

Site code¹ SW100



Trenched section at SW100 showing disappearance of A2 away from drainage line

Location Steiglitz road, north west of junction with Geelong-Ballan road

Landform Gently undulating plain (basalt plain)

Geology Neogene sediments (Moorabool Viaduct) and basalt alluvium

Element Drainage depression

Slope 2%

Aspect South-west



Calcic, Hypernatric, Brown SODOSOL

Horizon	Depth (cm)	Description
Ap	0-25	Reddish yellow mottled; <i>sand</i> ; hard setting (recently deposited material); abrupt boundary to:
A1b	25-30	Grey; loamy sand, buried A horizon clear boundary to:
A2	30-55	Greyish brown (10YR5/2 moist) conspicuously bleached (10YR7/1 dry) sand; massive structure; pH 6.4; sharp boundary to:
B21t	55-90	Brown (10YR4/3 moist) medium clay; very coarse (>150 mm) prismatic structure parting to coarse polyhedral peds; pH 8.2; gradual boundary to:
B22t(k)	90 +	Mottled brown and grey; clay loam; few (<5%) small calcium carbonate (CaCO ₃) accumulations at approximately 1.2 metres depth and concentrated around macropores; pH 9.5.

Management considerations

'Spewy' topsoil and sharp boundary to coarsely structured sodic clay subsoil render this soil very prone to waterlogging. The soil is situated at the upper end (initiation) of a drainage line carrying excess water from the basalt plain to the Moorabool River. This is highly erodible soil which should have permanent vegetation cover to protect river water quality. See also site SW99 for an associated soil type —these two sites are only 45 metres apart.

¹ Source: MacEwan R, Imhof M (in press) Major Soils and Landscapes along the Southwest Gas Pipeline 1999. DPI

Analytical data²

Site SW100	Sample depth Horizon cm	pH		EC dS/m	NaCl %	Ex Ca cmolc/kg	Ex Mg cmolc/kg	Ex K cmolc/kg	Ex Na cmolc/kg	Ex Al mg/kg	Ex Acidity cmolc/kg	FC -10kPa %	PWP -1500kPa %	KS %	FS %	Z %	C %	
		H ₂ O	CaCl ₂															
	A2	30-55	6.4	5.6	0.11	N/R	0.45	0.88	0.05	0.57	N/R	1.6	N/R	N/R	33.4	50.3	8.0	7.5
	B21t	55-90	8.2	7.0	0.3	0.02	4.9	7.5	0.7	8.9	N/R	N/R	N/R	N/R	16.5	26.7	6.5	45.5
	B22	90+	9.5	8.5	0.52	0.05	4.7	703	0.6	7.7	N/R	N/R	N/R	N/R	18.5	34.5	10.0	33.0



General view towards site SW100, basalt profiles in foreground trench. Note the change in colour of trench spoil across the drainage depression indicating the different provenance of soil parent material.



Dissection of the plain by Moorabool River to the south-west. The bridge in the distance is the Moorabool Viaduct which lends its name to the geological formation underlying the basalt plain in the eastern portion of the Corangamite region.

² Source: Government of Victoria State Chemistry Laboratory.