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THE TASMANIA GOLDMINE
BEACONSFIELD, TASMANIA

FOR POWER CORPORATION
AUSTRALIA, LTD.

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REPORT ON THE TASMANIA GOLD MINE

BEACONSFIELD, TASMANIA

CONTENTS

1.   INTRODUCTION

This report contains results of preliminary investigations into the feasibility of establishing a profitable operation at Beaconsfield, Tasmania, and was requested by Dr. W.L. Young on behalf of the Power Corporation Australia Ltd.

The Beaconsfield goldfield is approximately 26 miles north-west of Launceston in Northern Tasmania. It consisted essentially of one rich gold mine, the "Tasmania", which was discovered in 1877, and was in almost continuous production until 1914. The chief factor leading to its closure was the influx of water.

It is known that gold values continue below the 1500 feet level, the lowest level mined. However, grade in the lower levels worked was substantially below that obtained from early production.

In 1964, the Tasmanian Department of Mines began a drilling programme to determine the potential of the lode at depth. This consisted of one parent hole and two diversions for a total of 2,609 feet. Three intersections of the vein were made. Operations were then suspended in favour of possible activity by an independent company.

2.   SUMMARY and CONCLUSIONS

This feasibility study has been developed on a dual basis:

a)   using a cautious estimate of potential ore reserves of 195,000 tons and,

b)   on a more optimistic estimate of potential reserves of 585,000 tons

The difference in possible interpretation of potential reserves is such as to require alternative mining programmes for economic working of the mine.

In view of the possibility of an increase in the price of gold, the effect of doubling the official price to $A62.50 an ounce has been examined.   On a base price of $A31.25 an ounce for gold, it is not sufficiently profitable to implement an operation of 90,000 tons per year on optimistic assessment of potential.   A 30,000 tons per year operation would actually run at a loss. At a gold price of $62.50 an ounce, and accepting an optimistic view of ore potential, substantial profits are possible, but on a more cautious view of ore reserves only a nominal profit would be made. A summary of capital expenditure, operating costs and returns is shown below.

	Case 1: 90,000 tons per year		Case 2: 300,000 tons per year	
	a) gold price $31.25/oz.	b) $62.50 /oz.	a) $31.25 /oz.	b) $62.50 /oz.
Total Capital Employed	$2,477,285	$2,477,285	$1,810,540	$1,810,540
Value of Production	$11,124,945	$20,265,570	$3,708,315	$6,755,190
Cost of Production	$8,190,000	$8,190,000	$4,621,500	$4,621,500
Marginal Income	$2,934,945	$12,075,570	- $913,185	$2,133,690
Amortization Provision	$2,348,731	$2,348,731	(1,738,561)	$1,738,561
Net Profit	$586,214	$9,726,839	-	$395,129
% Profit Annual rate on 6½ yrs.	3.64%	60.4%	-	3.36%
Final Realisation on plant	$128,554	$128,554	$71,979	$71,979

It should be noted that capital expenditure in both cases 1 and 2 would be spread over $2\frac{1}{2}$ years before production could begin. It is estimated that an underground exploration programme would take 12 months to complete, and that a further 18 months would be necessary to develop the property. In both cases, also, operating life would be $6\frac{1}{2}$ years.

The two most vital points to be considered, therefore, are firstly interpretation of ore reserve potential, and secondly, if an optimistic view is taken, then the likelihood of a rise in the price of gold must be assessed, as the feasibility of the project is dependent largely on these two factors.

If a decision is made to proceed with the exploration phase of the project, then it is recommended that surface exploration be carried out first to determine the potential of the area as a whole. This would cost $41,000 out of a total estimate of $538,376 on optimistic view of ore potential, or $463,576 for a more cautious assessment.

Lastly, notice should be taken of the high pumping cost of ground water expected for the mine. Cost estimates for this item are based on requirements of pumping 17,250,000 gallons a week on a head of 2,500 feet. Power costs alone, at $155,600 per year for this add $1.73 per ton and $5.19 per ton to operating costs for 90,000 tons and 30,000 tons per year operations, respectively.

3. PROJECT FEASIBILITY

The estimated returns from the operation outlined in this report are summarized in Tables 1 and 2. Table 1 refers to an operation producing 90,000 long tons a year based on an ore reserve potential of 585,000 tons, while Table 2 refers to a smaller operation of 30,000 tons per year on an ore reserve potential of 195,000 tons.

Metal Prices

1. Gold   Calculations have been based on two gold prices. Firstly, a price of $A31.25 an ounce has been used. Secondly, revenue has been calculated on a gold price of $62.50. This exercise is considered to be warranted in view of the present international financial situation.

2. Silver   Payment for silver production is based on a price of $2 per ounce. No allowance has been made for refining charges which are nominal.

3. Copper   A price of $700 per ton of copper produced has been used in calculating returns. Local smelter charges have been used in this. It is believed that better terms could be obtained from an overseas custom smelter.

Metal Recoveries and Grades

1. Gold   Assumed grade of ore is 10.5 dwts. per ton and recovery for this exercise is 10 dwts. or 95% recovery.

2. Silver and Copper   For both these metals an 80% recovery factor has been used, thus recovered silver is taken at 4 dwts. per ton and copper recovered at 0.8% per ton.

PROJECT FEASIBILITY - Case 1, 90,000 tons/year

Year	1	2	3	4	5	6	7	8	9	Total
Activity	Expln.	Devt.	Devt./ Prod.	Prod.	Prod.	Prod.	Prod.	Prod.	Prod.	
Ore Prod. (tons)			45,000	90,000	90,000	90,000	90,000	90,000	90,000	585,000
Metal Prod.										
1) Au (ozs.)			22,500	45,000	45,000	45,000	45,000	45,000	45,000	292,500
2) Ag (ozs.)			9,000	18,000	18,000	18,000	18,000	18,000	18,000	117,000
3) Cu (tons)			360	720	720	720	720	720	720	4,680
Realised Value of Production* a)			$855,765	$1,711,530	$1,711,530	$1,711,530	$1,711,530	$1,711,530	$1,711,530	$11,124,945
Realised Value @ $62.50/oz. Au b)			$1,558,890	$3,117,780	$3,117,780	$3,117,780	$3,117,780	$3,117,780	$3,117,780	$20,265,570
Less Cost of Prod. @ $14/ton			$630,000	$1,260,000	$1,260,000	$1,260,000	$1,260,000	$1,260,000	$1,260,000	$8,190,000
Marginal Income a)			$225,765	$451,530	$451,530	$451,530	$451,530	$451,530	$451,530	$2,934,945
b)			$928,890	$1,857,780	$1,857,780	$1,857,780	$1,857,780	$1,857,780	$1,857,780	$12,075,570
Amortization Prov.			$180,673	$361,343	$361,343	$361,343	$361,343	$361,343	$361,343	$2,348,731
Net Profit (Au $31.25/ton)			$45,002	$90,187	$90,187	$90,187	$90,187	$90,187	$90,187	$586,214
Net Profit (Au $62.50/oz.)			$748,217	$1,496,437	$1,496,437	$1,496,437	$1,496,437	$1,496,437	$1,496,437	$9,726,839

* After deduction for copper smelting charge and deduction for freight on Cu concentrates

Project Feasibility Case 1 Continued

Year	1	2	3	4	5	6	7	8	9	Total
% Profit on Capital a)			3.64% on ½ yr.	3.64%	3.64%	3.64%	3.64%	3.64%	3.64%	
b)			60.4% on ½ yr.	60.4%	60.4%	60.4%	60.4%	60.4%	60.4%	
Capital Expenditure	538,376	811,955	$1,126.954							
Capital Employed			$2,477,285	$2,477,285	$2,477,285	$2,477,285	$2,477,285	$2,477,285	$2,477,285	
Realisation – Mill Plant									$128,554	$128,554

PROJECT FEASIBILITY – Case 2, 30,000tons/year

Year	1	2	3	4	5	6	7	8	9	Total
Activity	Expl.	Devt.	Devt./ Prod.	Prod.	Prod.	Prod.	Prod.	Prod.	Prod.	
Ore Prod. (tons)	–	–	15,000	30,000	30,000	30,000	30,000	30,000	30,000	195,000
Metal Prod.										
Au (ozs.)			7,500	15,000	15,000	15,000	15,000	15,000	15,000	97,500
Ag (ozs.)			3,000	6,000	6,000	6,000	6,000	6,000	6,000	39,000
Cu (tons)			120	240	240	240	240	240	240	1,560
Realised Value of Production* a)	–	–	$285,255	$570,510	$570,510	$570,510	$570,510	$570,510	$570,510	$3,708,315
Realised Value @ $62.50/oz. Au a)			$519,630	$1,039,260	$1,039,260	$1,039,260	$1,039,260	$1,039,260	$1,039,260	$6,755,190
Less Cost of Prod. @ $23.70c/ton			$355,500	$711,000	$711,000	$711,000	$711,000	$711,000	$711,000	$4,621,500
Marginal Income a)			– $70,245	-$140,490	-$140,490	-$140,490	-$140,490	-$140,490	-$140,490	$913,185
b)			$164,130	$328,260	$328,260	$328,260	$328,260	$328,260	$328,260	$2,133,690
Amortization Prov.			$133,729	$267,472	$267,472	$267,472	$267,472	$267,472	$267,472	$1,738,561
Net Profit (Au @ $31.25/oz.)						Loss Incurred Annually				
Net Profit (Au @ $62.50/oz.)			$30,401	$60,788	$60,788	$60,788	$60,788	$60,788	$60,788	$395,129

* Deductions as in Case 1

Project Feasibility Case 2 Continued

Year	1	2	3	4	5	6	7	8	9	Total
% Profit on Capital			3.36% on ½yr.	3.36%	3.36%	3.36%	3.36%	3.36%	3.36%	
Capital Expenditure	463,576	584,212	762,097							
Capital Employed			$1,810,540	$1,810,540	$1,810,540	$1,810,540	$1,810,540	$1,810,540	$1,810,540	
Realisation Mill Plant									$71,979	$71,979

4. GENERAL DESCRIPTION OF POSSIBLE OPERATION

The prospect has been considered from two different angles. Firstly on optimistic estimates of ore potential a mine of 90,000 tons per year is considered, and secondly on reserve potential of 195,000 tons an operation of 30,000 tons per year is also investigated.

1. EXPLORATION

Three major phases are involved in carrying out underground exploration:

a)   Mine dewatering and shaft rehabilitation.   This will involve the pumping of up to 20 million gallons per week.   Mine openings are estimated to contain approximately 20 million gallons, but the inflow of ground water expected means that up to 3 months could be required to pump the mine out.   Repair of shaft timber has been estimated at two months but this is an arbitrary figure as the condition of the shaft is unknown at this stage.

b)   Once access to the 1500 feet level is obtained it will be necessary to drive off from the orebody to gain drill site access. To this point a similar amount will be required whether an optimistic or conservative view of ore potential is taken.

c)   Underground diamond drilling costs are dependent on the amount of ore encountered and will vary according to the view taken on ore potential.

In all, the underground exploration programme could be expected to take up to twelve months.

2. MINE DEVELOPMENT

In view of the width of the orebody (6 feet) and the limited scale of operations only two mining methods have been considered, namely cut and fill stoping, and shrinkage stoping.   Calculations are based on the former method, as the expected high ground water inflow could lead to problems in ground control during shrinkage stoping.   The additional time required for mining by shrinkage methods would lead also to greater pumping costs which would offset advantages in mining costs.

Using cut and fill stoping, therefore, it would be necessary to develop four stoping blocks to obtain 90,000 tons per year using 12.5 tons per stoping miner shift.   This means that it will be necessary to have two levels developed for production at any one stage as minimum stoping length possible will be 300 feet. Accordingly ore production development underground must include provision for:-

1. Shaft sinking over two levels

2. Level development - cross cutting and driving and rises on two levels

3. Stope preparation

4. Ventilation development

For a 30,000 tons/year operation smaller development expenditure will be incurred, as shown in Appendix III. Estimates of individual items of capital equipment required for this development and subsequent production are also included.

3.   TREATMENT PLANT

Little data is available on metallurigcal behaviour of the ore. Early operations made use of amalgamation, but reports indicate that at depth considerable losses in sulphides occurred. The flowsheet on which capital cost estimates are based provides for preliminary separation of free gold by amalgamation, followed by cyanidation and flotation for the recovery of locked gold and other minerals. Costs have been collected for the 300 ton/day plant and interpolations made for the smaller plant.

5. CAPITAL AND OPERATING COST SCHEDULES

1. Capital Costs

Details of individual items of plant, equipment, buildings, pre-production expenses (etc.) are included in Appendix III. A summary of capital costs for 300 tons/day and 100 tons/day mines are shown below:

		300 tons/day	100 tons/day
1)	Exploration	538,376	463,576
2)	Mine Equipment	625,405	522,445
3)	Surface Buildings	222,700	116,875
4)	Vehicles	32,000	29,000
5)	Mill Plant	367,296	205,651
6)	Mine Pre-production Development	376,508	295,108
7)	Working Capital	315,000	177,885
	Total	$2,477,285	$1,810,540

Amoritzation/depreciation deductions have been made as follows:- Items 1-4, 6 and 7 have been written off completely over the operating life of the property. For Item 5 depreciation has been made at 10% of original value per year, leaving a residual value at the end of the property's life.

2. Operating Costs

Details of operating expenditure are included in Appendix IV. No allowance has been made for royalties, and no tax is payable on mining surpluses derived principally from gold producing operations. A summary of operating costs, in terms of cost/ton is shown below:-

		300 tons/day	100 tons/day
1)	Underground Costs	10.30	17.55
2)	Mill Costs	2.70	4.05
3)	Surface and General Overheads	1.00	2.10
	Total	$14.00/ton	$23.70/ton

APPENDIX I – ORE RESERVES

A.   Calculated Level Grades – on 4' minimum mining width

Level	No. of Samples	Average Width (ft.)	Assay dwts./ton
815'	21	6.95'	13.38
915'	67	5.73'	22.28
1000'	50	5.86'	21.48
1100'	43	5.56'	12.52
1250'	71	6.32'	10.57
1370'	63	6.09'	8.04
1500'	36	5.83'	10.57
1500' (sill)	7	4.60'	4.04
Average	44.75	5.87'	12.86 dwts.

Notes:

1.   Insufficient samples taken on 1500 feet sill to give a reliable assessment of grade below the 1500 feet level.

2.   The above data, drawn from cross sections of the Tasmania Gold Mine, has been calculated using arithmetic averages as insufficient data is available to calculate weighted means.

3.   The following data, drawn from "Geology of Australian Ore Deposits", edited by A.B. Edwards is shown to allow comparison of grade data above with operating results.

Level	Length Sampled	Average Assay dwt. per ton
915'	1200'	9.5
1000'	1200'	6.5
1250'	1200'	8.25
1370'	1200'	2.5
1500'	900'	7.0
1500'	1200'	9.75

Notes:

A discrepancy appears to exist in this old data, as the Mine Superintendent's report for 1912–1913 quotes the 1500 feet level as averaging just under 13 dwts. Au per ton.

In the circumstances an arbitrary figure of 10.5 dwts. Au, 5 dwts. Ag and 1% Cu has been accepted as a compromise.

B.   Potential Ore Reserves

Length of orebody along strike on 1500 feet level = 900 feet, average width accepted as 6 feet and density of 12.5 cu. ft/ long ton in situ.

1.   Cautious Assessment of Ore Reserve Potential (Tasmania Reef)

Stoping lengths along strike, after elimination of unpayable ground are:-

815' Level	1600 feet
900' Level	1500 feet
1000' Level	1400 feet
1150' Level	1300 feet
1250' Level	1250 feet
1370' Level	1250 feet
1500' Level	900 feet

i.e., on the above figures a reduction of 100 feet in strike length could be expected for every additional 100 feet in depth.

Therefore: Ore Reserve Potential $= \dfrac{900 \times 900 \times 6}{2 \times 12.5}$

$$= 194,400 \text{ tons}$$

Say   <u>195,000</u>

2.   Optimistic Assessment of Potential

This is based on the assumption that the orebody continues for a further 1000 feet at a constant strike length of 900 feet, and also that a 2nd vein of average length 300', which was intersected on the 1250', 1370' levels continues at depth for 1000 feet, also. (It should be noted that little data is available as to the payability of this vein).

Therefore: Ore Reserve Potential $= \dfrac{(900 + 300) \times 1000 \times 6}{12.5}$

$$= 576,000 \text{ tons}$$

Add extra 9,000 tons recovered in upper levels

Say   <u>585,000 tons Total</u>

APPENDIX II - EXPLORATION REQUIREMENTS

Estimates of expenditure required to carry out exploration necessary to prove ore potential are listed below. A sum for the cost of surface prospecting of 5,000 acres surrounding the Tasmania Gold Mine, reserved by the Government of Tasmania, with the Mine, is included. This data was provided by Dr. W.L. Young.

Underground exploration costs have been calculated firstly on the basis of establishing reserves in the order of 585,000 tons of ore, and secondly on the basis of establishing only 195,000 tons of ore, the more conservative estimate of potential. Costs therefore differ by the reduced footage of diamond drilling and shorter period for which hoisting equipment must be hired. It should be noted, though, that drilling requirements for the lower tonnage would be in excess of one third of those for the higher tonnage as it would be necessary to gain more accurate information on tonnage and grades.

It is estimated that exploration, from the start of mine dewatering would take 12 months, with one month less if only 195,000 tons were to be proved.

APPENDIX III – CAPITAL COST DETAILS

A.   Exploration Expenditure

	1 Reserves of 585,000 tons (300 tons/yr. Opn.)	2 Reserves of 195,000 tons (100 tons/yr. Opn.)
1) Dewatering	139,560	139,560
2) Repair Shaft	11,350	11,350
3) Rent Winder	11,250	8,250
4) X-cutting	30,000	30,000
5) D. Drilling @ $20 per foot	260,000	195,000
Sub Total	$452,160	$384,160
+ 10% Contingencies	45,216	38,416
6) Surface Exploration (includes contingency)	41,000	41,000
Totals	$538,376	$463,576

B.   Mine Capital Expenditure – Equipment Costs

	1 For 300 tons/yr. Opn.	2 For 100 tons/yr. Opn.
1) Mine Hoist	$75,000	$50,000
2) Shaft H'frame	25,000	15,000
3) 2 Mine Car Loaders (Atlas LM 30)	8,200	8,200
4) Rock drills @ $350 ea.	6,300	3,500
5) 18" G-3 ton Gemco Locos, batteries and Layers	30,000	15,000
6) 1½ ton side tipper trucks $150 ea.	6,000	3,000
7) 15 HP scrapers + hoes	22,800	11,400
8) Surface W'gridge and tippler	10,000	10,000
9) Pipework	27,750	21,150
10) Drill steels and grinder	1,000	750
11) Rail truck (25lb/yd)	2,500	2,500
12) Power tools	3,300	1,650
13) Hand tools	3,000	1,500
14) Pumping machinery ($168,000 for 6 stainless steel 1000 x 700 gpm pumps)	208,000	208,000
15) Power reticulation	75,000	75,000
16) Ventilation fans	26,000	20,000
17) Compressed air eqp.	33,000	24,500
18) Stope hoists @ $950 ea.	6,700	3,800
	$568,550	$474,950

	1 For 300 tons/yr. Opn.	2 For 100 tons/yr. Opn.
B/F	$568,550	$474,950
+ 10% Contingency	56,855	47,495
	$625,405	$522,445

C. Pre-Production Mine Development Costs

	1	2
1) Shaft sinking 200'	$50,000	$50,000
2) Driving and X-cutting $40/ft.	88,000	44,000
3) Rises @ $50/ft.	20,000	10,000
4) Misc. U/G Devt. (Mags, samples, etc.)	20,000	10,000
5) Stope preparation @ $80,000/stope	30,000	20,000
6) Pumping costs (-power maintenance)	102,740	102,740
7) U/G ventilation Devt.	31,540	31,540
Sub Total	$342,280	$268,280
+ 10% contingency	34,228	26,828
	$376,508	$295,108

D. Mine Buildings

It is assumed that ancilliary building requirements will be covered by old existing structures on mine site.

	1	2
1) Mill @ $2000/sq. (inc. heavy foundation)	$150,000	$75,000
2) Mine office @ $1500/sq. (furnished)	15,000	10,000
3) Change rooms	22,500	11,250
4) Work shops	15,000	10,000
	$202,500	$106,250
+ 10% contingency	20,250	10,625
	$222,700	$116,875

E. Vehicles

	1	2
1) L/Rovers	$6,000	$3,000
2) Cars	3,000	3,000
3) 6-ton truck	10,000	10,000
4) Fork Lift	6,000	6,000
5) Front end loader	7,000	7,000
	$32,000	$29,000

F. Mill Plant

	1 For 300 tons/yr. Opn.	2 For 100 tons/yr. Opn.
1) Primary crushers	$9,075	$4,075
2) Ball mill	37,400	16,800
3) Mineral jig	2,530	1,140
4) Cross flow classifier	5,500	2,470
5) Amalg. Barrell	2,200	990
6) Denver Flotation M/C's	17,600	8,900
7) Disc. filter	3,300	1,480
8) 2nd Ball mill	18,700	8,400
9) Hydro classifier	11,000	4,950
10) Super agitators	27,500	12,400
11) Thickeners	23,100	10,400
12) Electrical eqp.	82,500	55,000
13) Pumps	11,000	4,950
14) Plumbing	82,500	55,000
	$333,905	$186,955
+ 10% contingency	33,391	18,696
	$367,296	$205,651

G. Operating (Working Capital)

To cover 3 months working costs:

$315,000 $177,885

SUMMARY

	300 tons/day Mine		100 tons/day Mine	
	Annual Deprec.	Capital Cost	Annual Deprec.	Capital Cost
A. Exploration Costs	82,827	538,376	71,319	463,576
B. Mine Plant Expend.	96,215	625,405	80,376	522,445
C. Pre-Prod. Mine Devt.	57,924	376,508	45,402	295,108
D. Mine Buildings and Mill	34,363	222,700	17,182	116,875
E. Vehicles	4,923	32,000	4,462	29,000
F. Mill Plant	36,730	367,296	20,565	205,651
		$2,162,285		$1,632,655
+ Working Capital	48,462	315,000	27,367	177,885
o/all Cap. required		$2,477,285		$1,810,540
Annual Depc.	$361,343		$267,472	
Residual Value Mill Plant only		$128,554		$71,979

Depreciation and Amortization

a)   Amortize exploration completely over $6\frac{1}{2}$ years Mine Life

b)   Mine Plant Expenditure over life of mine

c)   Pre-Production over life of mine

d)   Buildings over life of mine

e)   Vehicles over life of mine

f)   Mill Plant depreciation over 10 years balance at 6.5 years recoverable on 300 + per day ($128,554 and $71,979 respectively).

APPENDIX IV OPERATING COST DETAILS

Operating Costs (Annual)

	1 300 tons/ day Opm		2 100 tons/ day Opm
A. U/G Costs			
1. Mining Costs (excluding labour costs)			
(a) explosives	44,900		
(b) drilling supplies	22,600		
(c) timber consumption	69,360		
(d) filling	6,675		
(e) U/G.D. drilling	45,000		
(f) hoisting costs	20,000		

(g) miscell. (compr. air
       & power etc.) (excl.
       pumping) supplies
	45,000	@ 1/3rd.	84,512

	$253,535		
2. Operating Labour Costs			
(a) daily paid labour 97 @ $10 shift	291,000		
(b) staff	64,500		
(c) workers comp. ins. pension etc.	43,125		
	$398,625	@ 45%	188,000
3. Maintenance			
1. Labour	56,000		46,500
2. Parts & materials @ 10% of Cap. Exp.	62,541		52,245
	118,541		98,745

4. Pumping-Power Costs
    only - maintenance
    already allowed for
	155,600		155,600

Total	$926,301		$526,857

Cost/ton @ on 90,000 tons/yr - (b) on 30,000 tons/yr.

      = $10-29.24/ton   17-56.194/ton

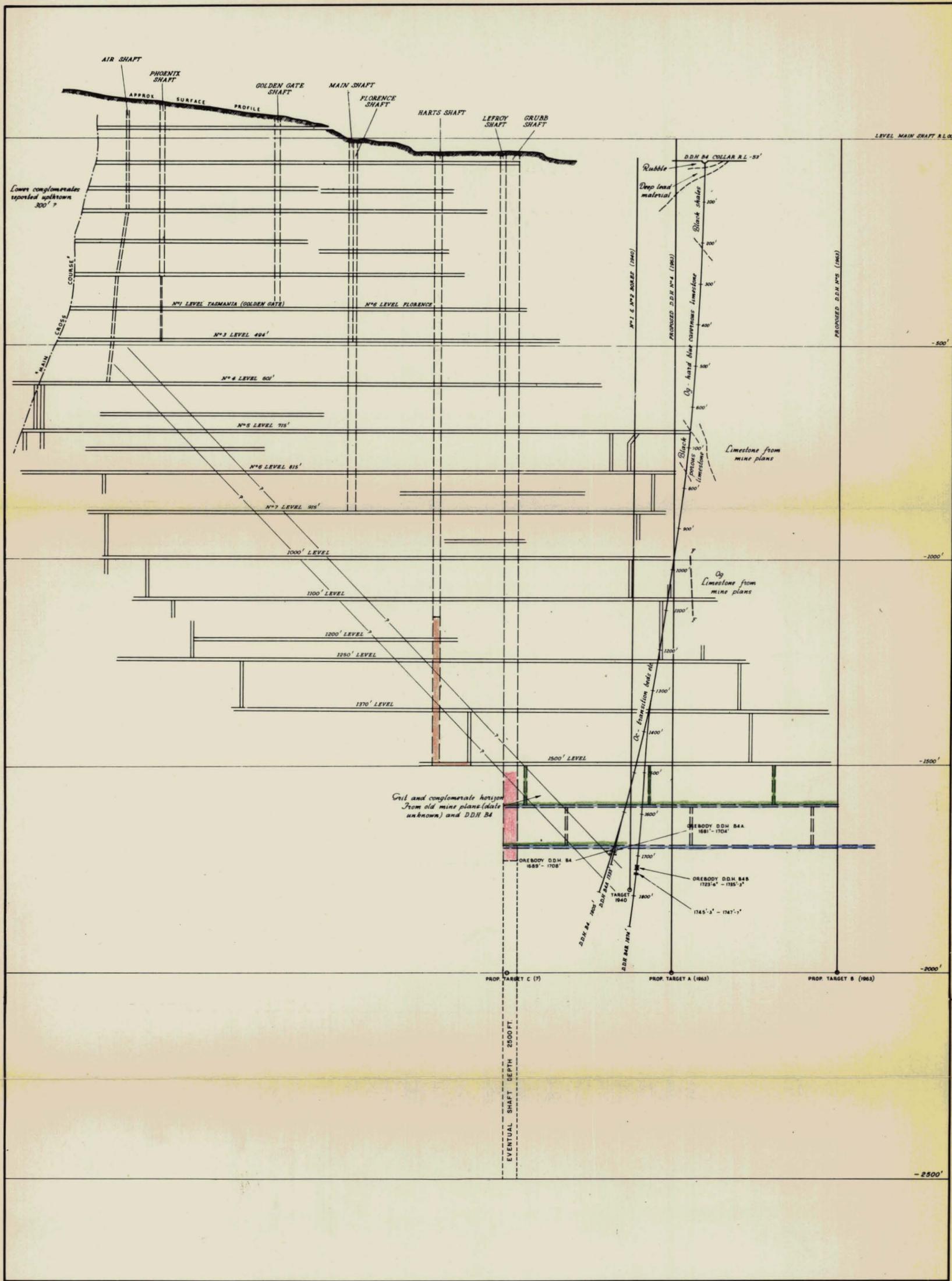 say, $10-30/ton $17-55/ton

B. Mill Costs	1 @ 300 t.p.day	2 @ 100 t.p.day
1. Labour Costs		
(a) Daily Paids	56,700	28,800
(b) Staff	23,000	18,000
(c) Misc. Allow. Ins. Compens. Pens.etc.	11,800	7,960
	$91,500	$54,760
2. Power Costs @ $100/h.p.yr.	60,000	20,000
3. Maintenance Costs -		
Labour	7,300	4,080
Spares & supplies	36,730	20,565
4. Reagents & solutions @ 40c/ton	36,000	12,000
5. General	9,000	4,500
6. Experimental Materials & Assays	5,000	2,500
Total	$245,530	$121,625
Cost/ton, say,	$2-70/ton	$5.05/ton

C. Surface and General O/Head Costs

	1 @ 300 t.p.day	2 @ 100 t.p.day
a. Salaries & Wages		
1. Gen. Surface Labour	9,150	9,150
2. Surface staff	12,000	9,000
3. Gen. Off. staff	32,400	23,600
4. +O/heads - P/roll tax Comp. Pensions etc.	15,160	11,320
Total	$68,710	$53,070
b. Vehicles & General	10,000	5,000
c. Office Supplies etc.	10,000	5,000
Total	88,710	63,070
Cost/ton	$0-98.6/ton	$2-10.2/ton
Say,	$1-00/ton	$2-10/ton

Total Operating Costs

	1 @ 300 t.p.day	2 @ 100 t.p.day
1. Mining	10-30	17-55
2. Mill	2-70	4-05
3. Surf. & Gen.	1-00	2-10
	$14-00	$23-70

AIR SHAFT
PHOENIX SHAFT
APPROX. SURFACE PROFILE
GOLDEN GATE SHAFT
MAIN SHAFT
FLORENCE SHAFT
HARTS SHAFT
LEFROY SHAFT
GRUBB SHAFT

LEVEL MAIN SHAFT R.L. 00

Lower conglomerates reported upthrown 300' ?

DDH B4 COLLAR R.L -55'
Rubble
Deep lead material
Black shales

Og - hard blue cavernous limestone

PROPOSED D.D.H N°4 (1963)

N°1 & N°2 BORES (1940)

PROPOSED D.D.H N°5 (1963)

- 500'

N°1 LEVEL TASMANIA (GOLDEN GATE)
N°6 LEVEL FLORENCE
N°3 LEVEL 424'
N°4 LEVEL 601'
N°5 LEVEL 715'
N°6 LEVEL 815'
N°7 LEVEL 915'

Black porous limestone

Limestone from mine plans

1000' LEVEL
1100' LEVEL

Og Limestone from mine plans

- 1000'

1200' LEVEL
1250' LEVEL
1370' LEVEL

Oc transition beds etc.

1500' LEVEL

- 1500'

Grit and conglomerate horizon from old mine plans (date unknown) and D.D.H. B4

OREBODY D.D.H. B4A 1681' - 1704'

OREBODY D.D.H. B4 1659' - 1708'

OREBODY D.D.H. B4B 1723'·6" - 1735'·3"

1745'·3" - 1747'·1"

TARGET 1940

D.D.H. B4B

D.D.H. B4A 1755'

D.D.H. B4

- 2000'

PROP. TARGET C (?)
PROP. TARGET A (1963)
PROP. TARGET B (1963)

EVENTUAL SHAFT DEPTH 2500 FT.

- 2500'

PRE – PRODUCTION DEVELOPMENT REQUIRED
FOR A 90,000 TON PER YEAR MINE

1   Shaft sinking (200 ft.)

2   Drives and cross – cuts (2200 ft.)

3   Stopes and rises (4 x 100 ft.)

4   Ventilation development

NOTE   This plan was copied from Department of
Mines – Tasmania Plan No. 3030, dated
May 1967, and scale being 100 feet to 1 inch.

SCALE OF FEET

0   100   200   300   400   500   600

5 cm
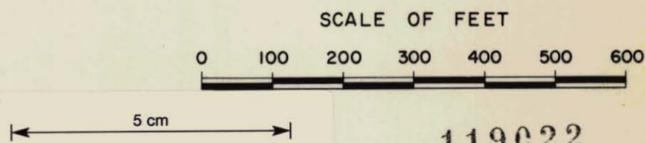
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POWER CORPORATION AUSTRALIA LIMITED

LONGITUDINAL PROJECTION
OF THE
TASMANIA GOLD MINE
SHOWING
PROPOSED DEVELOPMENT

Scale : 200' to 1"

Date : June 1968

FIGURE

Kenneth McMahon & Partners Pty. Ltd.