

REPORT ON THE POSSIBILITIES OF OBTAINING SUPPLIES
ON UNDERGROUND WATER OF THE PROPERTY OF
MR. H. C. HERBERT, BRIGHTON JUNCTION.

This property consists of a 236 acre block in the Brighton Junction district. It is situated on the south side of the Broadmarsh Road, two miles west of the junction of this road with the Main Road from Hobart to Launceston.

The property occupies a part of the northern slopes of a low range of hills forming the watershed between the Derwent and the Jordan Rivers.

The northern part has an altitude of about 300 feet above the sea while the southern part, which extends to the hills, has an altitude of 600 feet.

Triassic rocks occupy not more than 100 acres in the northern part of the property. These consist of the sandstones, shales and carbonaceous shales typical of the Ross series. They appear to be horizontally bedded or dipping at angles of only a few degrees.

The typical Mesozoic diabase occupies the more elevated country on the southern part of the property. It appears to occur as a transgressive dyke-like body.

The possibilities of obtaining underground water supplies are greatest on the area occupied by the Triassic rocks, as these are the more porous types.

Two wells have already been sunk on the property. One was 75 feet deep and was sunk some 20 feet to the south-west of the barn. The other is 33 feet deep and was sunk some 75 yards further west. The 75 foot well is now filled in but it is stated that the supply rose 20 feet in the well, but was very small.

The 33 foot well is in use during the summer months. It passed through for the most part, shaly sandstones and shales. Near the bottom carbonaceous shales occur, while the bottom 2 feet is in hard sandstone. The water, excepting a small seepage halfway down, all comes from the hard sandstone layers and mainly from the southern end of the well.

Three small streams emerge from near the top of the sandstone, while the most important one comes from the bottom of the south-western corner. The water is said to rise to a height of two feet only.

The problems upon which Mr. Herbert required information were:-

- (1) The deepening of the well
- (2) The obtaining of further supplies.

With regard to the first, it may be stated that the well certainly wants deepening. Only two feet of water makes in the well and this is insufficient in depth and quantity for baling purposes. The well could with advantage be deepened by 5 to 10 feet in order to provide this storage. The deepening would also allow the water to enter the well more freely (seeing that it has very little pressure) and would tend to prevent the water level being lowered by baling.

The deepening of the well might also have an effect upon the quantity of the water entering the well. The usual effect is to increase the supply to a limited extent. There is also the possibility, though a remote one, of non-water bearing beds being encountered below the others, in which case the supply would be diminished by absorption by these beds. The presence of the latter cannot always be predicted particularly in a district where few wells occur and any risk of encountering such has to be borne by the owner. There would be less risk sinking the well 5 to 10 feet than in boring a further distance of 50 to 100 feet.

With regard to the possibility of obtaining other supplies on the property, the area most likely to yield better supplies, as regards quantity, is that near the western corner of the 21 acre paddock, or between this corner and the road. Though not so conveniently situated with regard to the house, it is recommended that any boring carried out on this property should be in the above area.

P. B. Nye.
GOVERNMENT GEOLOGIST.

Mines Department,
Hobart.

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