TRS-198-199

NOTES ON GEOLOGY OF THE PROPOSED FACTORY SITE FOR ASSOCIATED PULP AND PAPER MILLS AT WESLEY VALE

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These preliminary notes were provided for the information of officers of the Associated Pulp and Paper Mills Ltd. of Burnie and will be amplified when more information is obtained from bores. A geological map will be supplied when a copy of the contour map being prepared by the Company is received.

LOCATION

The area in question is a block approximately one mile in length (east-west) and one quarter of a mile in width (north-south) situated three quarters of a mile north of Wesley Vale, a small settlement midway between Devonport and Port Sorell. The surface is in part gently undulating with a large area of flattish ground, about 180 feet above sea level.

GEOLOGY

The surface consists almost entirely of sand, in part grey coloured and in part, particularly in the eastern portion, coloured red. In this eastern portion can be found occasional small pieces of basalt and iron-cemented sands and gravels. To the west of the road from Wesley Vale is the highest point of the property and it is beneath here that a thin layer of basalt may be encountered. However it is thought that erosion has reached to the base of the basalt and that little or no rock will occur beneath the soil.

The Tertiary beds which occupy this block are portion of quite an extensive occurrence extending from Pardoe to Port Sorell and through Moriarty to Harford. They consist mainly of sands with narrow interbedded clays and lignites. Here a thickness of 150 to 200 feet may be expected between the upper and lower basalt flows The lower basalt flow outcrops to just above high tide level at Morelands Point, one mile north of the property. It is considered that this is an earlier flow than the one forming the rich basalt soil in the hills near this property and that Tertiary sediments occur between them.

It is not possible to predict the sequence of these sediments although it is thought that the sand beds will predominate over the clay. On the nearby property of Northdown a bore put down in 1928 showed from the surface 14 feet of sand, 15 feet of pebbles and then 11 feet of pebbles and clay. At Parkers Ford, Port Sorell, Burns has measured a section of Tertiary beds as—

100′	Sand with clay layers
1′ 6″	Brown lignitic clay
5′	Blue clay with pyrite
40′	Bentonitic friable clay formed from weathered tuff or basalt
....	Basalt.

RECOMMENDATIONS

It is considered that the investigation of the material on which the factory is to be constructed should take place in two stages.

A. Scout boring with a hand boring plant. The following bores are recommended.

1. A bore 60-70 feet deep in the centre of the wooded portion of the property. This should give a general indication of the sequence of the Tertiary beds below and show how much is sand, how much gravel and how much clay.
2. A bore at the top of the hill south of the house near the water tank, to determine if any thickness of basaltic rock exists below the soil.
3. A bore in the red soil near the centre of the southern boundary.

B. Having determined the general sequence of Tertiary beds, then a grid of bores should be put in at the actual factory site. Either a hand boring plant could again be used, fitted with a special attachment, if undisturbed clay samples are necessary, or a diamond drill fitted with a clay tool.

If a thin layer of basalt is detected as an isolated patch under the hill, then this should be removed, if practicable, or avoided as a building site.