

1984/69. An inspection of Grierson's clay pit (762P/M) near Forcett

by V.M. Threader

Abstract

An inspection of Grierson's clay pit was made to advise on a drilling programme for the purpose of assessing reserves. The drilling of two holes on the lease, and a line of holes south of the lease boundary, is recommended.

INTRODUCTION

Grierson's clay pit is situated on the old Forcett Road near the junction with Quarry Road [EN510586], about 2 km from both Lewisham and Forcett (fig. 1). The pit is operated by J.E. Noonan and the material is supplied to the Hobart Brick Company.

An inspection of the clay pit has been made at the request of this company to advise on a drilling programme for the purpose of assessing reserves.

GEOLOGY

The clay is of Permian age and is overlain by sandstone which is exposed in the access road cutting. The beds dip towards the west and the sandstone overburden would therefore increase in thickness in that direction.

To the east of the clay pit is a stone quarry in metamorphosed Permian sediments. The two workings are separated by a south-westerly dipping fault.

PREVIOUS INVESTIGATION

A hammer-drilling programme was carried out in 1973 (Threader, 1973) and a reserve of cream clay of 29 000 m³ was estimated to a depth of nine metres. Since then the production of clay has been three times that amount and the pit has been worked, in places, to three times that depth.

PRESENT RESERVES

The most promising areas for prospecting lie along the long axis of the clay pit in both directions. It is also desirable to complete the 1973 drilling programme by drilling Holes 5 and 10 to ascertain the thickness of sandstone overburden, and also to drill a line of holes south of the lease boundary for the same reason (fig. 2).

A series of section lines (fig. 3) has been drawn to indicate the geological interpretation and the probable clay reserve. The clay reserve cannot be accurately estimated until the drill samples have been examined for ceramic properties and fired colour, but if suitable material is found to depths as indicated in the sections, a reserve of 100 000-150 000 m³ should be present.

MINING

If the pit is to be worked to depths greater than 15 m it should be benched as instructed by the Inspector of Mines. It is noted that this has

not been done and some slips have occurred. This leads to contamination by iron-stained clay in the fault zone and to unsafe working conditions.

The operation is being hampered by the necessity to backfill, which restricts the working area and leads to loss of reserves. It is suggested that no more overburden is dumped until the reserve has been determined and a management plan for the clay pit has been devised.

RECOMMENDATIONS

A drilling programme of ten holes is required to test the ground indicated in Figure 2, provided access can be gained to land which lies outside the leases. The depth should be to 30 m if in clay. Further holes may be necessary depending on the results.

An airtrack machine would be adequate initially but it may be advisable to drill some cored holes at a later stage to provide suitable material for testing and resource assessment.

REFERENCE

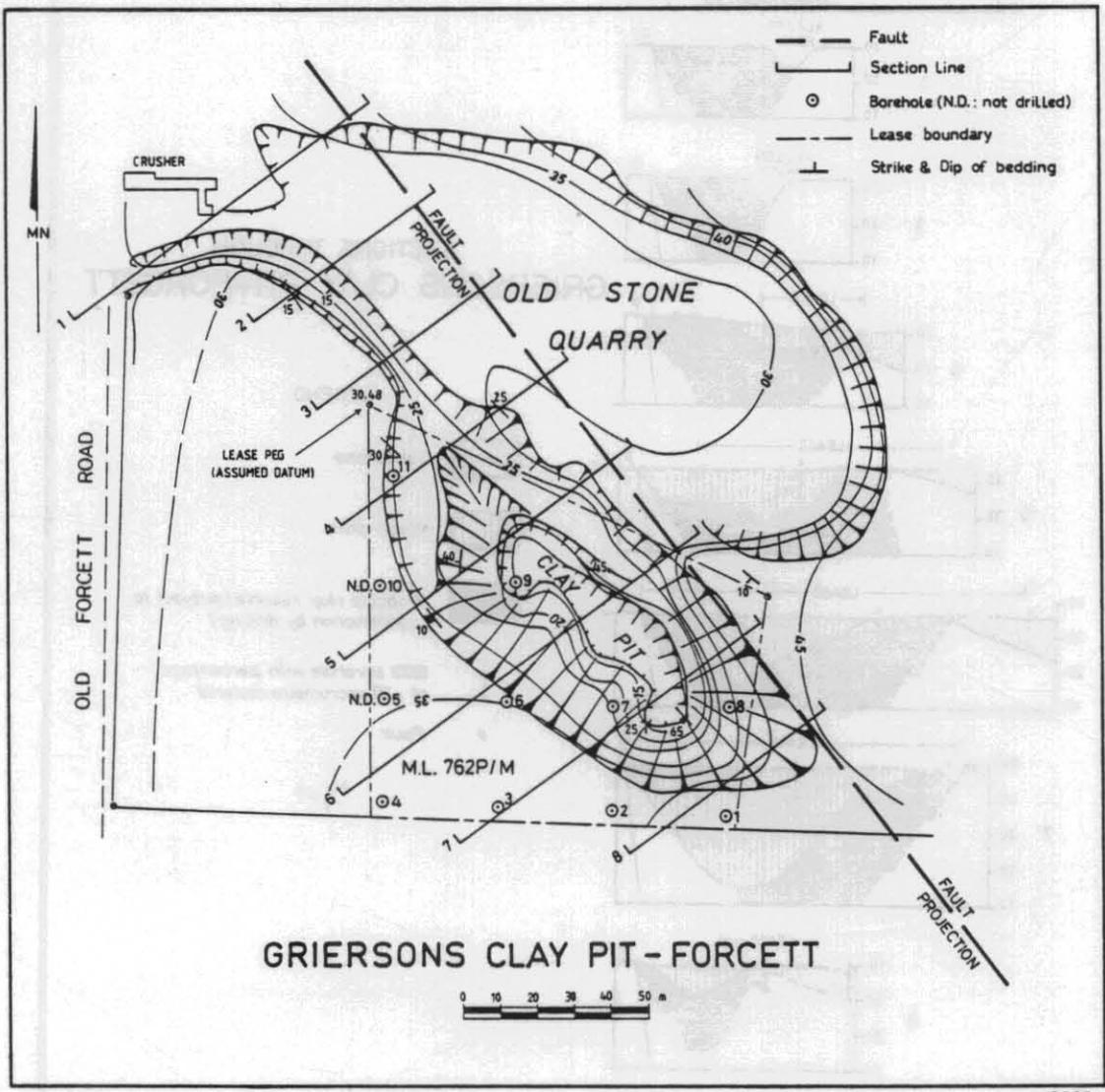
THREADER, V.M. 1973. Drilling for clay, Grierson's pit (762P/M), Forcett. *Unpubl.Rep.Dep.Mines Tasm.* 1973/17.

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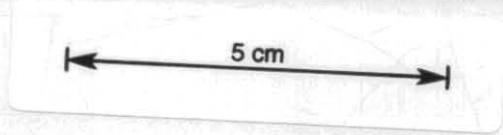
Figure 1. Location of clay pit.

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Figure 2.



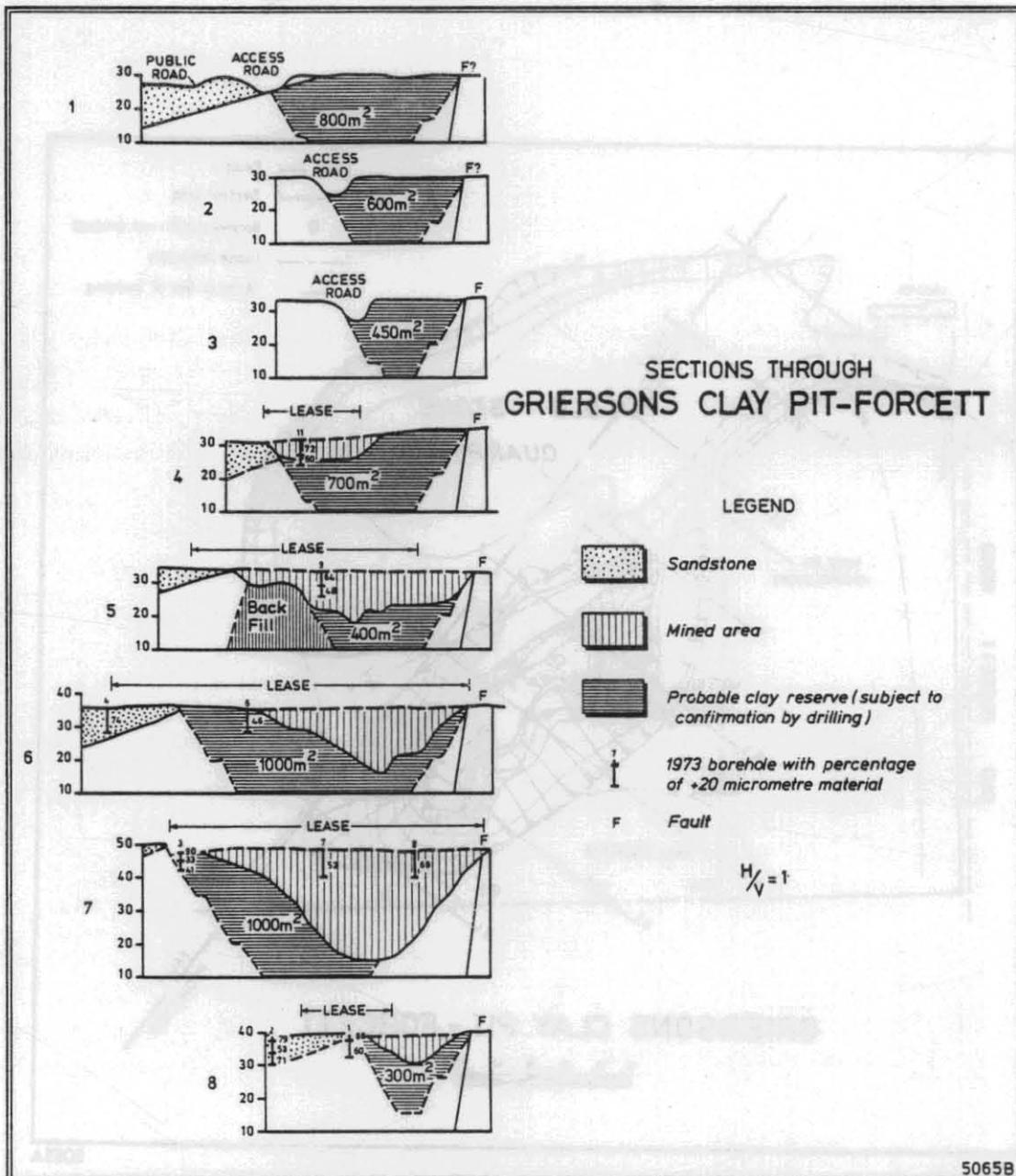


Figure 3.

← 5 cm →