

UR1976-05

1976/5. Groundwater prospects near Legana.

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Mr M. Chilvers requested an investigation of the groundwater potential of his land situated 2 km west of Legana along the Bridgenorth Road [EQ018191]. The present domestic water supply is from roof tanks. Additional water is required for gardening purposes.

The property is situated near the top of a hill on land sloping steeply (10-15°) to the east. There are no streams or springs on the property but a small shallow valley is situated some 250 m to the south of the farmhouse. This valley is dry during the summer months but carries surface runoff during the winter.

The property is underlain by Jurassic dolerite, boulders of which crop out extensively. Solid bedrock is probably at shallow depth.

The prospects for obtaining sufficient quantities of groundwater are not favourable. Drilling experience indicates that dolerite is not a reliable aquifer, and generally produces only small quantities of mediocre-poor quality water. A bore sunk by Monopumps on an adjacent property is situated on the top of the hill above Mr Chilvers' farm. Drill records indicate that this hole was drilled to 84.6 m in dolerite and produces 10 l/min of underground water. The S.W.L. is 7.6 m with a drawdown to 67 m after one hour of pumping at 10 l/min. Colour, odour and taste are recorded as good but the owner reports the taste as salty and the water is undrinkable. Drilling is therefore not recommended.

It is recommended that surface water supplies be used for gardening. A dam or series of small dams in the valley to the south of the farm could be used to collect rain water and surface runoff. The collected water could then be pumped a short distance to the house for gardening purposes.

[4 February 1976]