

UR1974_35

Groundwater prospects on Mrs Dixon's property, Deep Bay, near Cygnet.

W.C. Cromer

Mrs E.M. Dixon owns a small block of land at the junction of the Channel Highway and Abels Bay Road [EN903156], at Deep Bay, near Cygnet. The property lies near sea level, 50 m from the shore, and rises gently inland. Water is required for septic tank and gardening purposes.

The area is underlain by the Permian Ferntree Formation, which in the vicinity of the owner's house is faulted against the Grange Mudstone. Neither rock unit is exposed on the block, which is covered by a thin layer of clay, sandy clay and sand probably derived from the weathered Permian rocks.

Water can be expected to be obtained from the Ferntree Formation, and this rock type is considered the best aquifer in the Cygnet area. However, deep drilling is not acceptable to the owner.

Small quantities of water exist in the weathered surface layer of clay and sand. An augered hole dug near the house struck water at 1.1 m.

Depth (m)	Description
0-0.8	Grey clayey hardpan.
0.8-1.1	Clay.
1.1-1.3	Clayey saturated running sand.
1.3-1.5	Clay.

Water of moderate quality (550 ppm T.D.S.) was only encountered in the thin sandy horizon between clays. It is quite suitable for gardening and septic tank purposes. However, the aquifer is thin, and its lateral and vertical distribution unknown. It may not contain sufficient amounts of water.

RECOMMENDATIONS

A test hole in the vicinity of the augered hole should be dug to at least the depth of the sand layer, and preferably deeper. A hand-dug well, or one excavated by back-hoe, should be sufficient. It may be necessary to line the hole to prevent collapse. The well should be pump-tested at the lowest possible rate to determine its rate of drawdown, and subsequent recovery.

[29 April 1974]