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1941/3

DEPARTMENT OF SUPPLY AND DEVELOPMENT

COMMONWEALTH COPPER & BAUXITE COMMITTEE

THIRD REPORT

Copper - Mount Isa

COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF SUPPLY AND DEVELOPMENT

Copper and Bauxite Committee

Century Building,

129 Swanston Street,

MELBOURNE C.1.

(Written in Brisbane)

22nd August, 1941.

Senator the Hon. George McLeay,  
Minister for Supply and Development,  
Century Building,  
129 Swanston Street,  
MELBOURNE C.1.

Dear Sir,

THIRD REPORT

COPPER - MOUNT ISA

1. At its 4th meeting in Brisbane on 21st and 22nd August, the Copper and Bauxite Committee arranged a conference with Mr. J. Kruttschnitt, Managing Director of the Mt. Isa Mines, at which officers of the Department of Mines of Queensland were present, to discuss ways and means of quickly exploiting the recently indicated copper ore body situated in the Hanging Wall of the Black Star Lode at Mt. Isa Mine.
2. At the request of the Committee, and following discussion of the details between all parties, Mr. Kruttschnitt made a proposal, which is submitted herewith.
3. Very briefly the proposal is:-
  - (i) That the Mt. Isa Company will endeavour to produce at the rate of 5,000 tons p.a. of standard copper as from about January next.
  - (ii) The Copper produced is expected to be of standard grade of sufficient purity to obviate the necessity for electrolytic refining.
  - (iii) The Company requires Government advances up to £50,000 by way of a loan to attain this production.
4. The Committee's view on this matter is that while the amount of money asked for is considerable, there are several good reasons why advantage should be taken of the proposal. These are:-
  - (i) The prime one - the need for immediate increased production of copper.
  - (ii) The short time required to obtain substantial production.
  - (iii) The establishment of the Mt. Isa Company in the copper smelting industry in the extensive Cloncurry Field.
  - (iv) The possibility of the Company, if it becomes established in this way, entering upon the management of several other potential producers of copper, thereby using its trained personnel and plant for essential national work at a time when both are at a premium and possibly unobtainable elsewhere.

- (v) The continuation of the Committee's policy of interesting large mining organisations in copper projects, thus, as far as possible, avoiding the necessity for the Government to do more than finance them on mutually satisfactory bases.
- (vi) The assurance that the Committee has from the Queensland Mines Department that such operations will not interfere with those of the Chillagoe Smelter, but rather assist in stabilising it by providing assistance in the supply of immediately needed sulphide ores, with which to flux surplus copper carbonate ores now on hand.

5. Mr. Kruttschnitt has stressed in his letter that under ordinary circumstances the exploration of the ore body would be carried out both slowly and thoroughly, according to established mining practice, proving tonnages and grade before any expenditure would be incurred on either the mill or smelter. However, having regard to the present urgent need for new copper, and the reasonably confident opinion of Mr. Kruttschnitt that tonnage and grade will be realised, the Committee is of the opinion that the risk should be taken of expending the necessary money in the expectation of securing immediate production.

6. In the light of the foregoing, the Committee, therefore, recommends that the Company be advanced up to £50,000 subject to the following conditions:-

- (i) That 50% of nett profits received from copper production or £5 per ton on copper sold, whichever is the greater, should be devoted to the repayment of the loan.
- (ii) That the loan should bear an interest charge at the rate of 5% p.a.

Yours faithfully,

(Sgd.) H. G. Raggatt -- Deputy Chairman

A. J. Keast	}	Members
J. M. Newman		
J. Horsburgh		
M. J. Martin		

COPPER AND BAUXITE COMMITTEE

C O P Y

MOUNT ISA MINES LIMITED

MOUNT ISA, QUEENSLAND.

At Sydney,

26th August, 1941.

Mr. A. C. Smith,  
Secretary,  
Copper & Bauxite Committee,  
Department of Supply,  
Century House,  
Svanston Street,  
MELBOURNE C.1.

Dear Sir,

Further to Mr. C. R. Hilton's letter to you of 25th June, replying to yours of the 13th, in connection with the effort being made to increase the output of copper in the Commonwealth, I would call your attention to the present position regarding possibilities at Mount Isa.

Two diamond drill holes on the No. 7 Level of the Black Star section of the mine and three drill holes on the No. 8 Level indicate the occurrence of approximately 150,000 tons of copper sulphide ore containing 4% to 4.5% Cu. Diamond drilling is being continued on the No. 9 Level to ascertain what, if any, downward extension may be expected from this copper ore lens. A heading is being driven into this area on No. 8 Level with the view of substantiating the copper content as revealed by the assays of the drill cores.

Laboratory tests have yielded a recovery of 90% of the copper in a concentrate assaying about 26% Cu. By altering existing milling and smelting plant, and the addition of a moderate amount of equipment the concentrate could be smelted and converted to blister copper at Mount Isa. There is also the possibility, because of the absence of appreciable Au-Ag values, the low arsenic and antimony content of the concentrates, that a standard of sufficient purity for the blister may be obtained to obviate the necessity for electrolytic refining.

If the tonnage and grade of the ore body indicated by diamond drilling is borne out by development work, a production of 5,000 tons of copper yearly could be realised. The length of time such a rate of output could be maintained would depend on the development of lateral and vertical extensions of the ore lens as now indicated, or on the discovery of new ones.

It is estimated that by prompt and energetic mine development and alterations to plant, production could start about the first of next year, if reasonable deliveries of materials are realised.

Before output of copper could be effected it is estimated that the following expenditures would be required:-

For underground development and stope preparation	£15,000
For alterations to crushing plant and one flotation unit	13,000
For plant additions and alterations at the smelter for copper production	<u>20,000</u>
	<u>£48,000</u>

Because of large accumulations of unsold metal and concentrates requiring all of its financial resources, Mount Isa Mines Ltd. is not in a position to finance this project. Furthermore, it should be pointed out that, although the company feels reasonably assured of the existence of a substantial tonnage of copper mineralisation, it would, under normal conditions, carry out additional exploration and development before incurring the expense for alterations and additional plant. The situation, however, may require a somewhat bolder policy than the company is financially able to adopt at this time. However, should the Government decide to advance the amounts required for the above mentioned expenditures, the Mount Isa Company would be prepared to embark on a copper development and producing programme under the following terms and conditions:-

- (1) The Government to advance up to £50,000, at the rate of approximately £10,000 per month, or on demand, to meet expenditures estimated for any given month, in amounts as certified to by the company.
- (2) Such advance to be made specifically against anticipated copper production and not as a general or unrestricted financial obligation of Mount Isa Mines Ltd. to the Government.
- (3) The company to reimburse the Government at the rate of £5 per ton of copper produced and sold, provided that should the company fail to repay the Government the total amount advanced for the specific purpose set out herein, 1) because of a drop in the price of copper below £90 per ton, 2) because of the failure of the ore bodies to produce sufficient copper, 3) because of strikes, floods, enemy damage to plant, interruptions to transportation, insurrection and any other cause beyond the control of the company, then and in that event the obligation of the company to repay any balance of advances unpaid at the time of such happening shall cease and determine, provided that such causes of force majeure or any of them preventing the complete reimbursement of the said advances, have not been removed, remedied or overcome within six months of their happening, and that conditions 1) and 2) have not become operative in the meantime.
- (4) The company to furnish an accurate accounting of all moneys advanced for carrying out the programme outlined herein above; such accounting to be duly certified by its auditors.
- (5) The Government to intercede in the matter of railage rates and use its best efforts to have established by the Queensland Railways a tariff on blister copper and/or copper matte not to exceed 20/- per ton from Mount Isa to Townsville.
- (6) The company to receive £90 per ton of marketable copper at the same point of delivery to consumers as applies to other producers of marketable brands of copper. (Presumably the point of delivery is in the Sydney-Port Kembla range).

- (7) In order to assist in meeting the national emergency the company to agree to extract as much copper as possible from the indicated ore bodies, provided that in so doing the grade of ore mined and milled shall not fall below a grade to yield a reasonable return to the company.

Yours faithfully,

(Sgd.) J. Kruttschnitt

c.c. Lord Castle Stewart  
H. A. Guess  
Brisbane Office