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THE PROGRESS OF  
THE MINERAL INDUSTRY  
OF  
TASMANIA,

FOR THE QUARTER ENDING 30<sup>TH</sup> SEPTEMBER, 1899.

COMPILED BY

W. H. WALLACE, ESQ.,

SECRETARY FOR MINES FOR TASMANIA,

BY ORDER OF

THE HONOURABLE EDWARD MULCAHY,  
MINISTER OF MINES.



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1899



## PROGRESS OF THE MINERAL INDUSTRY OF TASMANIA

FOR THE QUARTER ENDING 30TH SEPTEMBER, 1899.

Hobart, 23rd October, 1899.

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 30th September, 1899, compared with the corresponding Quarter of 1898 :—

	DURING THE QUARTER ENDING SEPT. 30, 1899.		DURING THE QUARTER ENDING SEPT. 30, 1898.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Gold won .....	12,569	47,284	11,673½	43,773
Auriferous Quartz and Pyrites exported .....	182	1453	61	607
Silver Ore exported .....	3706½	42,508	4084	52,406
Blisters Copper exported .....	2360½	208,965	1317	116,679
Copper Ore exported .....	129½	1246	36½	912
Iron Ore exported .....	926	841	60	60
Coal raised .....	10,869	8695	13,184	10,547
Silver Bullion exported .....	637½	19,087	...	...
Tin Ore exported .....	25	1750	...	...
Lead exported .....	1½	9	...	...
Gold and Silver Ore exported ...	70	350	...	...
Tin (metallic) exported .....	629½	86,474	478½	34,948
Zinc .....	4	4	...	...
<b>TOTAL VALUE .....</b>	... £	418,616	... £	259,932

There is an increase of £105,269 in the total value for the previous quarter, and an increase of £158,684 in the total value, as compared with the corresponding quarter in 1898.

## GOLD.

During the past quarter 7899 ounces of gold were obtained from quartz, 440 ounces from alluvial, and 4320 ounces by means of the cyanide and chlorination processes. Total, 12,659 ounces, valued at £48,104.

The following table shows the quantities obtained from various sources on the different fields during the period under review, together with the totals for the corresponding period of 1898:—

	GOLD OBTAINED DURING THE QUARTER ENDING 30TH SEPTEMBER, 1899.				TOTALS FOR CORRESPOND- ING QUARTER 1898.
	Quartz.	Alluvial.	Cyanide and Chlorination.	TOTAL.	
	ozs.	ozs.	ozs.	ozs.	ozs.
Beaconsfield .....	3976	56	3121	7153	5579
Mathinna .....	3327	...	867	4194	4662
Mount Victoria, Warrentinna, &c.	350	41	...	391	628½
Lefroy .....	25	...	...	25	70
Lisle & Golconda..	221	124	332	677	366
Mangana .....	...	170	...	170	180
West Coast, Mid- dlesex, &c. ....	...	49	...	49	188½
TOTALS.....	7899	440	4320	12,659	...
TOTALS for corre- sponding Quarter, 1898.....	10,015½	374	1284½	...	11,673½

BEACONSFIELD.—At the Tasmania Mine the 65-head battery was running continuously. During the past quarter 5835 tons of quartz were crushed, yielding 3976 ozs. 13 dwts. retorted gold, as against 6525 tons crushed, yielding 5100, for the previous quarter. In addition to this, 3120 ozs. 18 dwts. of smelted gold, worth £4 1s. per ounce, were obtained from the chlorination; total for the quarter, 7097 ozs. 11 dwts. The total output from the mine up to the 30th September, 1899, was 464,573 ozs. 5 dwts. 17 grs., from 394,760 tons crushed; value £1,691,832 14s. 8d., and the amount paid in dividends, £697,071 15s., including £3000 paid during the past quarter.

At the chlorine plant the four calcining furnaces and 30 vats are working well, giving good results. The capacity of the plant is about 180 tons per week, the cost of treatment being about 12s. 6d. per ton. The tailings from the leaching vats

contain from 1 to 5 dwts. of gold to the ton, and are being saved for further treatment by cyanide. The weekly production of concentrates at the Tasmania battery is about 100 tons, so about 80 tons per week of the accumulated tailings are being worked up. The concentrates treated give an average of about  $1\frac{1}{2}$  ozs. of gold to the ton. The hydraulic pumping plant at the main shaft was completed some time since, but is not yet at work, the cisterns not being complete at the 818-foot level to allow the rams being placed in position, but are now in a forward state for completion.

At the main shaft the pumping engine has been shifted from the Lefroy shaft and placed at this shaft, and has worked satisfactorily in unwatering the shaft. The chamber at the 600-foot level is now being cut out for the Reidles pumps, which are expected to be on the claim by the end of the year.

The newest developments at Beaconsfield are the enterprise of tracing or intersecting the celebrated Tasmania reefs beyond that Company's boundaries on the west, a work which is now being energetically prosecuted by an Australian company with reported satisfactory indications. The recently formed Australasian Asbestos Company, to work the large formation of that mineral near Beaconsfield, is engaged in the preliminary work necessary to proceed with that enterprise; and the lessees of the ground of the East Tasmania Company, with those of contiguous sections, have despatched a delegate to London to endeavour to enlist the co-operation of capitalists in the project of intercepting or discovering the continuation of the celebrated Tasmania reef in the country east of and adjoining the Company's ground. Thus, in the two former instances, foreign capital is at length in operation in promoting the mining interests of Beaconsfield, without which external aid the development of a gold mine in this Colony would be an utterly hopeless contingency; unless it should so happen that sufficient gold occurred from the surface downwards to meet all expenses of the undertaking, as was the case in the celebrated Tasmania Gold Mine, and there are reasonable grounds for hope that the efforts in England, alluded to, as to the exploration of the eastern sections, will be realised.

The six other mines which are being busily prospected at various depths are proceeding hopefully, 67 men being employed by them.

There are also about 30 men employed in prospecting and gold-digging.

The New Pinafore Company are still driving south for the "Chums" reef, and north for the "Pinafore" reef.

The White Pinafore Company are stopping and sinking the shaft to a further depth of 80 feet, making a total of 200 feet.

LEFROY.—The hope of solving the great question as to deep sinking is now centred in the operations of the New Pinafore Mine; the efforts of the Volunteer Company in that direction having at length been relinquished at 1300 feet in depth. The recent developments at the former mine have been deemed encouraging, and, moreover, the proprietors have still an extensive source of pecuniary aid in the yield of gold from the large accumulation of tailings by means of the cyanide process, without which aid it is probable the contributions of the shareholders would cease. The latest noticeable event at Lefroy is the discovery of a reef near the last-mentioned mine, from which a trial crushing of 86 tons of stone yielded within a small fraction of  $2\frac{1}{2}$  ounces of gold to the ton. The owners are now sinking, in order to test the reef at a greater depth.

Besides the three mines mentioned there are six others in the tentative stage of prospecting, at various depths, with fair hope of sufficiently valuable discovery to induce the co-operation of capitalists for effectual development.

LISLE.—There is nothing worth reporting, except that the association who took up a number of leases in the beginning of the present year for dredging are making their arrangements as far as practicable, pending the granting of their leases.

MATHINNA.—At the New Golden Gate Mine 5360 tons of quartz were crushed, yielding 3327 ounces of gold, and 3327 ounces were obtained by the cyanide process. The amount paid in dividends during the quarter was ~~£72,387.~~  
£7,200.

MOUNT VICTORIA.—The Ringarooma Gold Mining Company have crushed 348 tons of quartz for  $271\frac{3}{4}$  ounces of gold. The electric plant at the mine is not yet fully completed, there being a portion of the machinery yet to be supplied, but sufficient electricity is generated to start pumping operations in the mine, and so far it is a great success. Sinking in the main shaft is now proceeding. When the electric plant is completed it will be one of the most modern and fully equipped in the colonies. The prospects of the mine continue very good, 45 men being employed. This company has erected, on its freehold property, a twelve-head stamper battery. A trial crushing from this claim has yielded 167 ounces from 200 tons of stone, or 17 dwts. per ton.

The Central Ringarooma Company have cut good stone in the tunnel, and are getting out a trial crushing; the claim looks well.

WARRENTINNA.—But little work has been done during the quarter. Mining here is languishing through want of capital and competent management. On Bayley's Leases 479 tons (mullock) were treated for 33 ounces of gold.

The East Volunteer Gold Mining Company crushed 18 tons of stone, and obtained 7 oz. 10 dwts. of gold. The Derby Company crushed 55 tons of quartz for 18 ounces of gold.

OTHER LOCALITIES.—At Gladstone, the Portland Gold Mining Company's claim continues shut down. At Lyndhurst some prospecting work is being carried on. At New River, Mr. F. W. Krushka has obtained 41 ounces of alluvial gold from his freehold claim, six men being employed.

WEST COAST.—The gold claims near Lynchford are still lying idle, and there is little chance of improvement until sufficient capital is introduced to enable them to be properly developed.

Very little alluvial gold-mining is attempted, but it is probable that more gold is won than can be accounted for by the returns from the banks. The storekeepers also purchase gold, and private individuals take small parcels over to Melbourne and sell them direct to the mint.

## TIN.

The total quantity of tin-ore obtained during the quarter was 995 tons, being a decrease of 38 tons on the previous quarter.

WARATAH.—The output from the Mount Bischoff mine was the same as last quarter, viz., 480 tons, 220 men being employed. Two dividends of 12s. 6d., and one of 15s. per share were paid, amounting to £24,000. The total amount paid in dividends by this Company is £1,594,000.

The Waratah Alluvial Company obtained 3 tons 12 cwt. of tin-ore, 2 men being employed.

The Phoenix Company obtained 3 tons 8 cwt., employing 2 men.

NORTH-EASTERN DISTRICT.—During the past quarter considerable activity has been exhibited in the tin-mining industry,

stimulated by the high price of tin and the plentiful supply of water.

The Briseis Mine has yielded 100 tons of tin-ore, 30 men being employed. The face of the workings continues to look very rich.

The Krushka Brothers have raised 26 tons 7 cwt., 20 men being employed; the Brothers' Home Extended Mine 14 tons 2 cwt., with 9 men; the New Brothers' Home No. 1 Company 12 tons 9 cwt., with 9 men; and the Arba Company, at Branxholm, 4 tons, with 8 men. The last-named company has nearly completed the repairs to the water races.

Mr. C. A. Ogilvie's claims, at Mount Cameron, yielded  $9\frac{1}{2}$  tons, 18 Chinamen being employed; and the claims at South Mount Cameron yielded 11 tons 2 cwt., 3 Europeans and 28 Chinamen being employed. On the whole the yields are considered very satisfactory. A considerable amount of prospecting has been carried on, and, in some instances, with marked success.

**EASTERN DISTRICT.**—The total quantity of tin-ore obtained during the quarter was 172 tons 6 cwt. 2 qrs., being an increase of over 70 tons on the previous quarter. Of this quantity 47 tons 12 cwt. were obtained from Ben Lomond and Rex Hill, 1 ton 8 cwt. from Brookstead and St. Paul's, 85 tons 5 cwt. from Gould's Country and Lottah, 23 tons 8 cwt. 2 qrs. from Weldborough, and 14 tons 13 cwt. from St. Helens and Scamander.

**WEST COAST.**—There is not much doing in the way of tin-mining at present. At the Renison Bell Mine good tin-ore, about 9 inches wide, of which from two to three inches is very rich, with solid stones of pure tin oxide, has been uncovered in stripping.

At the St. Dizier's Mine (Heemskirk) the tail-race is nearly finished, and sluicing operations will, on its completion, be started.

## SILVER.

**WEST COAST.**—The quantity of Silver-Lead ore sent from the Zeehan Railway Station for export from Strahan was 2908 $\frac{1}{2}$  tons, value approximately, £51,779, as compared with 3424 tons, value approximately, £46,429 for the previous quarter. These figures do not include quantities sent to the Tasmanian Smelting Company, of which particulars are given hereunder.

The principal contributing mines are:—

	Tons.	£
Montana .....	852	15,674
Western .....	892	14,945
Oonah .....	542	10,425
Zeehan (Tas.) .....	579½	6737
Silver Queen .....	382	2096
Smith's Section .....	1192	5828

The Tasmanian Smelting Company has received 1400 tons of ore from the Mount Reid Mine, and 2989 tons, value £17,296, from other mines, as under:—

	tons.	cwts.	qrs.	lbs.	£	s.	d.
Smith's Section.....	1134	0	3	22	5912	3	4
Zeehan (Tasmania).....	538	15	3	13	5743	16	8
South Curtin-Davis.....	119	1	0	15	397	12	5
Silver Queen P.A.....	211	1	2	22	507	5	10
Comet .....	434	0	1	13	842	3	1
Zeehan Bell .....	39	8	3	1	154	3	11
Sylvester .....	57	8	2	25	148	19	6
Montagu No. 1 .....	18	6	3	18	67	4	1
Queen Extended.....	12	7	2	13	52	14	0
Western Extended .....	4	12	0	12	29	0	6
Block 291 .....	7	4	3	12	36	16	11
Curtin-Davis District.....	153	2	4	14	1405	14	6
Badenach's Section .....	43	4	3	14	489	13	1
Braid's Section.....	14	3	2	22	65	15	1
North Lyell Copper.....	11	19	1	7	144	16	8
Central Curtin-Davis .....	1	8	0	3	37	8	3
Arizona.....	0	19	3	22	11	9	8
Silver King.....	96	3	1	7	986	19	5
Williams Bros. ....	24	9	3	10	132	3	0
Sundries .....	66	11	1	18	139	4	5
Total .....	2988	12	2	3	£17,296	4	4

and from the Comstock, have obtained 234 tons of zinc blende, which has been exported for treatment elsewhere. During the quarter one smelter has been running regularly. A second was completed and tried, and will be used for treatment of copper ores. 4960 tons of ore have been smelted, producing 830 tons of bullion, valued at £25,962, all of which has been exported. There are about 200 men employed by the company, and their fortnightly pay-roll is over £1000.

The leading mines are keeping up a steady output, and the starting of smelting locally is beginning to be felt in the encouragement given to mining on less known sections.

Portion of the machinery for the new pumping plant at the Western mine has arrived, and arrangements are being made for its erection.

The Oonah main shaft has been carried down to 60 feet below the No. 5 level, making a total depth now of 385 feet, and leaving about 40 feet still to be driven before opening a new level.

Tributing is being carried on on several sections held by the Silver King Company, with a fair amount of success. During September 96 tons of ore were sold, realising £986. The formations are so promising that it is probable more extensive workings will be undertaken to develop the property.

Developmental work is being continued at the Western Extended. Surface trenching resulted in the discovery of a large lode formation, on which four prospecting shafts were sunk, the deepest being 41 feet. At this depth water came in, and operations ceased. Pumping will be resumed at the main shaft, and this lode driven for from there. 250 tons of ore were raised and put through the concentrating mill, yielding 21 tons of clean ore.

The tramline of the Colonel North Co. has been taken up and relaid to 2-foot gauge for a distance of  $2\frac{1}{2}$  miles, and regraded and ballasted. It is contemplated, ultimately, to carry the line through to the Comstock district.

More attention is being paid to the mines in the Dundas district. The Adelaide tramway is being continued on to the Great South Comet mine, and as soon as it is completed ore will be sent out. Some 200 tons are now ready for transport.

The South Comet and Royal Dundas mines have been taken over and refloats. Mining on each section will be resumed at once.

The usual supplies of ore have been raised from the Comet mine and delivered to the Tasmanian Smelting Company.

A parcel of 40 tons of ore from the Fahl Ore mine is being sent in to the Tasmanian Smelting Company for treatment.

**NORTH-WESTERN DISTRICT.**—The Magnet Company has shipped 259 tons 19 cwt. 2 qrs. of silver-lead ore during the quarter, employing 40 men.

**MIDDLESEX PLAINS.**—There is very little work in progress, except prospecting. The three mines are doing nothing worth recording. The highly promising galena mine known as "Shepherd and Murphy's" is unable to proceed, pending the construction of a road to their inaccessible site.

## COPPER.

**MOUNT LYELL COMPANY'S REDUCTION WORKS.**—The output of blister copper was 2610 tons, containing 2579 tons of

copper, 211,937 oz. of silver, and 7587 oz. of gold : gross value, £249,133.

At the Mount Lyell Mine work is going on highly satisfactorily ; there are 460 men engaged in mining, about 1000 tons of overburden are removed daily, and 1000 tons of ore sent to the smelters.

The extension of the railway line to Strahan is nearly completed, the steel bridge over the King River at Teepookana has been successfully placed in position, and the rails laid from Strahan to Teepookana.

In the course of a fortnight or three weeks trains will be running between Strahan and Queenstown.

	tons.	cwts.	qrs.	lbs.
The ore smelted during the three calendar months ending September, amounts to ...	76,677	9	0	8
Purchased ore .....	7652	18	1	20
<b>TOTAL .....</b>	<b>84,330</b>	<b>7</b>	<b>2</b>	<b>0</b>

Number of men employed :—

At mine.....	460
At reduction works .....	1600
At railway .....	565
<b>TOTAL .....</b>	<b>2625</b>

**NORTH MOUNT LYELL COPPER COMPANY, LIMITED.**—The work of removing the overburden from off the main ore-body is being carried out by two benches, which will, when completed, make the ore-body available by open cut down to 110 feet below its apex.

At No. 1 bench a large quantity of overburden has been worked off the ore-body, now exposing a face of ore 50 feet high and 70 feet across.

Ore broken from this face is being dumped for future treatment.

Bench No. 1A.—On the same level as bench 1, but at the opposite side of the hill, a heading is being driven to connect with the ore-face at bench 1 ; this will be used as a pass in the removal of overburden.

Underground working mainly consists of prospecting and exploring work.

Tunnel No. 3 (85-foot level).—Stoping is being carried on. A prospecting cross-cut to the west of the main ore body has succeeded in locating a metalliferous channel of highly payable ore 80 feet in width, giving 5 per cent of copper (average). This gives a considerable addition to the value of

the mine, as much of what was at first thought to be valueless overburden will now be payable rock. At No. 1 tunnel (200 feet level) the ore-body has been about 3 parts surrounded, showing uniform and high grade ore all the way; a cross-cut to test the value through the centre is now being commenced.

The dimensions of the ore-mass at this level are about 170 feet in length by 80 feet in width, being a little larger than at the level above.

At the No. 2 tunnel (320 feet level) the main ore-body was cut in 835 feet of driving; it has been driven into for 20 feet, and shows to be good ore of even grade.

Much other prospecting work has been carried on from the various levels, with satisfactory results.

During the last quarter 754 tons of high-grade ore have been broken from No. 3 tunnel, and shipped to London, of an average for copper of 23 per cent., silver, 8 ozs., and gold, 2 dwts.

Recently an arrangement has been made with the Mount Lyell Mining Company to supply them with a few thousand tons of ore, and the first consignments are now being delivered over a Government road sadly in need of repair. To obviate this difficulty, and shorten the carrying distance, a 2-ft. tramway is being constructed from the mine to the Tharsis Gap.

**LYELL THARSIS.**—At this mine work is steadily progressing, and ore being carried along the ropeway to the Mount Lyell Smelters.

**SOUTH THARSIS MINE.**—The concentrating plant will very shortly be ready for work, and is, beyond a doubt, a very good one, and will, I firmly believe, do much to further the successful development of the properties containing only low-grade ore.

Besides the properties above mentioned, the Crown Lyell, Mount Lyell Blocks, Mount Lyell Extended, and Mount Lyell Consols, are steadily working.

At the South Mount Lyell mine the work has consisted mainly in surface prospecting on the various sections with no appreciable results, and the sinking of the main shaft situated on Section 172-91M with most satisfactory results—as a true ore-body has been discovered at a depth of 524 feet.

The shaft is down 574 feet, being 50 feet in solid ore, the last assay of which returned, in the bulk, 10.26 per cent. copper, 3 dwts. of gold, and 3 ozs. silver. This body of ore is considered to be a branch of the Mount Lyell ore-body now being developed in the No. 5 winze, as, from levels and observations taken at that

company's workings, the South Lyell shaft is at present practically 100 feet below.

It is intended sinking to a depth of 600 feet, when the Company purpose to open out and endeavour to prove the extent and value of the ore body.

This company richly deserve the success which at last seems secure, especially as, by the extension of the North Mount Lyell line to within 300 yards of the mine, the ore can be supplied to the North Mount Lyell Smelters, where it will be valuable as a flux.

The properties about Darwin and Jukes are at present almost dormant, awaiting the opening of the North Mount Lyell Railway, which may reasonably be expected about March in the ensuing year.

**ROSEBERY.**—At the Mount Black Proprietary Mine preparations have been made for erection of concentrating machinery, some of which has arrived. The four parcels of ore sent away for experimental treatment at different smelting works averaged 16 dwt. of gold and 2 per cent. of copper per ton of crude ore.

**RED HILLS.**—The Red Hills Mine is under option for purchase to a syndicate, who have another three months still to run. Prospecting is being carried on, but the heavy flow of water is a difficulty. A small pump is being obtained to enable the shaft to be drained, and exploration below ground to be continued. About 45 tons first-class ore and 200 tons of seconds have been broken out.

**COAL.**

There is a decrease of 964½ tons of coal raised as compared with the previous quarter.

The following list shows the quantity raised from the different collieries, and the number of men employed at each :—

	Quantity raised. Tons.	No. of men employed.
Mount Nicholas .....	4845	62
Cornwall .....	4904	61
Russell .....	380	10
Mount Cygnet .....	521	5
Dulverton .....	7*	5
Ivanhoe .....	83	6
York Plains.....	129½	2
<b>TOTAL .....</b>	<b>10,869½</b>	<b>151</b>

\* Output small owing to deadwork.

## IRON ORE.

During the past quarter 926 tons of iron-ore were exported, as compared with 460 tons during the previous quarter.

The average number of men employed in or about the mines during the quarter was as follows:—

District.	Europeans.	Chinese.	Total.
Northern and Southern.....	964	—	964
North-Western .....	331	—	331
North-Eastern .....	331	188	519
Eastern .....	793	80	873
Western .....	4000	—	4000
<b>Total.....</b>	<b>6419</b>	<b>268</b>	<b>6687</b>

Value of the mineral output per quarter per man employed, £62 12s.

The dividends paid during the quarter were as follow:—

	£
From Copper Mines .....	11,250
Gold .....	10,200
Tin.....	30,086
Silver.....	11,055
<b>Total.....</b>	<b>£92,591</b>

1900

There is a decrease of 984 tons of iron-ore exported during the present quarter as compared with the previous quarter. The following table shows the quantity of iron-ore exported during the quarter and the number of men employed in or about the mines during the quarter.

Year.	Quantity of iron-ore exported in tons.	Number of men employed in or about the mines during the quarter.
1899	460	6419
1900	926	6687
1901	113	6687
1902	113	6687
1903	113	6687
1904	113	6687
1905	113	6687
1906	113	6687
1907	113	6687
1908	113	6687
1909	113	6687
1910	113	6687
1911	113	6687
1912	113	6687
1913	113	6687
1914	113	6687
1915	113	6687
1916	113	6687
1917	113	6687
1918	113	6687
1919	113	6687
1920	113	6687
1921	113	6687
1922	113	6687
1923	113	6687
1924	113	6687
1925	113	6687
1926	113	6687
1927	113	6687
1928	113	6687
1929	113	6687
1930	113	6687
1931	113	6687
1932	113	6687
1933	113	6687
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1994	113	6687
1995	113	6687
1996	113	6687
1997	113	6687
1998	113	6687
1999	113	6687
2000	113	6687