

MIN IND 1913\_4

THE PROGRESS OF

# The Mineral Industry

OF

## Tasmania

FOR THE

QUARTER ENDING 31ST DECEMBER, 1913

Compiled by W. H. WALLACE, Secretary for Mines

By order of the Hon. EDWARD MULCAHY, Minister for Mines



Hobart:

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1914



# PROGRESS OF THE MINERAL INDUSTRY OF TASMANIA

FOR THE QUARTER ENDING 31st DECEMBER, 1913.

Hobart, 2nd March, 1914.

THE following table shows, as far as can be ascertained, the quantities and values of metals and minerals raised during the quarter ending 31st December, 1913, as compared with the previous quarter ending 30th September, 1913:—

		During the Quarter ending 31st Dec., 1913.		During the Quarter ending 30th Sept., 1913.	
		Quantity.	Value.	Quantity.	Value.
			£		£
* Gold won .....	oz.	6783·395	28,814	9487·428	40,300
Silver-lead Ore produced .....	tons	9259·92	61,918	24,922·86	87,469
† Blister Copper produced .....	"	1744	138,329	1551	121,850
Copper Ore and Copper produced .....	"	1151·8	6413	38	380
Tin Ore produced .....	"	1204·94	143,086	1120·73	142,232
‡ Coal raised .....	"	11,378	5201	16,095	7258
Wolfram Ore produced .....	"	18·77	1878	18·4	1942
Bismuth .....	"	1·32	393	1·66	664
Osmiridium .....	oz.	448	4794	197·5	2009
Shale .....	tons	100	100	10	10
		...	390,920	...	404,114

\* Fine gold, including gold contained in blister copper and silver-lead bullion.

† Value of gold contents deducted.

‡ Value at pit's mouth.

## GOLD.

During the past quarter 2692·85 oz. gold were obtained from quartz, 95·76 oz. from alluvial, 1525 oz. by means of the cyanide and chlorination processes, 2285 oz. from blister copper from the Mt. Lyell Mining and Railway Company, Limited, and 222 oz. from the silver-lead bullion from the Tasmanian Smelting Company's Works, Zeehan, valued at £28,814.

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 for 1912, and the previous quarter ending 30th September, 1913:—

	Gold obtained during the Quarter ending 31st Dec., 1913.						Totals cor- responding Quarter, 1912.	Totals for Quarter ending 30th Sept., 1913.
	From Quartz.	Alluvial.	Cyanide & chlorina- tion.	From Blister Copper.	From Silver-lead Bullion.	TOTAL.		
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Beaconsfield	2405	..	1478	...	...	3883	4825	5153
Mathinna & Mangana.	250·05	...	47	...	...	297·05	118·35	486
Mt. Victoria	}	81·88	...	...	...	81·88	127·96	22·25
Warrentinna								
Mt. Cameron	...	...	...	...	...	...	...	...
Lefroy .....	...	...	...	...	...	...	...	...
Lisle .....	}	37·8	12	...	...	49·8	96·80	36·8
Lilydale.....								
Goiconda ...	...	...	...	...	...	...	...	...
West Coast.	...	1·88	...	2285	222	2508·88	2627·35	3821·8
TOTALS	2692·85	95·76	1525	2285	222	6820·61	...	...
Totals cor- responding Quarter, 1912.....	2535	242·11	2408·35	1177	1433	...	7795·46	...
Totals for Quarter ending 30th Sept., 1913.....	3371	65·85	2268	2386	1429	...	...	9519·85

Value, £28,814; equal to 6783·395 oz. fine gold.

BEACONSFIELD.—The quarter's statistics for the district are as follows:—

	Gold produced. oz.	Men employed.
Tasmania Mine.....	3883	389

*Tasmania Mine.*—The number of tons of quartz crushed was 12,298, whilst 3883 oz. of gold were obtained (by amalgamation and cyanide process), which makes a total of 1,035,820 tons quartz crushed, and 828·231 oz. of gold obtained since the mine was first started.

LEFROY.—The quarter's statistics are as follows:—

	Gold produced. oz.	Men employed.
New Pinafore.....	—	15
Others .....	—	9
Total .....	—	24

LISLE, GOLCONDA, &C.—From these fields 49·8 oz. of gold have been won. Eight men have been employed.

RINGAROOMA.—62·35 oz. were obtained from this district by 20 men.

*Alluvial Gold and Dredging Companies.*—Gold has been obtained by the following companies in streaming tin:—

	Standard Gold. oz.
Briseis Co. ....	14·53
South Mt. Cameron T.M. Co. ....	5
Total .....	19·53

MATHINNA AND MANGANA.—The quarter's statistics are as follows:—

Gold produced. oz.	Men.
297·05	19

WEST COAST.—Mr. Inspector Curtain reports:—

MCDOWELL PROSPECTING ASSOCIATION.—Mr. Michael Cunningham reports that the No. 2 or bottom adit has been advanced 18 feet and a crosscut extended east for 40 feet, with two men.

*Prospecting.*—In the vicinity of Hall and Harvey's Creeks, Mr. William Burke and another are prosecuting a careful and system-

atic search, in order to locate the sources from which the gold has been shed in those localities.

*Gold Purchased.*—Mr. Ellison reports that during the quarter he purchased from Jackson 1 oz. 17 dwt. 13 gr. of alluvial gold for £6 9s. 5d.

## TIN.

The statistics for this metal for the past quarter are as follows:—

	Ore won. tons.	Value. £	Men employed. Europeans. Chinese.	
Northern and Southern Division	15·95	1595	45	...
North-Eastern Division .....	536·90	67,091	678	76
Eastern Division .....	165·40	20,134	426	20
North-Western Division .....	380·27	42,743	676	...
Western Division .....	106·42	11,523	239	...
Totals .....	1204·94	143,086	2064	96

## NORTH-WESTERN DIVISION.

The output has been as under:—

	Ore won. tons.	Men employed.
Mt. Bischoff .....	300	474
Mt. Bischoff Extended .....	45	95
Weir's Bischoff Surprise.....	6·73	9
Wombat .....	·22	3
Ringtail.....	2·45	7
Mt. Cleveland .....	9·57	35
Waratah Alluvial.....	5·15	6
Mt. Balfour .....	11·15	40
Others .....	—	7
Totals.....	380·27	676

## NORTH-EASTERN DIVISION.

PIONEER AND GLADSTONE DISTRICTS:—

	Tin ore won. tons.	Men employed. Europeans. Chinese.	
Pioneer Tin Mine .....	129·50	74	...
Aberroe .....	9·50	11	...
South Mt. Cameron .....	19·30	34	...
Garibaldi.....	2·15	11	1
Clifton Creek .....	73·10	27	...
Yee Gee .....	16·40	9	8
Other Claims .....	57·30	63	43
Totals .....	307·25	229	52

	Tin ore won. tons.	Men employed. Europeans. Chinese.	
<b>RINGAROOMA DISTRICT:—</b>			
Bell's Hill.....	2·9	6	...
Other Claims .....	4·1	17	...
Totals.....	7	23	...
<b>DERBY DISTRICT:—</b>			
Briseis Tin Mines.....	120·20	160	...
Clyde .....	2·95	6	...
Waverley .....	4·10	4	...
Other Derby Claims .....	14·05	70	13
Totals . . . . .	141·30	240	13
<b>BRANXHOLM DISTRICT:—</b>			
Arba Tin Mine .....	40	53	...
New Ruby Flat .....	9	15	...
Other Claims .....	9·45	53	11
Totals.....	58·45	121	11
<b>MOORINA DISTRICT:—</b>			
New Banca Co. ....	4·65	8	...
Weld Tin Mine .....	10·30	16	...
Other Moorina Claims .....	5·20	15	...
Totals .....	20·15	39	...
Straits Islands.....	2·75	26	...
Totals for North-Eastern Division .....	536·90	678	76

## EASTERN DIVISION.

<i>Weldborough, Lottah, and Blue Tier Mines.</i>	Tin ore won. tons.	Men employed. Europeans. Chinese.	
Anchor Mine .....	35·45	141	...
Others .....	37·15	60	20
Totals.....	72·60	201	20



## THE MINERAL INDUSTRY

	Tin ore won. tons.	Men employed. Europeans. Chinese.	
<i>St. Helens Mines.</i>			
Pioneer Co. ....	20·15	10	...
J. C. Macmichael.....	·55	4	...
C. Miller .....	1·10	3	...
Others .....	6·75	29	...
Totals .....	28·55	46	...
<i>Avoca Mines.</i>			
Royal George .....	48·10	100	...
Gipp's Creek....	1·25	6	...
South Esk .....	3·60	6	...
Foster's .....	3·15	12	...
Desire Tin Mine.....	1·90	6	...
Story's Creek.....	2·30	36	...
Rex Hill .....	1·25	3	...
Brookstead .....	2·70	10	...
Totals .....	64·25	179	...
<i>Totals for Eastern Division</i>	165·40	426	20

## NORTHERN AND SOUTHERN DIVISION.

	Tin ore won. tons.	Men employed. Europeans.
Shepherd and Murphy Mine...	15·67	42
Iris.....	0·28	*
	<u>15·95</u>	<u>42</u>

\* Shown under Wolfram.

COX'S BIGHT, SOUTH COAST.—Twelve men prospecting.

## WESTERN DIVISION.

	Tin ore won. tons.	Men employed. Europeans.
Boulder .....	20	36
Renison Bell .....	29	66
Montana Tin Syndicate .....	8·5	17
Penzance .....	5·7	16
Heemskirk .....	15·45	24
Stanley.....	11	5
Others.....	16·77	75
Totals .....	<u>106·42</u>	<u>239</u>

## SILVER.

WEST COAST.—The registered output of silver ore in the Western Division for the quarter ending 31st December, 1913, is given below:—

<i>Zeehan Mines:</i>	Ore.	Tons.	Value.	Men.
Zeehan-Montana	gossan .....	...	...	...
Zeehan-Montana	galena .....	233·61	6122	93
Zeehan-Western	" .....	29·57	551	10
Zeehan-Queen	" .....	16	270	5
Mt. Zeehan (Tas.)	" .....	98	2088	18
Oonah	pyrites .....	1651	825	31
Section 903M	...	...	...	...
S. Nubeena	...	8·15	222	5
Tas. Smelting Coy.	galena .....	3·1	40	2
Queen Extended	" .....	82·75	1281	10
Austral Valley	flux .....	...	...	...
Queensberry	galena .....	43	184	5
<i>Dundas Mines:</i>				
Adelaide	iron flux .....	...	...	...
Hercules	sulphide .....	1887	17,727	68
Zeehan-Dundas Blocks	galena .....	11	216	6
Comet	iron flux .....	...	...	...
Mount Read	...	...	...	2
Hercules, North	...	...	...	...
Bon Accord	...	...	...	...
<i>Rosebery Mines:</i>				
Tasmanian Copper	sulphide .....	2051·3	7594	15
Primrose	" .....	384·5	1386	20
Metals Extraction Co.	...	...	...	90
<i>Mt. Farrell Mines:</i>				
N. Mt. Farrell	galena .....	678·7	8003	97
Sterling Valley	...	...	...	...
<i>North Pieman:</i>				
Chester Mine	pyrites .....	731	260	30
<i>Mt. Lyell:</i>				
Tasman & Crown Lyell Extd.	...	...	...	5
<i>Sundries:</i>				
Dunkley Bros.	...	...	...	85
Tasmanian Smelting Co.	...	...	...	75
Prospectors, &c.	...	...	...	50
Total	.....	<u>7908·68</u>	<u>£46,769</u>	<u>722</u>



**ZEEHAN DISTRICT.**—*Zeehan-Montana Mine.*—Mr. John Craze, manager, reports:—Exploratory work is now in progress. Driving along the south-east slide at Nos. 4 and 5 levels. At No. 4 level a new lode has recently been cut under the slide. Where cut the lode is very broken, due to the influence of the slide. The formation between walls is 12 feet wide, with veins of good ore mixed with slate. These will probably junction and form the lode in a little further driving. The drive at No. 5 level is not yet sufficiently advanced to cut the lode. We are also driving a crosscut west from No. 3 lode, north of the shaft, and have recently cut a new lode here carrying a small vein of galena.

**MT. READ DISTRICT.**—*Hercules Mine.*—Mr. C. H. Moxon, manager, reports:—Owing to the closing down of the Tasmanian Smelting Company's works at the end of September no deliveries have been made or ore sold since then. However, some 1887 tons of zinc-lead sulphide ore have been mined and delivered to the bins at Williamsford. During the term a large amount of development work has been completed, and the diamond-drill has been in constant operation; in addition the mine has now been put into thorough order, and all the depleted areas are now close filled.

**ROSEBERRY DISTRICT.**—*Primrose Mine.*—Mr. George Barker, manager, reports:—Owing to the Zeehan smelters closing down last October mining ore was discontinued. Development work was then commenced, south in the main adit-level, when a new lens of ore was discovered and proved for a length of 87 feet. This will give us 177 feet of backs. This development is very pleasing, as it will bring up our ore reserves.

*Tasmanian Smelting Company.*—Mr. H. Harris, manager, reports:—Ore bought during the quarter, 781 tons, containing 40 tons lead, 4790 oz. silver, 52 oz. gold. Exported 158 tons bullion, containing 153 tons lead, 18,453 oz. silver, and 222 oz. gold.

#### NORTH-WESTERN DIVISION.

	Tons.	Value.	Men.
Magnet Mine .....	1245	£14,394	160
Victoria Magnet.....	...	...	7
	<u>1245</u>	<u>£14,394</u>	<u>167</u>

#### NORTHERN AND SOUTHERN DIVISION.

	Tons.	Value.	Men.
Round Hill Mine .....	106·24	£755	16

## COPPER.

*Mt. Lyell Mine.*—Mr. Basil Sawyer, local superintendent, reports:—Ores and metal-bearing fluxes treated at Reduction Works:—

	tons.	Dry Weight.		
		cwt.	qr.	lb.
Mt. Lyell Mine ore .....	53,657	4	0	11
North Lyell Mine ore .....	30,356	10	0	8
Metal-bearing flux from Lyell Tharsis Mine...	...	...	...	...
Lyell Comstock Mine Ore .....	744	2	0	23
North Lyell flux.....	...	...	...	...
Purchased ore.....	5	13	1	10
	<u>84,763</u>	<u>9</u>	<u>2</u>	<u>24</u>

## Number of men employed:—

At the Company's Mt. Lyell Mine .....	417
"    "    North Lyell Mine.....	538
"    "    Crotty Leases .....	37
"    "    Lyell Tharsis Mine .....	...
"    "    Lyell Comstock Mine. ....	36
	<u>1028</u>
"    "    Reduction Works.....	761
Railway Department—Mt. Lyell Railway .....	144
"    "    North Lyell Railway...	17
	<u>161</u>
Total.....	<u>1950</u>

## Quantity and value of metal produced:—

Blister copper, 1744 tons, containing—	£	s.	d.
Copper, 1722 tons, valued at.....	125,161	8	0
Silver, fine, 114,916 oz., valued at.....	13,167	9	0
Gold, fine, 2285 oz., valued at .....	9597	0	0
Total .....	<u>£147,925</u>	<u>17</u>	<u>0</u>

## Mr. Inspector Curtain reports:—

*Mt. Lyell Mining and Railway Company's Group.*

*Mount Lyell Mine.*—The usual pyritic extractions continue from the surface and underground—principally the latter, where the haulage has reached 1000 tons in 24 hours. Towards the old South Lyell workings intervening ore-bodies have been located by diamond-drilling, that beneficially increase the reserves in this much desired direction.

*North Lyell Mine.*—Stoping has been generally established through the several levels, from the "400" to the "1100" feet, or deepest workings. Here from the floor and footwall side of the stope, preparations for winzing are being made that will further exploit the ore-masses, and provide information for directing future exploratory operations of the company.

*Lyell Comstock Mine.*—Surface and underground prospecting continues both by diamond-drilling and hand labour, in connection with which extensive concentrating tests on up-to-date methods are being prosecuted, under capable direction.

*Reduction Works.*—Three furnaces and their accessories at the converters have for the most of the period been in blast, and produced the returns as officially furnished.

*Lake Margaret Hydro-Electric Scheme.*—Work is progressing satisfactorily in both sections. On the top and incline considerable levelling to seat the pipe-line is finished, also excavations, and concreting for the sluice-race, and general foundations at the power-station. In the direction of the smelters 4 miles of strong substantial celery-top poles for duplicate cable lines have been erected, while at the lake a gullet to house the intake section of the main piping, 20 feet below the normal water-surface, is, with electric pneumatic drill power, well under way. This, when completed, will provide ample storage against any emergency that may arise from weather conditions, as measures and quantities in addition to those already published, and somewhat conservatively based, are as follows:—With the present catchment that embraces an area of 7 square miles, 1 inch of rainfall equals 16,262,400 cubic feet of water. The mean area of the lake is computed at 300 acres, or 13,068,000 square feet. Therefore each foot in height, confined to this restricted surface, gives a like number of cubic feet efficiency.

This, to meet present demands, will require 45 cubic feet per second, or a constant draw of 3,880,000 cubic feet per day, that with the 20 feet of storage and plentiful rainfall is fully assured and provided for. Should further demands, either local or distributive, need attention, they can be complied with by increasing the height of the dam embankment in proportional ratio with such requests.

*Railways and Tramways.*—This service is most satisfactory, while the permanent-way, including bridges on the Kelly's Basin and Strahan lines during the lengthened days, are receiving general overhauls and other necessary attention.

*Lyell Blocks Copper Mining Company.*—Mr. Ferguson, the manager, reports that only shaft-sinking is still carried on. The total depth from the floor of the Consols adit is 704 feet. At this depth,

which is 100 feet below that of the adjoining North Lyell Mine, it is purposed to open out another chamber, and then resume sinking—100 feet. Twenty-six men are employed.

*Mount Jukes Prospecting Syndicate, late Jukes Proprietary.*—Mr. James Souter, the present lessee, reports:—A further distance of 28 feet has been driven in mineralised schist, that shows fair prospects of carbonate ore, and some surface trenching, with two men.

#### DUNDAS.—

	Tons.	£	Men employed.
Copper-Nickel Syndicate .....	400	2000	16
Dundas Cuni .....	400	2200	25
Ring Valley .....	120·8	1195	21
	<hr/> 920·8	<hr/> 5395	<hr/> 62

*Dundas Cuni.*—Mr. T. H. Vincent, manager, reports:—Good progress has been made with installation of plant and machinery. Sinking of shaft will be in active operation after the Christmas holidays. Four hundred tons of copper-nickel ore have been shipped to Europe, the net value of which is estimated at £2200.

*Copper-Nickel Syndicate.*—Mr. H. A. Vaudeau, manager, reports:—Sunk shaft to 86 feet, opened out at 76 feet; cut lode 12 feet in and obtained 50 tons of ore passing through it. I have driven 46 feet south and 18 feet north, obtaining from drive approximately 350 tons, or a total of 400 tons. Value of ore about 10 per cent. nickel and 4 per cent. copper. Had one band of ore going 18 per cent. copper, and 9·4 per cent. nickel, about 10 inches wide. Prospects look very encouraging. Have about 100 tons of ore bagged ready for shipment; other lying in ore-shed ready for bagging.

*Ring Valley Mine.*—Mr. John Moyle, manager, reports:—Driving and stoping have been confined to the 130-foot level, south workings, with variable results. The stopes have produced a fair amount of antimonial and fahl-copper ore of good grade. The lode in the south drive is poor, comprising carbonate of iron matrix only. The whole length of this drive for 124 feet is in barren lode-material, principally, iron and pyrrhotite.

#### NORTH-WESTERN DIVISION.

	Tons.	£	Men employed.
Murray's Reward (Balfour)...	231	1018	28
Others (Balfour) .....	...	...	25
Mt. Jasper, Heazlewood .....	...	...	13
Totals .....	<hr/> 231	<hr/> 1018	<hr/> 66

## COAL.

The output this quarter was 11,378 tons, against 16,095 tons the previous quarter. The output of the respective collieries was as follows:—

Colliery.	Tons raised.	Value at mine. £	Men employed.
Cornwall Colliery .....	4463	2008	50
Mt. Nicholas     " .....	6407	2883	64
Spreyton         " .....	133	86	3
York Plains      " .....	245	159	3
Illamatha       " .....	90	45	2
Catamaran       " .....	...	...	...
Mt. Cygnet       " .....	40	20	2
Totals .....	<u>11,378</u>	<u>£5201</u>	<u>124</u>

## SHALE.

Four men were employed at the Railton-Latrobe shale oil works. One hundred tons of shale were obtained, valued at £100.

*Fuel Oil from Shale.*—The Government Geologist reports:—It will be of interest to investors in the Tasmanite shale deposits at Latrobe to note that in the recent British Admiralty specifications for oil fuel in the Navy the limit of the proportion of sulphur admissible has been raised from 0.75 to 3 per cent. The sulphur bogey is thus disposed of, if the proprietors of the Mersey works should at any time decide to realise their fuel oil in this direction. The viscosity limit has also been altered to the advantage of the producers.

## BISMUTH.

The output of bismuth during the quarter was as follows:—

	Tons.	£	Men.
Shepherd and Murphy Mine .....	1.27	382	...
Squib Mine .....	.05	11	...
Totals .....	<u>1.32</u>	<u>393</u>	<u>...</u>



## WOLFRAM.

The output of wolfram during the quarter was as follows:—

	Tons.	£	Men.
Avoca Mines.....	7.40	814	*
Shepherd and Murphy Mine.....	8.25	742	*
Squib Mine .....	2.30	230	7
Iris Mine .....	0.82	92	3
Totals .....	<u>18.77</u>	<u>1878</u>	<u>10</u>

\* Shown in tin returns.

## OSMIRIDIUM.

The output of osmiridium during the quarter was as follows:—

	ozs.	£	Men.
Savage River District .....	448	4794	{ 50
Wilson River .....			{ 83
Totals .....	<u>448</u>	<u>4794</u>	<u>133</u>

## MISCELLANEOUS.

The following return shows the average number of men employed in or about the mines during the quarter ending 31st December, 1913:—

District.	Europeans.	Chinese.	Total.
Northern and Southern .....	520	...	520
North-Eastern .....	698	76	774
Eastern .....	559	20	579
North-Western .....	1042	...	1042
Western .....	3942	...	3942
Total .....	<u>6761</u>	<u>96</u>	<u>6857</u>

Value of mineral output per man:—£57 0s. 2.68d.

*Dividends Paid by Mining Companies during the Quarter ended  
31st December, 1913.*

		£	s.	d.	£	s.	d.
From Copper Mines:—							
Mt. Lyell Mining & Railway Co. Ltd. ....		...			23,726	0	0
From Tin Mines:—							
Mt. Bischoff Tin Mining Co., Reg.....	18,000	0	0				
Pioneer Tin Mining Co. Ltd. ....	12,093	0	0				
Briseis Tin and General Mining Co. Ltd....	...						
Renison Bell Pros. and Mining Co., N.L....	923	0	0				
South Mt. Cameron Tin Mining Co. ....	800	0	0				
S. & M. Syndicate.....	3937	0	0				
					35,753	0	0
From Silver-Lead Mines:—							
The Mt. Farrell Mining Co., N.L. ....	...						
Quigley's Prospecting Syndicate .....	60	0	0		60	0	0
From Coal Mines—							
Cornwall Coal Co.....	...				906	0	0
Total.....					£60,445	0	0

APPENDIX.

State Mining Engineer's Office,  
Zeehan, 8th November, 1913.

REPORT II.

Dear Sir,—The following is the report for the month ending 31st October, 1913:—

*General.*

The usual office work was completed at Zeehan, and a considerable amount of work was carried out in connection with the proposed construction of a tramway from Zeehan to the district north of Mt. Heemskirk.

Assays to the number of 20 were completed, and two mineral determinations.

*Zeehan Prospecting.*

(1) South Zeehan, Section 306.—The tunnel has been driven 184 feet, making a total of 476 feet. The area in which the continuations of the old Montagu lodes should be found was passed through, but nothing of value was shown. Work has ceased here. A tribute party has begun to drive on the small lode which was cut at 90 feet from the tunnel mouth.

(2) West Zeehan, North Comstock—Thirty-two feet of crosscutting have been done, making a total of 219 feet of driving. As the lode continued poor and irregular throughout, this work has been stopped.

Kynance.—The crosscut to the private lode has been driven 36 feet 6 inches—total, 55 feet.

(3) Central Zeehan: No. 2 Argent.—The crosscut has been driven 71 feet, making a total of 182 feet. In this crosscut six veins of galena have been intercepted, the largest being about 4 inches wide. Also, an irregular quartz-gossan vein about 6 inches wide was cut, which assays from 10 to 47 oz. of silver. These workings have been let on tribute.

Queen Hill.—The tunnel has been driven 58 feet and the lode cut. The lode is a large ill-defined formation, carrying bunches of galena, which will probably pay for stoping. Total length of tunnel, 157 feet. The area has been let on tribute.

No. 2 Queen Hill.—An approach has been cut and a tunnel driven 6 feet towards two lodes which require about 50 feet of driving to intersect.

(4) Nubeena Tribute.—The party have driven the south end to 50 feet, put the rise up to 20 feet, and sunk a winze to 5 feet. In all the faces the lode is poor.

(5) Some prospecting has been done between the Mariposa and Mt. Dundas, and in the north-east valleys of Mt. Zeehan.

#### *Prospecting.*

One party continued this work at Tullah. The track from Tullah up the Murchison River was extended about 3 miles from the Kitson Cage on the south side of the river. A hut has been built at the Kitson claim, and the tenders called for driving the tunnel about 50 feet on this property.

#### *Beaconsfield.*

At the Duchess of York tunnel the winze has been sunk 20 feet and timbered. The country has been hard in parts, but is now easier, and allows more rapid progress.

#### *Port Davey Track.*

The track has been pushed forward about 3 miles for the month across the base of Point Hibbs. The bush has been dense in parts, but open country has been again reached. Timber is very scarce, and hampers the construction of the depot. The site for the camp has been chosen at a convenient distance from the small boat harbour opposite the Pyramid Rock.

#### *Water-power.*

The course of the race and the exact levels are being laid out for closer information in regard to delivering the Rolleston water into the Murchison, in place of the Anthony River. This work should be completed during the current month. The track connection with the tramway of the Balfour Sawmilling Company has been laid out and cleared. About 1 mile of track-construction will give connection here by packhorse with the tracks to the Red Hills and Selina Camps.

The work here for the month was broken into by the disappearance of one of the men, named Henry Jones, working on the track connection with the Moxon camp. It appears certain that he wandered off the track into the bush, but in spite of the most thorough searching in the vicinity, no trace of him has been found. On the evening of the day he was lost he was heard cooeing in the bush, and men went out to trace him by the calls; but the sounds suddenly ceased, and no sound nor sign was met with after that. Volunteers came forward

freely from the neighbouring centres, and I take this opportunity to record our deep appreciation of the sacrifices these men made and the hardships they endured in their efforts to save a comrade's life. Among so many willing helpers there is no need to discriminate, but Constable Kean, of Williamsford, Mr. Copping, of the Balfour Sawmilling Company, and Mr. Oscar Davis, foreman in charge of the work, were especially prominent in leadership and organisation. The search was continued long after all hope of saving him alive had gone, but proved quite fruitless, and had to be reluctantly abandoned.

HARTWELL CONDER, State Mining Engineer.

The Secretary for Mines, Hobart.

State Mining Engineer's Office,  
Zeehan, 5th December, 1913.

REPORT 12.

Dear Sir,—The following is the report for the month ending 30th November, 1913:—

*Zeehan Prospecting.*

(1) West Zeehan.—The Comstock Mine has been taken over, the traming road repaired, and the drive cleaned up. Twenty-five feet have been driven on the lode approaching Tengdahl's old workings. The ground is very hard. The lode is strong and well defined, consisting of about 3 feet in width of pyritic material, which contains occasional bunches of galena and blende.

Kynance.—The crosscut has been driven 22 feet—total, 77 feet.

(2) Central Zeehan: No. 2 Argent.—The crosscut from No. 10 lode has been driven 49 feet through hard ground. At 46 feet two small veins of galena were passed through.

Queen Hill West.—The tunnel has been driven 58 feet—total, 64 feet.

Tributes: Nubeena.—The ends are poor, but show signs of improvement. The tributors have sold 8½ tons of firsts for £123 18s. 7d. net, and at present are putting a parcel of good seconds through the Montana mill.

The workings of the tributors on Section 306, Argent No. 2, and Queen Hill, have so far proved unpayable.

*Prospecting.*

On the Murchison River the tunnel on the old Kitson property has been extended 30 feet—a total of 42 feet from the entrance. A vein carrying a little copper pyrites was cut, but the main formation has not yet been reached. Two men are prospecting from here along the northern slopes of Mt. Murchison.

*Beaconsfield.*

At the Duchess of York tunnel the winze has been sunk 37 feet for the month, making a total of 57 feet, and securely timbered. A porous quartzose rock came in at about 40 feet, and has continued to the present depth. The air has been bad, and it may be necessary to put a rise through to the surface above the winze a distance of about 36 feet.

At the North Tasmania Mine assistance is being given to the party of miners who have purchased the property, and a crosscut is being extended to cut a lode at the 200-foot level.

*Port Davey Track.*

The track is just reaching the Spero River, to the south of Point Hibbs. This river is of considerable size, and a punt will be provided to cross it. The bush has been dense, but the ground is solid and suited to a pack-track.

*Water-power.*—The rough weather hampered the mountain work terribly during the past month. The levels have been carried along the east slope of Mt. Murchison, and a track cut to within about  $1\frac{1}{2}$  mile of the Kitson property on the Murchison River. The figures will shortly be available for the length of race and pipe-line here, to enable a comparison to be made with the smaller scheme that was originally proposed. Considerable credit is due to the surveyor and men who have held to this work during the winter months and enabled it to be advanced to the present stage.—Yours faithfully,

HARTWELL CONDER, State Mining Engineer.

The Secretary for Mines, Hobart.

State Mining Engineer's Office,  
Zeehan, 6th January, 1914.

REPORT 13.

Dear Sir,—The following is the report for the month ending 31st December, 1913.

The usual office work has been carried out, and during the month 22 assays and 12 mineral determinations have been made.

*Zeehan Prospecting.*

(1) West Zeehan: (a) Comstock Mine.—Thirty feet have been driven for the month. The lode in the face is at present poor; but for 10 feet of the distance driven it carried 4 inches of first-class galena. This patch will probably pay for stoping.

(b) Kynance.—The crosscut has been driven 23 feet, making a total of 100 feet. The lode has been entered; it is a big soft formation carrying bunches of pyrite, but so far not in payable quantity.

(2) Central Zeehan: (a) No. 2 Argent.—The crosscut has been driven 23 feet, making a total of 73 feet. The country, though hard, is favourable to the existence of ore-shoots.

(b) Section 903.—Seventeen feet have been driven on a promising lode, which occasionally carries a little galena.

(c) On the Queen property the crosscut has been driven 40 feet—total, 104 feet. Nothing of value has been cut.

(d) *Keogh's Tribute.*—In the crosscut driven by the State from Hornby's tunnel near No. 2 Argent several veins of galena were encountered. One of these was let on tribute to Keogh and party. The tributary drove 30 feet on the vein, which for that distance averaged about 2 inches of galena. The vein then opened out, and for the last 10 feet has varied from 6 to 18 inches of high-grade clean galena. The development is most satisfactory.

*Prospecting.*

(1) On the Murchison River the tunnel on the Kitson property has been further extended, and veins of pyrites carrying copper and silver have been passed through; but no large formation has been encountered. Prospecting has also been continued along the flanks of Mt. Murchison.



(2) *Tasman River*.—In this locality a section has been reserved on which a copper outcrop has been discovered. A prospecting shaft has been sunk to 28 feet; the lode dipping out of the shaft at 15 feet. The lode is well exposed in a cut a few feet from the shaft. Here it is a well-defined body, 4 feet wide. A bulk sample taken across the lode at a depth of 5 feet gave an assay:—

Gold .....	Trace
Silver .....	9·6 oz.
Copper .....	26·8 per cent.
Tin .....	Nil.

It will be possible to test the lode without machinery to 50 or 60 feet in depth. Its development will be of interest, and may prove of great importance to the district, as the North Heemskirk tramway will pass in the near vicinity. Both the lode and the inclosing country give evidence of much alteration.

(3) *Heazlewood*.—Near the Heazlewood River a copper pyrite outcrop, which gave fair values for gold and copper, has been proved by trenching and sinking. It did not open up satisfactorily, and work has now been discontinued.

(4) *Beaconsfield*.—At the Duchess of York tunnel the air became worse in the winze, and it became necessary to put a rise up to the surface above the winze. This work was nearly completed when the holidays intervened.

At the North Tasmania Mine some very good ore was met with during the month, giving most welcome encouragement to the party of miners who now hold the property.

#### *Port Davey Track.*

The track has reached the Spero River, a distance of 27 miles from the Double Cove starting-point, and the country ahead explored for about 4 miles. A store for fodder is being erected at the small boat harbour at Point Hibbs and the depot established on the track at the base of this point. There is good shelter for boats at Point Hibbs behind the Pyramid Rock, and it should be possible to land supplies here with safety.

#### *Water-power: Lake Rolleston Scheme.*

Work has proceeded steadily during the month, but the bush has been dense and has delayed progress. The race-level has been carried to the point where the pipe-line has now to be marked out and measured. Good progress has been made with the connection between the tramway from Rosebery for the Balfour Sawmilling Company and the Lake Rolleston pack-track.—Yours faithfully,

HARTWELL CONDER, State Mining Engineer.  
The Secretary for Mines, Hobart.