

RU2: Basic, Arenic Rudosol

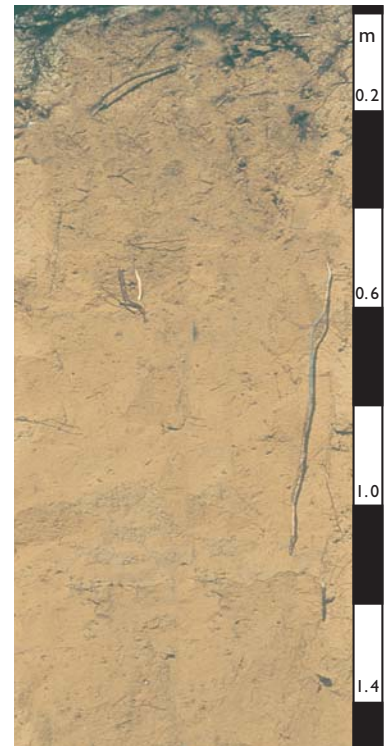
General description of the soil

This sandy soil has little profile development apart from a very weakly developed A1 horizon and a slight increase in clay content with depth. The example soil is deep and marginal to a Yellow-Orthic Tenosol.

Distribution:	Particularly common in southwest Western Australia but the soil also occurs elsewhere in the arid zone.
Typical land use:	Nature conservation and dryland farming when cleared.
Common variants:	Slight differences in colour and texture are common. The soil grades to a Yellow-Orthic Tenosol, when there is increasing clay content with depth.
World Reference Base:	Hypoluvic Arenosol.
Other names:	Earthy Sands, Siliceous Sands or yellow sandplain soils.

Environment and location of the example profile

Landform:	Upland remnant sandplain, almost flat.
Parent material or substrate:	Jurassic sandstone.
Drainage class:	Rapidly drained.
Surface condition:	Loose with a thin algal crust.
Site disturbance:	No effective disturbance.
Native vegetation:	Mallee heath.

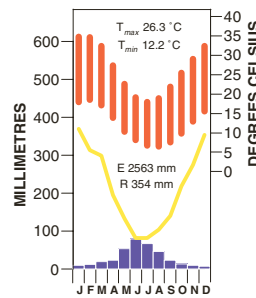


Geraldton-Mullewa district, south-west Western Australia

Site location



Site climate



Soil morphology

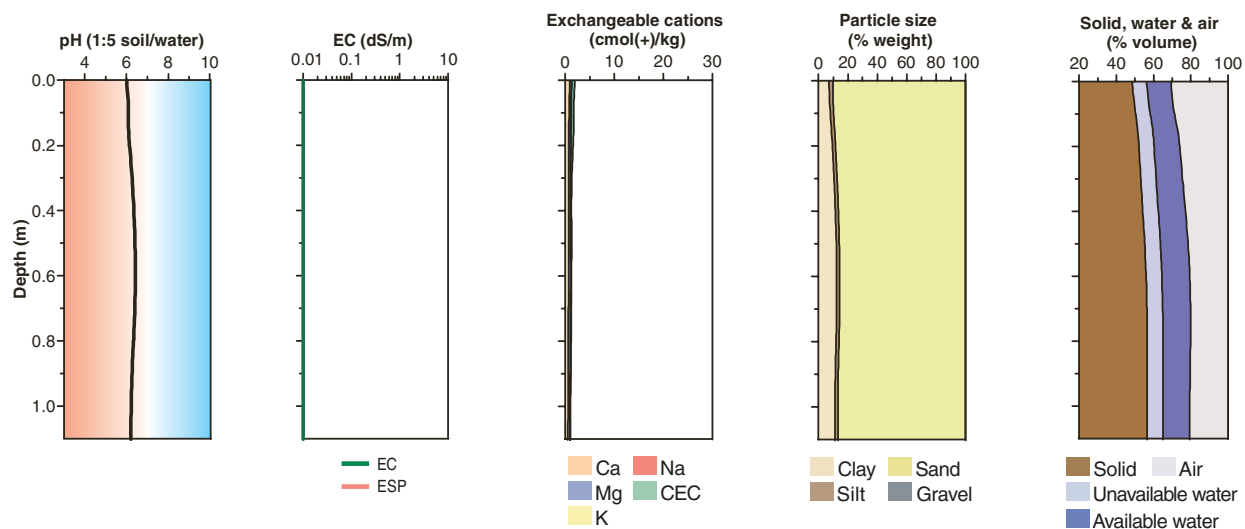
Horizon	Depth (m)	Colour	Mottles	Texture	Structure			Consistence	Coarse fragments	Segregations	Boundary
					Grade	Shape	Size				
A11	0.00–0.05	yellowish brown (10YR 5/5)	–	sand	single grain	–	–	loose	–	–	clear
A12	0.05–0.10	yellowish brown (10YR 5/6)	–	sand	single grain	–	–	loose	–	–	gradual
A13	0.10–0.20	yellowish brown (10YR 5/8)	–	loamy sand	single grain	–	–	very weak (dry)	–	–	gradual
B11	0.20–0.40	brownish yellow (10YR 5/8 to 10YR 6/8)	–	loamy sand	single grain	–	–	very weak (dry)	–	–	gradual
B12	0.40–1.10	brownish yellow (10YR 6/9)	–	loamy sand	single grain	–	–	very weak (dry)	–	–	

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 % ^A	Extr. P mg/kg ^A	Tot. P % ^B	Tot. K %	Cation exchange properties ^D cmol(+)/kg						ESP %	Bulk dens. Mg/m ³	Particle size % ^B				
										Ca	Mg	K	Na	H+Al	CEC			ECEC	CS	FS	Silt	Clay
A11	0.00–0.05	6.0	5.1	0.01		0.4	2	0.003		0.9	0.3	<0.1	<0.1		2		–		77	13	3	7
A12	0.05–0.10	6.2	5.3	0.01		0.3	<2	0.002		0.7	0.3	<0.1	<0.1		1		–		83	8	2	7
A13	0.10–0.20	6.0	5.1	0.01		0.2	<2	0.002		0.7	0.3	0.1	<0.1		2		–		76	13	2	9
B11	0.20–0.40	6.3	5.4	0.01		0.2	<2	0.002		0.6	0.3	<0.1	<0.1		1		–		72	15	2	11
B12	0.40–0.80	6.5	5.8	0.01		0.1	<2	0.002		0.7	0.4	<0.1	<0.1		1		–		65	20	2	13
B12	0.80–1.10	6.2	5.8	0.01		0.1	<2	0.002		0.5	0.4	<0.1	<0.1		1		–		72	15	2	11

Note: Laboratory data for a similar soil (McArthur 1991).

Key profile properties



General qualities of the soil

Infiltration:	Rapid.
Available water store:	Moderate to large but infrequently filled.
Permeability:	High to very high.
Physical root limitations:	None apparent.
Erosion hazard:	Wind erosion is moderate on bare soil.
Nutrient availability:	Nutrient status is low.
Toxicities:	None apparent.



Gently undulating yellow sandplain soil supporting heath, Geraldton district, south-west Western Australia

Acknowledgements: Soil image: Agriculture Western Australia (Stoneman 1990, Bull. 4181 Fig 2). Soil description and laboratory data for a similar soil from McArthur (1991), Site GTN 5. Landscape image: Agriculture Western Australia.