

An investigation of two reservoir sites near Riverside.

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Two sites were chosen for further investigation both in a col at the 300 ft level. The sites are fairly flat but have steep slopes dropping down on the south-east side. There are numerous fresh dolerite boulders at the surface, but also patches of clay.

Seven trial pits were dug to find the depth of weathering and the lateral extent of the rock, four at the south-east site and three at the north-west site.

GENERAL SUCCESSION

<i>Material</i>	<i>Depth (ft)</i>	
Clay	0- 3	This should cause no trouble as it can easily be removed.
Soft weathered dolerite	2-10	The rock has been deeply weathered. There are unweathered boulders and hematite pieces, but generally the rock can be crushed by hand.
Hard weathered dolerite		This was too hard to be broken by the back-hoe and unweathered dolerite was not reached.

The south-east site has a very variable Tertiary weathering profile. One hole reached hard material at 3 ft and immediately adjacent the back-hoe was able to dig to 12 ft. In the deeper holes the wall material was damp, but with no free water. This site is completely free of landslip danger, but there could possibly be difficulties due to differential settlement.

At the north-west site, 3 trial pits were dug and the back-hoe was unable to penetrate for more than 3 ft, therefore this site should not present any special foundation difficulties.

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