

Site code¹	MM358
Location	Tomahawk Creek (Irrewillipe Road), Colac district, south-west Victoria
Landform	Gently undulating rises
Geology	Neogene Hanson Plain Sand: <i>fluvial gravel, sand, silt</i>
Element	Mid slope

Profile morphology

Horizon	Depth (cm)	Description
A11	0–10	Very dark greyish brown (10YR3/2); fine sandy clay loam; apedal massive structure; weak consistence (dry); clear boundary to:
A12	10–40	Yellowish brown (10YR5/6), brownish yellow (10YR6/6 dry); fine sandy clay loam; fragipan or earthy pan; sharp boundary to:
B21	40–55	Yellowish brown (10YR5/6); medium clay; apedal massive structure; clear boundary to:
B22	55+	Yellowish brown (10YR5/6) with red (2.5YR4/6) mottles; medium clay; moderate medium blocky structure.

ASC: Mottled, mesotrophic, Brown Chromosol

Analytical data²

Site MM358	Sample depth	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
Horizon	cm										
A11	0–10	5.6	N/R	0.04	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A12	10–40	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	40–55	6	N/R	0.03	N/R	0.69	2.7	0.09	0.31	N/R	7.2
B22	55+	5.9	N/R	0.07	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Site MM358	Sample depth	FC	PWP	KS	FS	Z	C	Org C	Bulk density
Horizon	cm	(-10kPa) %	(-1500kPa) %	%	%	%	%	%	t m ⁻³
A11	0–10	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A12	10–40	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	40–55	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B22	55+	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Management considerations

The surface soil is hardsetting with a strong texture contrast between the surface soil and the subsoil which may impact upon subsoil permeability. Mottled subsoils are other prominent features of this soil type.

The application of gypsum would be suitable for soil structure and improved permeability, while increasing organic matter and maintaining vegetative cover is important to help improve the soil structure. Penetration by deep-rooted crops is also useful.

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.