Underground water prospects at Hadspen

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Mr J. Campbell of Launceston enquired about the possibility of underground water occurring on a property he owns at Hadspen. The land is about 13 acres in extent and is situated between the old and new Bass Highway routes and about ½ mile west of Entally House. The land has a gentle northerly slope towards the Meander River which flows in a west to east direction about ¼ mile north of the northern boundary of the property.

GEOLOGY

This part of Hadspen is underlain by an east-west trending tongue of unconsolidated Tertiary sediments situated between two Jurassic dolerite ridges. The southern body of dolerite begins near the new Bass Highway route and the northern area of dolerite occurs just north of the Meander River. A veneer of terrace gravels of probable Quaternary age overlie the Tertiary sediments. A water hole, dug in a low area near the old Bass Highway route intersected mainly clay, showing that the gravels are very thin.

GROUND WATER

The occurrence or otherwise of significant quantities of underground water will depend largely on the nature of the Tertiary sediments i.e. whether comparatively thick sand beds occur. The dolerite is not regarded as a reliable source of ground water. As the area is almost surrounded by dolerite it might be expected that the Tertiary sediments would be made up largely of the weathering products of dolerite, which is clay. It is possible that the Tertiary sediments are underlain by Triassic rocks. Triassic sediments would tend to erode more easily than the dolerite and this could account for the Tertiary sedimentation in the area. On the other hand dolerite possibly underlies the unconsolidated material. If Triassic sandstone underlies the Tertiary sediments, then it could yield some ground water, although the quality might be poor.

RESISTIVITY SURVEY

A resistivity probe was spread along the northern boundary of the property in an attempt to determine some of the subsurface characteristics of the area. Along the whole probe length, apparent resistivity was low with two small reductions in resistivity at a depth of about 5 ft and another between 50-60 ft. These could indicate sand beds carrying water but this is by no means definite.

CONCLUSIONS

The prospects for obtaining useful supplies of ground water are not good.

Some ground water might be obtainable if either the Tertiary sediments contain fairly thick sand beds or if the Tertiary sediments are underlain by Triassic sandstone. This could only be determined definitely by having a test hole drilled. The quality of any water obtained from either or these possible sources would need to be chemically analysed to determine its uses.

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