

Examination of part of a subdivision at Abels Hill Road, St Leonards.

W.L. Matthews

A. van Noord of Launceston requested advice on the stability of three blocks of land (no. 2, 5, 6 on fig. 1) each of about 2 ha, fronting Abels Hill Road, St Leonards.

GEOLOGY

Dolerite occurs along the western side of Abels Hill Road and may extend to the east side of the road for short distances. Tertiary basalt lying above gravel underlies the crest of the hill on the east side of the road and at lower levels Tertiary clay can be found. Small bauxite outcrops can be seen along or near the contact of the dolerite and clay.

DISCUSSION OF STABILITY

The slopes on the east side of Abels Hill Road have been subject to landslips in the past. Most of the slips show no signs of recent movement but there are four which have moved in the last year. The slips showing recent movement are east of the subdivision.

The eastern parts of blocks 5 and 6 show signs of old slips and it is only small flatter areas near the road that it might be possible to develop with some safety. These areas have slopes of up to about 8° but there are isolated areas of outcropping bauxite and possible dolerite outcrops. These areas should be examined by making test pits with a back hoe to determine the extent of the bauxite and dolerite and the thickness of the overlying unconsolidated material. If it can be shown that either of these materials underlie the flatter areas at shallow depth, the only danger in developing them would be from slips forming uphill and extending downhill. If deep rooting trees were planted combined with the drainage of any seepages that show during wetter periods, these measures would aid in preventing the flatter areas from being so affected.

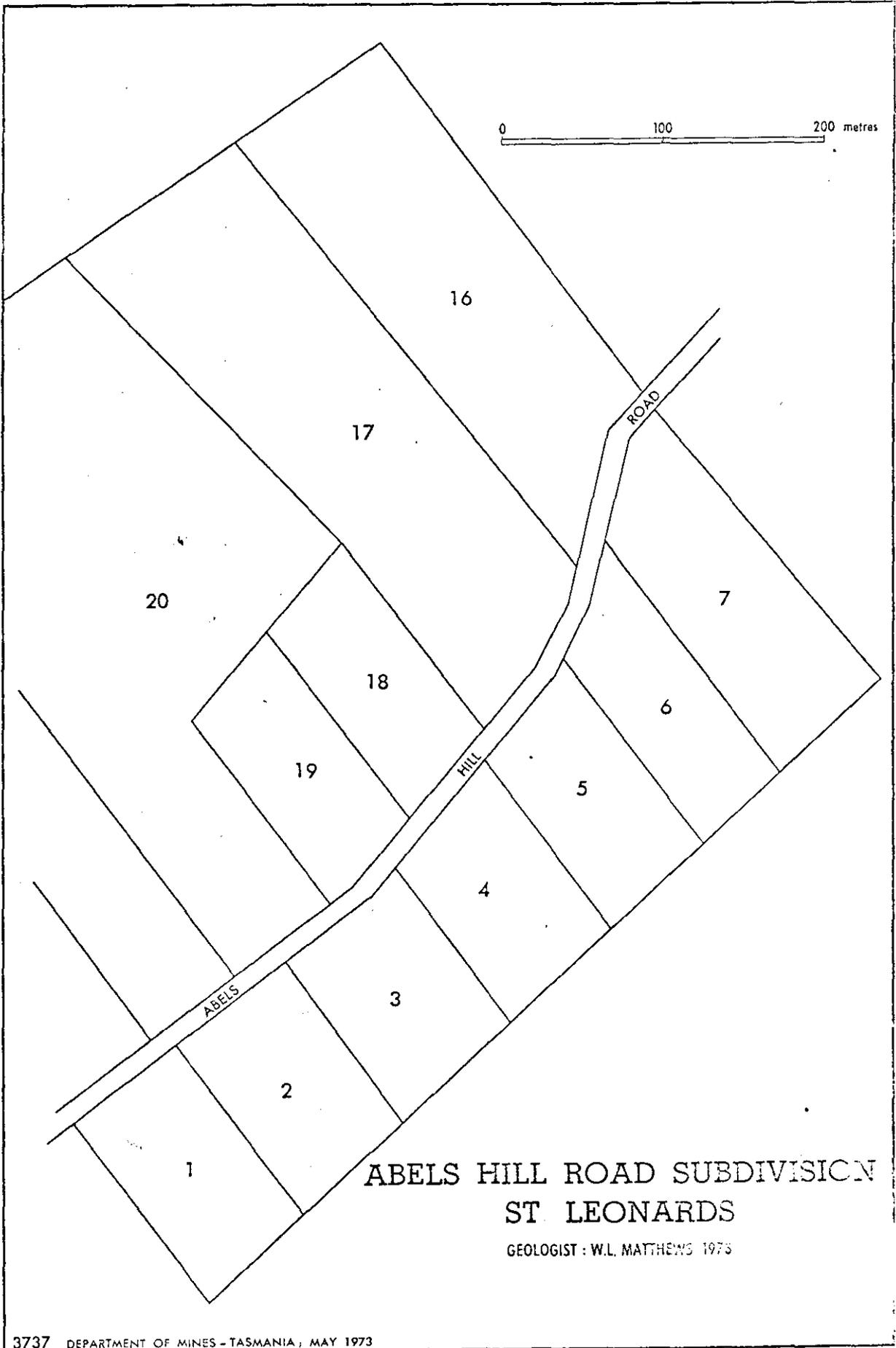
Most of block 2 has slopes of up to about 4° and could be quite safely developed if the steeper areas are avoided.

RECOMMENDATIONS

If it is planned to proceed with development of blocks 5 and 6, test pits should be dug to determine the extent of bauxite and dolerite on the narrow strip of flatter land on the western side. Tree planting and drainage on the steeper areas would aid in preventing slips developing on the steeper ground and affecting the flatter areas. Some risk would still remain.

Development of block 2 could be safely undertaken provided it is confined to the flatter areas.

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ABELS HILL ROAD SUBDIVISION ST. LEONARDS

GEOLOGIST: W.L. MATTHEWS 1973

5 cm