

UR1975-21

Preliminary inspection of a building site at Westbury.

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An area of land of approximately 12 ha, situated 1.5 km to the north of Westbury [DP857041], is being considered as a site for a plant to process oil poppies. A request was made by the owner of the land, Mr Allwright, for an examination of foundation conditions and also the availability of ground-water supplies. Although details of the proposed factory are unavailable, it is believed that it would be about 3 storeys in height and would require additional areas of land to enable the excavation of three settling ponds.

RELIEF AND GEOLOGY

The land is relatively flat, but a small rise occurs near the house situated on the south-western part of the block. Here the landsurface slopes away in all directions. A small north-south trending valley occurs near the eastern part of the boundary, and it sheds into the Quamby Brook Rivulet, a stream to the south of the area examined.

Tertiary basalt and Jurassic dolerite have been mapped in the area (Barton et al., 1970). The dolerite is weathered to a varying extent and is emerging, by erosion, from the cover of Tertiary sediments and possibly basalt. Some of the material underlying the northern and eastern part of the land may be thin remnants of this Tertiary cover or deeply weathered dolerite. The dolerite is least weathered near the top of the rise, and test pits were dug to a depth of approximately one metre and encountered fairly large blocks of comparatively unweathered dolerite.

Test pits were dug more easily away from this rise. Tertiary sediments occur to the east and south of the area and Quaternary deposits are present in the surrounding valleys.

CONCLUSIONS

The presence of the dolerite although partially weathered, suggests that the proposed building could be supported without difficulty. The required depth of the settling ponds is not known, but on the northern and eastern parts of the property, surface examinations indicate little difficulty in excavating to 1-2 m in depth. The slope of the landsurface would allow gravitational flow towards the small valley on the eastern part of the property. When the positions of the proposed settling ponds are known, test pits should be dug with a backhoe to a depth a little greater than that of the proposed excavations. This will determine ease of excavation and also whether any significant loss through seepage will occur.

It is probable that dolerite, at least at depth, underlies the whole of the land examined. Few water bores have been drilled in the dolerite with variable results. Quantity has ranged from very small to small irrigation amounts and the quality from good to poor. From the results of drilling in dolerite for water to date, the prospect of obtaining sufficient water to supply a factory appears small. Bores in surrounding areas where thick Tertiary sediments and basalt occur, have yielded 300+ l/min of good quality water, but the nearest such bore is 3 km from the factory site.

REFERENCE

BARTON, C.M.; BRAVO, A.P.; GULLINE, A.B.; LONGMAN, M.J.; MARSHALL, B.; MATTHEWS, W.L.; MOORE, W.R.; NAQVI, I.H.; PIKE, G.P. 1970. Geological atlas 1 mile series. Zone 7 Sheet 46 (8214N). Quamby. Department of Mines, Tasmania.

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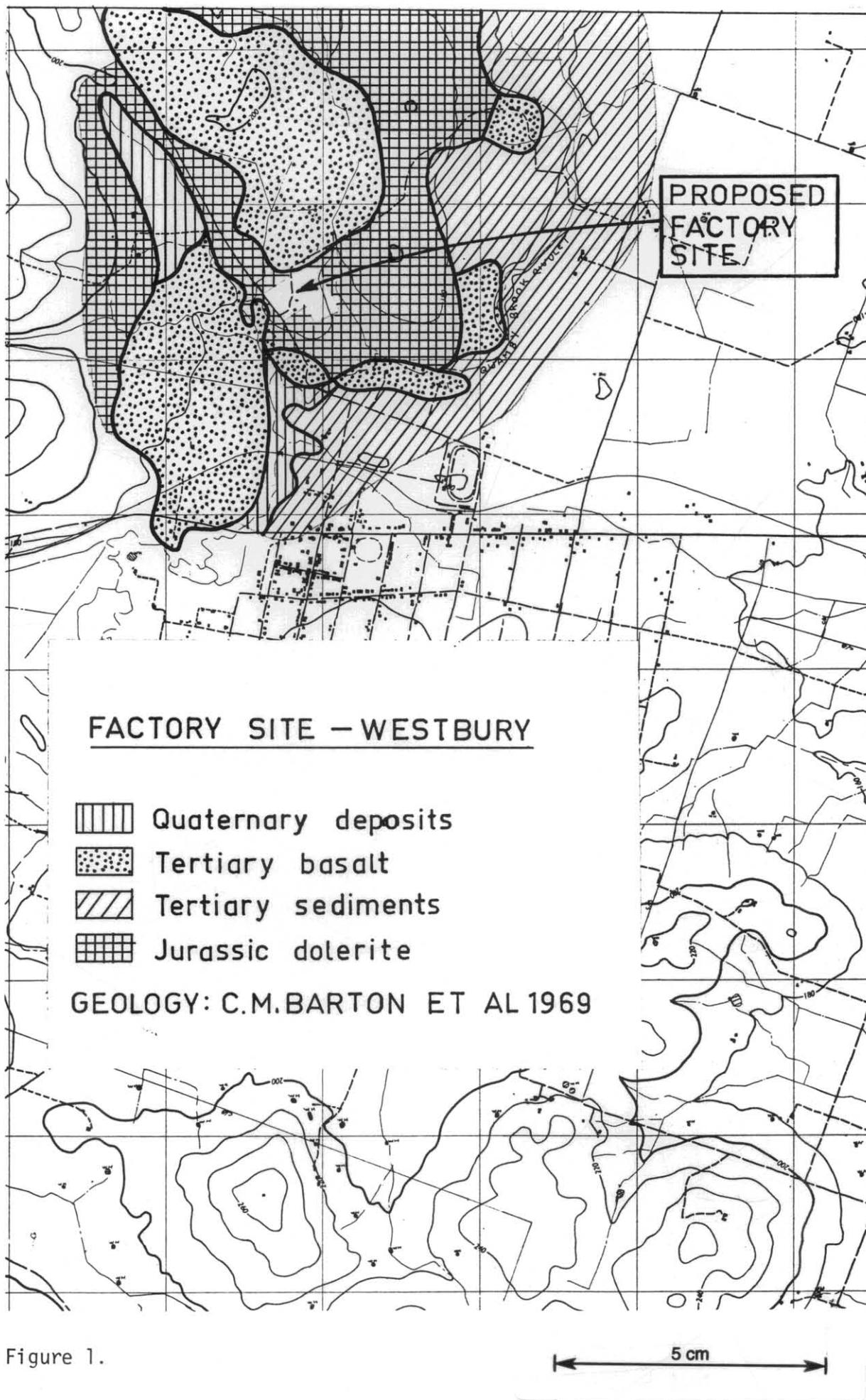


Figure 1.