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## POSSIBILITIES OF UNDERGROUND WATER AT NEW GOLF COURSE, NEW NORFOLK

The new links at New Norfolk are situated about a mile along the Back River Road which branches from the main West Coast Road just beyond the New Norfolk Station. The country is generally undulating at a height of from 150 to 250 feet above sea level and the slope is in a general south-westerly direction towards the flats and terraces that border the Derwent River.

The surface of this area is wholly occupied by felspathic sandstones which are the well-known aquifers of several midland districts. Thus there should be no difficulty in obtaining underground water in these rocks. However, there are two factors which might upset calculations - a dolerite sill may be intruded at no great depth below the surface and the sandstone beds may give way at depth to ones of shale. The first contingency is remote but the occurrence of shale beds in the sandstones is always a possibility. These shales are not good aquifers and if a bore encountered any great thickness of these it would be as well to discontinue it. However, half a mile to the north-west in Back River sandstones are still outcropping fifty feet below the lowest point in the area.

It would be dangerous to predict the depth at which water may be found. At any rate the height of the water table will vary greatly according to the season of the year. There does not appear to be any impervious bar between the sandstones and the river alluvium so the water will gradually find its way into the river flats.

In the rainy season the water table should be very close to the ground surface and at any great change of contour will appear as springs, but after spells of dry weather it would sink rapidly. However, a bore placed in a low-lying part of the area should not have to be sunk much below 150 feet. No indication of the quantity of water obtainable can be given as there appear to be no wells or bores in any adjacent area. However, the surface occupied by the Triassic Sandstones is quite appreciable and any bore should tap extensive sandstone beds.

The underground water from these beds does sometimes contain varying quantities of dissolved salts but it is not expected that these quantities would preclude the use of the water for irrigation purposes.

Thus from surface indications it appears that there is a good chance of obtaining supplies of underground water anywhere in the links area.

Signed T.D. Hughes

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