange, Charters Towers
Blantyre Coal Co.	15	Coal ...	James Aldridge	Prairie, Q.N.R.	E. D. Miles and Co.	Mosman street, Charters Towers
Bell's Claim	3	Wolfram	Peter Bell ...	Ollera Creek		
Blue Peter G.M. Co.	4	Gold ...	W. F. McDonald	Broughton, Charters Towers	E. Nicholson ...	Bright's Mining Exchange, Charters Towers
(*d*) Blue Peter No. 1 E.	4	„ ...	...	„ ...	„ ...	„
Bonnie Doon G.M. Co.	10	„ ...	James Gibbard	Charters Towers	A. Bowry ...	Mosman street, Charters Towers
Bonnie Dundee G.M. Co.	21	„ ...	W. H. Oliver ...	„ ...	H. G. Pither ...	„
Brilliant Block G.M. Co.	16	„ ...	W. Whyte ...	„ ...	E. D. Miles and Co.	„
Brilliant Central G.M. Co. ...	151	„ ...	W. H. Williams	„ ...	J. J. W. Anderson	c/o E. D. Miles & Co., Ch. Towers
(*d*) Brilliant Deep Mines	11	„ ...	J. P. Pick ...	„ ...	R. S. Russell ...	„
Brilliant Extended G.M. Co. ...	350	„ ...	Peter Kerr (W. A. McLeod, gen. manager)	„ ...	E. Nicholson ...	Bright's Mining Exchange, Charters Towers
Brilliant P.C. G.M. Co.	32	„ ...	J. Gist	„ ...	A. W. Wilson...	Gill street, Charters Towers
Brilliant P.C. G.M. Co.'s Stockholm Mine	53	„ ...	Peter Hill ...	„ ...	„ ...	„
Brilliant and St. George United G.M. Co., Ltd.	120	„ ...	James Carroll ...	„ ...	J. J. W. Anderson	c/o E. D. Miles & Co., Ch. Towers
Brilliant St. George Hope Lease...	199	„ ...	John Harvey (S. Harris, general manager)	„ ...	„	„
Carrington United Mines	103	Gold and copper	B. Thomas ...	Liontown ...	E. D. Miles & Co.	„
Carrington 1 and 2 East	9	„ ...	D. Hoolihan ...	„ ...	A. Bowry ...	Mosman street, Charters Towers
(*a*) Carrington Extended Syndicate	3	„ ...	D. Retallick ...	„ ...	A. McCallum ...	Charters Towers
Clark's Brilliant Worcester and Victory G.M. Co.	13	Gold	W. Dyson ...	Charters Towers	E. Nicholson ...	Bright's Mining Exchange, Charters Towers
(*c*) Commodore (Hadleigh Castle)	7	„ ...	Otto Breitkreuz	Rochford		
Commonwealth	...	...	P. Neilson ...	Happy Valley, *via* Bowen		
Coronation	3	Gold ...	C. Hunt ...	Ravenswood		
Crescent G.M. Co.	20	„ ...	R. Hislop ...	Kirk, Q.N.R. ...	J. H. Tippett ...	Gill street, Charters Towers
Day Dawn Block and Wyndham G.M. Co., Ltd.	145	„ ...	J. S. Pryor ...	Charters Towers	R. Williams ...	Charters Towers

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List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
1st Northern Inspection Division* *—continued.*						
Day Dawn Gold Mines	17	Gold ...	R. Kirkbride	Charters Towers	E. D. Miles and Co.	Mosman street, Charters Towers
Day Dawn P.C. G.M. Co.... ...	45	„ ...	W. Tippett (W. Whyte, gen. manager)	„	A. McCallum ...	Charters Towers
(*c*) Disraeli Extended	4	„ ...	Thos. Aldridge	Rochford		
East Mexican G.M. Co.	12	„ ...	W. Harris ...	Charters Towers	J. J. W. Anderson	c/o E. D. Miles & Co., Ch. Towers
(*d*) Erin's Hope P.C.	4	„ ...	...	Ravenswood		
(*d*) Genoa	5	„ ...	...	Trieste	W. H. Stitt ..	Ravenswood
Golden Alexandra G.M. Co. ...	64	„ ...	H. Dyson ...	Charters Towers	J. Dunn ...	Mosman street, Charters Towers
Golden Valley, P.C.	6	„ ...	Alan Cunningham	Mount Success		
Golden Valley East Extended ...	6	„ ...	Michael Stack...	„ ...	W. H. Stitt ...	Ravenswood
(*d*) Golden Hill	5	„ ...	...	Ravenswood ...	S. H. Thorp ...	„
Grant and Sunset Extd. G.M. Co.	23	„ ...	A. Strathdee ..	„ ...	„ ...	„
Hall and Sheppard's Claim ...	4	„ ...	...	Brcughton		
Imperial Consols G.M. Co. ...	9	„ .	W. Matheson ...	Charters Towers	S. H. Thorp ...	Gill st., Charters Towers
Kelly's Queen Block G.M. Co. ...	86	„ ..	S. P. Kettle ...	„ ...	E. Nicholson ...	Bright's Mining Exchange, Ch. Towers
Lighthouse Syndicate	5	„ ..	J. V. Williams...	„ ...	S. H. Thorp ...	Gill st., Charters Towers
London G.M. Co.	23	„ ...	John Moran ...	Ravenswood ...	J. T. Harry ..	Ravenswood
London North G.M. Co.	5	„ ...	T. Upton ...	„ ...	J. R. Bradshaw	Charters Towers
Lucky Creek Battery	3	„ ...	Rush and O'Keefe	Lucky Creek		
Lucky Hit	4	Tin ...	Torkington ...	Stockyard Creek		
Madeline G.M. Syndicate... ...	4	Gold ...	A. Parker ..	Charters Towers		
Marshall's Queen G.M. Co. ...	14	„ ...	F. Bond ...	„ ...	W. G. Harris ...	Charters Towers
McColl's Just in Time P.C. G.M. Co.	4	„ ...	A. Carpenter ...	„ ...	A. Bowry ...	„
Millchester G.M. Syndicate ...	9	„ ...	John Forbes ...	„ ...	A. B. Bright & Co.	„
Mill's Day Dawn United G.M. Co., Ltd.	347	„ ...	J. V. Dobson ...	„ ...	E. D. Miles & Co.	Mosman street, Charters Towers
Moonstone Claim	4	Gold ...	...	Charters Towers		
Mount Brown Tin Mining Co., Ltd.						
Mount Kidston						
Cleopatra	25	Tin ...	L. Gorringe; genl. manager, D. Dawson	Kangaroo Hills	D. M. Leyden ...	Charters Towers
Metropolitan						
Achilles						
Mount Leyshon Syndicate ...	12	Gold ...	E. Weston ...	Mount Leyshon	W. G. Harris ...	Charters Towers
Mount Melba	7	„ ...	R. W. Gard ...	Far Fanning ...	...	...
New Brilliant Freehold G.M. Co.	8	„ ...	Silas Allen ...	Charters Towers	J. J. Taylor ...	c/o E. D. Miles & Co., Ch. Towers
New Craven's Caledonia G.M. Co.	28	„ ...	G. Cabassi ...	„	„	„
New Queen G.M. Co.	14	„ ...	E. D. Miles & Co.; general manager, John Cook	„	J. D. Pathello...	London Office, 65 London Wall, London E.C.
New Ravenswood, Ltd.	...	„ ...	A. L. Wilson, genl. manager	Ravenswood ...	A W. Smith ...	Ravenswood
Mellanaur and Black Jack ...	20	„ ...	E. Pountney ...	„ ...	„	„
General Grant	57	„ ...	E. C. Love ...	„ ...	„	„
Donnybrook Blocks	4	„ ..	J. Judge ...	„ ...	„	„
Sunset	122	„ ...	D. Strombini ...	„ ...	„	„
(*a*) New Try Again Syndicate ...	8	„ ...	Owen Edwards	Charters Towers	Norman Poole	Charters Towers
New Victoria and Caledonia Block G.M. Co.	21	Gold ...	J. Brown ..	„	A. W. Wilson...	Gill st., Charters Towers
New Waverley Tin Mines ..	15	Tin ...	Frank Fraser, manag. director	Kangaroo Hills	David Blair ...	Lombard Buldgs., 17 Queen st., Melbourne
Overlander	5	Gold ...	A. Dorratt ..	Ravenswood		
Papuan Brilliant and Victoria G.M. Co., No Liability	36	„ ...	J. Dinsdale ...	Charters Towers	A. W. Wilson...	Gill st., Charters Towers
Pfeiffer's Day Dawn G.M. Co. ...	90	„ ...	T. Hooper ...	„ ...	E. Nicholson ...	Bright's Min. Ex., Charters Towers
Phoebe G.M. Co.	32	„ ...	G. Ross ...	„ ...	G. Hall ...	Winchester House Old 163 Broad st., London, E.C.
(*d*) Pilot Tin Sluicing Co.	13	Tin ...	F. Kelly ...	Sandy Creek, *via* Ingham	D. M. Leyden...	Charters Towers

* To address of mine in 1st Northern Inspection Division add "North Queensland."

(*a*) Mines that have been non-producing during the year. (*c*) Mines reopened. (*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
1st Northern Inspection Division* —*continued:*						
(*a*) Plant's Day Dawn Gold Mine	11	Gold ...	...	Charters Towers	H. G. Pither ...	Mosman street, Charters Towers
Piccadilly P.C. and No. 1 West ...	8	,, ...	F. H. Jackson	Piccadilly ...	A. H. Ford ...	Piccadilly
Piccadilly Nos. 2 and 3 West Extended	4	,, ...	W. Rainey ...	,,		
Premier Consolidated	5	,, ...	John Gorman ...	Eight-mile ...	J. T. Harry ...	Ravenswood
Premier J.R.D.	3	,, ...	J. R. Davis ...	,,		
(*c*) Puzzler Syndicate	8	,, ...	W. H. Blucher	Charters Towers		
Queen Central G.M. Co.	21	,, ...	W. Davies ...	,, ...	E. Nicholson ...	Bright's Min. Ex., Charters Towers
(*d*) Queen Central Block G.M. Co.	14	,, ...	E. Hill ...	,, ...	H. Poole ...	,,
Queen Cross Reef G.M. Co. ...	50	,, ...	T. A. Waters ...	,, ...	J. J. Taylor ...	c/o E. D. Miles & Co., Ch. Towers
Queen Deep Mines...	14	,, ...	W. Hurst ...	,, ...	E. D. Miles & Co.	Charters Towers
Quinn's Block G.M. Co.	27	,, ...	H. F. Burns ...	,, ...	J. Dunn ...	Mosman street, Charters Towers
Ravenswood Deep Mines Co. ...	4	,, ...	A. Feltham ...	Ravenswood ...	A. W. Smith ...	Ravenswood
(*c*) Rio Tinto Copper M. Co. ...	6	Copper ...	A. Swithenbank	Hillgrove, *via* Ch. Towers	R. Hill ...	Charters Towers
Rodger's Millchester Block ...	11	Gold ...	R. Ashworth ...	Charters Towers	C. S. Millican	c/o E. D. Miles & Co., Ch. Towers
Ruby P.C. G.M Co.	32	,, ...	E. Pemble ...	,,	A. Bowry ...	Charters Towers
Silvery Wave Extended	6	,, ...	Louis Franklin	Ravenswood ...		
Sisters Extended G.M. Co. (New Moon)	17	,, ...	J. O'Riley ...	Kirk	T. E. Ashen ...	Gill street, Charters Towers
Sisters Gold Mine	26	,, ...	John Ryan ...	,,		
Standard	16	Tin ...	— Daintree ...	Stockyard Creek		
Sunbeam Mine Syndicate	7	Gold ...	J. Jenkin ...	Sunbeam Mine, *via* Bowen	J. Longwill ...	Bowen
Symes and Williams' Claim ...	3	,, ...	...	Charters Towers		
(*a*) Talisman and New Dawn G.M. Co.	14	,, ...	S. Moon ...	,,	S. W. Harry ...	c/o E. D. Miles & Co., Ch. Towers
The Lucky Surprise	4	,, ...	H. Currie ...	Lucky Creek		
(*d*) Try Again No. 1 East G.M. Co.	5	,, ...	P. Harvey ...	Charters Towers	A. Bowry ...	Charters Towers
Try Again	4	,, ...	Shannon and Bolland	Lucky Creek		
(*d*) Union Jack Consolidated G.M. Co.	9	,, ...	T. Dodge ...	Charters Towers	J. S. Rought ...	75 Coleman st., London E.C.
Victoria and Queen G.M. Co ...	15	,, ...	W. Harris ...	,,	J. J. Taylor ...	c/o E. D. Miles & Co., Ch. Towers
Victory G.M. Co.	72	,, ...	T. L. Titley ...	Charters Towers	C. P. Smith ...	28, 29 Lombard Chambers, Pitt street, Sydney
(*c*) Villiers P.C. Syndicate... ...	16	Copper ...	H. J. Weber ...	,,		
Wallis Day Down G.M. Co. ...	14	Gold ...	J. King ...	,, ..	J. Dunn ...	Mosman street, Charters Towers
Wood and Party's Claim	4	,, ...	...	Broughton, Charters Towers		
(*c*) Yellow Jack	5	,, ...	William Henry Marsh	Ravenswood ...		
MILLS: REDUCTION WORKS—						
Allandale Battery	3	Gold	D. Jarman ...	Allandale Goldfield		
(*a*) Brothers' Mill	4	,, ...	V. F. Barton ...	Ravenswood		
(*d*) Bonnie Dundee	10	,, ...	...	Charters Towers	H. G. Pither ...	Mosman street, Charters Towers
Brilliant Block G.M. Co.'s Mill ...	12	,, ...	R. W. Walton	,,	E. D. Miles & Co.	Charters Towers
Brilliant Block G.M. Co.'s Cyanide Works	15	,, ...	E. Millet ...	,,	,, ...	,,
Brilliant Extended G.M. Co.'s Mill	20	,, ...	H. Molle ...	,,	E. Nicholson ...	Bright's Mining Exchange, Ch. Towers
Brilliant Extended G.M. Co.'s Cyanide Works	15	,, ...	Charles Townsend	,,	,, ...	,,
Brilliant and St. George United G.M. Co.'s Mill and Cyanide	40	,, ...	John Matthews	,,	J. J. W. Anderson	c/o E. D. Miles & Co., Ch. Towers
Carrington United Mines' Mill ...	10	,, ...	P. Millican ...	Liontown ...	E. D. Miles & Co.	Charters Towers
Carrington United Mines' Smelter	10	Copper ...	S. Harris ...	,, ...	,,	,,

* To address of mine in 1st Northern Inspection Division add "North Queensland."

(*a*) Mines that have been non-producing during the year. (*c*) Mines reopened. (*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.‡	Mining for—	Name of Manager.	Postal Address of Mine.* †	Name of Secretary.	Address of Office.
1st Northern Inspection Division* *continued:*						
MILLS: REDUCTION WORKS— *continued:*						
Commonwealth Mill	10	Gold	...	Brookville	Geo. Trehearn	Ravenswood
Cummings and Brown's Cyanide Works	7	„	J. Cummings	Charters Towers		
Day Dawn Block and Wyndham Mill and Cyanide Works	83	„	J. Tait	Sellheim	R. Williams	Charters Towers
Defiance Syndicate Mill and Cyanide	45	„	J. Gordon	Charters Towers	E. D. Miles & Co.	„
Excelsior Cyanide Works	10	„	O. E. Sellars	„	A. McCallum	„
Excelsior Mill	6	„	H. Lancaster	„	„	„
Gough's Cyanide Works	6	„	G. Gough	„		
Kent's Cyanide Works	5	„	W. Kent	„		
Lucky Creek Mill. (See Mines above)						
Mount Leyshon Syndicate Mill	3	„	E. Weston	Mount Leyshon	W. G. Harris	„
Mout Melba Mill	7	„	R. W. Gard	Far Fanning		
Mount Brown Tin Mining Co.'s Battery	5	Tin	L. Gorringe, general mgr.	Kangaroo Hills	D. M. Leyden	„
New Ravenswood Ltd. Mill	27	Gold	A. L. Wilson, gen. manager; J. Cooney	Ravenswood	A. W. Smith	Ravenswood
New Waverly Tin Mines, Red Hill Battery	5	Tin	T. Mason	Ewan	David Blair	Lombard B'ldings, 17 Queen street, Melbourne
Perseverance Mill and Cyanide Works	25	Gold	B. Parnell	Charters Towers		
Puzzler Syndicate Mill	3	„	W. H. Blucher	„		
Queen Cross Reef Mill	12	„	J. McLaren	„	J. J. Taylor	c/o E. D. Miles & Co., Ch. Towers
Rainbow Syndicate Cyanide Works	13	„	P. Matthews	„	J. J. W. Anderson	„
Rainbow Syndicate Mill	19	„	A. Millican	„	„	„
Ravenswood Deep Mines Mill	4	„	A. Feltham	Ravenswood	A. W. Smith	Ravenswood
Sisters Mill	16	„	C. L. Breitkreuz	Kirk		
Stockyard Creek Battery	3	Tin	McCreedy	Stockyard Creek		
Trail's Cyanide Works	4	Gold	G. Trail	Charters Towers		
Tregenza's Cyanide Works	8	„	E. J. Harding	„		
Venus Mill Proprietary	9	„	E. E. Blunt	Millchester	E. E. Blunt	Millchester, Charters Towers
Victory Mill and Cyanide Works	14	„	C. King	Charters Towers	C. P. Smith	28, 29 Lombard Buildings, Pitt street, Sydney
2nd Northern Inspection Division†	‡					
Alice Harrod	4	Tin	F. J. Ross	Herberton		
(*a*) Anglo-Saxon	1	Gold	J. Munro	Kuranda		
Antimony Leases 96 and 97	...	Antimony	John Lamont	Northcote		
(*a*) Aunty Janet Dev. Syndicate	...	Tin	D. Outerson; C. F. Valentine, genl. manager	Reid's Creek, Emuford	S. H. Thorp	Cairns
Bakerville Tribute	10	Tin	S. J. Day	Watsonville		
Bakerville Mill	6	„	„	„		
Bischoff Mill	5	„	F. G. Wilesmith; W. M. Bonar, gen. manager	Herberton		
Black King	5	„	J. Elliott	...	W. Horsley	Brisbane
Blanche	...	„	E. Bushbridge	Irvinebank	S. H. Thorp	Cairns
Bradlaugh Syndicate	7	„	W. H. Trevenen	Herberton	J. K. Samuel	H.O., Grenfell st., Adelaide
Brilliant	3	„	T. Bray	Irvinebank		
(*a*) Buchanan Mines	6	Copper, silver, and gold	A. Macdonald	Mungana		
Cecil Syndicate	...	Gold	R. Robinson	Kingsborough		
Chance Tin Mining Syndicate	3	Tin	P. Andreassen	Irvinebank	O. T. Davis	Irvinebank
Charsley's Native Star	13	Copper	(Idle)	Orient Camp	E. C. Wright	Herberton
Chillagoe Consols	21	Lead and silver	J. Lamond	Chillagoe	C. W. Hughes	Chillagoe
Chillagoe Mines and Railway Co., Ltd.—	...	Copper, &c.	E. J. J. Rodda, genl. manager	„	C. L. Hewitt	H.O., 39 Queen st., Melbourne
Boomerang	...	„	R. A. Anderson	„	„	„
Dargalong	...	Lead and silver	„	„	„	„

* To address of mine in 1st Northern Inspection Division add "North Queensland."
† To address of mine in 2nd Northern Division add "North Queensland." ‡ 1906 returns in 2nd Northern Division.
(*a*) Mines that have been non-producing during the year.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.†	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
2nd Northern Inspection Division* —*continued*:						
Chillagoe Mines and Railway Co., Ltd.—*continued*:						
Harper	...	Copper	R. A. Anderson	Chillagoe	C. L. Hewitt	H.O., 36 Queen st., Melbourne
McIlwraith, Penzanse, Queenslander	74	Copper	W. A. T. Davies	Redcap	"	"
Ruddygore	...		R. A. Anderson	Chillagoe	"	"
Smelters	...	Copper and lead	J. Horsburgh, genl. manager	"	"	"
Zillmanton	64	Copper	J. Cowan	Zillmanton	"	"
Commonwealth	...	Gold	T. Boulter	Kingsborough		
Consolidated	5	Tin	M. Whelan	Orient Camp, Irvinebank		
Coop's Sid.	4	Copper	W. P. Coop	Koorboora		
(*a*) Cuprite Consolidated	6	Tin	Fredk. Routh; W. M. Bonar, genl. manager	Herberton	...	H.O., Melbourne
Dagworth	4	Gold	F. W. Richards	Woodville, *via* Thornborough		
Dalcoath Syndicate	6	Tin	T. C. Johns	Coolgarra	E. C. Wright	Herberton
Dalziel's Tin Mines, Limited	20	"	A. Paice	Gurrumba	A. J. Draper	Cairns
(*d*) Denford, The	5	"	(Idle)	Emuford		
Dover Castle	...	Silver-lead	Wm. Wright	Bamford		
Downfall United	...	Wolfram, molybdenite, and bismuth	F. T. Saltrick	Wolfram		
Dead Finish	4	Tin	S. Keen	Stannary Hills	A. T. Cross	Irvinebank
Endeavour and Leslie	4	Tin	O. W. Roos	Irvinebank	"	"
(*a*) Ethel	...	Antimony	D. Lyon	Northcote		
Evening Star	...	Silver-lead	T. McNab	Orient	E. C. Wright	Herberton
Federation	2	Tin	C. Roos	Watsonville		
Forget-Me-Not United	...	Wolfram, molybdenite, and bismuth	C. Wright	Wolfram		
(*d*) Fossilbrook Mining Corporation	6	Tin	...	Fossilbrook	J. K. Samuel	H. O., Adelaide
Gilmore's Tin Mining Syndicate	27	"	A. Sheppard	Ord Siding, Mt. Garnet Rly.	A. T. Cross	Irvinebank
Gladstone	...	"	Hy. Collins	Stannary Hills		
(*d*) Glen Linedale No. 1 Syndicate	3	"	R. Matthews	Herberton	E. C. Wright	Herberton
Glutton Gully, Mount Garnet Hydraulic Ltd.	11	"	R. F. Waller	Mount Garnet	Thos. Welsby	Brisbane
Good Friday United	...	"	Hy. Trembath	Herberton		
(*b*) Go Ahead Battery and Mining Syndicate	...	"	W. T. Matthews	Irvinebank	J. Campbell	Irvinebank
(*b*) Good Enough	...	"	Paul Elwood	Herberton	J. Munro	Kuranda
Grant and Caledonia	7	Gold	F. Grant	Kingsborough	Parkes and Wood	Townsville
(*d*) Great Eastern	7	Tin	W. Vandeleur	Stannary Hills	Geo. C. Young	Irvinebank
Great Northern Freehold Tin Co. and Mill	27 7	" ...	W. M. Bonar "	Herberton "	T. A. Doran "	Brisbane "
Great Southern	2	...	...	Irvinebank		
(*a*) Great Western	5	Lead and copper	(Idle)	Stannary Hills	Brownlee and Donald	Irvinebank
Great Western Tribute	...	Tin	W. J. Trevenen	Watsonville		
Griffins	6	Wolfram	Wm. Griffin	Coolgarra		
Hall's Tin Mining Co., N.L.	9	Tin	J. Kelso	Nymbool	Jno. Coxall	Cairns
Heckla Copper Syndicate	...	Copper	Wm. Swan	Irvinebank		
Herberton Tin Syndicate	11	Tin	W. Mazlin	Herberton	J. M. Hollway	Herberton
Hidden Treasure	...	"	L. Morrison	Irvinebank		
Hillside United	6	Wolfram, molybdenite, and bismuth	L. Carroll	Wolfram Camp	C. Arbouin	Wolfram
Home Rule Extended	5	Gold	J. Carmichael	Woodville		
Home Rule Mill	2	"	J. Struth	"		
Irvinebank Mining Co., Ltd., Adelaide—		Tin	Thos. Parr	Gurrumba	Geo. C. Young	Irvinebank
Better Luck	11	Lead and silver	W. Bainbrigge	Bamford	"	"

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(*a*) Mines that have been non-producing during the year. (*b*) New mines opened during the year.

(*d* Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.†	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
2nd Northern Inspection Division* *—continued :*						
Irvinebank Mining Co., Ltd., Adelaide—*continued :*						
Coolgarra Tribute	19	Tin	D. Roberts	Coolgarra	Geo. C. Young	Irvinebank
Coolgarra Mill	14	,,	J. Murrane	,,	,,	,,
Elsie	8	,,	Ed. Dawson	Irvinebank	,,	,,
Excelsior	4	,,	J. L. Clacy	Coolgarra	,,	,,
Governor Norman	2	,,	B. Hall	Irvinebank	,,	,,
Gurrumba Mill	...	,,	R. O. Packard	,,	,,	,,
Irvinebank Smelters	...	,,	J. Moffat	,,	,,	,,
Jumna	12	,,	E. Byrnes	Jumna Creek, *via* Irvinebank	,,	,,
Koorboora Tin and Wolfram Mines	61	,,	W. A. Waddell (genl. manager)	Koorboora	,,	,,
Koorboora Mill	...	,,	D. Henderson	,,	,,	,,
Shakespeare and Southwick	...	Tin and wolfram	R. Goodwin			
(*b*) Mount Mulligan	...	Coal	W.J.W.Richards	Woodville, Mt. Mulligan		
Neville	...	Wolfram	E. Cummings	...	Geo. C. Young	Irvinebank
Telegraph	...	Wolfram and tin				
Tennyson	...	Tin and lead				
Iolanthe	...	Tin				
Fairplay	...	,,				
Dalmotter	...	,,				
Linedale, West Chillagoe	18	Copper and gold	Dan Mackay	Klondyke, *via* Mungana	,,	,,
Loudon Mill	...	Tin	A. Waddell	Irvinebank	,,	,,
Mount Carbine	11	Wolfram	G. Rolfe	Mount Carbine, *via* Molloy	,,	,,
Northcote Antimony	14	Antimony	C. J. Jacobson	...	,,	,,
Parada (Scheelite)	5	Scheelite	G. McDonald	Parada	,,	,,
Tate Tin Mines	44	Tin	Chas. Sollar	Tate	,,	,,
United North Australian	7	Tin and copper	J. Stephens	Watsonville	,,	,,
Victoria	5	Lead and silver	R. Mackenzie	Silverfield	,,	,,
Woodville Antimony	23	Antimony	W.J.W.Richards	Woodville	,,	,,
Weate United, Tully United, Carroll's, Nichells, Finnigan's, &c.	108	Wolfram, molybdenite, and bismuth	W. A. Pepper; Gillian and Arbouin, general managers	Wolfram Camp	,,	,,
Jones's Cave	2	Wolfram and copper	W. H. Jones	Emuford		
(*a*) King of the Ranges	2	Tin	J. Kennedy	Watsonville	J. M. Hollway	Herberton
(*d*) Lady Gladys	3	,,	(Idle)	Herberton		
Lady Jane and Girofla (Mungana, Chillagoe M. Co., Ltd.)	84	Lead, silver, and copper	J. S. Murphy; S. W. Rodda, gen. manager	Mungana	C. L. Hewitt	H.O., 39 Queen st., Melbourne
(*b*) Lady Mary Copper Co.	...	Copper	R. B. W. Gipps	Silverfield	de V. Gipps	Irvinebank
(*b*) Lady Montague Lease	...	,,	Owen Kiernan	,,	,,	,,
Lancelot Freehold (Tin and Copper Mines, Ltd.)	25	Tin	Dr. Edlinger	Silver Valley, *via* Herberton, N.Q.	H. J. Duck	London Office, 1 and 2 Bucklersbury, Cheapside, London, E.C.
Lancelot Mill	15	,,	,,	,,	,,	,,
Larkin United	...	Wolfram, molybdenite, and bismuth	P. Larkin	Wolfram		
Lass o' Gowrie	16	Tin	J. H. Donohue	Stannary Hills	C. J. Bennett	Stannary Hills
Little Wonder	...	Lead and copper	J. Bell	Emuford		
Magnum Bonum	...	Tin	Dr. Edlinger	Silver Valley	H. J. Duck	London
Manupoto	8	Lead and silver	A. M. Hawkes	Almaden		
(*a*) Majorie	...	Tin	(Idle)	Irvinebank		

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(*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.†	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office
2nd Northern Inspection Division* —*continued:*						
McIntyre's Claim	...	Wolfram, molybdenite, and bismuth	D. Blakeney ...	Wolfram		
Minerva	4	Gold ...	P. Dunn ...	Mareeba ...	Hy. Grandy ...	Dublin
(*a*) Mitchell River Antimony ...	1	Antimony	Thos. Guest ...	The Antimony Mines	A. J. Draper ...	Cairns
(*a*) Monarch Syndicate	...	Tin ...	(Idle)	Herberton		
(*a*) M. and R. Tin Syndicate ...	...	Tin ...	(Idle)	...	E. C. Wright ...	Herberton
Mountain Maid	6	,, ...	(Idle)	Almaden		
(*a*) Mount Albion Day Dawn ...	...	Silver-lead	J. Hamilton ...	Mount Albion ..	,,	,,
(*a*) Mount Albion Syndicate ...	...	,,	T. Bermingham	,,	,,	,,
Mount Babinda (Combination) ...	6	Copper and silver	J. J. Moore ...	Mount Babinda, *via* Petford		
(*a*) Mount Garnet Freehold ...	1	...	G. Waddell ...	Mount Garnet ..	G. C. Young ...	Irvinebank
Mount Ormonde Syndicate ...	6	Tin ...	M. Butler ...	Irvinebank		
Mount Molloy Copper Mine ...	112	Copper ...	R. Rolfe ...	Mount Molloy...	,, ...	,,
Mount Molloy Smelters	120	,,	J. R. Raleigh ...	,, ...	,, ...	,,
Mount Cardwell (Mount Molloy Co.)	13	Copper & ironstone	T. Guerin; J. R. Raleigh, gen. manager	Nymbool ...	,, ...	,,
Mount Petersen	...	Tin ...	G. Bagster ...	Irvinebank ...	...	Irvinebank
Mr. Spurgeon, Ltd....	...	Tin (alluvial)	P. Dickensen ...	Mt. Spurgeon...	Thos. Welsby ...	Brisbane
Mount Success	2	Tin ...	...	Koorboora		
Mount Pom Pom Wolfram Syndicate, No Liability	2	Wolfram & copper	W. Martin ...	Mount Molloy...	W. N. Absell ...	Mount Molloy
Muldiva (Paisley Mine)	7	Lead and silver	Robt. Bruce ...	Almaden		
Mungana (Chillagoe M. Co., Ltd.)	...	...	S. N. Rodda, gen. manager	Mungana ...	C. L. Hewitt ...	39 Queen street, Melbourne
Girofla	...	Silver-lead	J. S. Murphy ...	,,		
Lady Jane	...	Copper ...	,, ...	,,		
(*b*) New Anniversary Copper Syndicate	...	Copper & silver	R. Willis ...	Herberton ...	J. M. Hollway...	Herberton
New Era Tin Mining and Milling Syndicate	34	Tin ...	(Idle) ...	Bakerville ...	,,	,,
New Hit or Miss	4	,,	J. Hamilton ...	Emuford		
New Monarch and Mill	20	Gold ...	P. F. Knudstrup	Beaconsfield ...	Parkes and Wood	Townsville
Norman	...	Tin	W. H. Trembath	Irvinebank ...	de V. Gipps ...	Irvinebank
Northern United	...	Wolfram, molybdenite, and bismuth	F. H. Winters...	Bamford		
Ord Syndicate	11	Tin ...	Ed. Hall ...	Ord Siding, Mt. Garnet Rly.	A. J. Draper ...	Cairns
O.K. Development Syndicate ...	125	Copper ...	H. Twynam; R. Shepherd, gen. manager	O.K., *via* Mungana	,, ...	,,
O.K. Smelters	125	,, ...	— Wardle ...	O.K.	,, ...	,,
O.K. Blocks, Ltd.	14	,, ...	A. F. Martin ...	,, ...	...	,,
(*a*) O.K. East	...	,, ...	...	,,		
O.K. Surprise	4	,, ...	Alex. Anderson	,,		
(*a*) Phœnix Tin Syndicate ...	...	Tin ...	J. Pearson ...	Herberton ...	E. C. Wright ...	Herberton
Pioneer	7	,, ...	(Idle) ..	Koorboora		
Pioneer and Tichborne	...	Gold ...	R. Dowling ...	Thornborough		
(*c*) Queenslander	...	,, ...	W. J. W. Richards	Woodville, Mt. Mulligan		
(*a*) Reconstruction	...	,, ...	D. Snedon ...	Kingsborough		
(*d*) Reconstruction (Mill)	...	,, ...	,, ...	,,		
(*a*) Renton's Independence Copper	...	Copper...	A. M. Renton ...	Watsonville ...	E. Poole ...	Watsonville
Right Bower	4	Tin ...	...	Irvinebank ...	J. H. Brownlee	Irvinebank
Rose of England	...	,, ...	P. Bell ...	Stannary Hills		
Rose of Tralee	7	,, ...	H. D. Howe ...	Irvinebank ...	,, ...	,,
Smith's Creek Proprietary ...	28	,, ...	Peter Brander, genl. manager	Nymbool ...	J. S. Scott ...	H.O., Adelaide, South Australia
Smith's Creek Proprietary (Mill, &c.)	41	,, ...	,, ...	,,	,, ...	,,
Southern Cross	...	Gold ...	H. Hughes ...	Thornborough		

* To address of mine in 2nd Northern Inspection Division add "North Queensland." † 1906 returns.

(*a*) Mines that have been non-producing during the year. (*b*) New mines opened during the year.

(*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.†	Mining for—	Name of Manager.	Postal Address of Mine.*‡	Name of Secretary.	Address of Office.
2nd Northern Inspection Division* *—continued:*						
Stannary Hills Mines and Tramway Company, Ltd.—	...	...	C. E. Nicholas, genl. mangr.	Stannary Hills	J. K. Samuel ...	H.O., Brookman's Bldgs., Grenfell street, Adelaide
Arbouin Hills	225	Tin ...	J. K. Campbell	,, ...	,,	
Caledonia		,, ...	...	,, ...	,,	
(*a*) Eclipse		,, ...	E. Murdoch			
(*a*) Black Rock		,, ...	W. Doran ...	,, ...	,,	
Extended		,, ...	A. Wishart ...	,, ...	,,	
Ivanhoe		,, ...	E. Murdoch ...	,, ...	,,	
Kitchener		,, ...	W. Doran ...	,, ...	,,	
Lowlands		,, ...	C. E. Nicholas	,, ...	,,	
(*b*) Young Australia and Ironclad	...	,, ...	Albert Hartley	Stannary Hills	J. K. Samuel ...	Adelaide
Mill	58	,, ...	Atkin Nicholas	Rocky Bluffs		
Tramway, &c.	82	...	W. Smith ...	Stannary Hills	J. K. Samuel	
Star, The	...	Tin ...	N. Hardman ...	Chinaman's Ck.		
Star Mill	18	,, ...	,, ...	,,	J. M. Hollway	Herberton
St. Patrick Syndicate	3	,, ...	J. Ferris ...	Herberton ...	,, ...	,,
Sulphide Copper Syndicate ...	...	Copper ...	R. Matthews ...	,, ...	E. C. Wright ...	,,
Sweet William and Gladstone ...	... 13	,, ...	C. Sandilands ...	Mount Molloy...	R. Ashcroft ...	Mount Molloy
Sunny Corner	...	Wolfram	J. E. Bemi ...	Bamford		
(*a*) Tartana Hills	...	Copper ...	(Not working)	Tartana ...	A. Bell ...	Brisbane
Torpy's Crooked Creek	24	Lead and silver	Alex. Stewart; A. M. Hawkes, genl. mangr.	Almaden ...	E. B. Torpy ...	Chillagoe
Torpy's Crooked Creek Mill ...	18	,, ...	,,	,,	,,	,,
Talisman Syndicate	2	Tin ...	M. Healy ...	Irvinebank ...	J. M. Hollway	Herberton
(*c*) Tornado and Vulcan Extended	...	,, ...	C. F. Alexander	,, ...	G. C. Young ...	Irvinebank
(*a*) Titania	5	,, ...	(Idle) ...	Emuford		
Ulster United	5	,, ...	M. Comerford...	Herberton		
Union Mill	3	Gold ...	F. Duffy ...	Woodville (Union Camp)	G. C. Young ...	Irvinebank
Village Blacksmith...	6	Tin and copper	D. P. Barry ...	Gurrumba ...	S. H. Thorp ...	Cairns
Vulcan Tin Mining Co.	78	Tin ...	S. Shepherd ...	Irvinebank ..	J. Tunny ...	Irvinebank
(*a*) Vulcan Hope	7	,, ...	G. E. Davis ...	,, ...	J. H. Brownlee	,,
Vulcan Tribute	2	Gold ...	J. Jackson ...	Kingsborough		
Walhalla No. 2 Syndicate... ...	4	Tin ...	T. Daniels ...	Herberton ...	J. M. Hollway	Herberton
Warren's Claim	...	Antimony	J. S. B. Manning	Woodville		
Weinert's E. Orient	...	Silver-lead	Jno. Fry ...	Orient C. ...	E. C. Wright ...	,,
Weinert's Silver Lead	...	,, ...	Evan Evans ...	,, ...	,, ...	,,
Westward Ho	...	Gold ...	J. T. Nicholls...	Thornborough		
Wild River Tin Mining Co, ...	...	Tin ...	(Abandoned)			
Young and Anstey's United ...	...	Wolfram, molybdenite, and bismuth	H, McIntyre ...	Wolfram		
3rd Northern Inspection Division‡ *Croydon Goldfield.*						
Australian Beauty, 6 and 7 S. ...	4	Gold ...	H. A. Miller ...	Golden Valley, Croydon Goldfield	None ...	
(*a*) Bennion's Lady Mary	...	,,				
Brilliant P.C.	4	Tin ...	Chas. Ferler ...	Templeton, Croydon Goldfield	,,	
(*a*) (*d*) Butterfly	...	Gold				
Content Block	20	,, ...	T. Batchelor ...	Croydon ...	F. W. Cuthbert	Croydon
Croydon Consols	9	,, ...	James Thurston	Golden Gate, Croydon	A. M. Taylor ...	Queen st., Brisbane
Croydon Quartz Crushing and Gold Mining Co.	...	...	(Not worked during year)			
Enterprise Mill and Cyanide Works	18	...	Andrew Richardson	Croydon ...	None ...	
(*a*) Golden Gate Amalgamated Blocks	1	Gold ...	J. Phillips ...	,, ...	Panton and Viles	Croydon
(*c*) Golden Gate Consolidated Tribute, Ltd.	13	,, ...	John Clifford	Golden Gate, Croydon	,,	,,
Golden Gate Consols, Ltd. ...	14	,, ...	Charles F. Sutherland	,,	Queensland Mining Ltd.	,,

* To address of mine in 2nd Northern Division add "North Queensland."

† 1906 Returns in 2nd Northern Division. ‡ To address of Mine in 3rd Northern Inspection Division add "North Queensland."

(*a*) Mines that have been non-producing during the year. (*b*) New mines opened during the year. (*c*) Mines reopened, (*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
3rd Northern Inspection Division* *—continued:*						
Golden Gate Mill	12	Gold ...	J. Eccleston ...	Croydon ...	A. M. Taylor ...	Queen st., Brisbane
Golden Gate No. 5 S.	11	„ ...	Carl Benson ...	„ ...	Oliver Wates ...	Croydon
Golden Gate Nos. 3 and 4 S. ...	14	„ ...	Thomas Kroft	„ ...	„	„
Golden Gate and Nancy Lee United	11	...	William Taylor	Golden Gate, Croydon	Panton and Viles	„
(*c*) (*d*) Golden Gate No. 8 S. ...	5	Gold ...	Thomas Simpson	„	James Shears ...	Golden Gate, Croydon
(*c*) (*d*) Golden Gate No. 8 S. Block	6	...	...	„		
Golden Gate No. 9 S. Block ...	2	Gold ...	John Wilkie ...	„	Panton and Viles	Croydon
Golden Gate No. 19 S. Amalgamated	2	„ ...	John Grogan ...	„	„ „	„
Golden Gate United	5	„ ...	Thos. Slattery	„	None	
Golden Valley Mill and Cyanide Works	4	...	M. A. Miller ...	Golden Valley, Croydon G'field	„	
(*c*) Highland Mary Blocks ...	8	Gold ...	M. Clifford ...	Croydon	Thos. Waram ...	„
Homeward Bound Mill and Cyanide Works	4	...	Frederick Lane	Croydon G'field	None	
King of Wallabadah	4	Gold ...	B. Ramus ...	Golden Valley, Croydon	David Jamieson	„
(*b*) Mount Cassiterite	5	Tin ...	Thomas Newton	Stanhills, Croydon Goldfield	A. E. Church ...	Stanhills, Croydon Goldfield
Mountain Maid United Mill and Cyanide Works						
Murray's Banner United	9	Gold ...	Henry Rains ...	Golden Gate, Croydon	Panton and Viles	Croydon
No. 1 Gold Mines	5	„ ...	J. Clifford ...	„	Oliver Wates ...	„
Pioneer Mill and Cyanide Works	15	...	John Forsyth ...	Belmore, Croydon	None	
(*d*) Richmond Extended Rocky Creek Mill						
True Blue Cyanide Works ...	6	...	W. P. King ...	True Blue ...	„	„
(*b*) Vincent	4	Tin ...	H. Hoffman ...	Stanhills ...	„	
(*c*) William's Block	10	Gold ...	C. M. Taylor ...	Golden Gate, Croydon G'field	F. W. Cuthbert	„
Etheridge.						
(*b*) Argent King	2	Silver-lead	F. Jacobson; A. B. Docker, gen. manager	Mosquito, *via* Georgetown	None	
(*b*) Argent Prince	2	„ ...	P. Crimmons; A. B. Docker, gen. manager	Mosquito, *via* Georgetown	„	
(*b*) Better Luck	5	Gold ...	...	...	J. Candlish ...	Georgetown
Caledonia	2	„ ...	W. Medway ...	Georgetown ...	None	
(*b*) Commonwealth	2	Silver-lead	John Swan; A. B. Docker, gen. manager	Mosquito, Charleston	John Barker (owner)	Mosquito, Charleston
(*b*) Commonwealth Extd. No. 1 West	3	„ ...	F. Richardson...	„		
(*c*) Crow's Nest	2	„ ...	J. Thompson; A. B. Docker, gen. manager	„	None	
(*c*) Cumberland	3	Gold ...	Henry Coyle ...	Cumberland ...	„	
Dry Hash	3	Silver-lead	John Simpson...	Charleston ...	„	
Durham Consols	18	Gold ...	Edward Gribbon	Durham ...	A. G. Doubleday	Georgetown
International Mine and Mill (Donnybrook Mill) ...	17	„ ...	I. P. F. Shaffert	Mount Jackson	Aulay Macaulay	Donnyville, Etheridge G.F.
Joseph Morris and Day Dawn ...	2	„ ...	J. McGallon ...	Gilberton ...	None	
Jubilee	12	„ ...	S. Symonds ...	Cumberland ...	John Williamson (owner)	Cumberland
(*c*) Lord Byron	6	„ ...	Mark Phillips...	Durham ...	A. G. Doubleday	Georgetown
(*c*) New Einasleigh Copper Mines, Limited (and works)	27	Copper ...	F. Simpson ...	Einasleigh, *via* Quartz Hill	F. M. Clark ...	Adelaide
Nil Desperandum	14	Gold ...	John Hanrahan	Charleston ...	John Candlish (owner)	Georgetown
No. 1 East International	7	Silver-lead	Peter Reilly ...	Mount Jackson	Edwd. P. Green	„
(*b*) Orion	2	„ ...	A. B. Docker ...	Mosquito, *via* Georgetown	None	
(*b*) Pleiades	2	„ ...	R. F. Richardson; A. B. Docker, gen. manager	„	None	

* To address of mine in 3rd Northern Inspection Division add "Northern Queensland."

(*b*) New mines opened during the year. (*c*) Mines reopened. (*d*) Mines in which operations were suspended.

List of Principal Mines in the several Divisions of the State assigned to separate Inspectors, with Name of Managers and Secretaries, and Postal Address of Mine and Office—*continued.*

Name of Mine.	No. of Men.†	Mining for—	Name of Manager.	Postal Address of Mine.*	Name of Secretary.	Address of Office.
3rd Northern Inspection Division* —*continued:*						
Percy River Syndicate	15	Copper ...	Jas. Puxley ...	Ortona	G. C. Young ...	Irvinebank
Queenslander	9	Gold ...	Laurence Nazzari	Charleston ...	John Candlish (owner)	Georgetown
Sir Henry Havelock Mine and Mill	27	„ ...	John Gleeson ...	„ ...	„ ...	„
Young Cumberland Mill and Cyanide Works	11	...	John Williamson, gen. manager	Cumberland ...	John Williamson (owner)	Cumberland
Wexford	3	Gold ...	...	Georgetown		
Woolgar.						
Perseverance P.C.	4	Gold ...	— Crapp ...	Woolgar ...	None	
Perseverance No. 1 West	1	„ ...	Thomas Close ...	„ ...	„	
Roman Crown No. 1 East	1	„ ...	Alex. Donaldson	„ ...	„	
Roman Crown No. 4 East	1	„ ...	Jas. Mitchell ...	„ ...	„	
Soapspur	...	...	W. Brown ...	„ ...	„	
Miscellaneous†—						
Annan River Tin Mines, No Liability	19	Tin ...	C. Francis ...	Kulul, *via* Cooktown	Legal manager, S. J. Warnock	H.O., 375 Collins street, Melbourne
Great Northern (The Coen) G.M. Co., Ltd.	12	Gold ...	J. Tregeeza ..	Coen, N.Q. ...	S. B. Jones ...	Coen, N.Q.
Home Rule (Queensland Tin Sluicing Co., No Liability)	10	Tin ...	D. Lindsay, general manager	Rossville, *via* Cooktown	W. E. Dalton ...	H.O., Grenfell st., Adelaide
Jordan Creek Mine (Jordan Creek G.M. Co., Ltd.)	...	...	...	Wingeranie P.O., Geraldton	H. Larg ...	H.O., 220 Sussex street, Sydney
Savannah United G.M. Co. ...	12	Gold ...	F. O'Malley, gen. manager; M. G. McMahon, manager	Yarraden ...	J. M. Hopkins...	Market Buildings, Townsville
Horn Island (Cockburn and Co.) ...	8	...	J. Cockburn ...	Horn Island, *via* Thursday I.	H. A. C. Douglas	
Possession Island (Workings) ...	4	...	E. F. Cadzow ...	Possession I., *via* Thursday I.		
Cloncurry Mines.‡						

* To address of mine in 3rd Northern Division add "North Queensland."
† To address of mine under this heading add "North Queensland." ‡ Information for 1907 not to hand at date of Report.

SECTION V.

Reports of Inspectors.

SOUTHERN INSPECTION DIVISION.

(GYMPIE IPSWICH, ETC.)

MR. R. HUNTER'S REPORT.

I have the honour to submit the following report on the working of those sections of "*The Mining Act of* 1898," and subsequent amending Acts, it has been my duty to administer in the Southern Inspection Division during the year ended 31st December, 1907:—

METALLIFEROUS MINES.

In this Division there has been a further decline in the quantity of gold produced, and there has been an increased necessity for men employed in gold mines to find work elsewhere. This has especially been the case at Gympie, where the number of men employed in the larger mines has been considerably reduced. During the first half of the year gold-miners were able to obtain work in copper mines in various parts of the State, but since the decline in the price of copper so many of these mines have been closed that it is becoming increasingly difficult for men to find employment.

At Gympie very considerable attention has been devoted to the northern end of the field, and several companies have commenced work, but as yet are all engaged in prospecting and development operations, and they cannot, of course, contribute very largely to the gold output, nor do they require a large number of men to work them. Some attention has also been given to prospecting the Monkland second bed of slate, but as the results were mostly disappointing, this work has nearly all ceased.

In the Kilkivan district very little mining has been done, and the decline in the price of copper has operated adversely. Some prospecting has been done in connection with cinnabar, but as yet it is impossible to say if the work is likely to become permanent.

Very little mining has been carried on in the Warwick district.

In the Stanthorpe district increased attention has been devoted to dredging for tin. A new sluicing plant has been installed by the Rover Tin Mining Company Proprietary. The old plant has been sold to a company about to commence work at Spring Creek, where it has been re-erected after considerable alterations in the arrangement of the machinery had been made. At Paddock Swamp a new sluicing plant on a punt has been erected and work was commenced towards the end of the year. The bucket dredge owned by the Stanthorpe Proprietary Tin Dredging Company, No Liability, has worked steadily throughout the year. At the Silver Spur Mine work has been carried on as usual, although shortage of water has hindered operations a little, but operations have been remunerative to shareholders. During the year the Pikedale Silver-Copper Mine was re-opened and worked for a short time, but it is now closed again pending the advent of more capital. Two copper mines have also been worked in a small way on Warroo Run, with encouraging results, and arrangements in connection with the erection of smelters are in progress.

In 1906 there were 19 accidents recorded and 22 men were injured thereby. This year there is a slight reduction, 18 accidents, resulting in 19 men being injured, having occurred; 16 men were disabled for 14 days or more, and 3 for less periods. Fortunately, there were no fatal accidents. A return of accidents and their causes is forwarded herewith, and the following is a brief summary of results:—

4 men injured by falls of ground, 3 of them being disabled for more than 14 days;

2 men injured by machinery accidents and disabled for more than 14 days;

3 men injured by falls from staging and brace, 2 of them being disabled for more than 14 days;

1 man injured by a winze and pass accident, and disabled for more than 14 days;

1 man injured by an explosives accident and disabled for more than 14 days;

8 men injured by miscellaneous accidents, 7 of them being disabled more than 14 days.

One very noticeable fact is the small number of men injured by falls of ground. While probably it may be that greater care than usual has been taken, and some credit should consequently be given to mine officials, the reduction in this class of accident is perhaps due to some extent to the fact that at Gympie there has been considerably less work done in places where plumbago "breaks" and wide reefs are the prevailing features. The most serious accident due to a fall of ground occurred at the Scottish Gympie Gold Mines, when two men who were resting and sitting against a wall of a drive were injured by a flake of stone falling from the corner formed by the junction of the roof and wall. Fortunately, the fall of the stone was broken by a bulge in the wall, or it is probable they would have been killed.

Neither of the machinery accidents were really serious, one being undoubtedly due to the injured man's own want of forethought in proceeding to take a blank flange off a main steam pipe without first ascertaining that the steam was shut off.

Of the three accidents due to falling from staging, brace, &c., the most serious accident occurred at night. It had been the injured man's custom when on night shift to descend from the brace to the surface of the ground in the cage. On this occasion he did not notice the cage was at the surface of the ground below him, but, thinking it was at the brace, he stepped into the shaft and fell on to the top of the cage. Fortunately, he escaped with some severe bruises.

The man injured by a winze accident fell off a ladder when ascending it, and the cause of the accident was unascertainable.

One man was injured by explosives. In this instance the hole when drilled tapped a body of water, which rendered it difficult to secure the charge and the fuse. The result was that the shot missed fire, and later on, when endeavouring to retamp the charge, too much violence was probably used.

Eight men were injured by what are classed as miscellaneous accidents. This is nearly 50 per

cent. of the total number of accidents. Some of these were originally very small affairs, but developed seriously later on as, for instance, when a man cut his finger, and, blood-poisoning supervening, it became necessary to amputate it. Blame for most of the accidents under this heading cannot justly be attributed to anyone, as they generally occurred in a manner which it was impossible for anyone to foresee.

On the whole, the machinery at most of the mines has been kept in satisfactory working order. At some mines, no longer paying dividends, there is a tendency, from motives of economy, to postpone necessary renewals as long as possible, and where water-tube boilers are used the tubes are sometimes not cleaned out as frequently as is desirable. Several cases of over-winding occurred during the year, but as in each case the safety appliances acted prefectly very little damage was done. Every case of over-winding reported to me was dealt with by the Board of Examiners for Engine-drivers. Recently my attention was directed to an instance where his medical man advised an engine-driver that, owing to some heart trouble, he should no longer drive a winding-engine. His employers, on being communicated with, replaced him by another man. As the law now stands, an Inspector has not power to interfere in similar cases, and I mention it to show it is desirable that engine-drivers should be required to be examined by medical men at regular intervals.

A return of new machinery erected and old machinery re-erected during the year is submitted herewith. A return of the number of wire ropes tested is also forwarded. The ropes are cut and reshod when tested, but in many instances the rope-shoeing is not of a very high order. Some managers persist in the old-fashioned system of using rivets in shoeing, and in some cases, owing to the manner in which the wires are turned back, the result is very unsatisfactory. At a few mines improvements have been made, and at the Scottish Gympie and a few other mines a white metal cone is now cast on to the end of the rope, over which the wires are turned back. An examination when reshoeing shows this system to be a decided improvement on the older methods, although it may not be quite equal to the manner of shoeing lately recommended in Great Britain.

Ventilation is one of the many important matters with which an inspector has to deal. The usual observations of temperature, &c., have been made, and the results embodied in the monthly reports. Apart from the thermometrical observations, the quality of the air and the impurities in it have been taken into consideration. In a few cases it has been necessary to issue warnings that if improvements were not made legal proceedings would follow. I do not say the managers concerned deliberately neglected ventilation, but it frequently occurs that, owing to the difficulty in getting in calls, it is considered necessary to endeavour to make a low-grade proposition provide the money for all expenses. Sometimes when urging improvements I am told the financial aspect will not warrant the necessary expense.

During the year several mines at Gympie have been connected, and the ventilation more or less improved thereby. Among them are the Smithfield and Phœnix Golden Pile, the No. 2 North Columbia and Smithfield, the No. 1 North Columbia and Smithfield, the No. 1 North Smithfield and the North Smithfield Mines. A connection has also been made between the No. 1 North Oriental and Glanmire and the East Oriental and Glanmire Gold Mines.

The following is a list of temperatures observed at some of the principal mines taken before the communications between the mines above referred to were made:—

Name of Mine.	Temperatures.			Remarks.
	Minimum.	Maximum.	Average.	
	Deg.	Deg.	Deg.	
Australasian	81	82	81	950-ft. level.
Black's New Zealand ...	79	79	79	In winze, 40 ft. below 272-ft. level.
Columbia Extended ...	77	79	...	At 1,465-ft. plat.
	88	90	...	In 1,465-ft. crosscut and level.
	...	...	82·5	Average for mine.
Columbia and Smithfield	81·5	87	83·7	
1 N. Columbia and Smithfield	80	...	...	990-ft. level.
	...	88	...	1,325-ft. level.
	...	...	83·3	Average for mine.
2 N. Columbia and Smithfield	87·5	89	83	Very humid.
Glanmire, N.	73	78	74·5	
Glanmire, 1 N. (eastern shaft)	70	80	76	
Glanmire and Monkland, S.	79	87	83·8	Maximum in stopes above 1,160-ft. level on No. 3 reef.
Great Eastern, 1 S. ...	80	82	81	At 925-ft. level.
Great Eastern, 2 S. ...	80	90	83·5	
New Dawn	74	74	74	At 475-ft. level.
Oriental Consols ...	90	97	92·5	
Oriental Extended ...	80	82	80·5	At 1,206-ft. level.
Oriental and Glanmire	78	82	79·3	
Oriental and Glanmire, N.	81	85	83	At 1,600-ft. level.
Oriental and Glanmire, 1 N.	...	86	86	
Oriental and Glanmire, 1 S.	80	91	87·2	Working at 1,320-ft., 1,475-ft., and 1,920-ft. levels.
Oriental and Glanmire, E.	86	92	89·3	Working at 1,800-ft. level and 2,154-ft. level.
Phœnix, 4 N.	80	84	81·6	
Smithfield, N.	79	82	80	
Smithfield, 1 N. ...	83	85	83·5	
Smithfield and Phœnix Golden Pile	80	86	83	
Scottish Gympie ...	68	88	82·8	
Silver Spur	68	79	73·5	
United 7 and 8 Monkland	72	82	75	

Early in the year exhibitions were given at Gympie with the Holman machine rock-drill with a spray attachment for preventing dust. Two of these drills are now at work on the field, but the sprays are not used. It is probable the use of appliances for laying dust will not be frequent unless it is made compulsory. Of course, it would not be wise to use them indiscriminately, since, under certain circumstances, the increased humidity of the atmosphere might be a greater evil than the dust.

Machine rock-drills are now very generally used for putting up rises. One result is that, as the work is done quickly, managers frequently seem to think it not worth while to provide proper ventilation, and, incidentally I may add, to provide proper ladders. When the work is done by hand labour, and, consequently, at a slower rate, box-shoots are more frequently provided and carried up, also air-pipes are more often used. At Gympie of late the great necessity for keeping down expenses has been a contributing cause; still, to depend very much on compressed air for ventilation is a costly proceeding, and to be avoided if possible; but, of course, from an inspector's point of view, the method adopted is usually immaterial, so long as the desired result is achieved.

Sometimes it is found that underground sanitary arrangements are crude or not well looked after. Improvements are generally made when asked for, but the surface arrangements are frequently very much neglected.

The requirements of section 214 of "*The Mining Act of* 1898" are generally complied with, although

it is frequently necessary to insist on more attention to minor matters, such as the posting up of copies of the signal code and the absence of signal lines from the driver to the different plats. Some of these omissions are such as admit of no excuse.

Coal Mines.

The output of coal during 1907 shows an increase on preceding years, and there has also been an increase in the selling price. The increased output is to some extent due to the use of coal-cutting machines in the Ipswich district, and their use is likely to become greater in the near future, since, if the demand for coal continues to increase, it is improbable there will be sufficient miners to supply orders by hand labour. During the year Mr. W. R. Black has installed three coal-cutting machines at his Blackheath Colliery, and at two or three other collieries machines will probably be installed within the next year. The delay owing to the shortness of railway trucks, so often complained of in the Ipswich district, it is hoped, will soon be a thing of the past, an arrangement having been made whereby the department will build more trucks, and the coal proprietors are to build shoots at the mines capable of holding a considerable amount of coal.

The output of coal at the mines on the North Coast Railway has this year been below the average, but it will now be speedily increased, especially as the Dudley, Riverbank, and Torbanlea Collieries have been reopened.

The coal mines on the Darling Downs have been kept busy during the year. It is intended to increase the output at Tannymorel, where a tramway is about to be made between the colliery and the railway station.

The demand for coke far exceeded the quantity manufactured in the State, even after the decline in the price of copper caused so many mines to suspend operations.

During the year there were 21 accidents, resulting in the injury of 22 men, of whom 18 were disabled for 14 days or more and four for less periods. There were no fatal accidents. A return of accidents and their causes is forwarded herewith, and the following is a brief **summary:—**

10 men were injured by falls of ground, 8 of them being disabled for 14 days or more.

4 men were injured by truck and wagon accidents, 3 of them being disabled for 14 days or more.

2 men were injured by explosives, and disabled for 14 days or more.

2 men were injured and disabled for 14 days or more by an explosion of gas.

4 men were injured by miscellaneous accidents, 3 of them being disabled for 14 days or more.

As usual, there were more accidents attributable to falls of coal or roof than to any other cause. In some cases the accidents were evidently due to the absence of sprags or props; others, again, were due to causes apparently impossible to foresee.

It will be noticed that two men were injured by an explosion of gas. This is, fortunately, a cause of accident that does not figure very frequently in our returns, and a little forethought would have prevented the explosion referred to.

The monthly reports have furnished detailed information as to the ventilation of the mines when inspected. I regret that I am unable to record any great improvement in the methods adopted. The following is a list of the temperatures and the quantities of air circulating in the coal mines in this district:—

Name of Mine.	Temperatures.			Cubic Feet of Air Circulating per Minute.	Remarks.
	Minimum.	Maximum.	Average.		
	Deg.	Deg.	Deg.		
Abermain	75	81	79	9,542	
Blackheath—					
No. 1 Pit ...	72	80	75·5		
No. 2 Pit (Daylight)	72	80	76·5	6,480	
No. 3 Pit (Top Tunnel) ...	74	80	78	6,516	
Belmont	78	80	79·6	1,970	
Box Flat	64	86	78	15,187	
Bogside	62	76	70·8	19,132	
Bonnie Dundee ...	74	82	78	6,327	
Caledonian (Walloon)	78	84	81	10,431	
Eclipse (Tivoli) ...	72	77	74·5	13,400	
Fairbank	65	79	75	10,220	
Fernie Creek ...	70	77	74·4	8,936	
Federal (Oakey) ...	78	84	81·6	3,575	
Good Hope ...	77	81	79	2,465	
Gowrie	67	83	77	2,059	
Glencoe (Rosewood)	76	78	76·5	800	
Howard—					
No. 5 Pit ...	76	88	83·7	4,144	
No. 11 Pit ...	76	85	82	9,461	
No. 15 Pit ...	72	77	75·4	6,435	
Haighmoor ...	71	80	75·4	3,635	
New Swanbank—					
Denham Pit ...	74	80	77·8	12,091	
Mafeking Pit ...	74	78	76·7	10,470	
New Chum ...	78	84	81·5	9,335	
Riverbank ...	74	83	79	4,200	
Oakbank	74	77	75·5	...	New mine being developed.
Rhondda	67	78	75	11,164	
Rothwell Haigh ...	71	78	75·5	...	Air split very much.
Tannymorel ...	74	80	77·8	750	
Whitwood—					
No. 3 Pit ...	72	80	78·6	11,084	
No. 4 Pit ...	75	83	80	4,311	

From the above it will be seen that the quantity of air circulating in some mines is not very great, and, although the mines are small ones and the number of men employed in each is not large, there are a few mines in which it is desirable better provision for ventilation should be made, and in which instructions have been given as regards improvement. It is unnecessary to here recapitulate the defects mentioned in my last annual report. There are, of course, a number of mines in which the quantity of air supplied is sufficient, but in some cases it has been necessary to urge improvements, and in one or two instances more severe measures may be required. I must again draw attention to the bad practice of driving single levels and headings. This is in itself bad enough, but when they are driven very narrow and managers are dilatory in providing sheets to cause the air to circulate to the face the conditions become exceedingly unpleasant for those whose duty it is to work in them. Added to this is the danger should explosive gas be encountered, as was the case during the year at one colliery, in which an explosion occurred on a previous occasion, and in which explosive gas is frequently found. In some mines it is desirable that the methods of development should be very much altered if satisfactory ventilation is to be obtained, especially during the summer months, when the atmosphere is frequently very humid. In some cases it has been recommended that greater assistance should be given to the air currents by providing larger furnaces and upcast shafts than are often used, or in providing suitable mechanical appliances.

With reference to the methods of working adopted at some mines, incidentally it may be mentioned that, as mines are worked at a greater depth

in the near future, they will be very much altered, partly in order to concentrate underground traffic, partly owing to the use of coal-cutting machines, especially in thick seams, and to some extent owing to the weight of superincumbent strata. During the last half of the year considerable anxiety, damage, and loss have been caused at one colliery by a crush, and a fire caused by the spontaneous combustion of some of the fallen roof material.

At most of the collieries the machinery has been kept in fair working order. Some improvements are desirable at one or two collieries as regards the cages, and I propose to ask managers in future to instal safety cages whenever those now in use are replaced. A return of new and second-hand machinery erected during the year is forwarded herewith. The use of electricity in both coal and metalliferous mines is rapidly increasing, and, in view of the experience of mining men both in England and in New South Wales, it is desirable that regulations should be framed as soon as possible with regard to electrical plant installations and the use of electrically driven machinery in mines.

A return of rope tests is forwarded herewith. It would be well if, in some cases, ropes were cut and reshod more frequently. The methods of rope-shoeing sometimes adopted are rather antiquated and probably not very efficient. In the past year the attention of managers has been directed to both these matters.

Generally an honest attempt is made to comply with the provisions of the Mining Act, certainly in regard to its most important requirements, the chief cause of complaint being at a few mines regarding ventilation. Both the Mining Act and the special working rules in use at collieries contain certain provisions relative to the examination of the workings before the men commence work. The careful performance of this duty is extremely important, and it is just possible that at some mines the workings have extended so much that an increase in the number of men employed for the purpose is desirable, and in the case of one mine this has been done at my instigation. It is quite true that foremen being constantly travelling through the workings during the day gain a knowledge where special care is necessary, and are thus able to judge where more particular examinations are necessary when making their early rounds, still, if they have much ground to cover, there is always the chance of something being omitted. The special rules in force at collieries state that "immediately after the completion of the morning examination the result of it must be entered in a book to be kept at the mine for the purpose." The Mining Act also provides that there shall be no delay in writing this report, and that the book containing it shall be accessible to the workmen. These provisions are not sometimes carried out as they should be, although attention has, when necessary, been directed to them, and it is desirable they should be carefully obeyed. The report should be written before the men are admitted to the pit, and after having been read and initialled by the manager the book containing it could be placed in a tin case on a shelf in a convenient place.

ROBT. HUNTER, Inspector of Mines.

CENTRAL DIVISION.

(ROCKHAMPTON, MOUNT MORGAN, ETC.)

MR. A. E. FRYAR'S REPORT.

SIR,—I have the honour to submit my report on the work of inspection in the Central Division for the year 1907.

The accidents reported during the year as occurring in the Central Division number 28, involving 29 casualties, of which 5 were fatal, 20 resulted in disablement from work for 14 days or over, and 4 for periods of under 14 days.

Of the fatalities, two were caused through falls from smelter roof and ladder-way, respectively; one through an explosion; one through falling into pass; and one through fall of ground.

When reviewing the occurrence of these accidents, it seems reasonable to presume that three of them, with the exercise of ordinary care, should or could have been prevented.

In all, seven inquiries into accidents of a fatal or serious nature were held during the year.

The most prolific source of accident this year (unlike many of its predecessors) has been from miscellaneous causes, all of which it was not impossible with a little care to have prevented; the more so as the majority of them took place on the surface, where it would be natural to expect they should be less frequent than underground. In each case an absolute method of protection is not readily suggested, as nothing but carefulness on the part of each and every one concerned would appear to avert occurrences of a similar nature.

The next source of accident—*i.e.*, falls of ground—which is generally the most prolific, accounts for seven casualties, of which one resulted fatally.

This occurred in shallow ground (about 15 feet in depth), where one Joseph Bourne, who was engaged digging for sapphires in his own claim, at Anakie, was buried, and when discovered was found to be dead. Deceased, who was a young man, was said to be inexperienced, and neglected to timber his shaft, which collapsed after a heavy shower of rain.

Together, the foregoing sources account for more than half the total number of casualties which occurred throughout the past year.

COMPARATIVE STATEMENT OF MINING ACCIDENTS OCCURRING DURING THE YEARS 1906 AND 1907 ON THE GOLD AND MINERAL FIELDS OF THE CENTRAL DIVISION.

ACCIDENTS IN MINES AND WORKS.

—	Ratio of Miners Employed or Injured.		Ratio per 1,000 Miners Employed.		Increase per 1,000.	Decrease per 1,000.
	1906.	1907.	1906.	1907.	1907.	1907.
Total number of miners employed	5,334	5,809	...	...	...	...
Number killed or injured	32	29	5·812	4·992	...	·820
Number killed	7	5	1·331	·860	...	·471
Number disabled for 14 days or over	17	20	3·187	3·442	·255	...
Number disabled for less than 14 days	8	4	1·499	·688	...	·811

ANALYSIS OF ACCIDENTS WHICH OCCURRED IN THE MINING DISTRICTS OF THE CENTRAL INSPECTION DIVISION OF QUEENSLAND DURING THE YEAR 1907.

Cause of Accident.	District.																							
	Rockhampton.			Mount Morgan.			Tenningering.			Clermont.			Gladstone.			Biggenden.			Mackay.			Totals.		
	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.	Less than 14 Days' Disablement.	More than 14 Days' Disablement.	Fatal.
Shaft Accidents.																								
Men falling down shafts ...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Material falling down shafts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other shaft accidents ...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...
Falls of ground	1	1	...	1	...	...	...	1	...	...	1	1	...	1	...	...	...	...	...	...	...	2	4	1
Accidents in winzes and passes	...	..	...	...	1	1	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	1
Accidental explosions and blasting, &c., accidents	...	1	1	...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	3	1
Truck and wagon accidents	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	1	...
Miscellaneous	...	1	...	...	6	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	..	...	8	1
Falls from staging, brace, &c., accidents	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	1
Totals	2	3	2	1	10	1	...	2	1	...	2	1	1	2	...	...	1	...	...	...	...	4	20	5

When referring to the above table, it will be seen that a greater number of men have found employment at mining, or work in connection with mines, than in the year 1906.

It is, therefore, pleasing to note that the total casualties are less, as are also the fatalities and disablements of less than 14 days' duration, although disablements of 14 days or over show an increase.

In the case of the total number of casualties there has been a decrease per 1,000 men employed of ·820; in that of fatal accidents, a decrease of ·471 per 1,000 is shown; while of the trivial accidents—*i.e.*, under 14 days—there appears a decrease of ·811 per 1,000 men employed.

On the other hand, the disablements of 14 days or over show an increase as compared with 1906 of ·255 per 1,000 men employed.

No accidents have occurred in this division from men falling down shafts or materials falling down shafts.

Only two shaft accidents occurred throughout the year. Of these, one was of a trivial nature; the other somewhat serious, necessitating the sufferer being laid up for considerably over 14 days, and being of such a nature as to render an inquiry necessary.

This was a case where one Wm. Malcolmson, employed at the Peak Downs Copper Mine, while loading steel into the cage at a plat, was caught between the cage and top of the plat through the engine-driver taking the cage away without first having received the signal to do so. Malcolmson tried to get out of the cage on to the plat, but was caught in the act of doing so.

Of the accidents coming under the heading of "Accidents in Winzes and Passes," one of the sufferers sustained injuries resulting in over 14 days' disablement, the other being killed outright by falling down the pass, into which he was shovelling ore. This pass was covered, with the exception of a space 20 inches wide by 6 feet long, through which the ore was being shovelled to a level below. In addition to this, the mouth of the pass was well lit with electric light and by the candles of the miners (of whom deceased was one) working around it. Notwithstanding these precautions, the unfortunate fellow appears to have slipped through the opening described.

Accidental explosions and blasting accidents account for one fatal and four non-fatal accidents, the fatality being at the Great Fitzroy Copper Mine, where a miner named John Comerford was killed through the premature explosion of one of a number of holes which he was firing.

Of the accidents classed as "Truck and Wagon Accidents," there is only one to be recorded. The injured man was riding on an empty truck, which became derailed, throwing him off and lacerating one of his legs.

Falls from staging, braces, &c., are responsible for one fatal and two non-fatal. In the case of the fatality, the deceased (McCarthy) was ascending a ladder-way leading from a staging in front of a line of ore-bins to the top of the bins. He was employed as winchman, the winch being placed on top of the bins. While so doing, by some unaccountable means he fell off and was killed.

The work of inspection in this district, so far as I am personally concerned, was undertaken as from May last, since which time all of the centres have been visited (with the exception of Mackay) at least once, and in some instances considerably more. No stated time can be laid down for visiting the various centres, the visiting and the frequency thereof being chiefly—although not wholly—governed by the occurrences which take place from time to time in any or all of the mines.

In the month of July I was instructed to go to Cloncurry, the occasion being the occurrence of a fatal accident at the Great Australian Mine. An inquiry was held and a report furnished thereon.



THE PEAK DOWNS COPPER MINE, NEAR CLERMONT.

The increased activity throughout the whole of the Central Division during the year under review, more especially as regards copper-mining, is accountable for the greater number of miners employed. To this cause is also attributable an increase in the erection of machinery of all classes and description. Many properties which were in the prospecting or at most development stage in 1906 have this year become productive, and in consequence thereof have required efficient and up-to-date machinery for the treatment of their ores, some of which are of a very complex nature.

This (erection of plant) is especially noticeable at the Great Fitzroy Copper Mine, Mt. Cannindah, Glassford Creek, Mt. Hector, Harpur's Hill, and Peak Downs Copper Mines.

In all these new works it is a noticeable feature that attention has been directed to the requirements of "*The Mining Act of* 1898," especially so as regards the fencing of dangerous or exposed parts of machinery. That the safety of lives and property is uppermost in most managers' minds is recognisable in many ways throughout various parts of the mines and works. The aim of most managers seems to be to prevent accident of any and every description, and to this end constant care is taken. This cannot be said of the working miner, taken as a body, who seems to risk the chance of accident rather than prevent the occurrence thereof. Accidents of a preventable nature—preventable in the sense that those concerned can alone do so—take too prominent a place in the records for the year. This class of accident appears to be difficult of remedy, except by those directly responsible for their occurrence, which is generally the person injured. Unless some forethought and judgment is exercised by each and every individual miner employed in or about a mine, this class of accident, termed "Miscellaneous" in the table of accidents, must always take a prominent place in the list of mining casualties.

The provisions of the general rules, as contained in section 214 of "*The Mining Act of* 1898," have been continually enforced and, on the whole, well observed.

Section 206—"Interference with place of accident." This section has been well observed throughout the inspection division, the occurrence of an accident being reported immediately either to the Inspector or Warden, and the scene thereof being uninterfered with until an inspection has been made. On one occasion only was the scene of an accident interfered with prior to an inspection taking place.

Subsection 7, section 214 ("Fencing of entrance to shaft"), and subsection 8 ("Securing of shafts"), have both been well attended to, one accident only, but unfortunately a fatal one, happening in this connection. This was in the case of a miner working his own claim, which, when he had sunk to a depth of 15 feet, the shaft collapsed (through want of timber), burying the unfortunate man.

Subsection 31, section 214—"Appliances for cage." In connection with this subsection two cases came under my notice where cages were not provided with safety hooks or grips, but in each case a ladderway was provided in the shaft for men to descend or ascend. The wisdom of providing cages which when provided do not comply with the Act, so far as the necessary safety appliances are concerned, is not to be commended, as the temptation exists for people to ride in them (in preference to walking the ladderway), thereby endangering life, and at the same time violating the Act.

An instance of this kind came before my notice when visiting a certain mine. A miner, wishing to come to the surface rather hurriedly, got into the cage, and was taken up.

The opportunity was taken to point out to the management the inadvisability of having a way by which men could (at times) come to the surface, and yet for such way to be in contravention of a section of the Act.

Ropes.

No ropes have been reported as having broken during the year. The ropes are cut and reshod from time to time, on which occasion an examination (independent of the weekly examination) is made, also a test of the rope by the manager and engine-driver.

Up to the middle of December there were no means by which a rope could be efficiently tested at this centre. A Salter's rope-testing machine is now, however, installed here.

All ropes used in connection with mining can now be satisfactorily tested. The fact of this district being provided with an up-to-date testing machine will (when it becomes generally known) be of great benefit (as has been proved elsewhere) to the managers, miners, and mine-owners throughout the Central District.

Explosives.

The explosives used throughout the district appear to have been of good quality, no complaints having reached this office during the year.

At mines where opencut work is being carried out, dynamite and, as at Mt. Morgan, where the ground is suitable, large quantities of blasting powder is used. The explosive most generally used underground is blasting gelignite.

At the only fatal accident in connection with "blasting," gelignite was the brand of explosive in use, but the evidence forthcoming at the inquiry did not point to any inferiority with regard to its quality, but more to the fact of the sufferer having recharged an old "butt," which, being hot, no doubt caused the explosion of the charge to take place sooner than was anticipated. No attempt appeared to have been made to cool the butt before recharging.

Ventilation.

As might be expected in mines of a comparatively shallow depth, the ventilation is, on the whole, satisfactory. No gas of any description has been met with in any of the mines, if one may exclude the ordinary "black damp" or carbon dioxide which collects at times even in shallow workings which have remained unworked, or in which ventilation has been impaired for any length of time. At one small mine visited, where work had been suspended for a few days prior to my visit, there was noticeable in a winze sunk some 60 feet below a level a quantity of carbon dioxide. I was not able to get down, but it is quite probable that this body of gas was merely resting on an accumulation of water in the winze bottom, which, if disturbed by ordinary mining operations, would have dispersed what gas existed.

At the Bluff Colliery a small furance has been installed at the bottom of the upcast shaft, causing a good current of air to be circulated through the workings and rendering the mine well ventilated, about 4,200 cubic feet of air per minute being the volume passing.

Boilers.

All boilers have been subjected to the usual hydraulic test (prescribed by the Mining Act) during the year, the tests in most cases being made by the various companies' officials, and records of such tests signed by myself when visiting the mine.

The outlook for the present year as regards copper-mining in the Central Division does not appear to be nearly so satisfactory as at the opening of the past year. The fall in copper has had a considerable effect on properties, causing some of them to cease operations until market conditions improve. With improved prices we may hope to see work resumed in the several properties, which have been partly opened up, when no doubt with copper at a remunerative figure and confidence restored in mining circles the output will be increased, and a fair demand for labour exist throughout the whole of the Central Division.

A. E. FRYAR,

Inspector of Mines.

FIRST NORTHERN DIVISION.

(CHARTERS TOWERS, RAVENSWOOD, Etc.)

Mr. M. RUSSELL'S REPORT.

Sir,—I have the honour to submit the following report on the working of those parts of the Mining Act and Regulations it has been my duty to administer during the year ending 31st December, 1907.

The following is a *résumé* of the work as shown by the office diaries:—

Underground inspections of mines ...	206
Surface inspections of mines	137
Inspections of mills and cyanide works ...	39
Boilers tested	93
Ropes tested	189
Ropes condemned	3
Overwinds	2
Abandoned shafts protected	2
Accidents	33
Warden's inquiries	4
Mine manager's examination	1
Engine-drivers' examinations	3
Complaints	7
Special reports	6

During the early part of the year, while I was absent on leave, the office was in charge of Mr. Assistant Inspector Fryar. After my return, Mr. Fryar was transferred to Rockhampton, and Mr. C. I. Laun was appointed from the 1st October. Owing to the above changes, extensive outside inspections could not be undertaken, but early in the year I hope to visit the outlying districts.

The most pleasing feature in the year's work, perhaps, is the very short casualty roll, which shows a decrease of nearly 50 per cent. on last year's figures. This improvement may be due in a measure to the smaller number of men engaged in the work, although the decrease in this respect I estimate at 5 per cent. at the outside.

The condition of the mining industry is practically the same as at the close of last year, a little more attention being directed to the question of deep sinking.

During the year a scheme was set on foot by which a number of mines were to unite in sinking a deep shaft into the untried ground underlying the Brilliant. Unfortunately, the scheme fell through, which is to be regretted, since the striking of a payable reef beneath the one which has proved so highly profitable would be of inestimable benefit to the town.

The history of the old Brilliant P.C. shaft is, I think, very marked evidence of the existence of auriferous bodies below the Brilliant. It is, perhaps, not generally known that when Craven sank the Brilliant P.C. shaft he passed through the since renowned Brilliant reef as worthless, opening out some 500 or more feet below on another formation and reef. Upon returning to the Brilliant, and after a few feet of driving, the reef opened out to 4 or 5 feet of very rich stone. From this it would appear that, of the two formations cut, the lower one offered the greater inducement to open out on, and that being so there is no reason why it should not turn out at least something like the one next above it.

It is to be regretted that, owing to the recent lamentable Brilliant fire, the P.C. shaft is practically closed, thus preventing all chance of an inspection of the lower formation. In this connection, the only mine doing anything in the way of deep sinking is the Queen Cross Reef Company, which recently commenced to deepen their main shaft.

A perusal of the list of accidents shows 5 fatal and 28 non-fatal, of which latter number 25 were classed as serious.

An analysis of the list shows as follows:—

1 man killed by a fall of ground;
1 man killed by falling through tramway;
2 men killed through boring into dynamite;
1 man killed by a runaway truck;
5 men injured in connection with trucks;
1 man injured by falling from ladder;
1 man injured through material falling down shaft;
1 man injured while riding in shaft;
2 men injured in connection with passes;
1 man injured through picking into dynamite;
1 man injured in connection with machinery;
11 men injured through falls of ground;
5 men injured from miscellaneous causes.

The fatal accidents comprise the following:—

Geo. Smith, machine-man's assistant, was caught by a small fall of ground while carrying materials along the No. 4 west stope in the Brilliant Extended Mine.

Jas. Dowker, while acting as braceman at the Day Dawn P.C. Mine, fell through an opening he had previously made in the floor of his tramway.

Bertram Guy Cole and Fred. Roberts bored into unexploded dynamite after a misfire in a rise at Mills' United.

John Keith was killed by a runaway truck in a rising level at Kelly's Queen Block Mine.

Of the non-fatal accidents, sufficient details are given in the tables.

I attach hereto the usual statistical returns.

M. RUSSELL,

Inspector of Mines.



MINE AND WORKS, SMITH'S CREEK TIN MINES.



GLUTTON GULLY HYDRAULIC TIN-SLUICING PLANT, NEAR MOUNT GARNET.

SECOND NORTHERN DIVISION.

(HERBERTON, CHILLAGOE, Etc.)

Mr. S. HORSLEY'S REPORT.

Sir,—I have the honour to submit my report of the work of inspection in the Second Northern Division for the year 1907, as follows:—

Thirty-two accidents were reported during the year. Of these, 2 were fatal, 28 resulted in disablement for periods exceeding 14 days (mostly for a few days more), and 2 for periods less than 14 days. The following is a summary of the accidents during the year:—

Summary of Accidents—Second Northern Division.

During the year 1907.

	Periods Disabled. Under 14 Days.	Over 14 Days.	Killed.
Falling down shafts	...	1	...
Material falling down shafts ...	1	1	...
Other shaft accidents	...	1	...
Falls of ground	...	7	...
Winzes and passes	...	2	...
Accidental explosions and blasting	...	2	1
Machinery accidents	...	2	...
Falls from staging, brace, &c. ...	...	2	...
Truck and wagon accidents ...	1	...	...
Miscellaneous accidents... ...	...	10	1
Totals	2	28	2

One of the fatalities occurred underground, and the other on the surface, in the daytime. The circumstances surrounding the former case indicated self-destruction; in the latter case, death, which supervened four days after the accident, was the result of internal injuries inflicted by a steel rail carelessly placed by a fellow workman, whose name could not even be ascertained.

Of the 28 accidents involving disablement for periods exceeding 14 days, 11 were of a more or less serious character, leaving 17 of a minor nature. By far the most serious of these accidents happened to Michael Keegan, shift boss in the Jessica—one of the Buchanan Copper Mines—where a fall of ore dislocated his spine, and rendered recovery impracticable. In all the other cases the injured persons have recovered.

Five inquiries into the causes of a corresponding number of accidents were made during the year, before the Warden and four experienced miners in each case.

Much activity has been displayed in constructing tramways to the most important mineral centres, and in the erection of or additions to new machinery for mines and treatment works. A very small proportion of second-hand machinery has been erected, and this upon ventures of a tentative character only. A general desire is exhibited throughout the division to instal the most approved modern mining machinery.

Managers are duly registered for all the larger mines, as well as for many where only as few as two men are employed. A printed copy of the annual list of registered managers, sent to each manager, would probably lead to a wholesome recognition of the value of such registration, as well as assisting materially in obtaining such statistics connected with mining as may be required from time to time.

Plans of all the larger mines are generally readily accessible, but copies are not easily obtained owing chiefly to lack of appliances at many mines for the making of a copy.

Accidents arising from the use of explosives have largely decreased in the division. A case occurred during the year where death was narrowly missed because the injured man used a piece of iron piping, with a short piece of wood stuck in one end, instead of *an all wooden* tamping bar.

In some townships, the extension caused by increasing population has encroached upon the old storage magazines in use. These have been abandoned, and new ones erected in more sequestered places.

Thirty-nine mines in the division use wire ropes for steam haulage. These are regularly cut and reshod, sometimes—as in the case of corrosive copper mines—bi-monthly. Due attention is also directed to the frequent renewal of the copper pins in safety hooks, as these show considerable wear after even short usage in some cases, no matter what the kind of hook may be.

All boilers in the division are cleaned periodically, tested annually, and repaired as defects are discovered. The conservation of new supplies of good water, such as that in the Ibis dam at Irvinebank, will have the effect of increasing the life of many boilers and largely diminishing the cost of upkeep and repairs.

Excepting the usual warm "ends" in a long level or a rise, the ventilation of the mines in the division has been good during the year.

During the year I have forwarded 31 special reports on various matters.

S. HORSLEY, M.C.E.,

Inspector of Mines.

THIRD NORTHERN DIVISION.

Mr. HARVEY S. WARDE'S REPORT.

Sir,—I have the honour to submit my report upon the working of that portion of "*The Mining Act of* 1898" and Regulations thereunder which it is my duty to administer throughout the gold and mineral fields of the Third Northern Inspection Division, for portion of the year 1907, from May to the 31st December.

The following summary is a statement of the general work of inspection, as shown by the diary kept at this office:—

Underground inspections of mines ...	117
Surface inspections of mines and machinery	160
Inspections of mills and reductions works	46
Boilers tested (witnessed)	17
Ropes tested	42
Cages tested	1
Accidents reported and investigated ...	4
Special reports	1

In carrying out the above inspections, the following mining centres, &c., were visited, the number of times being stated in each case, viz.:—Golden Gate, 23; Georgetown, Cumberland, and Durham, 4 each; Golden Valley, Tabletop, Donnybrook, and Rocky, 3 each; Goldstone, Charleston, Mosquito,

Einasleigh, and Yarradan, 2 each; and Carron River, Ortona, Gilberton, Percy, Ebagoolah, Coen, Richmond, Esmeralda, and Stanhills, 1 each. These entailed absences from Croydon amounting to 125 days in a term of eight months.

All the principal mines of the division have been inspected during the term under review, in most cases several times.

There are at present only two cages equipped with safety catches in use in this division. One of these cages was tested in my presence—the other one not being in actual operation—the result being satisfactory. The cage dropped less than one inch when the rope was cut, the four grips acting simultaneously.

No Warden's inquiry was held during the year. In the case of the fatal accident—owing to the isolated position of the mine and to my absence on a visit of inspection to the Peninsula Goldfields—a justice of the peace was deputed to hear the inquiry. The evidence taken showed that the brace from which the man fell was not fenced.

Of the four accidents reported, one resulted fatally and the other three resulted in injuries sufficiently serious in nature to incapacitate the employees concerned for over 14 days in each case.

The first-mentioned was due, as before stated, to deceased falling off the brace while he was engaged turning a truck of mullock thereon, using a "strong-arm" for the purpose. The strong-arm slipped, and he fell to the ground, a distance of about 18 feet.

The other accidents do not call for special mention. One was caused by a fall of ground; one by a truck running on to a man's leg while he was turning it on a turntable; and the third was due to the injured man boring into the butt of a previously fired hole containing a remnant of the charge. There was an explosion, resulting in an injured hand.

Of the four accidents reported during the year, three (including the fatality) occurred on the Etheridge Goldfield and one at Horn Island.

No mining accident was reported as having occurred on the Croydon Goldfield.

There were no prosecutions initiated during the term under review in this division.

Compliance with the Provisions of the Mining Act.

The registration of managers is fairly well complied with, and the keeping of books, in which the results of weekly inspections are recorded, is insisted upon.

In most of the mines of this division the methods of storing and conveying explosives and detonators, both above and below ground, was faulty. These faults have been rectified to some extent, but there is still room for improvement. The use of wooden tamping rods and proper "pliers" for cutting fuse and fixing the detonator thereto is insisted upon. If the latter is provided, there is no excuse for the dangerous practice of using the teeth for that purpose.

Proper methods of fencing and securing shaft openings at the surface and brace have been insisted upon where possible by the installation of proper folding doors (where buckets are in use) and the erection of a suitable installation with shoots (where skips are used).

A number of headgears—chiefly whip-poles—are erected in such a way as to render it almost impossible to carry out entirely the above improvements owing to insufficient clearance and faulty design. In these cases the usual "brace-truck" is still in use. Although considerable improvement has been made in this connection, there is room for a great deal more.

Underground Workings.

Seventy-five separate mines were inspected underground (some of them several times). One shaft was condemned, and operations were suspended until it was retimbered; and another is now idle pending certain other improvements being made. In a number of instances it was found that too much ground was kept "open" in the stopes; directions were given that this defect was to be rectified by the proper stowing of and the use of more "filling." The "landings" at bottoms of vertical shafts at Golden Gate have also been improved.

The installation of indicators on winding engines has been recommended in a number of instances. Some of these were to be provided during the Christmas holidays, when the work of overhauling machinery is in progress.

Thirty-nine boilers have been in use during the term under review in this division, but some have only done a few months and in some cases weeks' work. All those in regular work have been tested, or will shortly be due for that operation. During the year 17 tests of boilers were witnessed. One boiler was thrown out of work on inspection before testing; four had to undergo considerable repairs before work was continued; and in four other instances minor defects were to be rectified. The repairs effected consisted of providing a new "crown plate," a new "uptake" in a vertical boiler, and the others of patching in different places. In none of these latter cases is the working pressure required high, and in two instances steam is only raised once or twice a week. In several instances new pressure gauges were required, and the safety-valves were to be readjusted.

No boiler explosions were reported as having occurred during the year under review.

Owing to the scattered nature of this division, I was unable to be present at the times the other tests were made.

In the case of machinery generally there is room for considerable improvement, and the provision for greater convenience for engine-drivers while handling winding engines could be effected with advantage.

Explosives.

There were no complaints received at this office with regard to explosives, detonators, or fuse. In one instance, 14 cases of blasting gelatine and some gelignite were found to have been stored for a longer period than is desirable. As a result of steps taken, samples were submitted for test to the proper authorities, and were found defective. The manager of the mine was notified to that effect, and directed not to use the explosive.

With reference to fuse, it may not be out of place to mention that in my last annual report—Central Division—I expressed an opinion that it would be desirable for managers of mines to institute a system of testing and recording the burning speed of the fuse in use, and bringing the result under the notice of the men using it.

The necessity for a practice of this kind is demonstrated by a paragraph appearing in the "Queensland Government Mining Journal" for June, 1907, where it is stated that the Inspector of Mines, Kalgoorlie (W.A.), recommends a similar course of action, which appears to have been adopted. The result of a number of tests showed that the burning speed varied as much as 52 seconds in lengths of 6 feet, in more than one instance.

The principal explosive used in this division is gelignite. In one or two instances, when shaft-sinking and cross-cutting was in progress, blasting gelatine was used.

One application for special permission to enable a larger quantity of explosive to be stored on a mine was made, and dealt with.

Ropes.

The number of ropes tested and condemned are shown on a table herewith attached, and are 42 and 2 respectively. Besides the ropes condemned, there are several cases in which the managers were informed that it would be necessary before long to put new ropes on; in others, that the ropes required more frequent and better lubrication; and in others, that the ropes were to be cut and reshod more frequently.

Ventilation.

Owing to the large number of vertical shafts at Golden Gate, rendering it an easy and inexpensive matter to connect the underground workings and to the limited extent of operations, the ventilation of the mines is fairly good.

The following are some of the highest temperatures observed while inspecting the underground workings: —

Mines.	Temperature, F. Degrees.		Degrees.
Content Block	82	to	88
Murray's Banner United ...	85	to	90*
No. 9 South (G.G.) Block ...	...		84
Nos. 3 and 4 South (G.G.) Block	87	to	88
Golden Gate Consols ...	92	to	93*
Better Luck	...		90
Jubilee	...		92*
Coen Great Northern ...	...		88
No. 1 Gold Mines	...		88
Nil Desperandum	...		87
Queenslander	...		82
Durham Consols	...		87
No. 8 South (G.G.) Block ...	...		92
Croydon Consols	...		92*

The temperatures marked thus * have all since been reduced by connecting the working places concerned, by winzes, with others, and by other means. In one instance, "air-stops" and "brattices" were used until a permanent return air-way was provided, and in another case a water-jet was used with fair results. The temperature was reduced, but the air was rendered more humid.

One test of mine air for the presence of carbonic acid gas was carried out, in a dead end 105 feet from an air-way. The temperature was 92 degs. Fahr., and the test showed that there was less than ·2 per cent. of the gas present. This was the most likely place observed during the underground inspections for an accumulation of CO_2.

Owing to the flat angle at which the Golden Gate reef dips in places, the stone requires a considerable amount of handling before it reaches the levels. When the mines are dry, this raises a considerable amount of dust. In two instances where this was the case the dust was laid by watering the broken quartz before shovelling was commenced, resulting in an improvement.

Abandoned Shafts.

The question of securing abandoned shafts in this division is at present a proposition surrounded with some difficulty. During the term under review directions were given for a large number of abandoned shafts, upon mining tenements, and being in dangerous conditions, to be rendered safe by fencing, covering, or by other means. One fatality was caused during the year by a child falling down a shaft—which had not previously been seen by me—while she and others were looking down and playing about it. Owing to this shaft being surrounded by a mullock heap, it was not in as dangerous a condition —except to children under above circumstances—as a large number of others on the field.

Besides the shafts on mining tenements, there are a large number on Crown lands which have been abandoned for a considerable number of years. In cases where the previous owners were found, they stated that when the ground was abandoned these shafts were left properly secured, and that in the meantime the fencing, &c., had rotted or the timber had been stolen. As there were reasons for not doubting these statements, no further action could be taken. The fact that such timber is still being stolen from such shafts has been clearly demonstrated, but it is difficult to trace the offenders. As these protections are provided for the public safety, every endeavour should be made by the public to prevent this being done, or to bring the wrongdoers to justice by reporting them to this office.

The town and shire councils of Croydon have been communicated with on this subject, and asked if, in certain instances, the way could be seen to secure some particularly dangerous excavations.

A suggestion was also made for consideration, viz.:—That some shafts in particularly dangerous positions—*i.e.*, near houses and roads—might be secured at the expense of the Government, an accurate account of expenditure being kept. Should the ground be at some subsequent time applied for, the applicant might be asked to defray the amount expended. As the applicant would be responsible for securing these shafts on becoming the owner of the land, he would only be paying for what had already been done for him.

To summarise the foregoing, it may be stated that, although the condition of the mines of this division has been improved during the term under discussion, there is still a good deal yet to be effected in that direction.

Two examinations for candidates desirous of becoming engine-drivers were held in Croydon. Owing to my absence on each occasion—visiting outlying localities—the examinations were conducted by Mr. Warden Tregear, the papers being duly forwarded to the Board of Examiners to be dealt with.

Comparative Statement of Mining Accidents Occurring during the Years 1906 and 1907 on the Gold and Mineral Fields of the Third Northern Inspection Division.

—	Number of Miners Employed or Injured.		Ratio per 1,000 Miners Employed.		Increase per 1,000.	Decrease per 1,000.
	1906.	1907.	1906.	1907.	1907.	1907.
Total number of miners employed	1,014	1,004	...	...	...	...
Number killed or injured	4	4	3·994	3·984	·040	..
Number killed	2	1	1·972	·996	...	·976
Number disabled for 14 days or over	...	3	...	2·988	2·988	
Number disabled for less than 14 days	2	...	1·972	...	...	1·972

HARVEY S. WARDE, Inspector of Mines.

REPORT OF THE DIRECTOR, SCHOOL OF MINES, CHARTERS TOWERS, FOR 1907.

SIR,—I have the honour, as director of the Charters Towers School of Mines, to submit the following report on the work for the year 1907.

The only course of lectures not given during the years was Materials, Calculations, and Structures, as applied to mining. A new course of lectures—viz., Optical Petrology—was given for the first time; occasional students had previously received instructions in this work. A regular course of class instruction has now been instituted for mining students. Two student's Petrological microscopes were added at the beginning of the year, and another should be to hand shortly. These, together with the larger Swift microscope, will probably be sufficient for the near future. Provision will be made in the new geological laboratory for the cutting and preparation of rock slices by students. A class in higher mathematics was held during the year. This subject should be a compulsory part of the associate course, but want of available time, and the general low plane of mathematical training of the students entering the School of Mines, precludes any such inclusion at present. A separate class in elementary mathematics will be instituted next year for the benefit of students who are backward and slow in this subject. This class ought to be largely availed of, as such instruction seems to be locally conspicuous by its absence.

A large supply of ores and metallurgical products has been obtained by presentation and purchase. The economic ores of Queensland are extremely wide and important, involving a wide range of ore dressing and metallurgical operations in their treatment. It is, therefore, necessary that metallurgical chemists and assayers should receive a sound and very wide training. The work of instruction in this branch has received keen attention and extension, and students must now make determinations of all the varied classes of commercial ores of this State before they receive a certificate.

The attendance of the regular classes of the school has been—

1906.

	First Term.	Second Term.	Third Term.
Total class attendance	264	204	175
Individual students	89	80	69
Subjects per student	3·0	2·5	2·5

1907.

	First Term.	Second Term.	Third Term.
Total class attendance	242	209	190
Individual students	81	71	68
Subjects per student	3·0	2·9	2·9

Although the number of individual students and the class attendance was not so good as at the beginning of the previous year, there was not such a large falling off during the session, and the year closed with a materially larger class attendance. The mining boom in other Queensland fields during the latter half of 1906 and the earlier half of 1907, together with the very depressed condition of the local field during the same period, considerably influenced the attendance; nevertheless, the attendance was smaller than I anticipated. As the laboratory accommodation was overtaxed, it has been inadvisable to generally advertise throughout Queensland the existence of this School of Mines, the nature of its work, and benefits to be derived from attending its course of instruction. The enlargements recently completed have removed this disability, so that the advantages of the school may be now fully placed before the public. The recent additions, together with those to be completed during the summer vacation, will add very greatly to the available accommodation and teaching facilities which existed at the commencement of the year. The new wing about to be erected will be used entirely as a chemical and assay laboratory and its necessary attendant equipment. The laboratory for qualitative and quantitative chemical analysis will be about 50 by 32 feet with present accommodation for about 70 students, and when fully equipped with working benches for about 90 students. As some students attend in the morning and others in the evening, it is possible to accommodate a greater number than if they all attended at one time. The furnace room will be 32 by 32 feet; the muffle furnaces will be fired from and the ashes of both pot and muffle furnaces withdrawn from the back. Special attention has been paid to the ventilation of this room. The new furnace room will be much cooler, more convenient, and more commodious than the old room. There will be a separate ore sampling and grinding room, so that this work may be done away from the heat of the furnaces. A large balance room is placed convenient for both assay and chemical work. There will also be a chemical storeroom and a re-agent preparation room. The latter convenience has been badly required ever since the school was started.

The removal of the chemical and assay laboratories from the present building enables a rearrangement and extension of the accommodation of the other departments. In the physics and mechanics department there will be an extension of the drawing and design room; an independent lecture room and a physics laboratory are to be provided. The geology department receives a museum room for the proper display of the large and valuable collection of rocks, minerals, and fossils. The new lecture room and laboratory will have increased accommodation and conveniences. The survey and mining department receives a large room for lectures, models, and survey drawing. The cheical department receives an apparatus and demonstrator's room in addition to the new laboratories.

After the forthcoming additions and alterations are completed, the accommodation will be sufficient to give instruction in courses already instituted until there is a very material increase in the number of students. Both my predecessor, Mr. W. A. Macleod, B.Sc., and myself have in various reports urged the great desirableness of providing this School of Mines with both engineering and metallurgical laboratories. There seems to be considerable misapprehension as to the nature of these laboratories. The object of these laboratories is experimental and instructional of the principles involved in these two branches rather than explanatory of industrial procedure. The engineering laboratory would be used for imparting instruction in the testing of steam engines, gas engines, &c., and in determining the fuel and steam consumption, &c., and the efficiency of the plant; in the experimental investigation of the properties and strength of building materials, &c., of hydraulics, friction, &c., and many other points of importance to a mining engineer who desires to have a good knowledge of the principles underlying that portion of his profession. Classes in fitting, turning, pattern-making, &c., are not contemplated in such a laboratory. The metallurgical laboratory would be to analytically teach the principles of metallurgy rather than to exemplify its practice. Professor H. M. Howe, of Columbia University, clearly deals with this matter in his little book "Metallurgical Laboratory Notes," in which he says:—"If the aim of our metallurgical laboratory study is to anticipate industrial practice, we should follow the applied metallurgy plan; if its aim is to teach principle rather than

practice, we should follow the analytical plan. It seems clear on general grounds that instruction in general should, so far as possible, deal with principles rather than the details of practice. But additional reasons, if any are needed, exist in case of metallurgical laboratory instruction, for the details of practice are learned inevitably, spontaneously, accurately, and with the greatest ease in practice itself, but with very great difficulty and distortion in the laboratory. Principles, on the other hand, are what the laboratory teaches most readily and perfectly, and practice least readily and most imperfectly. The path of least resistance, then, is to study principles in the laboratory and the details of practice in practice itself." A metallurgical laboratory would not, therefore, be a miniature ore dressing or smelting works, but one in which a great number and variety of metallurgical phenomena and reactions are experimentally investigated. Such laboratories can be built and maintained and made very efficient and effective at a moderate expenditure. The development of this School of Mines along the lines already followed and further indicated above should produce the educational efficiency for which the best American institutions are noted, and will enable its graduates to readily take their places in, acquire the practice of, and efficiently direct the operations of the many branches of the mineral industry.

During the year there has been a number of changes on the staff of the School of Mines. Mr. C. Walker, F.C.S., who was lecturer in Chemistry and Metallurgy since the inauguration of the school, resigned, and was succeeded by Mr. G. J. Saunders, B.E., previously senior demonstrator. Mr. J. A. Hughes was promoted from junior to senior demonstrator, and Mr. F. L. Cheshire was appointed junior demonstrator. Both Messrs. Hughes and Cheshire have received their chemical and analytical training at the Charters Towers School of Mines. Mr. A. R. Wight, Lecturer in Mathematics and secretary, resigned at the end of the third term.

It is very gratifying to notice the increasing number of graduates, past students, and students who are obtaining positions of responsibility in various parts of Queensland. In several cases I was asked for recommendations for positions, but was unable to give them, as, unfortunately, a sufficiently large number of qualified students was not at the time available. Students from this School of Mines have also been almost uniformly successful in passing the mine managers' examination. The influence of the School of Mines is being more strongly felt each year in the mineral industry of the State.

The introduction of the proposed system of scholarships and bursaries, for which an amount has been placed upon the Estimates, cannot fail to be very beneficial. It is proposed that the scholarships to be awarded on the results of the Senior Public Examination, and tenable for three years, should attract some of the well-educated Queensland youths who would otherwise go to the universities in the Southern States, and their trained services probably become eventually lost to their native State. A large number of brilliant Queensland young men have already been so lost. The proposed bursaries to be awarded annually on each year's work of both mining and metallurgical courses will be a great incentive and assistance to students in their studies.

I have, &c.,

WM. POOLE, Director.

APPENDIX TO ANNUAL REPORT OF 1907.

The results of the annual examinations have all been received, combined with those of the class examinations, &c., and the final results of the year's work determined. A list of successful students in each subject is herewith forwarded. On the whole, the results are gratifying, and show earnest work on the part of the majority of the students. I may specially draw attention to the success of the students in the Chemistry and Assay Laboratories, there having been only one failure among 43 students who entered for examination. The general result shows careful instruction on the part of the various lecturers and demonstrators. The policy of the school has been to impart comprehensive sound instruction and not to work for examination results, examinations being viewed more in the light of a necessary evil.

I beg to acknowledge the loyal and hearty co-operation of all members of the staff.

I have, &c.,

WM. POOLE.

REPORT OF THE EDITOR, "QUEENSLAND GOVERNMENT MINING JOURNAL."

While the attached figures show that the demand for the "Government Mining Journal" continues to increase, other information, received by the Department, the publishers, and Editor from different parts of the world, indicate that its influence is still widening, and that the standard of excellence which is aimed at is appreciated by competent judges.

During the year 1907 the number of copies of the Journal sold was 6,344, or 1,312 more than during 1906; while the increase for the latter year was nearly 600 as compared with the sales for the immediately preceding year. Many additional requests for free copies also came in from public libraries, reading-rooms, and other sources, with the result that the free circulation likewise increased, the additional issue for this purpose having been over 300.

The total number of copies circulated since the establishment of the Journal in 1900 will be seen to be 148,783.

As the chief object of the official publication is to advertise our mining industry, and, with this end in view, to circulate as widely as possible official and other reliable information concerning that industry, there has always been a liberal free distribution of the Journal both in Australasia and in the old country. Last year there were circulated gratuitously a total of 13,718 copies, which, with the 6,344 copies sold, made a total circulation for the twelve months of 20,062, or 2,125 copies more than for 1906.

It will be seen, too, from the accompanying tables that, while we have had to print more copies, and the generally high quality of the Journal from a typographical standpoint has been maintained, the net cost to the State for the last financial year

(viz., £1,094) was less than for the immediately preceding year. The slightly increased cost incurred for printing is mainly due to the larger number of Journals printed and the somewhat increased average size of the Journal. The demands on its space continue to increase, and necessitates additional care in the selection of matter and more condensation of some of the material available.

The information published in the Journal is availed of to a considerable degree by other publications, both in the Commonwealth and abroad; but the full extent to which this is done is not observable to the public, as many of the newspapers in Queensland, as well as a few in the other Australian States, regarding the official matter extracted as public property, do not give any acknowledgment of its source. While this practice may not be altogether fair to the official Journal, it is to be remembered that one of the objects for which it was established—to disseminate reliable information regarding our mining industry and mineral resources—is by this means assisted.

NUMBER OF QUEENSLAND GOVERNMENT MINING JOURNALS CIRCULATED TO DATE.

—	Circulated Free in London, &c.	Copies Sold.	Free List and Exchanges.	Total.
7 Months, 1900	3,850	1,343	2,706	7,899
12 „ 1901	25,137*	4,334	5,791	35,262
12 „ 1902	6,000	4,473	5,735	16,208
12 „ 1903	6,000	5,148	5,930	17,078
12 „ 1904	6,000	4,852	6,405	17,257
12 „ 1905	6,000	4,445	6,635	17,080
12 „ 1906	6,000	5,032	6,905	17,937
12 „ 1907	6,500†	6,344	7,218	20,062
Totals	65,487	35,971	47,325	148,783

* Includes special extra issue for Glasgow Exhibition (18,000). † Includes 500 distributed at Melbourne Exhibition.

EXPENDITURE AND RECEIPTS, 1ST JULY, 1901, TO 30TH JUNE, 1907.

—	1901–1902.	1902–1903.	1903–1904.	1904–1905.	1905–1906.	1906–1907.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenditure	1,395 17 9	1,304 0 3	1,286 19 5	1,232 0 3	1,258 2 3	1,249 6 9
Receipts from Advertisements and Sales	226 18 2	160 4 10	157 0 3	136 9 7	148 1 2	154 18 7
Net Cost	1,168 19 7	1,143 15 5	1,129 19 2	1,095 10 8	1,110 1 1	1,094 8 2

NET RECEIPTS FROM ADVERTISEMENTS AND SALES, RESPECTIVELY, TO 31ST DECEMBER, 1907.

—	Advertisements.	Sales.	Total.
	£ s. d.	£ s. d.	£ s. d.
7 Months, 1900	220 1 3	19 11 8	239 12 11
12 „ 1901	332 18 2	63 4 0	396 2 2
12 „ 1902	156 18 2	65 4 8	222 2 10
12 „ 1903	107 14 0	75 1 5	182 15 5
12 „ 1904	106 15 4	70 15 2	177 10 6
12 „ 1905	94 15 0	64 16 6	159 11 6
12 „ 1906	106 8 0	73 7 7	179 15 7
12 „ 1907	107 2 9	92 10 2	199 12 11
Totals	1,232 12 8	524 11 2	1,757 3 10

COST OF PRINTING, &c.

—	Total Cost of Printing.*	Average Cost per Issue.	Average Number of Pages per Issue.	Average Number Printed per Issue.
	£ s. d.	£ s. d.		
7 Months, 1900	505 9 1	72 4 2	58	1,800
12 „ 1901	626 5 11	52 3 10	62	1,538
12 „ 1902	635 19 10	53 0 6	61	1,513
12 „ 1903	663 12 10	55 6 1	62	1,579
12 „ 1904	658 11 0	54 17 7	59	1,600
12 „ 1905	650 15 3	54 4 7	62	1,550
12 „ 1906	664 19 6	55 8 3	62½	1,592
12 „ 1907	709 19 7	59 3 3	63	1,719

* Includes 12 ordinary issues, with cover, and General Index for binding.

WALTER J. MORLEY, Editor

ANNUAL PROGRESS REPORT OF THE GEOLOGICAL SURVEY OF QUEENSLAND FOR THE YEAR 1907.

SYNOPSIS.

REPORT of B. DUNSTAN, F.G.S., ACTING GOVERNMENT GEOLOGIST—

Movements, 1907.—29th January, returned to Brisbane from A.N.A. Exhibition at Melbourne; 8th to 27th March, in Central District, inspecting Dawson Coal Mines; 19th April to 19th May, in Central District, examining The Great Fitzroy Mine at Mount Chalmers; 26th June to 6th July, inspecting Jimbour Estate; 11th July, giving evidence on this case before the Land Court, Brisbane; 5th to 7th August, giving evidence at Maryborough Land Court on selec ion at Gundiah; 8th to 13th August, arranging display of Queensland Minerals in the National Agricultural Show, Brisbane; 28th August to 5th September, inspecting Morinish Goldfield; 27th September to 9th October, examined Bribie Island for coal indications; 17th and 18 h October, examined some mines at Gympie with a view of reporting on the advisableness or otherwise of granting Government assistance for further development; 16th to 20th November, for Thane Creek Goldfield, examining gold-bearing country, and attending Land Court at Warwick; 12th to 17th December, examining Mount Warminster Copper Mine.

REPORT of W. E. CAMERON, B.A., ASSISTANT GOVERNMENT GEOLOGIST—

Movements.—Wooloога Estate, Kilkivan (reserves for mining on), 16th to 18th January; Melbourne (Queensland Mining Court, Australian Exhibition), 23rd January to 12th March; Wooloога Estate, Kilkivan (reserves for mining on), 8th to 12th April; Ashgrove Station, Stanthorpe Field (alienation of mineral lands), 16th to 23rd April; Thane (Cullen's Twins Claim), 24th April; Jimbour Station (coal prospects on), 1st to 8th May; Stanthorpe (Pikedale Mine, Dredging Claims), 21st to 25th May; Stanthorpe (Sundown Tin Mine, Silver Spur Copper Mine, Queen Silver-Lead Mine), 3rd to 13th June; Kangaroo Hills (Dredging Areas), 25th June to 19th July; Bowen District (Perseverance Mine, Normanby and Lamington Mine, Proserpine), 19th July to 1st August; Etheridge Goldfield, 23rd August to 23rd November; Croydon (Golden Gate Consols, Highland Mary, and No. 1 Gold Mines), 26th to 29th November); Stanhills Tin Field, 30th November to 2nd December; Oaks Rush, 8th December; Einasleigh Copper Mine, 10th and 11th December.

Notes.—Wooloога Estate, Kilkivan District; Ashgrove Station Bores; Cullen's Twins Claim; Pikedale Mine; Sundown Tin Mine; Silver Spur Copper Mine; Queen Silver-Lead Mine; Kangaroo Hills Dredging Areas; Perseverance Mine, Bowen; The Lamington Mine, Bowen; Etheridge Goldfield.

REPORT of L. C. BALL, B.E., ASSISTANT GOVERNMENT GEOLOGIST—

Movements and Notes.—Cloncurry; Glenalvon Estate, Rosewood; Blue Bell Copper Mine, near Gympie; Coal Lands at Tingalpa; Bundamba and Goodna Coal Lands; Routine Work.

REPORT OF B. DUNSTAN, F.G.S., ACTING GOVERNMENT GEOLOGIST.

REVIEW OF THE YEAR.

The activity in the Geological Survey Office referred to in the last progress report has continued uninterruptedly throughout the year now under review, and a large amount of information has been disseminated either verbally, by correspondence, or by the publication of geological reports and plans.

The details of the work carried out by those employed in the office are given below, with the exception of that of Messrs. Cameron and Ball, Assistant Government Geologists, whose progress reports are appended.

We have lost the services of Mr. Fox, whose death is referred to later on, and the position of draftsman to the Geological Survey has been filled by Mr. Greenfield.

Mr. Dixon has been occupied exclusively in card-indexing, and his work includes the cataloguing of some of the annual reports of the Department of Mines and in helping me with the preparation of the "Queensland Mineral Index."

Mr. Byrne, the office clerk, in addition to attending to routine work, has also been of considerable assistance to me in compiling a complete list of all the analyses of Queensland coals, for inclusion in the Mineral Index.

Mr. Sythers, the caretaker, has carried out his duties in his usual energetic way, and has also been of great assistance in preparing a large collection of mineral specimens for the Franco-British Exhibition.

Mr. Westerman, temporarily employed by the Department since August, has been occupied in cataloguing, packing, and helping Mr. Sythers with the Franco-British exhibits.

Mr. Hartley, cadet, resigned during the year to take up a position at Mount Perry, and Mr. Blake has been put on the staff as cadet, on probation.

The principal work of the year has been the field operations of Mr. Cameron, who has made an examination of the mines of the Etheridge Goldfield; and of Mr. Ball, who has examined all the mines of the Cloncurry district; and my own work in the office in connection with the publication of the Mineral Index.

Other matters have, of course, received attention, and under the headings "Work in Preparation" and "Recent Geological Survey Publications" references are made to several reports which are being prepared for the Press or have already been issued.

In the library, 510 exchange publications have been received, and 23 works have been puchased, while 2,156 copies of our own reports have been sold, donated, or forwarded as exchanges. Our registers show that 1,106 mineral determinations have been recorded, of which 292 have been either assays or chemical analyses. We have made no attempt to record personal inquiries concerning minerals, although this duty has been a very heavy tax on us. The recent activity in the coal trade has called forth a vast number of questions bearing on the occurrence of coal in the Brisbane district, and, with the attenton paid to minerals which have recently been found to have a market value, and also to those whose value is well known, the office has been at times deluged with persons in want of information.

In the following pages notes are given on the Queensland minerals exhibited at the A.N.A. Exhibition in Melbourne and those forwarded recently to London; also on the Rockhampton water supply, coal near Brisbane, Museum notes, a general review of the work of the Geological Survey and the lines on which it should be improved.

APPLICATIONS FOR GEOLOGICAL COLLECTIONS.

We have not been able to spare, except at odd times, the services of an officer to deal with the requests for geological and mineral collections, and in consequence many of the applications from schools and colleges are held over until a favourable opportunity presents itself.

The collections already forwarded consist of a general assortment of minerals, by no means as complete as we desire, but useful for educational purposes. The schools which have been supplied are as follow:—

State School, Croydon.
State School, Leichhardt street (Boys), Brisbane.
State School, Milton.
State School, Cattle Creek, Mackay district.
State School, Golden Gate, Croydon.
Provisional School, True Blue, Croydon.
Technical College, Rockhampton.

Besides the above sets, individual specimens for some special purpose have been forwarded to prospectors and others when circumstances have warranted it, and small collections have been forwarded to other States for Museum purposes or as exchanges.

RECENT GEOLOGICAL SURVEY PUBLICATIONS.

During the year 1907 the following publications of the Geological Survey have been issued:—

West Moreton (Ipswich) Coalfield.—Second Report.*

This is a further report by Mr. Cameron on the Ipswich and Bundamba Coalfield, and contains a description of the localities where coal is now being worked, references to the geology of the Trias-Jura System in Southern Queensland, and the future prospects of the Bundamba district.

The report is accompanied by a general geological map of the whole of the Ipswich district, and by a larger scale map showing the geological details of the Bundamba Mining Area.

Mines in the Burnett District.†

This is a short report by myself on the following mines:—Calgoa Copper Mines, near Kilkivan; the Auburn Gold Mines; Dykehead Gold Mines; Burnett Squatter Reef; St. John's Creek alluvial workings; Don Jon Bismuth Mine, near Havilah; the Commonwealth Copper and Bismuth Mine, near Degilbo.

Goldfields of Cape York Peninsula.‡

Mr. Cameron, in this report, refers to the mining operations on the Starcke, Hamilton, and Coen Goldfields, and to the Cocoa Creek Gold and Antimony Reefs, McIvor River.

Norton Goldfield.§

Mr. Ball, in this report, deals with the history, geology, and the progress of operations on the various lines of reef on this goldfield, and gives an outline of the methods employed in the treatment of the ores by smelting and chlorination.

Annan River Tinfield.*

This report contains a general description of the alluvial deposits and lodes on this tinfield, and is illustrated by photographs of the workings on the claims and of the hydraulic sluicing operations in progress at the time of Mr. Cameron's visit.

Stanhills Tinfield.†

This report, by myself, contains a description of the old and recent workings in the vicinity of Bennion's Reef, and also of the Highland Mary line of reef, together with some notes on boring operations. The report is ilustrated by plans showing the position of Bennion's Reef and the Highland Mary Reef, and, so far as is known, their relations to one another.

Map of Cloncurry.‡

This map has been compiled by Mr. McLaren, draftsman, under the supervision of Mr. Ball, who has visited the field, and who has in hand a report on the Cloncurry Copper Mines.

The Great Fitzroy Copper Mines, Mount Chalmers.§

In this report, the whole of the underground developments of this important mine are described; accompanying plans show the position of the ore-bodies in horizontal and vertical sections; and an estimate is given of the value of the ore in different parts of the mine. Notes are given on fluxes and fuel, and analyses of the ore for metallurgical purposes are included.

WORK IN PREPARATION.

Index to Publications from Nos. 198 to 213.

Mr. Dixon has compiled an index (No. 4) of the publications of the Survey from Nos. 198 to 213, which includes Vol. 2 of the new series. He has given every attention to the work, and has produced an index perfect in every way. The index will be G.S.Q.P., No. 214.

Cloncurry Report.

This report, by Mr. Ball, contains a voluminous amount of information on the freeholds and mining leases in the Cloncurry District. The report has appeared in parts from time to time in the "Queensland Government Mining Journal," and is now being prepared for publication as G.S.Q.P., No. 215.

Geological Map of Queensland.

The great run on the small edition of the geological map of Queensland has necessitated the publication of another (third) edition, and this is now in the press. Mr. Greenfield, the draftsman, has the matter in hand, and some alterations of the geological lines and mineral localities will bring the work up to date. There are large areas of country in Queensland that we know are not accurately mapped, but, very slowly, we are removing these inaccuracies. The map will be published as G.S.Q.P., No. 217.

Etheridge Goldfield.

Mr. Cameron recently examined this field, and has in preparation a report dealing with its gold, silver, lead, and copper mines. A map showing the

* West Moreton (Ipswich) Coalfield, Second Report on, with special reference to the Bundamba District [with 2 maps, 1 plate, 3 figures]. By W.E.C. 8vo., pp. 37. By Auth. Bris. 1907 (G.S.Q.P., No. 204).

† Some Mines in the Burnett District [with 2 plans]. B.D. 8vo., pp. 19. By Auth. Bris. 1907 (G.S.Q.P., No. 207).

‡ Some Goldfields of Cape York Peninsula. By W.E.C. 8vo., pp. 21. By Auth. Bris. 1907 (G.S.Q.P., No. 209).

§ Report on the Norton Goldfield [with 1 map and 4 plates]. By L.C.B. 8vo., pp. 47. By Auth. Bris. 1906 (G.S.Q.P., No. 208).

* The Annan River Tinfield, Cooktown District [with 1 map and 14 plates]. By W.E.C. 8vo., pp. 27. By Auth. Bris. 1907 (G.S.Q.P., No. 210).

† Stanhills Tinfield (near Croydon) [with 2 plans and 3 photographs]. By B.D. 8vo., pp. 21. By Auth. Bris. 1907 (G.S.Q.P., No. 211).

‡ The Copper Mining District of Cloncurry, North Western Queensland (showing freeholds and mineral leases). Compiled from official and other sources. Scale, 6 miles to 1 inch. By Auth. Bris. 1907 (G.S.Q.P., No. 213).

§ The Great Fitzroy Copper and Gold Mines, Mount Chalmers, Rockhampton District [with 15 plates]. By B.D. 8vo., pp. 67. By Auth. Bris. 1907 (G.S.Q.P., No. 216).

whole of the Etheridge Goldfield is now being compiled under the supervision of Mr. Cameron, and will be published in conjunction with the report.

DRAFTING-ROOM.

It is with regret that we have to record the death of Mr. Fox, who for many years ably fulfilled the duties of draftsman in this office. Mr. Fox was first employed as lithographic draftsman in the Surveyor-General's Department, a position he took up in 1867. In 1893 he was retrenched from the service, but was in the same year temporarily employed here as draftsman, continuing in this capacity till 1896, when he received a permanent appointment.

Mr. Fox's work was of exceptional merit, and this his fellow professionals have always recognised, and which the geological maps and plans published by this office bear testimony. His kindly disposition and his readiness to always give one the benefit of his knowledge, and of his long experience in his work, has made his loss keenly felt by his fellow-officers.

Mr. Greenfield, who succeeded Mr. Fox, also comes to us from the Surveyor-General's Department, where he has been employed as draftsman and photographer for over twenty-two years, previous to which he was employed as lithographic artist with Messrs. Gibbs, Shallard, and Co., of Sydney. Mr. Greenfield has had experience in all the branches of the printing business, and we anticipate that he will prove a valuable acquisition to our office staff.

With a view of putting everything into order, and to carry out work systematically, the drafting-room arrangements have been considerably altered, and all the old office maps and plans are being overhauled. Later on it is proposed to have in the office a complete set of all the most recently published maps, on which will be charted all geological information and the positions of all gold, mineral, and coal lands throughout the State, and which will always be accessible to the public.

The drafting work in hand includes a new edition of the geological map of Queensland and a general map of the Etheridge Goldfield, besides smaller plans for various purposes.

TEMPORARY BULK STORE-ROOM.

The necessity of having accommodation for the large quantities of bulk mineral samples recently received by the Department for exhibition purposes has resulted in the use of the large map-room in the old Lands Office being temporarily granted as a store-room. It is very convenient for the permanent storage of bulk specimens not able to be shown in our Geological Survey Museum, and it is very desirable to have the use of it permanently or until the time comes for it to be demolished to allow of a street being formed between Queen street and North Quay.

The time is approaching when some permanent storage accommodation will have to be provided for our minerals, as the present store-room in the Museum cellar is now packed with specimens, office records, and Survey publications. It is not possible to place in it heavy specimens, and, being dark, damp, and badly ventilated, is altogether unsuitable for men to work in for hours at a time.

GEOLOGICAL SURVEY MUSEUM.

It is about ten years since any action has been taken to improve the usefulness of the Geological Survey Museum, and the condition of things has become almost lamentable. Our show-cases want renovating, specimens want renewing, minerals require classification, the cellars are packed with the specimens which should be in the show-cases, and the show-cases contain specimens which should be in the cellars; no palæontological work is undertaken, and the fossils and other specimens remain for years in the boxes in which they were packed when collected in the field. Our rock collections are much out of date, and the officers see the uselessness of collecting museum specimens when they are relegated to the store-room.

Without considering the scientific value of a proper classification for our specimens, there are commercial reasons why this work in the museum should be properly attended to, and, therefore, a permanent officer for museum work should be appointed.

Another useful branch of museum work consists in the utilisation of minerals, rocks, and fossils for technical education purposes. Some portion of the museum should be set apart for the display of specimens illustrating our Technical College standard of work in geology and mineralogy; and we should even make it convenient for students to be allowed to handle specimens under certain conditions. Technical Colleges in Queensland are giving instruction throughout the State in geological subjects, and each of these look to our office for working collections or for specimens to form a nucleus of a collection. The Education Department itself is supplied with test specimens from our collections to send to colleges at the annual examination at the end of the year.

Another change could with advantage be made in having the museum opened on Saturdays and Sundays. At present, the museum is opened from Monday to Friday, between the hours 9 a.m. to 4.30 p.m., and on Saturdays from 9 a.m. to 12 noon, the hours most inconvenient for students to attend. Were the museum opened on Saturday and Sunday afternoons, it would certainly be a convenience both to students and the public, and to allow of the usual weekly cleaning and the classification and arrangement of specimens the museum could be closed on Mondays.

The endeavour to keep pace with the demands on our services for outside work has caused the neglect of what we consider a very important duty—and that is the registration of all museum, cabinet, and store specimens. This work was not taken in hand when the survey was instituted, and the thousands of specimens waiting to be registered makes the task a very heavy one to any officer who cannot be allowed to devote his whole time to the work. The specimens collected by the geologists in connection with their work, as well as those which are obtained for the museum, should be registered as soon as possible after they are delivered to the office, and whether they are kept in the office cabinets, in the museum, in the store-room, or distributed to schools, they should bear a registration number.

QUEENSLAND MINERAL INDEX.

The work required in the compilation of the index has entailed much more time and very much more labour than was anticipated, and this has been augmented by the confusion which has been found to exist concerning the localities of minerals. In the past, the geologists, in reporting on mineral discoveries, have had in a large number of cases to give their positions only approximately, on account of the localities being unrecorded ones. Later on, when surveys are completed, their positions are defined, and, if near well-known towns, are described in relation to those towns. Afterwards, perhaps, a railway is built, and passes close to the localities, which further modifies the description, and this goes on

until the position of one place has been described in, it may be, five different ways by five writers—hence the confusion.

Recently the whole of the State has been divided into counties, and this division has been taken as a basis on which the locality portion of the index has been built up, all places being referred to their county and district, and to the gold, mineral, or coal field they may be on or near, and also their position with regard to some prominent railway station or coast town. The definitions thus given will be of great assistance to the general work of the office, and will be a useful mineral and mining guide to the public.

The index will be made up of about 10,000 mineral records, exclusive of the locality cross-references, and will also contain the latitude and longitude of all mining centres; a set of tables of all water bores and water analyses; sets of tables showing the analyses and references to all Queensland coals; sets of tables and diagrams showing mineral statistics; and several maps showing geological and mineral features.

NOTES ON THE ROCKHAMPTON WATER SUPPLY.

The water supply of Rockhampton is derived from a series of lagoons in low-lying country about a few miles north-west of the town and close to the Fitzroy River. In dry seasons, when the water is at a low level, springs make their appearance in the mudbanks of the lagoon, and furnish sufficient water for all the town's requirements.

During the year a long spell of dry weather was experienced, and it became doubtful whether the springs in the lagoon would hold out until rain came. It was desired to know if they could be depended upon to furnish sufficient water during longer periods of dry weather, should such occur, and if the unpleasant odour and taste of the water, as it comes from the springs, could be minimised or destroyed.

The supply, in the report furnished, was shown to be mainly dependent on the Fitzroy River; that the intake must be some considerable distance above Rockhampton; and that no diminution in quantity need be anticipated, even in longer spells of dry weather.

The contamination of the water was shown to be due to the presence of an iron salt in solution derived from the silt beds in which the water remains stored until the level of the water in the lagoons becomes sufficiently lowered to allow it to issue as springs. It was suggested that the principal agents in purifying the water, both in taste and odour, would be its exposure to air and sunlight.

COAL NEAR BRISBANE.

Many years ago coal was found close to the Brisbane River, at the place now known as Queensport, and since that time several endeavours have been made to develop the coal seams exposed here and in other localities in the eastern portion of the Brisbane or Moreton District.

Until quite recently, all prospecting operations have resulted in failure; but the present activity in the coal trade has stimulated the search for coal, and the present demand for reliable data concerning coal in the vicinity of Brisbane has necessitated some action being taken to have the required information furnished.

Attention has been drawn to the coal known to occur around the shores of Moreton Bay, and also to its reported occurrence at Bribie Island, and a geological survey of these areas, now contemplated, will be the means of placing before the public all that is known and all that can be deduced concerning the occurrence of payable coal.

Such a survey would entail the examination of a large area of country near the coast, including Moreton and Stradbroke Islands, Caloundra, Caboolture Creek, Sandgate, Humpybong, Nundah, Tingalpa, Bulimba, Kingston, Beenleigh, &c., and an endeavour should be made to connect the work with that already accomplished by Mr. Cameron on the Ipswich Coal Measures.

THE A.N.A. EXHIBITION IN MELBOURNE.

The Australian Natives' Association Exhibition held in Melbourne last January was of special interest to this State, as a large area of it was occupied with Queensland exhibits. The space reserved for Queensland minerals was 1,500 square feet, and in this we were able to place about 100 tons of bulky mineral specimens, and with such effect that the Mineral Court became the centre of attraction of the Exhibition. As an advertisement, the exhibit quite fulfilled its object, and fully justified the small expenditure it entailed.

Exhibits were shown from all parts of Queensland, except Cloncurry, and this omission was due to the rains at this time of the year preventing the mineral specimens from being forwarded.

Large bulk exhibits of copper ore were shown from Mount Molloy, Mount Morgan, O.K., Mount Perry, Chillagoe, Glassford Creek, Mount Cannindah, Mount Hector, Peak Downs, Great Fitzroy Mine at Mount Chalmers, St. George Mines, Calgoa Mines, and smaller exhibits from other copper mines.

Silver-lead ores were shown from the Silver Spur Mine at Texas, and the Chillagoe and Etheridge mines. The Chillagoe Company also exhibited a ton of silver-lead bullion.

The tin exhibits (stream tin and lode tin) included bulk samples from the mines at Stanthorpe, Koorboora, Stannary Hills, Herberton, Irvinebank, Fossilbrook, Coolgarra, Smith's Creek, Mount Garnet, Reid's Creek, Wild River, Nettle Creek, Emuford, Stanhills, and other localities.

Charters Towers, Gympie, and Croydon were represented by some fine block specimens, but want of space preventel larger quantities of quartz specimens being shown.

Wolfram, which is produced in greater quantities in Queensland than in any other part of the world, was exhibited from Wolfram Camp, Bamford, Mount Carbine, Irvinebank, Coolgarra, Rosedale, and Koorboora.

Molybdenite, a common associate of wolfram in Queensland, was shown from Wolfram Camp, Bamford, and Rosedale.

Bismuth, also a common associate of wolfram, was exhibited from Koorboora; from Lancelot Mines, at Newellton; and from Mount Biggenden. At the latter place there is a very large magnetic concentrating plant for separating the bismuth from the magnetite associated with it.

Iron ores, of which there is so much in Queensland, was represented by only two exhibits—one from Mount Lucy, near Chillagoe, and the other from Iron Island, near Broadsound.

There were also shown exhibits of chrome ore from Tungamul, in the Rockhampton district; monazite from California Creek and Coolgarra; manganese ore from Marodian and Gladstone; asbestos and chrysoprase from Princhester; scheelite from Parada; fluorspar from Stannary Hills; graphite from Mount

Bopple; opals from Western Queensland; topaz and cairngorm from Stanthorpe; beryls from Brooklands Station; rhodonite from Warwick; turquoise from Keppel Bay; and blue, yellow, and green sapphires and zircons from Anakie.

Representative of our coal mines, there were coal blocks from Bundamba (Ipswich), Howard (Maryborough), Dawson River, Bluff, &c. (Central Queensland), together with samples of metallurgical coke from the Bundamba, Howard, and Bluff Collieries.

A set of geological maps, plans, reports, photographs, "Queensland Government Mining Journals," annual reports of the Mines Department, and a large quantity of literature for distribution completed the collection.

MINERAL EXHIBIT AT THE BRISBANE SHOW, 1907.

A special feature of the National Agricultural Show, held last August, was a large display of minerals by the Mines Department. The bulk specimens returned from the A.N.A. Exhibition in Melbourne, with more recent acquisitions, made the exhibit as effective as that shown in Melbourne, and thoroughly represented Queensland's mineral resources.

FRANCO-BRITISH EXHIBITION.

When it was decided that Queensland should be represented at the Franco-British Exhibition to be held in London next May, applications were made to the principal mine-owners for specimens of the minerals they are working. Some of the specimens forwarded us were very small and of no special merit, although acceptable, but others were very large and well suited for display. Many of the blocks of ore weighed three or four hundredweight each, several weighed about half a ton, while others weighed over a ton, all being typical of the mines they were taken from.

We desired, and obtained, ordinary run-of-mine pieces of ore to show the character of the minerals being regularly produced, and a prominent feature observed in collecting the material was to include only that actually being produced in mines now working, specimens from abandoned mines being discarded.

Something should have been done to show the beauty of Queensland's building stones, which even Queenslanders know so little about; but it was considered inadvisable to take any action, and in this line there will be no representation.

We are able to show, however, ores containing gold, silver, lead, copper, tin, antimony, bismuth, wolfram, scheelite, molybdenite, monazite, iron, manganese, arsenic, and zinc; also coal, semi-anthracite, coke, graphite, magnesite, fireclay, tripolite, marble, opals, sapphires, beryls, topazes, and zircons.

The weight of the exhibits amount to between 60 and 70 tons, and will be ready for despatch about the middle of January.

In addition to the mineral collection, we are forwarding, for reference purposes, a complete set of plans of all gold, mineral, and coal fields; and, for general distribution, also several thousand copies of our Geological Survey Publications and Mining Journals.

JIMBOUR ESTATE.

In connection with the resumption of Jimbour Estate by the Government, inspections by myself and Mr. Cameron were made of those parts of it which have given indications of being coal-bearing. The Jimbour Estate is situated around the Macalister Railway Station, on the Western line, and is about 167 miles from Brisbane.

The greater portion of the estate is very flat country, such elevations as there are being only about 20 or 30 feet above the general levl of the surrounding plains, and consequently any coal seams which might occur could not be expected to be easily found.

Many years ago some coal seams were discovered on the estate while sinking for water close to Jimbour head station and at Dingo Point, and it is said that, from the shafts which were sunk, many tons of coal have been taken for household purposes and for gas-making. The gas retorts at Jimbour are evidence of the coal once being used for making gas, and an old discarded retort contains the coke remaining from the last charge of coal put in it, a sample of which yielded, in a recently made analysis, 20 per cent. of ash. The *débris* at the shafts at both places contains pieces of good coal, some of which, when cleaned and tested, was found to contain from 14 to 16 per cent. of ash.

During recent years coal has been found in some of the many bores put down for water on the estate, but no records concerning the coal have been kept, neither is it possible to obtain any reliable information about the thickness of the seams or their quality. It might appear that the neglect to record occurrences of coal would be some indication of its worthlessness, but in boring for water on this estate percussion drills were used, and a good seam of coal could be passed through without the well-borers recognising in it a valuable discovery, as there would be a considerable amount of earthy material brought up with the pieces of coal in the sand-pump. The absence, therefore, of definite information does not imply an absence of good coal seams.

The evidence accumulated during the examination shows that vast areas exist which have not been tested for coal, but that the conditions are very favourable for testing them should it be found desirable at any future time to exploit this portion of the Darling Downs Coal Measures.

GEOLOGICAL SURVEY PROGRESS.

The notes given under "Geological Publications" and "Work in Preparation" will show that the officers of the staff are kept constantly at high pressure making examinations of mines and of localities where minerals have been proved to exist, and also in preparing reports for publication. This is as it should be.

It is not desirable, however, that the geologists be limited to this kind of work, as there are a great number of places in Queensland which have never been examined and concerning which we have no information available as to their geological or mineral features. These localities should be investigated for the benefit of the prospector or miner later on.

The Gympie Goldfield has not been systematically examined for many years, and the absence of any recent official data is a serious drawback wher advice is required on any mining development on this field. There is enough work here to occupy the time and close attention of a geologist for more than a year, and the work should embrace careful surface and underground surveys, the making of topographical, geological, and mining maps and plans, together with a thorough study of all the rock structures and their relation to the reefs.

Charters Towers, like Gympie, is in need of a detailed geological survey, and surface and underground surveys should be made to connect up all the workings and to show the relation of each mine to

its neighbour, all of which should be shown on plans and sections. There is, on this field, sufficient work to keep a geologist fully employed for two years, and the information accumulated would be immensely more valuable than the time and money spent in acquiring it.

The Walsh and Tinaroo Mineral Fields, which include Chillagoe, Herberton, Irvinebank, Koorboora, Coolgarra, Fossilbrook, Tate River, Wolfram Camp, and many other important mining centres, are known to be exceedingly rich in mineral deposits, but no detailed geological surveys have been made of any of them. There is work here for a whole staff of geologists for years, and their employment would be of assistance to the general development of the fields.

The country at the head of the Boyne River, which includes the Glassford Creek and other copper-mining centres, should be examined. The work should not be simply to inspect and report on the mines in operation or abandoned, but the whole of the country in which mineral deposits might be expected to occur should be traversed. This survey would occupy a geologist and a staff of assistants for at least a year, and during the course of the work discoveries might be made which would show the wisdom of continuing the work for a much longer period.

In the Rockhampton District, the geological features of the country about Mount Chalmers, Mount Warminster, Tungamul, and Cawarral wants investigating, while the geological examination of Mount Morgan and its environs, long since promised, has never been undertaken. The coal measures on the Central Railway, and their continuation south beyond the Dawson Coal Mines towards the Western Railway, wants to be worked out; and also the northerly continuation of the Mackenzie Coal Measures.

In the Mackay district there are numerous places waiting for the inspection of the geologist, and the recent coal discoveries between Mackay and Bowen, which are of a promising character, warrant a careful examination being made of the country in the vicinity.

In the Beaudesert country much work has to be completed before a useful map of the district can be constructed. There are here large areas of coal lands ready to be geologically examined, and indications show that it might be found to contain oil deposits. Close to the New South Wales border there are deposits of tripolite known to exist, but, except from the observations of a casual prospector, we know very little concerning its geological features. This corner of Queensland should be examined, and there is a year's work to be done in making a general examination, without going into much detail.

The occurrence of coal close to Brisbane is a matter for investigation, and some preliminary work in this direction has been taken in hand. It is desired to know whether the coal outcrops known to occur at Bulimba, Tingalpa, Kingston, Nundah, and many other places around Brisbane are indicative of the existence of good coal seams, and it will be necessary to express an opinion on the evidence forthcoming as to the wisdom or otherwise of boring for coal in the vicinity of Moreton Bay or near the Brisbane River. Should boring operations produce negative results, then the question of the occurrence of workable coal near Brisbane can be set at rest, and the attention of investors and others can be directed to other fields where the prospects of finding coal are more favourable.

While touching on coal matters, reference should be made to the necessity of the Department undertaking the practical testing of bulk samples of coal, with a view of forming an estimate of their true economic value for steaming and other purposes.

There are other localities in the State where geological work should be undertaken, and, if made in only mineral-bearing country, would entail the examination of about 80,000 square miles, this being about one-eighth of the total area of Queensland. As a matter of fact, the whole of Queensland should be examined, without which no one can say that any part is not mineral-bearing.

At present, the whole of the field work in this 80,000 square miles is supposed to be carried out by three geologists, and no more forcible argument need be required in urging the employment of more men than that simple statement.

In the office and in the field, considerable assistance could be obtained by the employment of junior officers as cadets, field assistants, and office assistants in executing work laid out by the geologists. Such assistance would be economical from every point of view, more particularly in allowing the geologists to devote greater attention to work requiring special care and experience.

The employment of specialists would also enhance the value of the work of the Survey, allowing the geologists much more freedom for field operations, the studies in petrology, mineralogy, palæontology, &c., being more reliable and more quickly performed by those who would be constantly engaged at it. As specialists, we should have a mineralogist, petrologist, assayer, palæontologist, librarian, and museum curator, each of whom is necessary to effectively carry out the work of a geological survey. Sometimes specialists take up two of these branches of work, in which case the employment of three officers for such duties would be sufficient.

A comparison of our staff with others in various parts of the world show that we are about the lowest in position, when the mineral wealth of our State is taken into consideration. The areas of the States of New South Wales, Victoria, Tasmania, and New Zealand, in the aggregate, are not so large as the area of Queensland, and four geological survey staffs are employed in those four States to do the work. Altogether, they may have a larger area of mineral-bearing country than Queensland, but there is no doubt whatever that the mineral area in this State waiting to be developed is more than equal to the whole of the mineral areas in the abovementioned States, and we only employ three geologists.

Should a properly constituted staff be set to work on the lines indicated in the foregoing pages, not only would the conditions of our gold, mineral, and coal fields be improved, but large sums of money would undoubtedly be prevented from being spent in useless undertakings. We have mines or quarries now operating in gold, silver, lead, copper, tin, wolfram, scheelite, bismuth, molybdenite, antimony, manganese, chromite, ironstone, limestone, fireclay, opals, sapphires, graphite, coal and semi-anthracite; while prospecting developments are taking place in connection with the mining of monazite, tripolite, turquoise, phosphates, rutile, olivine, barytes, gypsum, talc, red ochre, fluorspar, mica, oil, and gas.

Those who are mining or prospecting for these minerals should be assisted in every way by indicating localities for operating; by advising on the value of the mineral products or on the value of the discovery of any new mineral; and by attracting the attention of mineral dealers and investors through the publication of numerous geological maps and plans. The cost entailed by such an extension of our work would be much greater than at present, but the pecuniary results would far more than compensate for the outlay.

SUMMARY OF ASSAYS AND ANALYSES DURING THE YEAR 1907.

Substances.	Number of Assays.
Chromic acid	2
Chromic acid, silica, and iron	1
Clay	6
Coal	15
Cobalt	1
Cobalt and nickel	1
Coke	1
Copper (*see* under "Gold")	—
Fluorine and lime	1
Gold and antimony	2
Gold and bismuth	1
Gold and copper	7
Gold, copper, and tin	1
Gold and silver	74
Gold, silver, and antimony	1
Gold, silver, antimony, and silica	1
Gold, silver, and bismuth	2
Gold, silver, and ceria group	1
Gold, silver, and copper	79
Gold, silver, copper, antimony, and arsenic	1
Gold, silver, copper, and lead	8
Gold, silver, copper, lead, and tin	1
Gold, silver, copper, lead, and zinc	3
Gold, silver, copper, lead, zinc, iron, silica, alumina, &c.	5
Gold, silver, copper, and sulphur	1
Gold, silver, copper, zinc, and chromium	2
Gold, silver, copper, and zinc	1
Gold, silver, copper, zinc, arsenic, bismuth, and lead	1
Gold, silver, and lead	15
Gold, silver, lead, and zinc	1
Gold, silver, magnesia, and tungstic acid	1
Gold, silver, manganese, and cobalt	3
Gold, silver, platinum, and tin	1
Gold, silver, and tin	1
Ilmenite	1
Iron	3
Laterite	1
Limestone	1
Magnesite	1
Magnesium	1
Manganese, carbonic acid, and silica	1
Manganese, &c.	6
Molybdenum	1
Petroleum	1
Phosphoric acid	1
Phosphates	1
Specific gravity and general determinations	5
Silver and copper	1
Silver and lead	4
Silver, lead, and zinc	1
Thoria	2
Tin	11
Tin and tungstic acid	1
Titanium and rare earths	1
Tripolite	2
Tungstic acid	2
Uranium	1
Total	292

Assays and Analyses of Special Importance.

Locality.	Result.	Oz.	dwt.	grs.	
Gold and Silver Ores.					
Greenbank, Mount Perry District	Gold	17	10	0	per ton
	Silver	10	16	0	„
Perseverance Reef, Normanby District	Gold	4	3	0	per ton
	Silver	2	9	0	„
Chinaman's Creek, Mount Ubi District	Gold	3	8	9	per ton
	Silver	3	3	14	„
Horn Island	Gold	5	6	0	per ton
	Silver	10	4	0	„

Gold and Antimony Ore.

Thornborough	Gold	2	11	14 per ton
	Antimony	69·8 per cent		

Gold and Copper Ore.

Cloncurry Hills, Mackinlay side of Cloncurry	Gold	13	0	0 per ton (about)
	Copper	6·2 per cent.		

Gold and Bismuth Ore.

Near Biggenden	Gold	0	11	9 per ton
	Bismuth	17·9 per cent.		

Gold, Silver, and Copper Ores.

Marengo, near Bowen	Gold	2	17	14 per ton
	Silver	3	2	9 „
	Copper	1·2 per cent.		
"Copper King," Proserpine District	Gold	0	4	9 per ton
	Silver	2	14	0 „
	Copper	11·0 per cent.		
Federal Prospecting Area, Kilkivan	Gold	0	0	14 per ton
	Silver	0	9	0 „
	Copper	19·1 per cent.		
Prospecting Area at Hatton, Mackay District	Gold	0	1	0 per ton
	Silver	39	17	0 „
	Copper	8·2 per cent.		
Silver King Mine, Mackay District	Gold	0	1	9 per ton
	Silver	78	7	0 „
	Copper	10·8 per cent.		
Kallanda, Kangaroo Hills	Gold	0	0	19 per ton
	Silver	0	4	19 „
	Copper	26·5 per cent.		
Villier's Copper Syndicate, "Soda Water," Ravenswood	Gold	0	3	4 per ton
	Silver	8	8	0 „
	Copper	20·1 per cent.		
Great Fitzroy Mine, Mount Chalmers (mean)	Gold	0	3	12 per ton
	Silver	1	0	0 „
	Copper	4·50 per cent.		

Gold, Silver, and Other Ores.

Widgee Side of Manumbar Range	Gold	0	4	19 per ton
	Silver	20	2	0 „
	Lead	35·7 per cent.		
Widgee	Gold	0	0	14 per ton
	Silver	7	2	0 „
	Lead	13·4 per cent.		
Emuford	Gold	0	0	19 per ton
	Silver	8	5	0 „
	Lead	17·2 per cent.		
Pikedale Mine, Stanthorpe District	Gold	Nil		
	Silver	15	0	0 per ton
	Copper	1·74 per cent.		
	Lead	2·49 „		
	Zinc	16·16 „		
Ballandean	Gold	Trace		
	Silver	3	19	0 per ton
	Copper	6·3 per cent.		
	Lead	12·3 „		
	Zinc	9·7 „		

Silver and Copper Ores.

Jack's Creek, Charters Towers District	Silver	35	18	0 per ton
	Copper	7·0 per cent.		

Silver and Lead Ores.

Torpy's Consols	Silver	53	0	0 per ton
	Lead	54·2 per cent.		
"Lady Jane" Mine	Silver	31	14	0 per ton
	Lead	62·2 per cent.		

Clay.

		Per cent.
Kelly's Clay Pit, Balmoral, Tingalpa	Silica	65·44
	Alumina	25·02
	Iron	Trace
	Lime	Nil
	Magnesia	0·75
	Loss at 100 C. ...	—
	Loss at red heat ...	7·72
	Alkalies	1·00
Mount Morgan ...	Silica	65·28
	Alumina	25·84
	Iron	Trace
	Lime	Nil
	Magnesia	0·79
	Loss at red heat ...	7·60
	Alkalies	0·61

Chromic Acid.

Tungamul	Chromic Acid ...	47·8 & 51·0

Coke.

Bluff Colliery ...	Moisture	1·17
	Fixed Carbon ...	85·47
	Ash	13·36

Fluorspar.

"Lass o' Gowrie" Mine	Fluorine	43·0
	Lime	64·3

Limestone.

		Per cent.
Tungamul	Silica and Insol. ...	0·32
	Lime	54·60

Magnesite.

Forest Gate, near Toowoomba	Magnesia	46·37
	Lime	1·55
	Carbonic Acid ...	50·96

Manganese.

Raglan District ...	Manganese ...	48·6
	Man. Dioxide ... (from the available oxygen)	70·8
Mount Miller ...	Manganese Dioxide (from the available oxygen)	83·9

Tripolite.

Nerang	Silica	86·0
	Iron and Alumina	5·2
	Lime	0·5
	Moisture at 100 C.	4·6
	Loss on Ignition ...	4·1

Tungsten.

Yorkie, *via* Miva? ...	Tungstic Acid ...	55·1

ANNUAL REPORT OF W. E. CAMERON, ASSISTANT GOVERNMENT GEOLOGIST, YEAR 1907.

Woolooga Estate, Kilkivan District.

Two applications that portions of the repurchased Woolooga Estate should be reserved for mining purposes necessitated visits to these localities. Enough evidence of the occurrence of, in the one case copper, and in the other case gold ores, was seen to warrant a small area being in each case reserved for mining purposes.

Ashgrove Station Bores.

The lessee of the grazing rights of this property having put down four bores for the purpose of watering stock, sought to purchase an area of 50 to 100 acres round each as a protection against disturbance by prospectors. In the case of one of the areas, the bore had been sunk a few feet from a shaft on a gold-bearing reef. An assay of the heap at grass here gave a return of 1 oz. 4 dwt. 9 gr. fine gold per ton. It was not deemed advisable to recommend the alienation of any land in this neighbourhood. An examination of the country surrounding the other three bores showed no indication of valuable minerals, so that in these cases there was no objection to the alienation of a small area round each bore.

Cullen's Twins Claim.

An application having been made for assistance in sinking on the reef in this claim, an inspection was made. Two shafts, lying east and west from each other, 18 feet apart, had been sunk to a depth of 40 feet on the reef and most of the stone taken out between. The westernmost shaft had been sunk a further 10 feet. I was unable to get the crushings, but was informed that they were poor. A sample from the heap on the surface gave only a trace of gold. The prospects of the reef becoming payable did not appear sufficiently encouraging to warrant the recommendation of any subsidy.

Pikedale Mine.

An inspection of this mine was made in connection with an application for assistance under "*The Mining Machinery Advances Act of* 1906" in aid of erecting plant for the treatment of the ore. The lode dips steeply to the south-west, in hardened shales, and the outcrop has been opened up by a number of shallow shafts, from which some 750 tons of oxidised ores are reported to have been smelted in 1896. The return is stated to have been about 5 per cent. copper, 30 oz. of silver per ton, and 1 dwt. 8 gr. of gold per ton. The high percentages of zinc in the ores below the water-level led to the closing down of the mine. The proposal, at the time of the application, was to spend about £4,000 on the erection of a roasting furnace, zinc flume condenser, copper smelter, Wilfley table, and magnetic concentrator. The amount of assistance asked for was £2,000.

At the time of my visit, the main shaft, sunk to a depth of 170 feet, had been unwatered to the 150-feet level, and the lode was being driven on at the 100-feet level south-east about 24 feet in from the shaft. The lode showed here about 3 feet to 4 feet of ore in the face. A sample from the broken ore assayed—Gold, a trace; silver, 15 oz. per ton; copper, 1·74 per cent.; lead, 2·49 per cent.; zinc, 16·16 per cent. The ore going north-west at the 100-feet level had been broken overhead for about 12 feet in, when it pinched out, the face of the drive showing very little ore. Down the shaft ore was seen for about 12 feet, when it is replaced by slate to the water-level. The conclusion was formed that the ore-body had not been sufficiently proved to warrant the expenditure being incurred on the surface, and on that account no recommendation could be made in favour of the granting of a subsidy in aid of the erection of treatment plant.

The Sundown Tin Mine.

An inspection was made of this mine on 3rd June, in connection with an application for a grant in aid of repairing the road from Ballandean Railway Station, 14 miles south of Stanthorpe. The road makes a drop of some 1,200 feet within 3 miles of the mine, which lies in the valley of Sundown Creek, about 2 miles from the Severn River. The mine is situated on the northern slope of the ridge forming the southern bank of the creek, and about 40 feet above its bed. The ore occurs for the most part as coarsely crystalline grains of cassiterite associated with calcite, and some arsenical pyrites and wolfram along the bedding and joint planes of hardened mudstones showing vertical stratification along a roughly north and south strike. The boundaries of the deposit are not well defined. It has been worked opencut for a distance of about 130 feet in from the hillside, showing a shoot of tin-bearing rock about 90 feet in length and about 6 feet across at the bottom of the opencut. A sink had been put down a depth of about 6 feet in the middle of the deposit, and showed tin still going down. From this opencut 66 tons 12 cwt. of black tin had been obtained to the end of 1906, the material being treated by hand-picking, breaking on a bucking-board, and sluicing. Somewhere about 3,000 tons of material have been excavated to get at this ore, and the tip shows tin pretty freely through it.

The results already obtained from this mine seemed sufficiently promising to warrant recommending the granting of a subsidy in aid of repairing the road to the mine.

Silver Spur Copper Mine.

An inspection of this mine was made on the 10th July, in connection with an application from the proprietor, Mr. Geo. S. Dods, for an advance of £1,000 under *"The Mining Machinery Advances Act of* 1906," to assist in erecting a smelter to treat the ore. The mine is situated about 1½ mile from the Silver Spur Mine. It is an old mine, which had been recently reopened, about 63 tons of copper ore, averaging about 15 per cent. of copper, having been recently sent away from the old stopes above the 60-feet level. These shipments were made up of enriched black oxide and carbonate ores obtained from that left in the old stopes above the water-level. At the 100-feet level there was no evidence of ore of any considerable value, and the proprietors were beginning to crosscut to find ore. The developments were not considered sufficiently advanced to warrant any expenditure on plant for treatment purposes.

Queen Silver-lead Mine, Ballandean.

An inspection of this mine was made on the 11th June in connection with an application for aid in sinking the shaft another 200 feet. The mine was reported* on by Mr. Ball, Assistant Government Geologist, in 1904, but he was unable to get below the 60-feet level. At the 60-feet level in vertical shaft No. 5 (the main shaft) a drive to the west cut the ore-body in 10 feet, and exposed a lode from 12 to 20 feet in width, and a winze was sunk on this ore-body to the 100-feet level, at which level it was joined up with the shaft sunk a few feet below that level. Just above the 100-feet level, at the time of my visit, the lode was being stoped down underhand as a roughly circular pipe about 20 feet in diameter, most of the ore between the 60-feet and 100-feet levels having been removed. This ore, consisting of galena, pyrites, chalcopyrite, and zinc-blende, had been crushed and dressed on Wilfley tables, and the concentrates shipped to smelting works. The ore above the 60-feet level, being oxidised, could not be treated in this way, and has been left standing.

The concentrates so far despatched had assayed from 21 oz. to 59 oz. silver per ton, from 21 to 39 per cent. lead, from 13 to 14 per cent. zinc, and from 13 to 20 per cent. sulphur, giving an average value of about £5 per ton at the works. The smelting charge had been about £3 per ton, varying with the percentages of zinc and sulphur in excess of 5 per cent. There had, therefore, been a fair profit on the shipping of the concentrates. The amount of stone crushed for this return did not, however, indicate a payable ore body. It appears, however, that the owners were dissatisfied with the manner in which the ore had been dressed, and expected better results under a new manager then recently appointed. It was considered advisable, therefore, to recommend that no action should be taken with regard to subsidising further sinking until the results of the treatment of the ore then being stoped should be available. Subsequently the returns from the 265 tons of stone crushed from above the 100-feet level were reported by the company to have given 47 tons of concentrates of a net value of £305 0s. 4d., or an average of £1 3s. per ton of stone as mined. The expenses were estimated at £1 7s. per ton of ore as mined. There did not, therefore, appear to be sufficient prospect of the mine proving payable at greater depths, even with improvements in the concentration, to warrant any recommendation for a subsidy in aid of further sinking.

Kangaroo Hills Dredging Areas.

About a fortnight was spent during June and July in the inspection of seven areas that had been taken up for dredging on this field in consequence of a petition from the alluvial miners of the district asking that the areas should not be granted for dredging purposes, as this would interfere with the alluvial miner. It was found that in the majority of cases the ground was not suitable for the alluvial miner owing to the depth of ground, and a report to that effect was furnished on 2nd August.

Perseverance Mine, Bowen District.

This mine was visited on the 20th July, in connection with an application for a grant of £200 in aid of sinking the reef a further 100 feet. The reef is in granite country, dipping flatly to the north, and had been worked down from the outcrop to about the 60-feet level, where a straight shaft 36 feet deep meets the reef, and is continued on down the flat underlie of the reef for about another 60 feet. At 33 feet below the bottom of the straight a level goes west 60 feet, and the stone has nearly all been stoped out above this level. The crushings show a return of about 90 tons of stone stoped out above the level, the stone having averaged about £5 2s. per ton in gold value. It was apparent, therefore, that the reef had been small above the level, but the good values were considered sufficient inducement to allow of the recommendation of a grant in aid of sinking a further 50 feet to test the mineral stone.

The Lamington Mine.

This mine is situated in hilly country at the head of Lah-di-dah Creek, a tributary of Kelsey Creek, on the east fall from the Normanby Goldfield, about 40 miles south from Bowen. The mine was discovered in 1898, when a bulk sample of 10 tons 16 cwt. 2 qr. of stone was sent to Illawarra, and gave a return of 2 oz. 13 dwt. per ton, of a value of £4 per oz. A five-head battery was erected in the next year, and during 1899, 1900, and 1901 there were crushed 223 tons 10 cwt. of stone for a return of 186 oz. gold, valued at from £2 15s. to £2 17s. per oz. This stone was obtained from shallow depths from a shaft sunk on the cap of the reef, and was all brownstone, and easily treated. During 1902 and 1903 little or nothing appears to have been done, but during 1904 the shaft was retimbered and sunk

M.M. Notes on tin, copper, and silver mining in the Stanthorpe District. By L.C.B. (G.S.Q. Pub., No. 191, p. 23, *et seq.*

from the 60 feet to the 120 feet. A level was driven at this depth along the reef towards the east for 45 feet. A crushing of 33 tons taken out along this level returned 61 oz. 7 dwt. of gold, valued at £120. The mine was then floated into a company, and a tunnel started in a southerly direction from the northern face of the east and west ridge (along the crest of which the outcrop of the reef rufis) to meet the reef 200 feet below the mouth of the shaft.

The occasion of my visit in July last was in connection with an application from the company for a grant of £500 from the deep-sinking vote in aid of sinking on the reef below the level of the tunnel to test the reef below the tunnel level. At that time the tunnel had met the reef at a distance of 303 feet from its mouth, and a level had been driven west along the reef for a distance of 113 feet. From about 20 feet to 30 feet fault country was passed through, but from there on to the end a shoot of mundic stone, consisting of hematite and copper pyrites with quartz lying along the bedding planes of the slates, was followed. This shoot of stone was stoped up for about 40 feet on either side of a rise, which was connected up with a winze from the upper (120 feet) level from the shaft. The reef showing underfoot along this level and the amount obtained by the stoping (90 tons) indicate an average thickness of reef of under 6 inches. The crushing of this stone gave about 19 oz. of gold in the battery and 22 tons of concentrates. The total value of the stone in copper, gold, and silver, taking in the assay returns of the concentrates and tailings, was given me as about £270. The concentrates assayed 1 oz. 6 dwt. gold per ton, 2 oz. silver per ton, and 4 per cent. copper, the tailings assaying 3 dwt. 6 gr. gold per ton. This gives an average value for the ore mined of about £3 per ton, provided all the value can be extracted. This material has not been payable under the method of extraction employed.

At the eastern foot of the ridge along which the outcrop runs, a tunnel has been driven west along apparently a continuation of the same line of lode. The length is 446 feet. This tunnel has not met anything of sufficient size to warrant stoping on. About 1 ton 15 cwt. of picked ore from this tunnel gave a return of 11 dwt. 12 gr. gold and 3·4 per cent. copper.

The following are the battery returns of the stone from the shaft and western tunnel workings as recorded in the Warden's reports:—

Year.	Stone Crushed.	Gold Yield in Battery.	Value per Oz
	Tons cwt.	Oz. dwt.	£ s.
1899 ..	116 10 ...	66 5 ...	2 15
1900 ...	13 0 ...	13 0 ...	2 17
1901 ...	94 0 ...	106 0 ...	2 17
			Value.
1904 ...	33 0 ...	61 7 ...	120 0
Total from brownstone	256 0 ...	246 12	
1907 ...	90 0 ...	19 0 ...	52 0

At the time of my visit the company was stoping brownstone above the 120-feet, and estimated that there was still another 70 tons to be taken out. It is quite possible that there may be other shoots of free milling golden stone along the outcrop which will pay to crush. The refractory nature of the stone below the zone of oxidation and the small size of the reef do not, however, hold out much prospect of there being a payable body of stone below the depths already exploited. The only possible treatment seems to be a smelting ore, and the small size of the reef and poor quality of the stone as yet found do not warrant the undertaking of smelting operations.

The prospects of improvement of the reef in depth did not seem sufficiently promising to warrant the recommendation of a subsidy in aid of further sinking.

Etheridge Goldfield.

Brisbane was left on the 23rd August and Georgetown reached a week later. The next three months were spent in visiting the various mining centres on this field. A report on the geological features and the mines that could be inspected is in course of preparation.

Croydon Goldfield.

This field was visited on 25th November, under instructions to inspect the No. 5 shaft of the Croydon Consols Company, which was being sunk on the underlie on the Golden Gate Reef. Fault country carrying no reef had been met with at a shallow depth, and had been passed through for a considerable distance. Before my arrival, however, quartz had again been picked up in the sink. As this showed every appearance of being on the same fissure as the reef above the fault, the only course was to continue prospecting the new "make" by continuing sinking further, and this was accordingly recommended. While at Croydon, the Highland Mary shaft and the No. 1 Gold Mines shaft, where prospecting operations are being subsidised by the Government, were also visited, but it would be impossible to offer opinions of any value on these enterprises without a much more detailed knowledge of the field than could be acquired in a few days' visit.

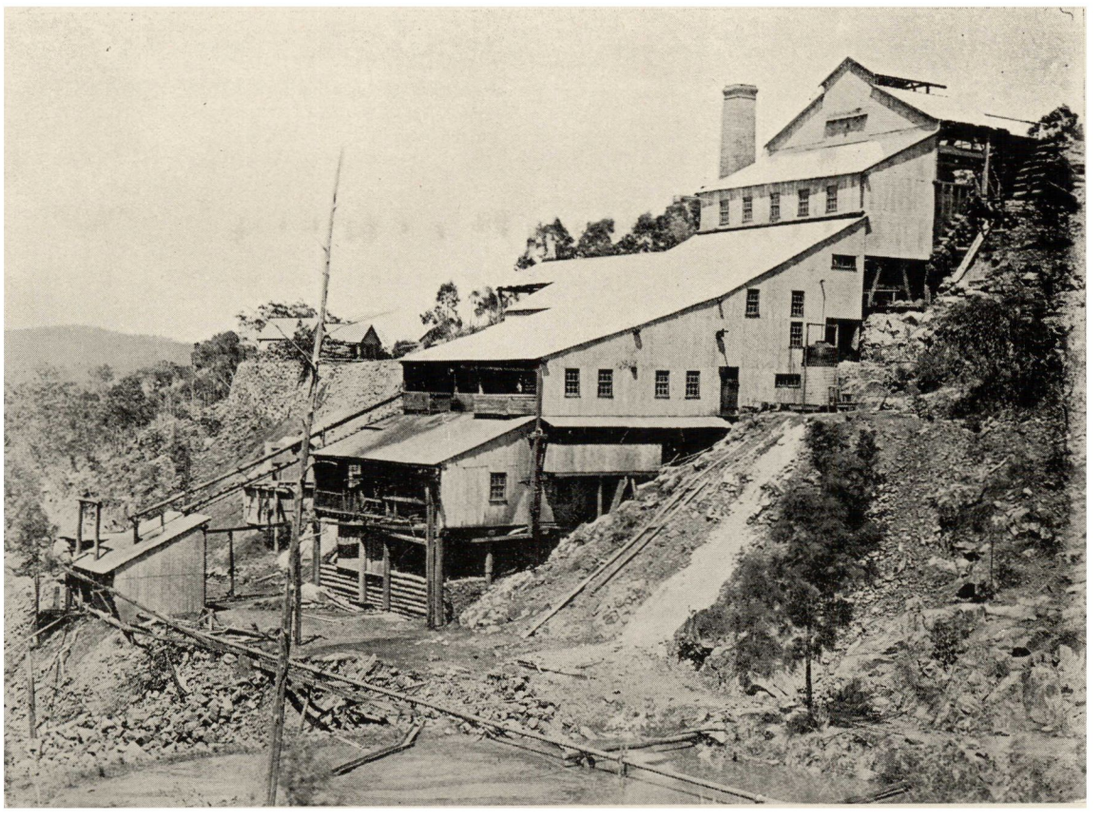
The Stanhills Tin Field.

A report on this field, accompanied by a sketch map, has recently been issued by Mr. Dunstan, Government Geologist. Since the date of his visit several fresh lodes have been discovered about halfway between Mistake and Rocky Creeks, about a mile and a-half north of the new Esmeralda road. These claims are situated about three miles from the battery on Rocky Creek.

The lodes at this place occur in the form of greisenised granite, and show prospects of being able to turn out considerable quantities of stone. Some promising trial crushings were obtained during the earlier part of the year, but the scarcity of water during the latter part considerably hampered prospecting operations, and at the time of my visit work had been suspended on several of the lodes until the advent of the wet season. Mr. McGregor, the owner of the mill on Rocky Creek, intended having the mill in good order by the time the wet season was over and carting could be undertaken, so that the new lodes should then have a thorough trial.

On the *Vincent P.C.* claim an opencut had been made into the outcrop of a lode running north and south along the western face of a granite ridge, and a vertical shaft had been sunk to a depth of 25 ft. on the lode. From 40 to 50 tons of ore from the opencut and shaft were stacked on the surface, and showed tin freely. I was unable to inspect the lode in the bottom of the shaft, but from the amount of tin-bearing material already obtained the lode would appear to be of considerable width and well worth further development. On a second lode lying about 50 yds. to the east an opencut had been taken in to cut a lode cropping out, and on the northern brow of the ridge, and a vertical shaft had been sunk to cut the lode. A crosscut from a depth of about 30 ft. is said to have exposed a 4-ft. lode at the bottom. This shaft also could not be examined. A crushing of 13 tons from here is said to have given over Wilfley tables in Croydon 24¾ cwt. of black tin. About 50 tons of ore from several other outcrops on this property were stacked near this shaft.

On the *Mount Casiterite* claim a shaft had been sunk 25 ft. on an irregular greisen formation, from which about 160 tons of tin-bearing material had



COOLGARRA BATTERY, NORTH QUEENSLAND.



WINTER AND COVENY'S WOLFRAM CLAIM, BAMFORD, NORTH QUEENSLAND.

been obtained by open-cutting along the surface. The tin had cut out in the shaft a few feet from the surface. A trial crushing of 12 tons of stone from the surface is reported to have returned 8½ per cent. of black tin by concentration on Wilfley tables at Croydon. The lode material here seems very ill-defined in its disposition in the rock, and a considerable amount of development will be necessary before the value of the lode can be judged of.

About 100 yds. to the north-east an opencut was being driven across a ridge of greisenised granite, showing tin freely through it, but, owing to the broken character of the outcrop, the width of tin-bearing material could only be guessed at.

On the older finds very little appears to have been done since Mr. Dunstan's inspection, and no work was going on at the time of my visit. On the *Brilliant lease* the tin-bearing material round No. 1 shaft had been taken out opencast in a circular pit about 12 ft. deep and 20 ft. in diameter, and about 20 tons of picked ore, estimated to carry about 20 per cent. of tinstone, were stacked on the surface. The tin here appeared to occur scattered through the granite in rich but irregularly distributed patches, which give no indication of any definite trend of the ore body. The shafts could not be inspected. On the *Comet* lode no fresh work appears to have been undertaken.

The finding of the new lodes at the Mount Cassiterite and Vincent claims has awakened fresh interest in the prospects of the field, and with the recommencement of custom crushings the value of this field as a tin producer should receive a fair trial.

The Oaks Alluvial Rush.

A few hours were spent at this place on the 8th December. The Copperfield River was followed up in a southerly direction to about 6 miles above Oaks Station, where about 60 men were camped on the western bank of the river, at the junction of a creek coming in from the west. This creek, on being followed up for about a mile, broke up into several gullies heading from three hills of porphyry standing out above the slates which make up the lower country surrounding them. Only two gullies were being worked by about 14 men; the remainder, having only just arrived on the ground, had not then had time to secure their ground. The gullies being worked were narrow and shallow, but the stone was fairly rich. The prospectors, Hawkins and Mack, had in eight weeks obtained 32 oz. of gold, having to pack their dirt to a waterhole at the junction of the creek with the river. They had also about 30 loads of dirt stacked reckoned to go from 1 oz. to 2 oz. to the load. This material was considered too poor to pay for carting to the water, the intention being to sluice it as soon as rain fell. These results were got from working about 150 yards of the creek on a slate floor, below the junction of the slate with the porphyry. Below this the prospectors report that the gold got poor.

In a second gully, over the next rise, Hill, in a party of four, had got 22 oz. in five days, while just above them Kerchaw, in a party of three, had got 8½ oz. in two days. About another 20 loads of 30 dwt. material was also stacked along the gully. The gold was shotty, with here and there a specimen. A trench put up towards the summit of the hill exposed ferruginous quartz veins, from a sample of which I obtained on crushing a few colours of gold, and which I judge to be the source of the alluvial. Below the gullies being worked are narrow flats, which showed possibilities of being payable if water could be brought on to them, notwithstanding the diminution in gold contents reported by the prospectors. The manner of occurrence did not hold out great hopes of important reefs in the immediate neighbourhood, but it is quite liekly that, although at the time of my visit gold had been found over only about a square mile of country in the immediate neighbourhood of the intrusions of porphyry, there will be other occurrences of the same nature in the surrounding district.

ANNUAL REPORT OF L. C. BALL, ASSISTANT GOVERNMENT GEOLOGIST, FOR THE YEAR 1907.

During the greater part of the year I was occupied in the preparation of reports* and maps† of the Cloncurry copper-mining district. Brisbane was not reached till 20th January, but a preliminary report and a map, showing the leases in force, were prepared in time for inclusion in the annual report of the Under Secretary for Mines for 1906. The full report has been appearing in monthly instalments in the "Queensland Government Mining Journal," beginning with the June issue. This has now been revised and should be ready in bulletin form soon after the last instalment appears in the Journal. In it reference is made to several hundred leases, claims, prospecting areas, and freeholds inspected, in addition to some holdings, which it was not possible for me to visit. Chapters on the geography, history, geology are also included, together with statistics of the field.

Field Work.

A visit was paid in July to the Glenalvon Estate, near Rosewood, in the Ipswich district, in consequence of the rumoured striking of oil in a bore there. The report proved to be unfounded, though a slight escape of gas was noticed and reported on.‡

From the 29th July to 3rd August, I was absent from Brisbane, in connection with an examination of the Blue Bell Copper Mine, in the Gympie district. My report,* on the whole, proved to be unfavourable.

On the 12th September, certain coal lands at Tingalpa, between Brisbane and Cleveland, were examined, and a report† thereon was afterwards sent in.

A request by the Railway Department for reports on certain lands in the Bundamba and Goodna districts, necessitated my paying several visits (extending from 16th to 18th October, from 21st to 23rd October, from 29th October to 1st November, and from 12th to 15th November) to the former, and one (from 20th to 23rd November) to the latter. Advantage was taken of the occasion to visit most of the mines, and, as far as possible, to bring up to date the excellent work done, during 1905, by Mr. Cameron in the mapping of the field. Several collieries (the Belmont, Wattleglen, and Harris's) have reached the producing stage since the date of Mr. Cameron's inspection, and numerous prospecting pits have elucidated many problems, then not to be solved with any degree of certainty. The work done by me, being

* Ann. Rep. Mines Dept. for the year 1906, p. 14. *Also* Q.G.M.J., March, 1907, p. 115.

† Q.G.M.J., June, 1907, Geological Map; scale, 18 miles to an inch.

‡ Q.G.M.J., July, 1907, p. 372. "Glenalvon Bores, Rosewood."

* Q.G.M.J., Oct., 1907, p. 524. "The Blue Bell Copper Mine."

† Q.G.M.J., Nov., 1907, p. 580. "The occurrence of coal in the vicinity of Brisbane."

incomplete, has now been handed over to Mr. Cameron, as I shall have no opportunity of continuing it in the near future.

Routine.

During the absence in the field of Mr. Dunstan, Acting Government Geologist, much of my time was taken up in the routine of the office, answering inquiries by the general public and examining samples and specimens received for determination or analysis often requiring my whole attention. Some time was spent in the analysis of the results of various tests of Queensland coals, and superintendence was given to the preparation of a map showing all freeholds in the eastern part of the Moreton district.

Short reports and memoranda in addition to those mentioned above were written on asbestos from near Townsville,* and on other subjects for departmental purposes.

On the 18th December, my annual vacation was to have commenced, but instruction was then given me to proceed to London in connection with the mineral display to be made at the Franco-British Exhibition. The remainder of the year was in consequence spent in preparation for my departure.

* Q.G.M.J., Oct., 1907, p. 528. "Asbestos in Queensland."

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