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Groundwater prospects on D. Kenny's property, Railton.

W.L. Matthews

Mr Kenny requested advice on groundwater prospects on his property of 22 ha situated about 6.5 km north of Railton and 150 m east of the Railton-Devonport road [DQ505282]. He requires water for domestic and garden use.

GEOLOGY AND RELIEF

The property is situated on an east facing slope above a part swampy and part undulating area about 30 m vertically below the eastern margin of Mr Kenny's land. A shallow valley runs through the southern margin of the land.

The geology of the area has been mapped by Jennings *et al.* (1959). The property is situated on a NW-trending ridge underlain by Moina Sandstone (which includes the Caroline Creek Beds). A NE-trending narrow strip of land underlain by Tertiary basalt, which is probably a fissure extrusion, crosses the ridge north of the property. The undulating area east of the ridge is underlain by basal Permian beds which are represented at the surface largely by conglomerate and quartzite boulders.

HYDROLOGY

Two holes have been dug by hand and with a back-hoe. One north-east of the house went to about 4.5 m in red soil and boulders before striking hard sandstone or quartzite. There was a little seepage but no significant quantities of water were encountered. The other hole on the southern margin of the property struck hard rock at shallower depth and encountered no groundwater.

No known water bores have been drilled into the Moina Sandstone; although it would probably be sufficiently fissured to contain enough water to supply a water bore, particularly near faults. As the property is fairly elevated however, it could be expected that the water table would be deep, making drilling expensive. The rock would be hard and this would add to the cost.

CONCLUSIONS

Water may occur in the Moina Sandstone but the water table is expected to be deep and a drill hole expensive. Alternatives such as a catchment dam in the shallow valley or a supply from neighbouring properties may be better solutions.

REFERENCE

JENNINGS, I.B.; BURNS, K.L.; MAYNE, S.J.; ROBINSON, R.G. 1959. Geological atlas 1 mile series. Zone 7 Sheet 37. Sheffield. *Department of Mines, Tasmania.*

[24 July 1975]