

Site code¹	MM54
Location	Warncoort (Bourkes Road), Colac district, south-west Victoria
Landform	Plains
Geology	Quaternary alluvium: lagoon and swamp deposits; <i>silt, clay</i>
Element	Streambank

Profile morphology

Horizon	Depth (cm)	Description
A1	0–30	Very dark greyish brown (10YR3/2); fine sandy loam; apedal massive structure; very weak consistence (dry); clear boundary to:
A2	30–55	Brown (10YR5/3), conspicuously bleached, light grey (10YR7/2 dry); sandy loam; apedal massive structure; very weak consistence (dry); sharp boundary to:
B21	55–80	Very dark grey (10YR3/1) with grey (10YR4/6) mottles; heavy clay; strong coarse blocky structure; very firm consistence (moderately moist); gradual boundary to:
B22	80+	Greyish brown (10YR5/2) with brown (10YR5/8) mottles; heavy clay; strong coarse blocky structure; very firm consistence (moderately moist).

ASC: Melacic, Mottled-Subnatric, Black Sodosol

Analytical data²

Site MM54 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
		H ₂ O	CaCl ₂	dS/m	%	cmol _c /kg	cmol _c /kg	cmol _c /kg	cmol _c /kg	mg/kg	cmol _c /kg
A1	0–30	5.3	N/R	0.04	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	30–55	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	55–80	6.7	N/R	0.12	N/R	4.0	8.4	0.32	2.8	N/R	10
B22	80+	7.8	N/R	0.15	0.02	N/R	N/R	N/R	N/R	N/R	N/R

Site MM54 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m ⁻³
A1	0–30	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	30–55	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	55–80	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B22	80+	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Management considerations

Strong texture contrast between the surface soil and the subsoil is a very important soil feature and may have an impact upon the permeability. Acidic surface soils and conspicuously bleached A2 horizons are other key topsoil features. Mottled subsoils are common and are an indication of periodic waterlogging. Improved drainage and the application of gypsum to improve structure and permeability may reduce the incidence of waterlogging while increasing organic matter and maintaining vegetative cover is also important.

¹ Source: Maher JM, Martin JJ 1987 Soils and landforms of south-western Victoria. Department of Agriculture and Rural Affairs. Research Report No. 40.

² Source: Government of Victoria, State Chemistry Laboratory.