

<b>Site code<sup>1</sup></b>	<b>MM361</b>
<b>Location</b>	<b>Irrewillipe East (McNabbs Road), Colac district, south-west Victoria</b>
<b>Landform</b>	Undulating rises
<b>Geology</b>	Neogene Hanson Plain Sand: <i>fluvial gravel, sand, silt</i>
<b>Element</b>	Lower slopes

### Profile morphology

Horizon	Depth (cm)	Description
A1	0–20	Black (10YR2/1); fine sandy loam; apedal massive structure; weak consistence (dry); clear boundary to:
A2	20–50	Pale brown (10YR6/3), conspicuously bleached, very pale brown (10YR8/2 dry); fine sandy loam; very many fine segregations; sharp boundary to:
B21	50–65	Brown (7.5YR4/4) with red (2.5YR4/6) mottles; medium clay; moderate medium blocky structure; boundary to:
B22	65+	Brown (7.5YR4/4) with red (2.5YR4/6) mottles; medium clay; moderate medium blocky structure.

**ASC:** Melacic, Eutrophic, Brown Chromosol

### Analytical data<sup>2</sup>

Site MM361 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
		H <sub>2</sub> O	CaCl <sub>2</sub>	dS/m	%	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	mg/kg	cmol <sub>c</sub> /kg
A1	0–20	5.2	N/R	0.06	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	20–50	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	50–65	6.1	N/R	0.03	N/R	3.7	6.7	0.14	0.29	N/R	10
B22	65+	6.2	N/R	0.04	N/R	N/R	N/R	N/R	N/R	N/R	N/R

Site MM361 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m <sup>-3</sup>
A1	0–20	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
A2	20–50	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	50–65	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B22	65+	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

### Management considerations

This site has a sandy, hardsetting topsoil with a strong texture contrast between the surface soil and the subsoil. A bleached A2 horizon is an indication of restricted drainage, poor soil structure (often massive) and low organic matter and 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.

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

<sup>2</sup> Source: Government of Victoria, State Chemistry Laboratory.