

A. CAPTIVE SOURCE OF FLUORITE.

The beneficiation work done to date on the wrigglite has shown that it is feasible to remove fluorite, though with low recoveries. The wrigglite is therefore a satisfactory strategic captive source of fluorite for Comalco Limited's aluminium smelting operations at Bell Bay, Tasmania and Bluff, New Zealand.

The deposit is possibly the largest single fluorite resource in Australia.

B. COMMERCIAL RESOURCE.(a) General:

The wrigglite is potentially a very large source of fluorite for the commercial market.

Based on purely commercial, largely overseas, sales of acid grade fluorite and by-product tin, a preliminary DCF study was carried out in July 1975, by G. Weste. (Appendix 34). This study was done before any drilling and showed that the wrigglite body was potentially economic. This was an encouragement for all the future investigations.

The beneficiation studies have since shown that the main problems affecting the wrigglite are the low attainable recoveries of CaF_2 , Sn and W.

A recent brief financial analysis taking into consideration the available drilling and beneficiation information and revised metal prices is attached, Appendix 35.

(b) Conclusion:

The wrigglite body at Moina is a subeconomic source of CaF_2 , Sn and W with presently known technology and commodity prices. It relies on all or some of the following factors to become economic.

- (i) increased prices of CaF_2 , Sn and W.
- (ii) new beneficiation method to increase fluorite recoveries, and recoveries of by product cassiterite and scheelite.
- (iii) higher Sn content in recoverable form in areas so far not drilled.
- (iv) higher W content in recoverable form, say coarse scheelite in areas so far not drilled.
- (v) sale of magnetite for say coal beneficiation.
- (vi) sale of basalt overburden for say road-aggregate.