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THE PROGRESS OF
THE MINERAL INDUSTRY
OF
TASMANIA,

FOR THE QUARTER ENDING 31ST MARCH, 1903.

COMPILED BY

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BY ORDER OF

THE HONOURABLE CARMICHAEL LYNE,

MINISTER OF MINES.



Tasmania:

JOHN VAIL, GOVERNMENT PRINTER, HOBART.

1903.



PROGRESS OF THE MINERAL INDUSTRY OF TASMANIA

FOR THE QUARTER ENDING 31st MARCH, 1903.

*Launceston,
26th May, 1903.*

THE following Table shows, as far as can be ascertained, the quantities and values of Metals and Minerals raised and exported during the Quarter ending 31st March, 1903, compared with the corresponding Quarter in 1902, and the previous Quarter ending 31st December, 1902:—

	During the Quarter ending 31st Mar., 1903.		During the Quarter ending 31st Mar., 1902.		During the Quarter ending 31st Dec., 1902.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold won	ozs. 14,167 ^{•106}	£ 60,178	16,412 ^{•961}	£ 69,717	17,599 ^{•059}	£ 74,756
Auriferous Quartz and Pyrites exported	tons 34	790	55½	1083	57	1111
Silver Ore exported	4545½	43,434	4205	39,059	6367	59,925
Blister Copper exported	755	35,659†	2402½	170,786†	1102	82,671†
Copper Ore exported .....	...	...	1326½	23,430	3½	21
Iron Ore exported	310	310	745	645	355	355
Coal raised	10,414	8852	11,547	9815	12,076	10,264
Silver-lead Bullion exported	2065½	70,416	1093½	36,031	1364	47,729
Tin Ore exported	78½	3464	63½	1968	57½	2601
Tin (metallic) exported	515½	66,738	373½	41,832	617	71,443
Gold Quartz exported	13	25	5½	50	42	62
Copper exported .....	...	...	...	...	261½	10,066
Copper Matte exported	1912	39,258	50	1250	2175	43,612
Silver exported	ozs. ...	...	...	...	44	4
Copper Concentrates ex- ported	tons. ...	...	...	...	16½	330
Zinc Ore exported	102½	309	183½	1425	...	...
Zinc-blende exported	½	60	...	...	...	...
TOTAL VALUE .....	... £	329,493	... £	397,091	... £	404,950
				15s. 9d.		

* Fine gold, including gold obtained from blister copper and silver-lead bullion.

† Value of gold contents deducted.

GOLD.

During the past quarter 6192½ ozs. of gold were obtained from quartz, 219½ ozs. from alluvial, 1931 ozs. by means of the cyanide and chlorination processes, 4896 ozs. from the blister copper from the Mount Lyell Mining and Railway Company, Limited, 653 ozs. from the silver-lead bullion from the Tasmanian Smelting Company's Works, Zeehan, and 1065 ozs. from the sulphide ores from Mt. Read.

The following Table shows the quantities obtained from the various sources on the different fields during the period under review:—

Gold obtained during the Quarter ending 31st March, 1903.							
	From Quartz.	Alluvial.	Cyanide & Chlorination.	From Blister Copper.	From Silver-lead Bullion.	From Sulphide Ores.	TOTAL.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
Beaconsfield	3282½	4	1232	...	...	...	4518½
Mathinna ...	2466	...	577	...	...	...	3043
Mt. Victoria	121	8	...	...	...	...	129
Warrentinna							
Lefroy	260	...	122	...	...	...	382
Lisle .....	...	159	...	...	...	...	159
Golconda ...							
Mangana ...	...	14	...	...	...	...	14
Bell Mount.	...	16	...	...	...	...	16
Middlesex ...	...	...	...	...	...	...	...
West Coast.	...	18½	...	4896	653	1065	6632½
TOTALS	6129½	219½	1931	4896	653	1065	14,894

Value £60,178; equal to 14,167·106 ozs. fine gold.

BEACONSFIELD.—Five hundred and nine men have been engaged in mining on this field during the quarter. Of these, 18 were prospectors, and the remainder employed by mining companies.

Revised offers for the purchase of the *Tasmania Mine* have been received from England, but to the present date no final arrangement has been arrived at. The latest offer (to be submitted to shareholders) is the formation of a Company with a nominal capital of £500,000, in fully paid-up shares of £1 each. Working capital £160,000, of which £10,000 will be for the present Company's liabilities.

During the quarter 7295 tons quartz were crushed, and 4022 ozs. gold produced (by amalgamation and chlorination), bringing the total since the formation of the company to 491,519 tons crushed, and 567,329 ozs. 3 dwts, 17 grs. gold obtained, of a value of £2,081,768 16s. 1d. No dividends were distributed this quarter.

Five winzes have been sunk from the 818-foot level, all of them going down in good stone, ranging between 1 and 2 ounces of gold

per ton. The deepest winze is down between 60 and 70 feet, and the level of the water in the mine appears to be at about that depth. The diminished yield of the stone crushed is due to the stopes being at a poor end of the reef, and to the richer ground below the 818-foot level not being opened up for stoping in consequence of the influx of water last August. The mine cannot be put into condition for continuous and economical work without an increase of pumping-power. Four hundred and fifty men have been employed.

Moonlight-cum-Wonder Mine.—Fourteen men have been at work at the 500-foot level and on the Olive Branch section. Fifteen and a half ozs. gold were returned from the battery during the quarter. The stone at the 500-foot level has been bunchy. The Olive Branch tribute has not been successful. An attempt is being made to sluice on this side of the hill.

Bonanza Mine.—Shaft-sinking has been continued, and a depth of 280 feet has been reached. Since the close of the quarter auriferous quartz and pyrites have been met with in sinking. The quartz shows nice coarse gold, and a sample of pyrites yielded by assay 5 ozs. 1 dwt. 19 grs. gold per ton.

The *New Tasmania United Company* is taking up the Tasmania United Mine, which is situated on the section adjoining the Tasmania West Extended. A shaft was sunk 150 feet deep, and a crosscut is to intersect the reef.

Tasman Ophir Mine.—The shaft is being sunk to the 460 feet, when a start will be made at once to drive the 97 feet necessary to connect with the 460-foot drive. In sinking, a strong quartz reef was reported as having been passed through, and the latest news from the mine is that payable wash has been struck at a shallow-level in an old shaft. When the above connections are made, the bottom of the mine can be properly examined, and the true position of things ascertained. The reports in the past treating of the bottom drive (460 feet) give rise to conflicting views. At 117 feet in this drive sandy clay was cut, which was considered to be the gutter, as it contained grit and small pieces of slate. A black pug rested on the slate. The clay was found in driving to enclose disintegrated sandstone, and further in was stated to contain patches of wash, with pyrites, boulders, angular and rounded stones, &c. Small boulders from 4 inches to 1 foot diameter continued to 175 feet, and then limestone was met with, the pug and boulders dipping under it. A small winze at the end of the drive was sunk 28 feet through the pug and boulder formation into limestone. Another winze was sunk on the underlay of the sandstone down to its junction with limestone, under which it dips. A matter which requires settling is, how much in this mine is alluvial, and how much disintegrated rock.

Amalgamated West Tasmania.—Work has been started again here, and the drive south is being extended.

Salisbury Mine.—Driving here towards the lode has been continued. A little prospecting has been carried on at the south end

of the Cabbage-tree Hill. The strata are practically continuous throughout the range, and quartz reefs are likely to carry gold in any part of the hill. Exploratory work is consequently highly legitimate.

LEFROY.—Eighty men have been employed on this field, 50 of whom were engaged at the *New Pinafore*. At this mine crosscutting north at the 200-foot level and driving west on *North Pinafore* lode from this crosscut were continued. At the *Point and Crown* fairly good stone has been stoped from between the 90 and 190 feet levels. 314 ozs. gold were returned from the battery and cyanide works.

The *Ellgeete Mine* has employed 11 men. This is situate north-east of the *New Pinafore* central shaft. A new shaft has been sunk to 100 feet, and the reef where cut shows 1 foot of solid stone, with visible gold.

Laird and Sons won 6 ozs. gold, and Johns Bros. cyanided 57 ozs. Other claims are being prospected by Searle & party, Weetman & Crockford, Digney & Casey, White and party, Grey and Sons.

LISLE.—One hundred and fifty-nine ozs. alluvial gold have been won by the Lisle dredging company; 25 men being employed. For the six months ending 28th February, 84,093 cubic yards of ground were worked for 360 ozs. gold. The dredge is now getting into deeper and better ground, which is expected to yield a profit.

GOLCONDA.—The *Lisle Proprietary* has been trenching and sinking in alluvial ground west of Bessell's Creek.

MOUNT VICTORIA.—The *Long Struggle* employed six men, and crushed 31 tons quartz for 57½ ozs. gold; and P. Brown and party, employing 6 men, obtained 70 ozs. gold from 30 tons of quartz crushed. Martin and McCall's show, the *Reform*, is looking well, and a crushing is being raised; McCall's property east of this has a reef traced for 90 feet, and giving good prospects where trenched.

The *Carnegie* has been working on ½-oz. stone. Davis and Son are about to erect a battery on their claim in this vicinity. The *Hinemoa* has a reef which has been proved along the surface for some distance.

MATHINNA.—At the *New Golden Gate Mine* 160 men were employed, and 2500 ounces gold won during the quarter. According to the report for the half-year ending 31st January, 9745 tons of quartz were crushed during the six months, from which 5820 ozs. of retorted gold were obtained at the battery, valued at £20,251 12s. 11d. Seventy-eight tons of pyrites were also obtained by concentrating tables, containing 362 ozs. of gold, valued at £1432 0s. 4d.; and 20,297 ozs. of tailings and slimes have been treated by cyanide of potassium, which produced 609 ozs. of gold, valued at

£2189 4s. 6d., making a total revenue of £23,872 17s. 9d. The cost of raising and crushing quartz, treating concentrates, repairs and renewals to plant, progressive and surface works, and all other expenses incidental to working the mine and managing the Company, amounts to £1 9s. 0.11d. per ton of quartz crushed. This does not include cost of stores and labour at cyanide plant, which amounts to 2s. 7.55d. per ton of tailings and slimes treated. Three dividends have been paid during the half-year, amounting to 4s. per 32,000th share, or £6400. The total quantity of quartz obtained from the mine is 212,006 tons, which has yielded 188,793 ozs. of gold, an average of 17 dwts. 19 grs. per ton, and which has realised £721,140 2s. 3d. The total amount paid in dividends is £326,400, or £10 4s. per share. Mr. Thos. Andrews, the mine manager, reports that at the 1500-foot level the north and south drives have been driven 103 feet on a reef varying from 4 to 15 feet wide, and with variable quality of stone in both drives, but promising well for stoping-ground. At the 1400-foot level the south drive has not yet gone far enough to reach the payable shoot; the reef in the face showed a strong body of clean stone carrying a little gold, but not payable. At the 1300 feet the last 200 feet of the south drive were on a payable reef, from 6 to 12 feet wide. At the 1200 feet the slide was met with in the south drive at 598 feet from shaft. The level showed a splendid shoot of stone 218 feet long by 12 feet wide, with an average assay value of 17 dwts per ton. These levels are now connected by winzes, opening large blocks of dividend stoping-ground. During the six months the extra depth of haulage and a slight increase of water have prevented the desired extension of the 1600-foot level and other progressive works, but to assist this an electrical pumping plant has been ordered from Switzerland. Mr. T. J. Andrews, in charge of the cyanide plant, reports that it has been working satisfactorily, and that the assay value of tailings has been the lowest since the plant started. The cyanide used averaged 1.108 lb. per ton of tailings, and zinc used .096 lb. per ton of tailings. The value of bullion won by the use of cyanide now totals £42,137 2s. 9d.

The *Volunteer Mine* employed 47 men, and won 527 ozs. of gold. Good progress is being made in sinking the main shaft. The battery treats stone of the average quality won from the upper levels.

The *Revenue Mine* won 16 ozs. gold from 84 tons of quartz, with 10 men employed.

New Golden King.—A crosscut was started for the reef at a depth of 192 feet, and this has been cut. A dam has been built, and construction of battery is now proceeding.

Volunteer Consolidated.—This mine has been started on some sections held by the Volunteer and East Volunteer Companies. Besides some east and west veins, there is a large north and south lode, which constitutes the main feature of the property. This line of reef at surface is strong and regular, showing a body of low-

grade stone, and the object of the present work is to cut it at a depth of 450 feet.

Tasmanian Consols.—The work here will now consist of driving on both lodes at the 1200-foot level, where the western reef is especially encouraging.

Waterfalls.—This is a new venture, about 4 miles north of the centre of the Mathinna field, and some promising stone has been exposed on the property.

FINGAL.—At Abbotsford Creek 30 men have been employed. At the end of the quarter the excavations for battery were finished. No. 3 tunnel was advanced to 691 feet, the last four feet in poor stone. Barclay's winze was sunk to 166 feet; reef 4 feet wide, and giving good prospects of coarse gold. No. 3 tunnel driven to 179 feet in slate. It has been decided to purchase a 30-head battery of 1000-lb. stamps.

NORTH-WEST COAST.—*Black Bluff.*—The Lea River Gold Mining Company, Registered, is opening up a mine at Lea River on the slope of the Black Bluff range. A tunnel is being driven to reach an auriferous formation at about 75 feet from surface, in 160 feet of driving. The ore-deposit consists of quartz and hematite, estimated to carry gold from a few pennyweights up to half an ounce per ton, and is of considerable, but as yet undefined, width. Its position is one of contact between sandstone and conglomerate of Silurian age. Four shallow shafts were sunk on the property by former owners, and some trenching and driving done. The present adit will prove the ore-body at the depth mentioned, and if it is successful another tunnel can be put in 150 feet lower. The mine is 34 miles from Ulverstone, or about 30 miles from Mole Creek.

Another venture at Black Bluff has been started by the Devonport Prospecting Association. The full width of the formation has not yet been exposed, but so far as seen it yields more or less fine gold by crushing and washing, and occasionally coarser gold is visible. The facilities for adit mining are good.

Long Plains.—The Long Plains Gold Mining Syndicate has been working at Cox's face, at the south end of the Golden Ridge. A shaft has been sunk, from which, at 50 feet, it is intended to open out and drive north below the face in which rich gold was formerly found. A drive is also to be put into the face 40 feet below the surface, and a crosscut driven through the schists.

A little prospecting work on this Ridge has also been done by H. H. Gill and party.

Lynch's tunnels have exposed some quartz, the appearance of which is likely enough for gold.

White River Dredging Company.—Work has been more successful lately. It is intended to try and move the dredge down to the Pieman River.

WEST COAST.—Near the summit of Mount Darwin, coarse specimens of gold have been found by alluvial miners. Nine men have been occupied in prospecting, but precise information respecting discoveries is not obtainable. A one-ounce slug of gold is, however, reported.

At Flannigan's Flat alluvial work is being continued by a few parties. At the head of the Queen River, towards McCusack's Creek, a 13-oz. nugget has been found, together with other specimens of less size. Murray Brothers are still working at Woody Hill.

The King River tribute party has conveyed the water through the hill by means of a 320-foot tunnel, and is now sluicing the fall on the opposite side into Nuggety Creek. The last clean-up produced 5½ ozs. of coarse, rough reef gold; 3 men employed.

At the *Coronation Mine* a steam plant is being brought from Melbourne, and when this is erected the proprietary will proceed to prove and develop the property; 7 men employed. Adjacent to this property Elliott and Gaffney are driving on a lead which yields favourable dish prospects; 4 men employed.

TIN.

The output of tin ore at Waratah during the past quarter has been as under:—

	Tons.	cwts.	qrs.	Men employed.
Mount Bischoff.....	318	0	0	220
West Bischoff.....	12	15	3	30
Waratah Alluvial.....	14	0	0	6
Stanhope Alluvial.....	2	3	2	3
	<hr/>	<hr/>	<hr/>	<hr/>
	346	19	1	259
	<hr/>	<hr/>	<hr/>	<hr/>

About 7 miles out of Waratah a discovery of tin ore has been made, and it is now taken up by a Mount Lyell syndicate. The deposit is a kaolinised or tin-granite formation, which, so far as exposed, carries a fair proportion of ore, occasionally attaining a high percentage.

Briseis.—Eighty-one tons ten hundredweights of tin ore were produced the last quarter; 130 men being employed. Large quantities of overburden have been removed from the faces.

New Brothers' Home No. 1.—No mining is going on here. Negotiations are reported to be proceeding between this Company and the Briseis, for the latter to undertake the mining work on the Home property.

Ringarooma Tin Mine.—Eleven tons three hundredweights of tin ore have been raised with 32 men. The elevator has been working on a bed of good drift, with a face over two chains wide, and a depth of 30 to 40 feet. The lower drift, which is the richest, will be operated upon by a new elevator pump received from America. Everything is working smoothly at this mine, and its prospects are looked upon as very satisfactory.

Pioneer Tin Mine.—Seventy-nine tons ten hundredweights of tin ore were produced, and 65 men employed.

The *Garibaldi Mine.*—Five tons two hundredweights of tin ore were raised with 18 men.

The *Argus Extended* produced 3 tons 13 cwts. with 9 men.

Several small claims at South Mount Cameron and Gladstone have yielded satisfactory returns.

At Moorina the Weld Claim yielded 7 tons 14 cwts. with 9 miners; the *Moorina Tin Mine* returned 7 tons 8 cwts. with 5 men; the Frome Claim produced 8 tons ore with 6 men employed.

At Branzholm the *Arba Mine* employed 34 men, and the output (by estimation) was 59 tons. This mine looks very well, and its prospects are highly encouraging.

In the Ringarooma Division the *Star of Peace* has a ten-head battery in full work crushing lode tin stuff, and 5 tons 14 cwts. ore have been produced; 25 men are employed. The mine of the Red Bank Company, at Maurice, gives promise of satisfactory returns. There are 14 miners' claims worked in the Ringarooma, Maurice, and Cascade districts, and the returns therefrom are very fair.

The Weldborough mines have produced as follows:—

	Tons. cwts.	Men employed.
Weldborough Tin Mining Company	1 10	19
R. B. Inglis	3 1	6
A. C. Nicholls	1 7	2
Other claims	24 2	58
Total	<u>30 0</u>	<u>85</u>

The *Weldborough Company* after trying to connect rise at end of main tunnel with wash by an open-cut, found the country too hard, and has now resumed extending the rock-tunnel.

The output of the Lottah and Blue Tier mines for the quarter has been as under:—

	Tons. cwts.	Men employed.
Anchor Mine	57 10	108
Australian Mine	4 11	25
Leases and Miners' claims on Tier.....	5 3	29
Total	<u>67 4</u>	<u>162</u>

The *Anchor* crushed 25,000 tons of stone for 52 tons ore, from 1st January to 26th March, running on an average 81.5 stamps. The water supply from the new race is fairly good, but there is still considerable loss through leakage.

The haulage line at the *Australian* is about to be re-adjusted to a uniform grade and a higher level, so as to deliver ore to the stone-breaker and battery without re-handling.

The St. Helens mines have raised as below:—

	Tons. cwts.	Men employed.
Thureau's Deep Lead	2 4	5
Royal Ruby.....	5 7	7
Other claims	4 16	32
Total.....	<u>12 7</u>	<u>44</u>

The *Royal Ruby* is the principal mine in this district. A Pelton wheel is being fixed to drive the gravel pump at lower workings, near Stony Ford.

At *Thureau's Deep Lead* two nozzles are playing on the wash, and working off to what is called the marine bottom, about 20 feet below the surface. Fairly good returns are being obtained from the stuff operated upon.

In the Avoca district the output has been as follows:—

	Tons. cwts.	Men employed
Mount Rex Mine.....	55 10	60
South Esk Mine.....	2 10	10
Total	<u>58 0</u>	<u>70</u>

The *Mount Rex Company* continues to obtain satisfactory prices for its product. What promises to be a valuable tin lode is being opened up at the South Esk Mine. The alluvial workings are still giving good results, but the available area is now of limited extent.

WEST COAST.—The recorded output of tin ore from the various claims on the Coast for the past quarter was 19 tons 12 cwts.; 35 men were employed on wages, and 50 men employed as tributors and prospectors.

SILVER.

WEST COAST.—The registered output of silver ore in the Zeehan and Dundas districts during the quarter ending 31st March is as follows:—

Zeehan Mines:	Ore.	Tons.	Value. £
Mount Zeehan, Tas.	galena.....	1553	16,251
Balstrup's Section	iron flux.....	2311	809
Zeehan Bell	galena	20	88
Silver King	fluxing ore	8	15
Oonah } for two	gossan.....	21	292
„ } months only	stannite	81	540
Zeehan Queen	galena.....	35 ½	183
„	gossan.....	1 ½	
Zeehan-Montana	galena.....	985	11,508
Comstock	zinc blende.....	20	70
Silver Queen Extended	galena.....	17	129
„	gossan.....	8 ½	9

Dundas Mines:

Hercules S. & G. Mine	zinc lead sulphide ...	1627	1708
	gossan	1689	5374
Ring Valley	copper and silver ore	21	250
Comet	galena	328½	1804
"	fluxing ore	1335	901
	Totals.....	10,060	39,926

Mount Zeehan (Tasmania) has employed 195 men, of whom 35 were on tribute. At the Spray Mine the No. 3 level is opened up for a length of 85 feet in a strong masterly lode highly payable. When the new pump, now being got ready, is at work, sinking for No. 4 level will be started. Sinking the new shaft on Balstrup's Section will shortly be started.

Silver King.—The plant has been cleared away, and the tributors are starting work. This Company is making an effort to increase its capital. It is believed that with the present improved market a fair and regular output would result from opening up the lodes which have been cut.

Oonah.—Thirty-two men on tribute. The regular monthly outputs are assured for some time yet. The stannite stoping-ground is approaching exhaustion, excepting the footwall lode, which is not more than 6 inches wide. The old South workings, from which so much good galena was won, are about to be opened up again. The Manager calls attention to the necessity of considering means by which the ore below water-level can be mined. The tributors' sales for the 6 months ending 31st March have been:—

	Tons.	cwts.	qrs.	lbs.	£	s.	d.
Galena and gossan	36	18	1	15	461	3	6
Stannite	244	11	0	0	1662	4	0

This does not include the last two shipments to Wallaroo.

Zeehan Queen.—Twenty-eight men, of whom 10 were on tribute. Good progress is being made with the erection of the new plant. When this is completed, the workings will be unwatered, and prospecting at deep levels resumed.

Silver Queen Extended.—Fourteen tributors at work; 918 feet of driving, sinking, and trenching were done during the past quarter.

Comstock Mine.—Three tributors. The lode, in the shaft which is being sunk at mouth of tunnel, is 3½ feet wide of good blende, assaying in bulk 49 per cent. zinc.

DUNDAS AND MOUNT READ.—Comet Mine.—Before the flooding of this mine, in February, the No. 3 level stopes were looking very well for ore, and the same may be said of No. 2 level stopes. During the flood the water came up the shaft 155 feet, and completely flooded all workings below No. 1 level. Since then the water has been lowered to No. 3 level, and both Nos. 2 and 3 are now being actively cleaned up and repaired.

Hercules Mine.—This mine employs 118 men, and is sending out about 300 tons of ore weekly. The gossan ore gives a substantial margin of profit; and the sulphide a small profit when worked in with the other ore. The Tasmanian Smelting Company has seen its way to make concessions on the smelting charges for low-grade ores, and this has given a margin of profit to certain ore which otherwise might not have been mined at present. A large contract has been entered into for delivery of ore to those works. No. 6 tunnel is being driven to prove the downward extension of the copper deposit. Rock-drills are being installed in it, and very satisfactory progress is being made. The country in the face is mineralised, and it is quite possible that ore-bodies will be intersected before the main deposit is reached.

Tasmanian Smelting Company.—During the 3 months ending 31st March, 5980·193 tons of ore were purchased, containing 1898·595 tons of lead, 306,592·71 ozs. silver, and 764·774 ozs. gold. The export was 1883·991 tons of bullion, containing 1791·258 tons lead, 284,145·84 ozs. silver, and 653·214 ozs. gold.

NORTH-WESTERN DISTRICT.—The *Magnet Mine* sent away during the quarter 3171 tons of ore, of which 2301 tons were to Dapto, New South Wales, and 870 tons to Zeehan. The net value of this ore was £5996. Prospecting carried on in the southern part of the mine has revealed very rich ore, of a width of over 3 feet. The piece shot out in making this discovery assayed 223 ozs. silver, and 65½ per cent. lead. This development is regarded as the most important one that has occurred for a number of years, as it is in a virgin part of the property. The winze put down in No. 4 level has shown the lode descending strong and rich, and the Company is about to open up this ground to a depth of 100 feet. Additional rolling-stock has been obtained for the railway, which is running satisfactorily. A further contract has been entered into for the delivery of 10,000 tons of ore to the Smelting and Refining Company of Australia. One hundred and five men are employed.

In the Heazlewood district, the *Confidence Mine* has employed 4 men. Driving north in the low-level has been continued, still carrying a vein of galena.

North Mount Farrell Mine.—One hundred and eighty-five tons of silver-lead ore, assaying 64 ozs. silver and 70 per cent. lead, were raised, and 470 tons were despatched from the mine to Burnie. The lode cut in the lower level is looking well, and the mine throughout has a good appearance. Erection of the concentrating mill is well in hand. Thirty-four men were employed.

Macintosh Company.—Work has been resumed here, and galena is now being sent away to Cockle Creek Works. It is believed that the lode being worked is a continuation of that of the North Farrell. The ore appears to average a little over 1 oz. silver to the unit of lead. The south drive is now 175 feet from the crosscut, in milling ore with bunches of firsts. The drive is 108 feet below surface on

the underlay, which is 1 in 3 or 4. A rise has been put through from the drive to surface, all in payable ore, on which stopes will be started north and south.

COPPER.

Mount Lyell Mine.—The ore treated at the Reduction Works during the quarter ending 31st March was as follows:—

	Dry Weight.			
	Tons.	cwts.	qrs.	lbs.
Mt. Lyell Mine ore	70,527	15	0	26
Purchased ores	119	8	2	18
	<hr/>			
	70,647	3	3	16
Metal-bearing flux from the Company's South Tharsis Mine	11,609	5	3	27
	<hr/>			
Total.....	82,256	9	3	15

The metal produced was—

Blister copper, 1386 tons, containing—		£	s.	d.
Copper, 1370 tons, valued at	83,570	0	0	
Silver, fine, 138,144 ozs., valued at.....	13,814	8	0	
Gold, fine, 4896 ozs., valued at	20,808	0	0	
	<hr/>			
Total.....	£118,192	8	0	

Number of men employed—

At the Company's Mount Lyell Mine	442
At the Company's South Tharsis Mine	49
At the Company's Royal Tharsis Mine	3
At the Company's King Lyell Mine.....	8
At the Company's North Crown Lyell Mine ...	9
At the Company's Central Lyell Mine.....	10
At the Company's Section 136-86	5
	<hr/>
At the Company's Reduction Works	1096
At the Company's Railway	160
	<hr/>
Total	1782

At the mine ore-extraction continued as usual. In the open-cut workings the limit line for removing overburden, which was adopted in accordance with the original scheme, has been attained, so that at present the three top benches are being beaten into one, and left at an angle of 60°; this will be continued throughout, or until this slope and that on the footwall bisect each other, when mining by this system is expected to cease. From the deepest, or No. 8, level numerous bores, varying between the horizontal and vertical planes have been accomplished.

At the *King Lyell* favourable prospects of native copper had been obtained when work ceased owing to water. At the *South Tharsis* flux quarry large quantities of fluxing material continued to be forwarded daily to the smelters. The diamond-drill has been engaged on this and the adjoining property of the *Royal Tharsis*. The *North Crown* and *Queen Lyell* sections are being prospected. Negotiations in London are proceeding with a view to the amalgamation of the *Mount Lyell* and *North Mount Lyell* properties.

North Mount Lyell Mine.—During the past quarter the output has been as follows:—

	Tons.	Value.
To the Furnaces	9000	£60,720
To the Concentrators	2310	7260
Total	<u>11,310</u>	<u>£67,980</u>

The number of men employed has averaged—

At the North Lyell Mine	240
At the Smelters, Crotty	340
At the Railway to South Lyell	20
At the Company's Railway	110
Total	<u>710 men.</u>

At the mine, work has been confined to winning ore from the Nos. 1 and 2 levels. A hauling plant has been installed, and work resumed in No. 3, where the general features of the deposit are similar to those passed through in the higher workings.

South Mount Lyell Mine.—Active operations are being continued at the 600-foot level, from which 80 tons of clean pyritic ore are being forwarded daily to the smelters at Crotty, with which the mine is connected by rail and self-acting tramways. Eighty men employed.

Mount Lyell Blocks.—The greater part of last term was devoted to stowing the stopes and renewing the casing-timbers round the lowest plat, and generally making the mine secure. Sinking is now proceeding, and the shaft is down to 490 feet. Twenty-six men employed.

Crown Lyell Mine.—The north-west drive from the No. 3 level has been advanced 86 feet, and totals 630 feet. Two crosscuts east have been driven, and a winze sunk 10 feet, but without establishing anything of importance. Twelve men employed.

Comstock-Tasman Lyell.—These properties have recently amalgamated. Work is going on at the contact on the west side of the Comstock property, where small seams of decomposed schist and iron carry favourable prospects of copper, gold, and silver. Thirteen men employed.

Tasman and Crown Lyell Extended.—The adit has been advanced to a total of 1430 feet; the face consists of schist and banded quartz. Six men employed.

DARWIN AND JUKES FIELD.—Work is expected to be resumed at the *Jukes Proprietary* and *Lake Jukes* mines at an early date.

NORTH-WEST COAST.—At *Barn Bluff* the drive on the lode in No. 1 tunnel is being continued, and it is expected that good results will be obtained when the large chlorite schist band is met with.

COAL.

The raisings this quarter have been 10,414½ tons, against 12,076 tons the previous quarter. The different collieries have contributed to the output as under:—

Colliery.	Tons raised.	Men employed.
Mount Nicholas	3763	60
Cornwall	5757	67
Jubilee .....	...	...
Cardiff .....	...	...
Spreyton	382	7
Dulverton	102	5
Mount Cygnet	288	4
York Plains	147½	3
Glen Leith	50	2
Sandfly	25	6
Total.....	10,414½	154

Spreyton Colliery.—Mr. Allison is still working in the 17-inch seam east of the valley. The main heading has been extended to the eastward a total distance of 420 feet, at which point the seam is faulted. Work is now confined to the north side of the tunnel, and in a westerly direction towards the outcrop. These old workings will shortly be abandoned, and the same seam opened upon on the opposite side of the valley. There are already two other parties (Teasdale and Round and Sons) opening on the seam on this western side.

Dulverton Colliery.—The seam in the tunnel face, 330 feet from the entrance, shows 18 inches of good coal. Both the floor and roof being hard makes the working difficult.

Swan Bay, River Tamar.—Messrs. Traill and Medwin and the Evershed syndicate are exploring the east bank of the Tamar for coal. The former have sunk shallow shafts in the Tertiary lignitic beds which fringe the river, and both parties contemplate putting down trial bores into or through the underlying sandstones, which are expected to contain or cover seams of true coal.

Recherche Bay.—A bore with the Government diamond-drill was started on the 1st March on the shore of the Bay at Moss Glen, and on the 31st of the month was down 363 feet, having passed through sandstones with coal markings.

Farm Cove.—Boring with the Government diamond-drill (No. 2) was continued to a depth of 571 feet through soft white clays and sandstones, with occasional bands of lignite (2 and 5 inches thick). Fossil leaves confirmed the reference of these beds to the Tertiary period. The supply of boring-rods with the drill became exhausted on 23rd January, and the Farm Cove Company decided to cease boring, but the Tertiary beds will have to be pierced through before the assumed underlying coal measures can be reached.

MISCELLANEOUS.

IRON.—The *Tasmanian Iron Mine* at the Penguin has produced 910 tons iron ore during two months of the quarter, giving employment to 14 men. This ore is exported to New South Wales for smelting flux. Mr. Ellis has opened up a face on the west side of Penguin Creek, and is obtaining good ore from it. Another will shortly be opened south of the old workings on east side of creek.

OSMIRIDIUM.—Discoveries of this alloy are reported to have been made in the creeks north of the Pieman. From 40 to 50 ozs. are stated to have been won, the sizes ranging from fine grains up to $4\frac{3}{4}$ dwts. The local prices range from £3 per ounce upwards, according to the proportion of osmium present, which ought not to be less than 40 per cent. Osmiridium is used for the tips of gold pens and for drawplates for making gold wires of exact sizes, but the increased price which it now commands is said to be owing to it being in request for the new osmium electric lamp, which is believed to be ready for placing on the market. This lamp has been awaited with sanguine expectations, but little is known as yet of its actual construction or possibilities. Although its consumption of electricity is low, the osmium metal can only be worked to a uniform quality with difficulty. It is said that one of the chief difficulties has been overcome, which is that the osmium wire is so thin and long that it does not retain its shape when incandescent, consequently lamps with sufficiently high electrical resistance could not be made. However this may be, it is probable that the principal obstacle in the way of commercial success will prove to be the scarcity of the metal.

CONCLUSION.

The total value of the minerals raised and exported this quarter was £329,493, against £404,950 the previous quarter, and £397,091 the corresponding quarter last year. Prices are now improving, and will swell the value of the output of the regularly productive mines, and also encourage attention to properties which could not successfully cope with excessively low market values. Against the inevitable oscillations in the mineral industry from time to time must be placed the fact that it has expanded to nearly thrice its volume of ten years ago, and that in each decade it has undoubtedly widened its foundations and increased its contribution to the revenue and prosperity of the State.

Return showing the average number of men employed in or about the mines during the quarter ending 31st March, 1903.

District.	European.	Chinese.	Total.
North and South	659	...	659
North-East	466	145	611
East	770	58	828
North-West	372	...	372
West	3730	...	3730
	5997	203	6200

Value of the mineral output per man employed, £53 2s. 6½d.

The dividends and bonuses paid during the quarter were:—

	£	s.	d.
From Copper Mines	13,750	0	0
" Gold .....	...	...	...
" Tin	13,500	0	0
" Silver .....	...	...	...
" Coal .....	...	...	...
Total.....	<u>£27,250</u>	<u>0</u>	<u>0</u>