MINERAL EXPLORATION IN E.L. 16/68, BALFOUR, TASMANIA, 1969 - 73

SUMMARY REPORT FOR THE DIRECTOR OF MINES, TASMANIA

INTRODUCTION

Mineral exploration in E.L. 16/68 by Australian Consolidated Industries Ltd has proved the existence of sub-economic cupriferous mineralization in at least eight discrete prospects extending along a strike length of 17 kilometres. Exploration is to be continued.

GEOLOGY

Geological mapping on a scale of 1 : 10000 over a 6000 hectare area between the southern South Balfour Prospect and the northern Clump Prospect revealed that an easterly dipping sequence of sandstone and shale in the west is successively overlain by fine grained carbonaceous sediments and slate and fine grained slaty chloritic sediments. These rocks, which have been tentatively assigned a Younger Precambrian to Lower Palaeozoic age, have been locally intruded by (?) Cambrian diorite and are unconformably overlain by thin Tertiary conglomerate and basalt.

The rocks in the Balfour area strike between NNE and NNW and dip steeply toward the east. Graded bedding indicates that the rocks also young toward the east and are therefore right side up.

Several synclinal folds occur in the western part of the area. The folds plunge moderately toward the north or south along NNW trending axes.

Faults are widespread in the area and although they are not directly associated with the genesis of the sulphide mineralization they may serve as favourable depositional sites for remobilized cupriferous quartz-dolomite.

MINERALIZATION

Cupriferous mineralization in the Balfour area consists essentially