10.2 In view of the size and nature of the deposit open-cut mining at a rate of 60,000 cu m/mth is considered suitable for exploiting it. The earthmoving equipment required for excavating and loading the ore at the mine face and transporting the materials to the treatment plant will be 4 hydraulic crawler excavators and about 10 trucks. Jigs will be used for primary beneficiation, with shaking tables and a Willoughby/cleaning-up sluice box for final upgrading of the concentrates to saleable product.

10.3 A total capital cost of approximately $2.41 mil is required for the mining project. Operating costs inclusive of overheads are assumed at $2.00 per cu m for the envisaged mining operation.

10.4 A preliminary economic assessment of mining the ore reserves shows the operation to be unprofitable, on the basis of the above mining method and operating cost and at a LME tin metal price of $14,800 per tonne. A total operating loss of $1.36 mil is estimated for a mining period of 7.2 years. The amount would be greater should the capital expenditure of $2.41 mil be taken into account in the cash flow calculation.

10.5 For a break-even operation a grade of approximately 250-280 g per cu m is necessary. This is 16-30% higher than the average 215 g per cu m estimated for the whole reserves. To achieve a remunerative financial return, say of 12% DCF yield, a much better grade is obviously required. The pit sampling results however do not appear to indicate that such order of grade exists for the deposit.

10.6 Following the above conclusions, it is recommended that no further drilling/pitting be carried out related to quantifying accurately the reserves in the area.

W. K. Lee

19th November 1980