

PO7: Parapanic, Humic/Humosesquic, Semiaquic Podsol

General description of the soil

A Podsol with short-term saturation and a strongly coherent Humic/Humosesquic B horizon (Bh/Bhs).

Distribution:	Probably widespread as small zones within areas where Podsolos dominate.
Typical land use:	Plantation forestry and improved pasture in favourable environments.
Common variants:	Depth to Bhs horizon is highly variable and the A2 is usually bleached.
World Reference Base:	Haplic Podzol.
Other names:	Humus Podzols.

Environment and location of the example profile

Landform:	Plain.
Parent material or substrate:	Sand.
Drainage class:	Rapidly drained.
Surface condition:	Loose.
Site disturbance:	Cleared.
Native vegetation:	Eucalypt woodland.

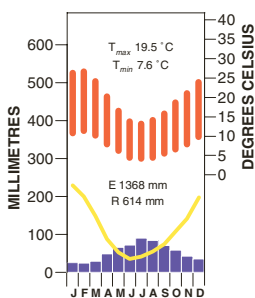


Near Penola, South Australia

Site location



Site climate



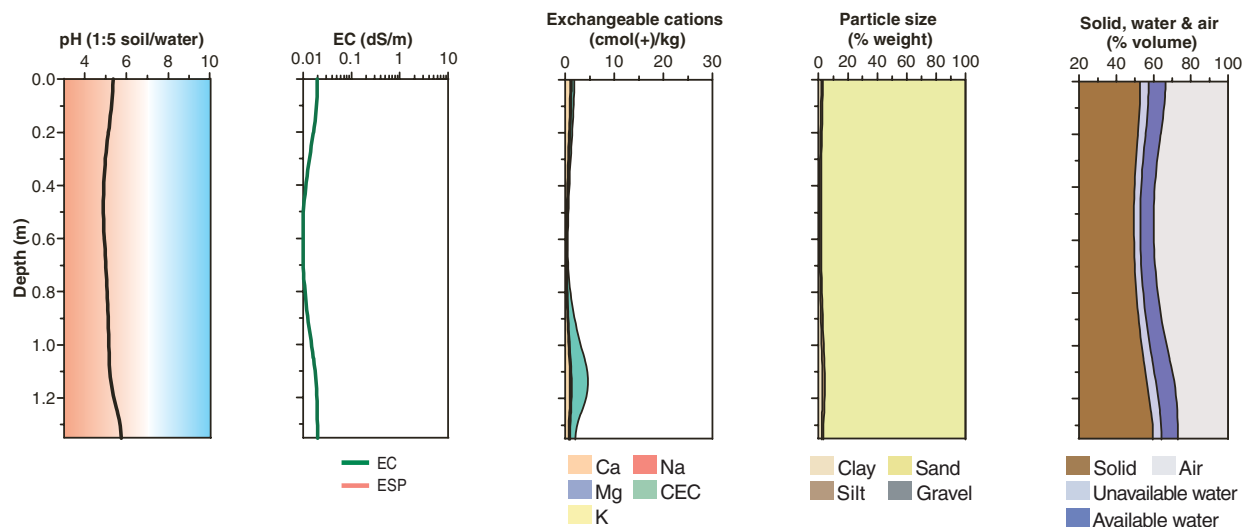
Soil morphology

Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A1	0.00–0.20	dark grey (10YR 4/1)	–	fine sand	single grain	–	–	very weak (moderately moist)	–	–	diffuse
A2e	0.20–1.05	pinkish grey (7.5YR 6/2)	–	fine sand	single grain	–	–	loose (dry)	–	–	sharp
Bhs	1.05–1.25	black (5YR 2/1)	–	loamy fine sand	massive	–	–	very firm (moderately moist)	–	–	gradual
C	1.25–1.35	yellowish brown (10YR 5/5)	–	fine sand	single grain	–	–	very weak (moderately moist)	–	>50% ferruginous-organic nodules (20–60 mm) moderately cemented organic pan	

Soil chemical and physical properties

Horizon	Sample Depth (m)	pH H ₂ O ^A	pH CaCl ₂ ^B	Elect. Cond. dS/m ^A	CaCO ₃ %	Org. C % ^D	Extr. P mg/kg ^A	Tot. P %	Tot. K %	Cation exchange properties ^E cmol(+)/kg						ESP %	Bulk dens. Mg/m ³	Particle size % ^A			
										Ca	Mg	K	Na	H+Al	CEC			ECEC	CS	FS	Silt
A1	0.00–0.20	5.3	4.2	0.02		0.1	< 4			0.9	0.2	< 0.1	< 0.1		1.7		70	27	1	2	
A2e	0.20–0.60	4.8	4.0	0.01		< 0.1	< 4			0.3	0.1	< 0.1	< 0.1		0.7						
A2e	0.60–1.05	5.1	4.3	0.01		< 0.1	< 4			0.2	< 0.1	< 0.1	< 0.1		0.5		60	38	1	1	
Bhs	1.05–1.25	5.1	4.3	0.02		1.8	< 4			1.2	0.3	< 0.1	0.1		6.7		64	31	2	3	
C	1.25–1.35	5.9	5.1	0.02		0.2	< 4			0.5	0.1	< 0.1	0.1		1.0						

Key profile properties



General qualities of the soil

Infiltration:	Rapid.
Available water store:	Moderate to large.
Permeability:	High above the Bh _s horizon.
Physical root limitations:	Nodular horizon may impede root development and short-term saturation in the A2 _e may be limiting.
Erosion hazard:	Subject to wind erosion if vegetation is removed.
Nutrient availability:	Very low.
Toxicities:	None apparent.



Podosols support large areas of plantation forestry in the south-east of South Australia.

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