

The period 17th to 29th April was occupied in an examination of the Waterhouse Estate with a view to the discovery of Limestone deposits suitable for use for Agricultural purposes.

During the investigation I was accompanied by Mr. T. English, an officer of the Agricultural Bank.

The Waterhouse Estate comprises some 83,000 acres of land acquired or about to be acquired by the Agricultural Bank for purposes of Soldier Settlement. Examination of the soils revealed a deficiency in Lime content and it is desirable that deposits of limestone be found either on the property or at relatively short distances from it.

The property lies to the north and the north-east of Scottsdale in the north eastern part of Tasmania with its southern boundary approximately 14 miles north from that town. It is bounded on the north by the coast-line of Tasmania and has an easterly extent from a point about 8 miles east from Bridport to the Boobyalla River.

The area is accessible from Scottsdale by moderately good roads and from Bridport by poor roads or tracks suitable only for Jeeps or tractors. The outlying portions of the area are accessible by rough tracks.

During the examination of the area head-quarters were established at Bridport and transport to the area was by Land-River Jeep supplied by the Agricultural Bank.

On arrival at Bridport it was learned that Limestone occurred on the property of Mills Bros. situated about half way between the Western and Eastern Sandy Capes. This deposit was examined on Tuesday 18th April.

The Limestone occurs as a couple of small hillocks in the centre of ploughed fields. It has been opened at two points only by shallow holes sufficiently large only to show that Limestone occurs. The Limestone as seen is more or less friable and may lend itself to spreading by fertiliser spreaders. The full thickness of the stratum has not been revealed anywhere and there is no means of determining whether or not the reserves will be appreciable. The distance between the two outcrops is approximately 100 yards with a depression between them. Boring by hand-boring plant would determine whether or not the deposit is continuous and would enable some estimate of quantity to be made. Boring would also yield representative samples of the deposit from which an estimate of quality could be made.

From Bridport to the area the road passes first over alluvial flats on to Granitic country which although in places it is low lying extends more or less continuously to Thorpes Homestead at the nine mile. To the north of the Granitic country the area is low lying and marshy with in places the formation of lagoons. This type of

country extends north until the sand dunes are met close to the shore.

To the east of the nine mile homestead and about a mile distant therefrom there is a ridge on which Silurian Slates and Sandstones occur and on which some prospecting has been done. The slates and Sandstones extend easterly until the Lyndhurst Goldfield has been passed, a distance of approximately three miles. The Slates occur as a more or less horseshoe shaped area the eastern arm of the horseshoe extending almost to the coast in the vicinity of the Stone Chimney.

In the vicinity of the Waterhouse Homestead Granite occurs over a fairly extensive area which however does not reach the foreshore. On the foreshore to the north of Waterhouse homestead there is an occurrence of Basalt along the foreshore or immediately inland from it a series of Sand dunes occur. Some of the dunes reach heights approximately 150 feet or more and are still encroaching in a south easterly direction.

The greater part of the area is low lying land on which numerous lagoons and waterholes occur as the result of interference by the dunes of the natural drainage and by the formation of sand bars at the mouth of the creeks. The dunes have in places encroached to upwards of a mile inland.

It is anticipated that at no great depth from the present surface either the granites or the slates and Sandstones would be met and that the overlying materials would be recent sands and soils in which it is not expected to locate any appreciable quantities of calcareous material.

During this examination the only calcareous material met with were depositions of calcium carbonate on roots and sticks on the sides of a few of the dunes and also slight encrustations of calcium carbonate on the surface sands of such dunes. These encrustations were insignificant in size and result from the solution, by percolating waters, of shells which were intermixed with the dune material and the re-deposition of the calcareous material where the waters of solution were evaporated on the surface of the dune.

It was also reported that Limestone had been taken from Twenty day Island (Knife Is.) and this deposit was examined.

It consisted in part of a deposit of calcareous material in the joint planes of the Basalt which may have been due to the de-composition of the Basalt and in part from the accumulation at that point of Cormorant excreta. The deposit is of no commercial value.

It is regretted therefore that no deposit of Limestone suitable for Agricultural purposes has been found on or near the Waterhouse Estate.

The known deposits of Limestone nearest to the Waterhouse Estate are -

- (1) Flinders Island where transport and shipping of the product to Bridport would entail much handling and added expense.
- (2) Mole Creek where Rail transport is available but where there are no operating quarries.
- (3) Railton where quarries are open and Lime Kilns have been established. There are no crushing plants established which are suitable for the production of Agricultural Limestone.
- (4) Melrose quarries where Agricultural Limestone is at present being crushed and sold at a price reported to be 11/- per ton.

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11/5/'50.