

DEPARTMENT OF MINES

SOUTH AUSTRALIA

D.M. 73/49

Rept. Bk. No. 25/121

UNDERGROUND WATER SURVEY

OF SECTION 102, HUNDRED WILLOWIE.

THE PROPERTY OF MR. W.P. FOULIS, WILLOWIE.

On April 5th, 1949 an inspection of the above property was made in company with Mr. Foulis, Jnr., to assess the underground water prospects.

LOCATION OF AREA:

Section 102, is situated approximately 3 miles west of Willowie township.

WATER REQUIREMENTS:

Water is required for a maximum of 800 sheep. A supply of 1,500 gallons per day of good sheep water should prove adequate.

EXISTING WATER SUPPLIES:

A well 90-100ft. deep is the sole water supply on the block. Mr. Foulis reports that sheep do not thrive on this water, and that the supply is also inadequate. A neighbour, Mr. J.H. Schmidt on Section 98, has obtained a good supply of excellent stock water (analysing 334 grs./gall. total salts) at a depth of 263 feet below surface.

TOPOGRAPHY, CLIMATE, ETC:

The area is flat with the drainage all westerly and confined to a number of watercourses; it comprises part of an extensive valley flanked by prominent ranges of hills east and west. Rainfall is reported as being around 12 inches per annum.

GENERAL GEOLOGY:

No rocks are exposed in this area, which is covered with soil. Nearby wells and bores are also reported as cutting only unconsolidated sediments to a depth of at least 250ft.

MICROFILMED

UNDERGROUND WATER PROSPECTS:

The problem is to obtain better quality water than that already developed. Two courses are open:

- (1) To try at greater depths
- or (2) To try at depths comparable to the existing well well in a more favourable area.

The tests carried out by Mr. J.H. Schmidt in the adjoining property to the west, are a useful guide. Mr. Schmidt is more favourably situated as regards better quality shallow depth water, as there is better drainage through watercourses on his property. Results, however, are disappointing as several bores cut water of only fair quality for sheep at depths around 70 feet. It is thought that Mr. Foulis could not better these results in his block. Deeper boring by Mr. Schmidt has, however, cut several waters below the top supply, of progressively better quality, the last water cut in sand around 263 feet, being excellent stock water.

So far as surface indications go, there is no obvious break between the properties of Messrs Schmidt and Foulis, and there is every justification to test deeper-seated waters on Mr. Foulis' block. As Mr. Foulis' well is located at a higher elevation (estimated 30-40ft.) than Schmidt's bore, it will be necessary to drill about 30-40ft. deeper on Section 102.

RECOMMENDATIONS:

It is recommended that a bore be sunk on Section 102 in the bottom of the existing well, to a total depth of around 300feet (i.e. approximately 200 feet additional sinking), cutting off all waters above this depth. As the hole will probably be in clays, etc., casing would be needed for the entire bore, even if upper waters did not require shutting off.