

UR1975-76

Notes on auger holes at a proposed subdivision at Freshwater Point

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Two auger holes have been drilled on a proposed subdivision [EQ044228] north of the main part of the Freshwater Point subdivision. There are two features on the subdivision that may be old landslips: one above Hole 2 is a possible old slip and the other above Hole 1 is a probable old slip, the latter being probably of a rotational type. The reedy nature of the north-western part suggests the presence of seepages. The land on the eastern side of the area slopes at about 7° while that on the west, in the vicinity of the heel of the old slip is steeper.

In Hole 2 the water is probably confined to some extent by thin clayey bands because the cuttings only became particularly damp at a little over 2.5 m from the surface whereas the standing water level is 0.3 m below the surface. The water in Hole 1 could be confined or unconfined.

LOGS OF AUGER HOLES

Hole 1

Depth (m)	Description
0-0.9	Grey quartz sand, some cemented nodules up to 25 mm across.
0.9-1.1	Grey clayey sand.
1.1-2.0	Dark grey clay and sandy clay, some soft and moist.
2.0-2.9	Grey sandy clay, occasional quartz pebbles.
2.9-3.8	Light brown sandy silty fragmental material. A 150 mm band of quartz gravel at 3.5 m, fragments up to 30 mm across.
3.8-4.7	Brown sandy silty clay passing into red silty clay.
4.7-5.6	Red and light grey mottled silty clay, fairly stiff, plastic.
5.6-6.5	Red and brown mottled plastic clay.
6.5-7.5	Brown fairly soft silty clay.
7.5-8.4	Darker brown-green silty clay, soft.

On completion there was a little water in the bottom of the hole. The hole collapsed overnight below about 5.5 m and the water level was at about 4.6 m from the surface the following morning.

Hole 2

Depth (m)	Description
0-1.8	Sandy gravel, rounded quartz and quartzite fragments up to 35 mm across.
1.8-2.7	Clayey sandy gravel, becoming fairly damp.
2.7-4.6	Wet coarse sandy clay.
4.6-5.8	Light blue to blue-grey medium-hard plastic clay.
5.8-7.3	Light blue and khaki mottled medium-hard plastic clay.
7.3-8.2	Red, brown and light grey mottled clay, fragmentary rather than plastic.

The water level on pulling out augers was 3.7 m below the surface. The hole collapsed overnight at about 4.6 m and the water level was at 0.3 m below the surface next morning.

CONCLUSIONS

Much of the eastern part of the proposed subdivision is gently sloping and could be regarded as marginal Landslip Area B land (if the possible old slip is disregarded). The western part of the land is a little steeper in parts and more caution in development should be exercised although there is probably not very much danger of the old slip being reactivated unless drainage and slope angles are drastically altered. Areas in other parts of the Tamar Valley similar to the western part of this land would have possibly been placed in Class IV on the Tamar Valley Landslip Zone Map.

The steeper land in the northern part of the subdivision would probably be recommended for proclamation as Landslip Area B. However it might be possible to exclude the eastern part of this land if it were to be developed strictly in accordance with the recommendations of a consulting engineers report. The area then remaining as Landslip Area B is shown in Figure 1.

