Site code[1] **OTR490**

This site was located in the housing estate

Location	Torquay
Landform	Hills
Geology	Quaternary alluvium/colluvium
Element	Hillslope – lower slope
Slope	5%
Aspect	South-east

Calcic, Mesonatric, Brown Sodosol

Horizon	Depth (cm)	Description
A1	0–15	Very dark greyish brown (10YR3/2); fine sandy loam; weak subangular blocky structure; abrupt boundary to:
B21	15–35	Brown (10YR4/3); heavy clay; strong coarse (40 mm) subangular blocky structure; some ironstone gravel; hard when dry; diffuse boundary to:
B22	35–70	Yellowish brown (10YR5/4); heavy clay; strong coarse (40 mm) subangular blocky structure; hard when dry; diffuse boundary to:
C	70+	Mottled light yellowish brown (10YR6/4); and yellowish red (5YR5/6); sandy clay; moderate very coarse (50 mm) subangular blocky structure; hard when dry.

[1] Source: Pitt AJ (1981) A Study of the land in the catchments of the Otway Range and adjacent plains. TC-14. Soil Conservation Authority. Kew, Victoria

Analytical data[2]

Site OTR490 Horizon	Sample depth cm	pH H_2O	pH $CaCl_2$	EC dS/m	NaCl %	Ex Ca $cmol_c/kg$	Ex Mg $cmol_c/kg$	Ex K $cmol_c/kg$	Ex Na $cmol_c/kg$	Ex Al mg/kg	Ex Acidity $cmol_c/kg$	FC –10kPa %	PWP –1500kPa %	KS %	FS %	Z %	C %
A1	0-10	5.3	N/R	0.076	0.011	3.3	1.4	0.1	0.3	N/R	N/R	N/R	N/R	30	51	6	9
A1	10-15	5.5	N/R	0.083	0.011	2.6	1.3	0.1	0.4	N/R	N/R	N/R	N/R	31	50	6	10
B21	20-30	6.6	N/R	0.280	0.028	5.0	7.5	0.4	3.4	N/R	N/R	N/R	N/R	15	22	2	59
B22	50-60	8.2	N/R	0.510	0.048	3.6	9.1	0.3	4.1	N/R	N/R	N/R	N/R	13	13	<1	67
C	100-110	8.1	N/R	0.110	0.045	2.5	6.8	0.4	4.1	N/R	N/R	N/R	N/R	23	23	1	50

Management considerations

The strong texture contrast between the surface soil and the subsoil can have a major effect by reducing and/or redirecting the internal drainage and restricting root growth beyond the upper horizons. Soil salinity at depth may affect deeper rooting plants and may indicate water movement restrictions. The sandy topsoil is likely to have poor plant water holding capacity and poor nutrient holding. These soils may be hydrophobic (in conjunction with organic coatings) when dry, taking time to reabsorb moisture. Acidic surface soil (topsoil) are often associated with sandy surfaces due the lack of base minerals and may or may not have organic matter (humose or peaty surfaces). The subsoils usually have poor structure (generally as coarse domed columns) resulting in dispersion (and subsequent clogging of pores), restricting water and gas movement through the subsoil. The soils are hardsetting and have limited opportunity for cultivation without further damage to soil structure.

[2] Source: Government of Victoria State Chemistry Laboratory.