

Section 1—Economic and General Geology
TR5-13-15
WOOLNOUGH'S BRICK MATERIALS—
CLAREMONT

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GENERAL

With the object of assessing the possibilities of a brick making industry, a request was made to the Department of Mines for assistance in sampling and testing materials for that purpose on a property near Claremont.

In conjunction with the sampling a geological survey of the area was undertaken to enable estimates to be made of the available quantity of likely rock types.

A plan of the eastern half of the property, illustrating the important factors, is given on page 14.

The brick-making tests will be the subject of a separate report.

LOCATION AND ACCESS

The property concerned is located on Roseneath Rivulet, at the foot of Mt. Faulkner, to the west of Claremont.

This area contains the greater part of 71½ acres purchased from the Crown by H. S. Gayton and now owned by B. I. Woolnough.

From the Midland Highway at Claremont the site is reached by way of Abbotsfield Road in a distance of 1¼ miles. From there a private road deviates northerly for ¼ mile to gravel quarries in operation on the property.

GEOLOGY

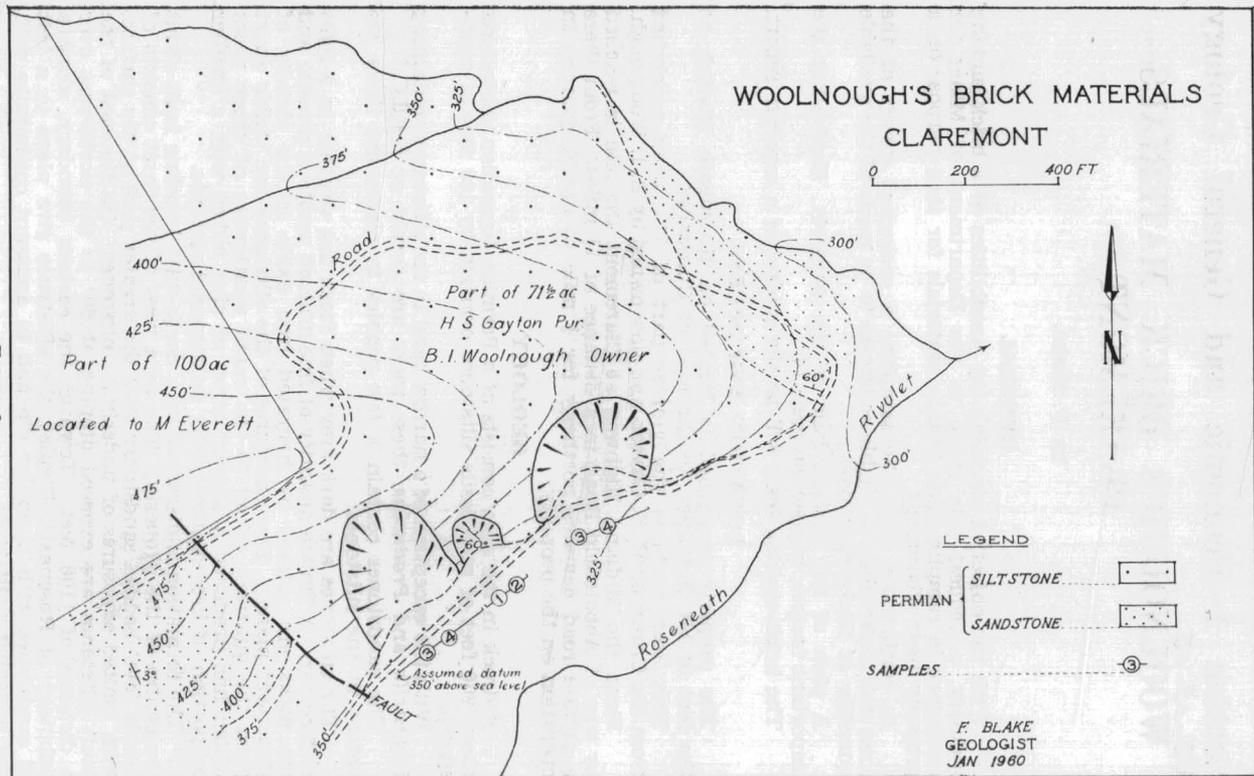
Bedrock in the area consists of a Permian formation containing about 900 feet of non-fissile siltstones overlain by 100 feet of sandstones.

With the exception of a narrow band in the siltstones containing *Fenestella* and *Productus*, these rocks are devoid of fossils.

The sandstones contain a few pebbles in places but these are absent in the siltstones.

The siltstones are dark grey when fresh but weather to a light buff colour. A limited quantity of fine grained pyrite is present and the rocks are stained by hydrated iron oxide in the vicinity of structural planes. Few exposures of the siltstones are visible apart from the quarries, owing to the rapid weathering of these rocks which has produced a general cover of clay mixed with a smaller proportion of broken and partly decomposed siltstone.

The formation is disrupted by a north-west trending fault about the centre of the property. The area west of the fault consists of nearly level bedded sandstones over the greater part of the surface, with limited exposures of underlying siltstones. On the east of the fault siltstones are exposed dipping at 60° to the north-east over a distance of 1100 feet. Towards the eastern boundary, along a tributary of Roseneath Rivulet, the siltstones give place to a belt of sandstones with a similar dip and in apparent conformity with the underlying siltstones.



THE BRICK MATERIALS

In the past the material used for brick-making in Hobart has been taken almost exclusively from Triassic shale beds and little attention has been given to the large occurrences of Permian rocks of the district. Suitable unworked deposits of the shales, within economic transport distance from the established kilns, are now Scarce and recently some tests have been undertaken on Permian rock types situated outside the built-up areas of the city.

On the property under review the most suitable materials for brick-making tests are the siltstones and their derivatives comprising clay and siltstone gravel. These rocks cover the greater part of the eastern half of the property and are now being quarried for use in road surfacing.

Quality—Separate representative samples of the solid siltstone and the superficial clay &c. were taken from the quarry openings for laboratory testing. In these tests bricks will be made from (1) siltstone, (2) clay and (3) mixtures of siltstone and clay with the object of determining the most suitable materials available for use in the manufacture of bricks.

Quantity—It is calculated that in the area indicated on the accompanying map, 2,500,000 tons of siltstone will be available for extraction. In addition an estimated 250,000 tons of clay and siltstone gravel covers the solid rock to a possible average depth of five feet.

WORKING FACILITIES

The site is most favourable for extraction of the siltstone by quarrying and several large faces are already in existence. The surface material is easily removable with the aid of bulldozers.

A suitable area exists on the property for the establishment of kilns and other buildings with electric power and water supplies adjacent.