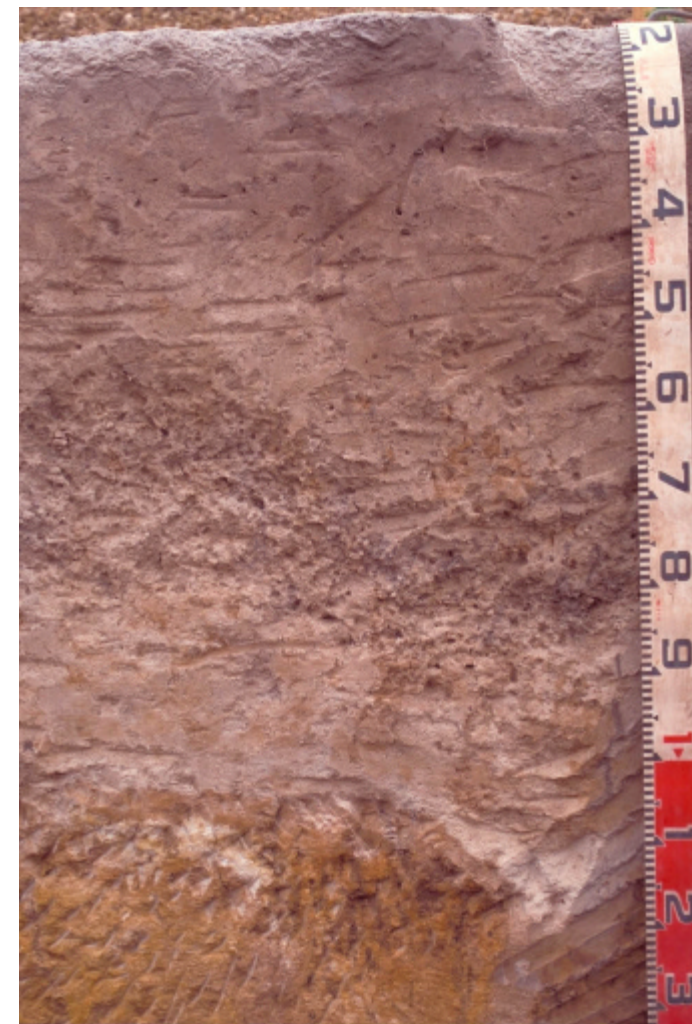


Site Code¹ SW70



Trench section at site of SW70 showing deep A2 horizon and underlying mottled clay

Location Irrewillipie road, south of Underwoods road, south of Colac
Landform Undulating low hills
Geology Neogene Hanson Plain Sand, Palaeogene Dilwyn Formation
Element Waxing upper slope
Slope 5%
Aspect West



Humose, Sesquic, Semiaquic PODOSOL

Horizon	Depth (cm)	Description
Ap	0-20/25	Very dark greyish brown (10YR3/2 moist), greyish brown (10YR5/2 dry); loamy sand; apedal structure; pH 5.3; diffuse boundary to:
A2	30-90/110	Greyish brown (10YR5/2 moist), conspicuously bleached (10YR7/2 dry); sand; sporadic gravel band (>100 mm); with dark very medium to coarse (5-15 mm) nodules with manganiferous centres; very weak to weak consistence; pH 5.4; abrupt boundary to:
B21s	90/110-150	Brown (7.5YR4/4 moist and dry) and brownish yellow (10YR6/8 moist) to yellow (10YR7/8 dry); sandy clay loam; cemented sand, ('coffee rock') massive structure; firm to strong consistence; clear boundary to:
B22g	150-200	Yellowish brown (10YR5/8 moist) (50%) and light greenish grey (5GY7/1 moist) (50%); very dark greyish brown (10YR3/2 moist) coatings; sandy light clay; pH 6; clear boundary to:
B23	200 +	Mottled yellowish brown (10YR5/8 moist) (30%) and light greenish grey (5GY7/1 moist) (70%); sandy light clay; apedal structure.

Management considerations

This deep sandy soil is very acidic and has poor chemical fertility. The soil lacks peds and is likely to be hard setting when dry and 'spewy' and weak when wet. The water holding capacity of this soil is low but the cemented B horizon will tend to hold up water and prevent excessive vertical drainage of the profile. This soil will become compact under animal and vehicular traffic and is vulnerable to wind or water erosion if left bare (e.g. when cultivated).

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

Analytical data²

Site SW70	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	5.3	4.6	0.25	N/R	2	1.1	0.44	0.72	15	9.9	15.1	6.8	48.9	32.3	9	5
A2	30–50	5.4	4.6	0.07	N/R	0.27	0.13	<0.05	0.18	11	2.1	8.2	1.2	47.8	38.3	8	4.5
B21s	65–85	5.8	4.9	0.08	N/R	1.3	1.9	0.09	0.33	<10	4.1	12	6	45.8	31.8	3.5	17.5



Contrasting soils upslope from SW70 showing deep sandy profile over ferruginised (iron-enriched) sedimentary parent material; profile with thin sodic clay B horizon at 1 metre (left), trench cutting (centre), profile with no clay B horizon and no ironstone gravel (right)

² Source: Government of Victoria State Chemistry Laboratory.