

Site Code ¹ **SW87**



Lenticular ped from B21 horizon

Location

Landform Gently undulating plain/rises

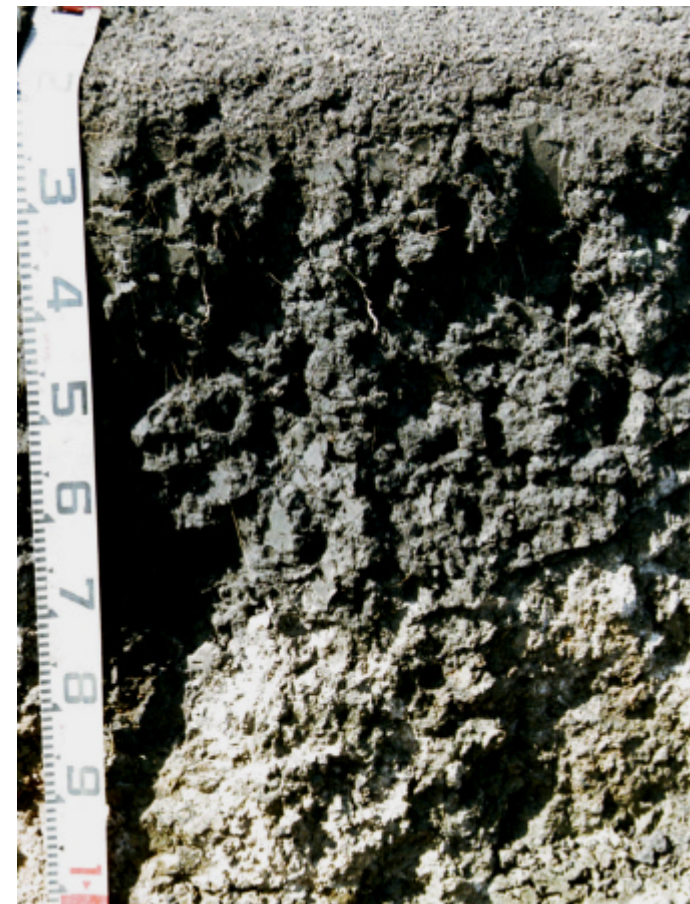
Geology Quaternary volcanics: *basalt*

Element Gentle simple slope

Slope

Aspect

Horizon	Depth (cm)	Description
A1	0-15	Very dark grey (10YR3/1 moist and 10YR4/1 dry); light medium clay; thin self-mulching surface; smooth-faced coarse blocky structure below surface; strong consistence, deep cracks to surface; pH 5.7; gradual boundary to:
B21ss	15-50/70	Black (2.5Y2.5/1 moist, dry); heavy clay; strong, coarse (>100 mm) irregular lenticular structure, parting with difficulty to medium (>20 mm) lenticular peds, prominent slickensides increasing in size with depth; pH 8.0; clear and wavy boundary to:
B22k	50/70 +	White soft calcium carbonate (CaCO ₃) with fine olive brown (2.5Y4/3 moist) and dark yellowish brown (10YR4/6 moist) mottles in clay matrix; medium clay to light medium clay; pH 8.3



Epihypersodic-Endocalcareous, Self-Mulching, Black VERTOSOL

Management considerations

The very high wilting point (i.e. 28%) indicates that plants will be unable to fully utilise light rains, when the soil is dry. In moist to wet conditions, excessive tillage, trafficking or over stocking could result in structural damage (i.e. compaction, smearing). The subsoil has high shrink-swell properties, is dense, coarsely structured, strongly sodic and disperse strongly in water. These properties will restrict root growth and drainage when wet. When the soil is dry, heavy rains will run into soil cracks. There are engineering implications (e.g. disturbance to building foundations).

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

Analytical data²

Site SW87	Sample depth 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														
A1	0-10	5.7	5	0.24	N/R	16	12	1.4	1.0	<10	16	48.5	28.2	9.2	19.6	14	44
Bss	35-55	8.0	7.3	0.76	0.15	15	15	0.8	5.5	N/R	N/R	54.0	25.6	4.8	19.4	15	55.5
Bk	80-90	8.7	8.3	1.6	0.35	12	16	0.4	7.2	N/R	N/R	44.3	23.1	1.8	12.2	9.0	41

Soils in the local landscape associated with SW87



Excavation at the Cressy-Shelford road crossing shows highly calcareous subsoil to depth



Excavation to the west of SW87 (very gentle rises) shows shallow soil over fractured rock

² Source: Government of Victoria State Chemistry Laboratory.