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THE PROGRESS OF
THE MINERAL INDUSTRY

OF

TASMANIA,

FOR THE QUARTER ENDING 31ST DECEMBER, 1900.

COMPILED BY

W. H. TWELVETREES, ESQ.,

GOVERNMENT GEOLOGIST.

BY ORDER OF

THE HONOURABLE EDWARD MULCAHY,

MINISTER OF MINES.



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PROGRESS OF THE MINERAL INDUSTRY OF TASMANIA

FOR THE QUARTER ENDING 31ST DECEMBER, 1900.

Launceston, 27th February, 1901.

THE following Table shows, so far as can be ascertained, the quantities and values of Metals and Minerals raised and exported during the Quarter ending 31st December, 1900, compared with the corresponding Quarter in 1899, and the previous Quarter ending 30th September, 1900 :—

	During the Quarter ending 31st Dec., 1900.		During the Quarter ending 31st Dec., 1899.		During the Quarter ending 30th Sept., 1900.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		£		£		£
Gold won	15,071½	56,518	15,938	59,692	13,368	50,130
Auriferous Quartz and pyrites exported	278¾	873	101½	887	48¼	534
Silver Ore exported.....	4462½	72,332	2272	35,210	2723	35,145
Blister Copper exported....	2457¼	228,098	2827¾	255,580	2463¼	221,704
Copper Ore exported	4041	61,831	20	200	145½	1369
Iron Ore exported	652	2132	1619	1703	1910	1270
Coal raised	12,356	10,502	11,899	9519	14,508	12,332
Silver-lead Bullion exported	...	...	869¼	32,684	949¼	31,665
Tin Ore exported.....	10	500	28¾	1851	...	...
Lead exported.....	...	...	5	5	...	...
Tin (metallic) exported	585½	73,015	649	84,586	531¾	74,050
Wolfram Ore exported	3½	88	99	200	14¼	532
Asbestos exported	22	22	200	363	22	22
Gold Concentrates exported	...	...	8	80	...	...
Zinc-lead exported .....	...	...	...	...	...	...
Gold, Quartz	20	86	...	...	25	139
Zinc Ore exported .....	...	...	...	...	...	...
Galena.....	...	...	...	...	1	6
Gold and Silver Ore ex- ported.....	...	...	...	...	12	200
Oxide Mineral.....	5	125	6	6	...	...
TOTAL VALUE .....	... £	506,122	... £	482,566	... £	429,098

GOLD.

During the past quarter 10,524 ounces of gold were obtained from quartz, 245½ ounces from alluvial, and 4302 ounces by means of the cyanide and chlorination processes, valued at £56,518.

The following Table shows the quantities obtained from the various sources on the different fields during the period under review, together with the totals for the corresponding period of 1899, and the previous Quarter ending 30th September, 1900 :—

	Gold obtained during the Quarter ending 31st December, 1900.				Totals corresponding Quarter, 1899.	Totals for Quarter ending 30 Sept., 1900.
	Quartz.	Alluvial.	Cyanide & Chlorination.	TOTAL.		
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
Beaconsfield	3407	...	3100	6507	7153	7305
Mathinna	5938	...	1024	6962	4194	4013
Mount Victoria, Warren- tinna, &c.	413	75	...	488	391	629
Lefroy .....	...	...	178	178	677	473
Lisle and Goleonda	79	150	...	229	170	150
Mangana, Fingal, &c. ...	687	2½	...	689½	25	753
West Coast, Middlesex, &c. ....	...	18	...	18	49	45
TOTALS	10,524	245½	4302	15,071½	...	...
TOTALS for corresponding Quarter, 1899.....	7899	440	4320	...	12,659	...
TOTALS for Quarter end- ing 30th Sept., 1900 ...	9019	302	4047	...	...	13,368

BEACONSFIELD.—At the Tasmania Mine, during the past half-year, 11,720 tons of ore have been crushed, for a return of 9691 ozs. of gold: 6111 ozs. 2 dwts. of gold have been obtained by chlorine, making a total of 15,802 ozs. 2 dwts., of the value of £60,804 8s. 8d., and giving an average of 1 oz. 6 dwts. 23 grs. to the ton of ore treated: £15,000 were paid in dividends, and £4000 carried to reserve. From the formation of the company in 1877, to 31st December, 1900, 422,685 tons of quartz have been crushed, yielding (including gold obtained by chlorination) 503,336 ozs. 12 dwts. 5 grs. gold. The dividends distributed since the commencement of the company amount to £733,071 15s.

The negotiations for the sale of the mine to the London Finance Syndicate have fallen through. In order to cope with

the large reserves of ore, the crushing plant is to be increased by the addition of a 40-head battery of heavy modern stamps, as well as of a complete concentrating plant.

The new main shaft is now down 983 feet, and is expected to reach a depth of 1200 feet by the end of 1901, after which the general manager proposes to sink to 1500 feet, opening out at 1200, 1300, 1400, and 1500 feet, as the sinking proceeds. At the 818-foot level the lode averages 11 to 12 feet wide, with a maximum width of 24 feet, and has been stoped east and west of main crosscut, with profitable results. At this depth the water has been found, so far, less in volume than in the higher levels of the mine. The general manager, in estimating the quartz at command at the 718 feet and 818 feet levels, expects it to last (crushing 120 tons per day) about three years; and that down to the 918-foot level, a period of five or six years.

At the Moonlight-cum-Wonder Mine, since the last quarterly report, the north crosscut has been advanced to 74 feet. It was then stoped, as the country became broken and gas increased. The lode, which was cut 5 feet north of the shaft, was driven upon east for 102 feet, carrying gold all the way, but not in payable quantities. It is now intended to drive south from shaft. The shaft has been sunk to 660 feet, and a level will probably be opened out at 700 feet.

The Tasmania United has been driving on leader from south crosscut. The Imperial Gold Syndicate has extended drive east on lode from bottom winze. At the North Tasmania, work at the main shaft has been suspended for a time, the company having made application for a Government grant-in-aid.

LEFROY.—At the New Pinafore it has been resolved to extend the crosscut south at the 1200 feet level, towards the Pinafore south lode, which has not been seen at this level, but which yielded most of the gold from the upper levels. It has also been determined to drive south from No. 5 north lode, as it is believed this may not be the New Chum lode, after all. In fact, the No. 5 lode-works have been somewhat disappointing, the continuity of the reef being broken by a crosscourse. At any rate, No. 5 reef at the 1200 feet level shows gold at times, and it is now to be prospected from the surface by pits and connecting drives. Work on the Morning Star lode has been abandoned. The White Pinafore is crosscutting for the lode at No. 3. Payable stone was left in the winze at No. 2, but the water is heavy. The New Monarch mine has stopped work on the Monarch reef, and is crosscutting south for the Orlando lode. The Hyde Park P.A. is sinking, and reports a formation

carrying a little gold. Tregurtha and party are working at Back Creek, at the head of Blackman's lead, on a small vein with good gold.

LISLE.—The dredging plant is hoped to be completed in a few months. The established digging population at Lisle is about 40 men.

GOLCONDA, DENISON, &c.—Development work is proceeding satisfactorily. Four leased sections are under work, the deepest level being 100 feet. The New Star of Tasmania has been doing shallow exploratory work. At the Wyengatta the lode is being stoped out at the 100 feet, and will be tested by a small crushing. Jarman's show is also being prospected. It is hoped that at a sufficient depth the reefs will be found of a payable width. Former crushings from this field have averaged over an ounce to the ton.

MOUNT VICTORIA.—Deep work at the Ringarooma is still suspended, but tribute work is proceeding at the Mercury. It is now fully recognised that the success of the Central Ringarooma depends upon its vigorous development. A low-level tunnel has been decided upon, but work is temporarily suspended.

MATHINNA.—At the New Golden Gate, for the half-year ended 31st December, 9595 tons of quartz have been crushed, from which 8352 ozs. of retorted gold have been obtained at the battery, valued at £29,599 11s. 8d. Ninety-two tons of pyrites were also obtained by concentrating tables, returning 380 ozs. of gold, valued at £1069 7s. 10d.; 18,803 tons of tailings, with 782 tons of slimes, have been treated by cyanide of potassium, yielding 1419 ozs. gold, valued at £4926 10s. 4d. This makes a total half-yearly revenue of £35,595 9s. 10d.

The cost of raising and crushing quartz, treating concentrates, and management and incidental expenses (but excluding royalty and cost of stores and labour at cyanide works), amounts to £1 8s. 10½d. per ton of quartz crushed; cyaniding cost was 2s. 11·8d. per ton of tailings treated. The total quantity of quartz now obtained from the mine is 172,776 tons, which have yielded 165,858 ozs. of gold, an average of 19 dwts. 4·77 grs. per ton. This has realised £612,419 10s. 3d., of which £288,800, or £9 0s. 6d. per share has been distributed in dividends.

Two new auriferous reefs have been discovered at the 1400-foot level. The first (No. 1 reef west) varies from 4 to 12 feet in

width, goes very strong underfoot, and assays from 8 to 24 dwts. gold per ton. The second (No. 2 reef west) shows free gold, and looks very promising for yielding good quantities of payable stone. These important discoveries have induced the company to start a new shaft, which is to be carried down to 1500 feet. Two new boilers have been built in at the battery and winding plants, and two vats added to the slime plant, increasing its saving power. The total value of gold won by the use of cyanide to the 31st December, amounted to £27,004 13s. 5d., and the cyanide used averaged about $1\frac{1}{2}$ lb. per ton. The cyanide plants are in good order, and working regularly and satisfactorily.

The Volunteer Company has acquired 25 acres from the Tasmanian Golden Gate, Limited, and taken up further 10 acres on lease. The shaft is down 350 feet, and levels are opened out at 150 feet and 350 feet. At the 150 feet an east and west lode was cut, and driven on 196 feet. The stone averaged well over 1 oz., and a winze is now being sunk upon it. Crosscutting is going on at the 350 feet to cut the same lode, which is expected to be reached in three months' time.

The Mabel is on tribute, and raising payable stone from underfoot at the 100 ft. level. Twenty tons are at grass.

Small parties working near the old City of Melbourne have had small lots of stone (10 to 20 tons), returning 1 to 2 ozs. per ton. Doyle and party are still cyaniding the City of Hobart tailings. The West Golden Gate, on two 10-acre sections, west and adjoining the New Golden Gate, has cut four lodes, 2 to 4 feet wide. Two of them carry a little gold. They will all be proved by a short adit from Black Horse Gully.

The Miami is driving east and west at 400 feet. There is a fine body of stone, though not payable, but improving in gold contents.

MANGANA.—At the New Sovereign, sinking is proceeding from the 500 feet to the 600 feet. It is intended to crosscut at the latter depth.

At the Golden Entrance, to the end of December, 50 tons of stone were taken out of the No. 1, or 50 feet, shaft in sinking. Of this, 41 tons 12 cwts. have been treated at Jacques Bros.' works, Richmond, and at the Schools of Mines at Bairnsdale and Ballarat, returning 524 ozs. smelted gold, besides a few ounces more from the sand of the last stone treated. The reef has been driven upon north and south, the north drive carrying good gold the whole way. In the No. 2, or 70 feet, shaft, levels north and south have been opened out at 50 feet, and driven 47 feet. The

north drive carried gold all along, and the stone is going under-foot. The south drive carried rich gold for 20 feet. A new shaft has been started north of No. 1, and shows gold in bottom. It is now intended to put in a main tunnel from the north, on the line of lode, giving 200 feet backs, and to acquire at an early date a suitable plant for the treatment of the ore.

WARRENTINNA.—Shaft sinking has proceeded on Bayley's leases. The East Volunteer tribute has won 25 ozs. gold from 18 tons quartz crushed.

WATERHOUSE.—The shaft at the Southern Cross has been unwatered, and a ton of stone has been sent to Victoria for test treatment. The reef has been stoped out in old times from the 100 feet level to the surface, and between 200 and 300 feet on its course.

NORTH-WEST COAST.—The Bell Mount field, which is said to have yielded £13,000 worth of gold in the past, including several nuggets, up to 16 ozs. in weight, remained practically abandoned till last year. A small company (Bell Mount Gold Mining and Hydraulic Sluicing Company) has been formed for working some of the ground. Water-rights have been secured on the Iris River, and, to reach the latter, a race, six miles in length, is in course of construction. The old diggings are at the head of a small creek flowing from the southern slopes of Bell Mount.

WEST COAST.—At Woody Hill driving at the lower level has been continued, and the face is believed to be in close proximity to the lode. The Mount Sorell syndicate has been formed to prospect and develop the gold leases at Harris' Reward and sections on Mount Sorell further south. A track from the Harris' Reward cage will open up the country west of Mounts Jukes and Darwin, and it is understood that the Government will substitute a bridge for the present cage over the King River. Alluvial and reef deposits of gold are reported as discovered in this country.

TIN.

The Mount Bischoff Company's batteries have treated material during the six months ending December 31st, as under:—

60 H.B.—40,190 tons stuff, yielding 578 tons 5 cwts. 2 qrs. ore,
15 H.B.—10,436 tons stuff, yielding 237 tons 13 cwts. ore;

being an average percentage of slightly over 2 per cent. The total quantities of ore obtained during this period were 948

tons, and since the formation of the company 58,306 tons 14 cwts. 3 qrs. 19 lbs. The mining and dressing cost for the half-year averaged 6s. 3d. per ton of ore, and the earnings were £62,123 13s. 8d. The most important exploratory work recommended by the General Manager is that of beginning a drive east from the deepest level at the Brown Face below the porphyry outcrop to search for another deposit in that direction.

At the Briseis Mine at Derby 72 tons 7 cwts. ore were raised during the quarter. Since the new company started it has shipped to London smelted tin of the value of £16,000. The work of stripping the overburden has been gone on with, and the works connected with the big water scheme have been started. The Cascade tunnel race is now completed, and this will enable the company to strip without interfering with sluicing. It is expected that the big race works will be finished in about nine months' time.

The Pioneer Tin Mine has nearly completed its new water-race. Its prospects continue satisfactory; the yield for the quarter was $13\frac{1}{2}$ tons, obtained with a small plant and a limited supply of water. On the Weld claim at Moorina $13\frac{3}{4}$ tons tin ore have been won, and at Wyniford River the Garibaldi Company obtained $10\frac{1}{2}$ tons from its mine there. A continuance of dry weather in this part of the Island for several weeks during the months of November and December caused a shortage of water, and numerous small claims had to discontinue operations; but, on the whole, the prospects of the field are satisfactory.

The Anchor Tin Mine produced, during the half year ending 31st December, 365 tons tin from 105,232 tons stone. Dredging operations are contemplated on the margin of George's Bay.

At the Ringarooma Tin Mine, Derby, the whole of the new pumping plant is expected to be completed and at work by the end of June, when sluicing operations will be commenced on an extensive scale.

At Mount Rex rich stone has gone down with the winze, and the drive below shows that the ore body lives at a depth.

WEST COAST.—At Heemskirk the Federation Tin Mine has sent away about 17 tons of tin-ore for the quarter, valued at £1140.

The latest reports from the Renison Bell Tin Mine show that the No. 1 tunnel at the Big Blow has been extended to 168 feet, with good ore showing in the end for the full width of the drive, and from top to bottom. 10 or 12 tons of massive rich ore has been taken out of the 73-foot crosscut and stacked at grass.

This ore is also the full width of the crosscut. At 122 feet in a second crosscut has exposed the same description of ore, very massive, but not so high in grade. No. 2 tunnel again exposes the same class of ore, and also in a crosscut. Some 30 or 40 tons of it is stacked for future treatment. Several other piles of good ore, each from three to six tons, have been taken from these drives. The vertical distance between the two tunnels is from 30 to 40 feet, stated to consist of payable lode-matter. A manager's dwelling has been recently erected on the mine. The recent satisfactory developments on this property are favourable auguries for its future.

SILVER.

WEST COAST.—The quantities of silver-lead ore raised this quarter by the Zeehan mines exceed the output of the previous three months. The output of the principal mines was as under:—

Zeehan-Montana.....	914 tons, net value	£15,048
Western	632 " "	10,216
British Zeehan	652 " "	12,006
Silver King.....	625 " "	8778
Silver Queen.....	966 " "	7536
Mount Reid	875 " "	4624
Comet	269 " "	2110
Colonel North.....	150 " "	1587
Oonah	70 " "	941

The main shaft of the Western Mine is down 630 feet. No. 8 level at 600 feet has been opened out and the lode cut, showing about a foot of good milling ore. The further sinking of the main shaft will be commenced shortly. The recently erected pumping and winding plant have been working satisfactorily. During the quarter the concentrators treated 5527 tons of ore, producing 391 tons of concentrates, containing 35,004 ozs. silver, and 203·4 tons of lead, value £5624. 241 tons of first-class ore were raised, value £4592. The mine employs, on an average, 270 men.

The concentrators at the Montana Mine, in the quarter, treated 4687 tons of ore, producing 468 tons of concentrates, of a gross value of £9490. 446 tons of first-class ore were produced from the mine, of a gross value of £10,443. The main shaft is down 400 feet, and a No. 4 level put in at that depth is expected to cut the lode shortly. A start will now be made to sink the shaft another 200 feet. The mine employs an average of 200 men.

Another start has been made at the Western Consolidated Mine. A No. 5 underlay shaft has been sunk on the load for 40

feet from the surface, and will be continued down to 100 feet. About £350 worth of ore was won in sinking the shaft. The lode shows for the full width of the shaft, 5 feet, and an opening three feet into the side was made without revealing the wall. Just west of the shaft a body of ore has been cut, carrying 6 inches wide of firsts, assaying 65 per cent. of lead, and 81 ozs. silver per ton, besides 18 inches of milling ore. The company employs about 25 men.

The Silver Queen is being entirely worked on tribute, and employs about 100 men. 778 tons of ore were concentrated in the quarter, producing 125 tons of marketable ore, which, with first-class ore raised from the mine, 841 tons, contained by assay 60,474 ozs. of silver and 420.4 tons of lead.

A considerable amount of work has been done on the Spray section of the British Zeehan Mine: The tramway has been laid from the concentrators to the site of the proposed tunnel, and a start made with the preliminary work for cutting the tunnel through to the Spray workings. 978 tons of first and second class ore were raised in the quarter, producing 652 tons of marketable ore, containing 65,232 ozs. of silver and 443 tons of lead of a gross value of £15,875. The company employs about 120 men, and there are, in addition, about 40 tributors working in various places.

The work of removing the plant from the M'Kimmie mine to the Silver King has been completed, and pumping at the latter mine was started during January. The South King section has completed the erection of concentrators. The tributors of the latter section have, during the quarter, produced 625 tons of ore, containing 21,840 ozs. of silver. About 125 men are employed. The Silver Bell mine has been taken on tribute by the South King tributors.

The shaft at the Colonel North mine is down 265 feet, and it is intended to sink another 100 feet. Plungers have been placed in shaft, and everything got ready for an early start. A new level will be opened at 365 feet.

At Dundas a few men are working on three or four sections, but the most active mine is the Comet, which, for the quarter, raised 1629 tons of second-class ore, producing, by concentration, 187 tons, containing 6358 ozs. silver and 96½ tons of lead, of a gross value of £2417 15s. 82 tons of lead were raised of a gross value of £1128. The total quantity of ore raised for the year was 1595 tons, of a gross value of £17,511. About 65 men are employed at the mine. The Fahl Ore mine, for the quarter, sent away about 95 tons of ore, valued at £475.

ZEEHAN SMELTING WORKS.—For the last two months of the quarter the Tasmanian Smelting Company has suspended smelting, while alterations were being made to the roasters, which are being adapted to a more economical treatment of sulphide ore. The alterations will be completed, and smelting resumed, during the first quarter of 1901. There has been no cessation in purchases of ore. The stocks at the works amount to 8000 tons of ore, containing 2500 tons of lead, 35,000 ozs. of silver, and 800 ozs. of gold. During the year there has been produced bullion, valued at £132,500, containing 4000 tons of lead, 491,000 ozs. of silver, and 1000 ozs. of gold.

Altogether, the outlook for the new year for the Zeehan portion of the Western Mining Division shows good promise, and the output in 1901 is expected to be much greater than for the year just ended.

NORTH WESTERN DISTRICT.—At the Mt. Farrell mine the new tunnel is now in 291 feet. At 246 feet it intersected a lode formation 6 feet wide, carrying small veins and splashes of galena, with carbonate of iron and quartz: and at 281 feet another formation, 4 feet wide, was cut, containing pyrites, carbonate of iron, and splashes of galena. At the Mackintosh, the driving of main adit is being pushed ahead.

The North Farrell Mine has continued to maintain a healthy output. It started work in July, 1899, and has since raised 400 tons silver-lead ore. The reserves of first-class ore in sight are estimated at about 2000 tons, besides several thousand tons of second-class ore suitable for concentration. The cost of packing ore to the Pieman station (45s. per ton) is a great drawback, which will be removed when the company's tram-line from the mine to the Emu Bay Railway is completed. This will be about 8 miles in length, and the steepest gradient 1 in 30. A contract has been entered into for the delivery of rails and rolling-stock, and the line and its equipment are estimated to cost £10,000.

Magnet Silver Mine.—Stopping has ceased, and the mine is now being prepared for a large output. The passes and drives are being widened, and all stopes will be filled in from the surface. The development of the eastern leg of lode at the intermediate level has exposed a large body of high-grade sulphide ore. Water from the Magnet Falls will be brought in to supply motive power for crushers, &c. Electric light is to be installed forthwith. The company has purchased an ore-drying plant on the cylindrical revolving system. More recently, Mr. Weinberg, General Manager of the Smelting Company of Australia, at Dapto, N.S.W., has suggested a novel drier, which he states

will be highly economical and effective. It consists of a reverberatory oven, built of rubble and cement, on a solid foundation, with thick walls, and an inclined brick floor. The wet ore is charged in quantities covering the floor to a depth of three or four feet. The thick foundations and walls effectually retain the heat. The cost of construction is from £100 to £120 per oven, and the drying capacity 50 tons per day, using ore of 20% moisture contents, reduced to 3% to 4%, or just enough to bind the ore. The consumption of firewood is one cord per day for a furnace of this size. Incidentally it may be mentioned that the manager of the Hercules Mine is about to design a furnace on this principle, and, if found advantageous there, the Magnet will adopt it also. Favourable terms have been offered to the Magnet Company for the purchase of its oxidised ores, chiefly on account of the excess of iron and manganese, the average being 25 units in excess of silica. The sulphide and gossan ores will be mixed. Since the commencement of the company £30,000 worth of ore has been sold, and it is contemplated to work up the output to 1000 tons per month. The engineer in charge has two parties at work on the permanent survey, and the line to Magnet junction, where station buildings are being erected, $1\frac{1}{2}$ mile from Waratah, on the Emu Bay Company's line, will, it is estimated, be complete in 10 months. 475 tons of Bessemer rails will be received in May. Two locomotives have been ordered, one—18 tons—on the Mallet compound principle, the other— $6\frac{3}{4}$ tons—on the Koppel system. Trucks are being built at the Government works, Launceston.

When the Magnet, Hercules, Mt. Reid, Blythe, and other large companies start sending their ores to Emu Bay, the present facilities for storing and shipping at the port of Burnie will be found inadequate, and it behoves the authorities there to prepare for shipments on a large scale.

At the North Magnet mine the drive south on course of lode is still proceeding, showing splashes of galena in the dolomite.

COPPER.

Mount Lyell Mine.—Fluctuations in the share market notwithstanding, the big mine keeps on the even tenor of its way. A satisfactory feature is the continuation downwards to No. 7 level of the bornite ore from Nos. 5 and 6. The reduction return for the quarter ended the 31st December, 1900, is as follows:—

Ore treated at Reduction Works:—

	Tons.	Cwts.	Qrs.	Lbs.
Mount Lyell Co.'s pyritic ore.....	81,720	15	2	15
Purchase ores from vicinity.....	11,048	16	1	6
Metal-bearing flux from the South Tharsis Mine (recently purchased)	4,389	0	1	18
Total.....	97,158	12	1	11

Number of men employed:—

At the Company's mines.....	570
At the Company's reduction works	1325
On the Company's railway.....	259
	<hr/>
	2154
	<hr/>

Quantity and value of metals:—

Blister Copper, 2265 tons, containing—			
Copper, 2,238 tons, valued at	£170,088	0	0
Silver, 154,459 ozs., valued at	19,307	7	6
Gold, 6,484 ozs., valued at.....	27,557	0	0
	<hr/>		
	£216,952	7	6
	<hr/>		

North Mount Lyell Mine.—The number of men employed is 450. About 9400 tons of ore have been raised and disposed of, partly by delivery to the Mount Lyell Smelters, partly by shipments at Kelly Basin, for London. The value of the output is about £60,000. The mine continues to look healthy, and its prospects are excellent. The intention is to erect four reverberatory furnaces, smelting 200 to 300 tons per day, and afterwards a converter plant, at a total expense, probably, of £80,000 to £90,000.

The Lyell Tharsis employs 70 men. The quarter's output has been 3700 tons of ore, gross value £11,600.

The Lyell Blocks have been sending between 300 and 400 tons of 10 per cent. ore weekly to the smelters. The main shaft was begun before the end of the year.

The North Lyell Consolidated main tunnel at the end of the year was in 340 feet, through schist, carrying fair copper ore at times. Trenching the outcrop near the Crown boundary has exposed cupriferous schist, which is to be further prospected. Western Tharsis No. 1 south drive was in 534 feet at the end of the year, in hard country, carrying fair grade copper pyrites.

At the Royal Tharsis exploratory work is being directed towards the band of rich ore met with in the No. 2 tunnel by the Lyell Tharsis when extending it into their own ground.

At the Tasman and Crown Lyell Mine it has been decided to extend the main tunnel, and follow the ore-body to the Comstock

Mountain. The No. 2 tunnel will be further extended. At the Tasman and Crown Lyell Extended the payable ore struck in No. 2 tunnel assayed 15·4 per cent. copper, 1 dwt. 7 grs. gold, and 6 ozs. 10 dwts. 16 grs. silver per ton. The average value of this company's ore-body is estimated at 10 per cent. copper.

At the Glen Lyell the work of extension of tunnels has been pushed on.

At the copper mines of Mount Lyell West, prospecting work has been proceeding in the form of a tunnel towards the central portion of the property, where a contact of the conglomerate with schist occurs.

Exploratory work has been carried on at several other mines on this field.

MOUNTS JUKES AND DARWIN.—Steady work is being done on some nine or ten properties, viz., Darwin Proprietary, South Lyell, Lyell Consols, Lyell Extended, Prince Darwin, Cowen's Sections, Lake Jukes, Jukes Proprietary, Jukes Comstock, King Jukes, and Jukes Consols. Prospecting is also being carried on upon a few other sections. The general result of the work is encouraging. Now that the North Mt. Lyell Company has completed its railway, tools and provisions are more easily obtainable, and prospecting should be vigorously continued and extended, for it is only by persevering explorations that the ore zones in these mountains can be satisfactorily located.

Prospecting operations have been carried on upon the Birthday copper sections with promising results.

In all, 66 men are employed on Mounts Jukes and Darwin and neighbourhood.

MOUNT READ.—The Mt. Reid mine had, on the 31st December, broken and stacked at surface, for future treatment, 14,647 tons ore. The ore won to that date totalled 21,530 tons, of which 6541 tons have been delivered to the Zeehan smelters. It is likely that works will be shortly erected in the neighbourhood for treating this company's ore by the Ellershausen process.

At the Hercules mine No. 5 tunnel has been further extended, but the country passed through last, not being well mineralised, driving has been suspended for the time. The north and south drives at 620 feet in this tunnel have been driven to 15 feet and 73 feet respectively, the former in good pyritic ore averaging per cent. copper, the latter in ferro-cupriferous schist. The development in east winze crosscut from No. 4 level has added

considerably to the reserves of zinc-lead sulphide ore in the mine. The company has recently undertaken to supply 10,000 tons of gossan ore to the Smelting Works of Australia at Dapto, N.S.W., with the right to deliver an equal quantity of sulphidic ore, all deliverable at Zeehan. Drying plant is about to be erected for extracting excess of moisture from the oxidised ores, and it is then expected that shipments will be made at the rate of 200 to 300 tons weekly. The improved terms of the sale, as compared with what could have been obtained a few years ago, are announced as justifying the policy of the company in waiting until these ores could be advantageously dealt with. Further developments in connection with this mine may be looked for shortly, as the owners have been approached by the Tasmanian Sulphide Smelting Company, a subsidiary company to the Ellershausen Process Syndicate, with a view of treating the zinc-lead sulphides on a half-profit basis.

COAL.

During the quarter 12,356 tons of coal were raised, against 11,899 tons in the corresponding quarter of 1899.

IRON ORE.

652 tons were exported. The exploratory work at the Blythe River Iron Mines, initiated by Mr. Darby, the English expert, has been completed, and operations are suspended pending resumption of work on a large scale. The exploratory drives have proved that the huge iron ore body lies down without any diminution in size or deterioration of quality. Survey work for the tramway has been proceeded with.

MISCELLANEOUS.

ASBESTOS.—The same quantity has been shipped from the Australasian Company's mine as in the previous quarter, viz., 22 tons. This has been fibrous rock rather than the fibre itself.

MONAZITE.—A claim has been taken up for alluvial deposits of this mineral at Mount Stronach, and work is about starting there.

Return showing the average number of men employed in or about the mines during the quarter ending 31st December, 1900 :—

District.	European	Chinese.	Total.
North and South	872	...	872
North-West	289	...	289
North-East	465	150	615
East	779	75	854
West	4456	...	4456
	6861	225	7086

Value of the mineral output per man employed, £71 8s. 6d.

The Dividends paid during the quarter were :—

	£	s.	d.
From Copper Mines	<i>nil.</i>		
„ Gold Mines	17,200	0	0
„ Tin Mines	27,000	0	0
„ Silver Mines	6827	0	6
TOTAL	<u>£51,027</u>	<u>0</u>	<u>6</u>