

TRIO-12-14

1. CLAY RESERVES FOR WYNYARD BRICK COMPANY, WYNYARD

by V. M. Threader

A survey of clay quarry sites in the vicinity of Wynyard was made on the 16th March, 1965, at the request of the Wynyard Brick Company representatives who are seeking an alternative raw material to the Quiggins Road varved clay deposit previously examined (Threader, 1965 and this Volume, p. 11).

Two sites were inspected and traversed, using pace, compass and aneroid barometer measurements.

Site 1, owned by Mr H. J. Diprose, and Site 2, owned by Mrs Burr, are located at $1\frac{1}{2}$ and $2\frac{1}{2}$ miles respectively along the Wynyard-Oldina Road.

These two positions are indicated on the accompanying locality map together with the location of the old brick pit on Deep Creek Road and the present quarry on Quiggins (or Camp Creek) Road.

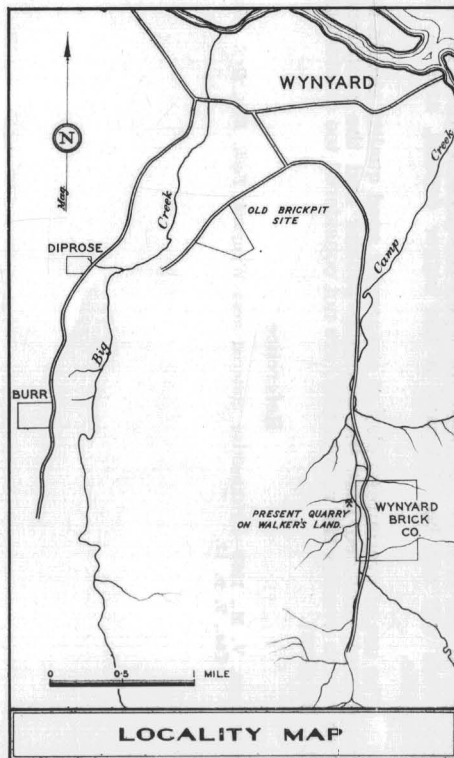
Both areas contain variable (up to 10 feet) thicknesses of residual clay derived from the underlying Permian pebbly mudstone. This mudstone underlies similar residual clay at the old Brickpit (Gee, 1963) and also overlies portion of the varved clay at the Quiggins Road quarry (Threader, 1965). Varved clay is also exposed on the lower slopes of site 2 and so can be expected to underlie the pebbly mudstone in both areas and also at the old brick pit.

Pebbly mudstone of Permian age is used for brick and pipe manufacture elsewhere in the State, and tests are currently being conducted by the Department of Mines laboratory to determine whether it can be utilized at Wynyard. The old brick works on Deep Creek road used a blend of residual clay and mudstone but samples of these bricks appeared to be underfired. Both the clay and mudstone contain numerous pebbles of quartzite but these would probably be crushed in the processing; cobbles and occasionally boulders also occur and would have to be removed by hand or with grizzly bars. These pebbles are entirely absent from the varved clay but occur probably above and below it as indicated at Quiggins Road (see Threader, 1965).

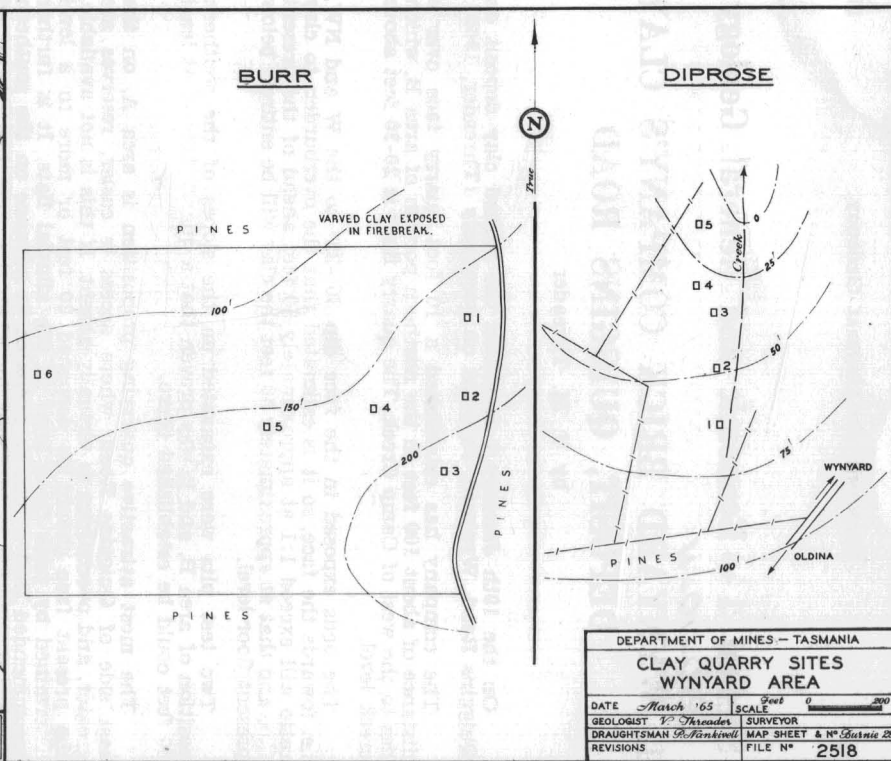
Site 1 (Diprose). It is understood that an area of approximately 10 acres is available for quarrying. An average thickness of 6 feet of clay should yield 100,000 cubic yards of clay which is 6 months' supply at a production rate of 100,000 bricks per week.

Site 2 (Burr). This is a 25 acres block with an average of 4 feet of clay which should yield 125,000 cubic yards or 8 months' supply. As portion of this would be unobtainable due to the position of the forests and the road, reserves would probably reduce to that for Site 1.

Fig. 8



5 cm



If the mudstone is also usable, quantities of roughly 200,000 cubic yards for each area would also be available. Gee (1963) estimated up to 90 years' supply in the area between the Deep Creek brick pit and Camp Creek. His estimate referred to the clay alone and was based on a lower production rate; this figure is additional to those for sites 1 and 2 and the material appears to be identical in them.

Reserves

- Site 1 Clay: 100,000 Cu. yd.
 Mudstone: 200,000 Cu. yd. (above level of Pit No. 5).
 Site 2 Clay: 100,000 Cu. yd.
 Mudstone: 200,000 Cu. yd. (above level of Pit No. 6).
 Deep Creek Clay: 800,000 Cu. yd.
 Mudstone: Not estimated.

Quiggins Road: No clay or mudstone overlies the main mass of varved clay east of the road but an undetermined supply is present on Mr Walker's land west of the creek. It is possible that all requirements could come from the overburden at the present quarry face on the northern portion on Mr Walker's land.

Details of test pits

Diprose			Burr		
1.	0' - 1'	Soil	1.	0' - 1'	Soil
	1' - 7'6"	Clay		1' - 5'	Clay
	7'6" - 8'	Mudstone		5' - 10'	Mudstone
2.	0' - 1'	Soil	2.	0' - 1'	Soil
	1' - 7'	Clay		1' - 10'	Clay
	7' - 17'	Mudstone		(not bottomed)	
3.	0' - 1'	Soil	3.	0' - 1'	Soil
	1' - 4'	Clay		1' - 9'	Clay
	4' - 7'	Mudstone		9' - 11'	Mudstone
4.	0' - 1'	Soil	4.	0' - 1'	Soil
	1' - 4'	Clay		1' - 2'	Clay
	4' - 8'	Mudstone		2' - 10'	Mudstone
5.	0' - 1'	Soil	5.	0' - 1'	Soil
	1' - 4'	Yellow Clay		1' - 8'	Mudstone
	4' - 5'6"	White Clay	6.	0' - 1'	Soil
	5'6" - 8'6"	Mudstone		1' - 2'	Clay
				2' - 10'	Mudstone

All pits were bottomed in pebbly mudstone and the soil and clay overburden contained numerous detached quartzite pebbles, cobbles and boulders up 1'6" diameter.

References

- GEE, R. D., 1963—Report on clay in the Wynyard District. *Tech. Rep. Dept. Min., Tas.*, 7, 55-57.
 THREADER, V. M., 1965—Brick making material near Wynyard. *Tech. Rep. Dep. M., Tas.*, 9, p. 11.