

TH:3

10th September, 1953

MEMORANDUM:LIMESTONE NEAR MARGATE

On the 8th instant, I visited Margate and discussed with Mr. J.B. Fyfe factors concerning this deposit.

In 1947, I had visited this area, Harts Hill, and described the deposit in a short report. Since that time Mr. Fyfe has purchased portion of the land on which the limestone occurs, has opened a small pit and tested, by means of a post hole digger other portions of the deposit to depths of up to 3 feet.

Briefly, then, Permian Limestones occupy the crest of Hart's Hill except for a small patch of mudstone on the very top. The limestone is underlain by mudstone which dips at a small angle ( $2^{\circ}$  to  $3^{\circ}$ ) to the south east. In one or two places, small outcrops of limestone may be seen but most of the hill is covered by soil. An average of four samples of the rock showed on analysis a  $\text{CaCO}_3$  content of 78%.

Because of its elevated position, the limestone has weathered very rapidly to a soft friable marl, which in places forms a cap of appreciable depth over the solid stone. The depth of this marl will vary considerably from place to place as it forms pockets on the unweathered limestone. The remains of a small pit show where some quantities of this material have been removed many years ago.

An officer from the Government Analyst's Department has visited the site and taken a series of samples of the marl, which average 77% of  $\text{CaCO}_3$ . This contains very little hard material and could be spread in the state in which it comes from the ground. The soil cover is only a few inches in thickness.

Mr. Fyfe is obtaining some extension rods to his post hole digger and I have advised him to put down a series of holes to about 10 feet or to the solid rock. I have suggested that when he has put down sufficient holes he should contact the Department and I should visit the site again and obtain some idea of quantities available. The Limestone occurs over an area approximately 200 yards by 100 yards on Mr. Fyfe's land but no estimate of quantities should be attempted until some idea of the average depth of the friable material is obtained.

Similar deposits of weathered material may be seen at the top of Permian Limestone quarries in the Granton and Dromedary areas but, at Margate, for topographical reasons, the weathering has proceeded more rapidly and greater thicknesses may be expected.

(Sgd.) Terence D. Hughes

GEOLOGIST

Director of Mines,  
HOBART