BLEACHED SILICEOUS SAND

General Description: *Thick bleached sand, organically darkened at the surface and grading to yellow or brown sand with depth*

Landform: Flat to gently undulating plain with occasional low sandhills

Substrate: Windblown Molineaux Sand.

Vegetation: Mallee heath

Type Site:

Site No.:	MM096	1:50,000 mapsheet:	6926-3 (Tintinara)
Hundred:	Lewis	Easting:	410700
Section:	2	Northing:	6037900
Sampling date:	04/03/1993	Annual rainfall:	465 mm average

Crest of low sandhill. Loose surface, no stones.

Soil Description:

Depth (cm)	*Description*
0 - 12	Dark greyish brown loose sand. Abrupt to:
12-25	Brown loose sand. Clear to:
25-70	Yellowish brown, very pale brown (bleached) and orange speckled loose sand. Diffuse to:
70-120	Yellowish brown, very pale brown (bleached) and orange speckled loose sand. Diffuse to:
120-210	Yellowish brown, very pale brown (bleached) and orange speckled loose sand.

Classification: Basic, Arenic, Bleached-Orthic Tenosol; medium, non-gravelly, sandy / sandy, very deep

Summary of Properties

Drainage: Rapidly drained. The soil never remains wet for more than a few hours.

Fertility: Inherent fertility is very low, as indicated by the exchangeable cation data. Phosphorus, nitrogen, copper and zinc deficiencies can be expected. Manganese required by lupins. Phosphorus, copper and manganese appear to be deficient at the sampling site. Organic carbon concentrations are low.

pH: Neutral to slightly acidic throughout.

Rooting depth: 70 cm in pit.

Barriers to root growth:

Physical: No physical barriers.

Chemical: No chemical barriers. Low nutrient retention capacity is the main reason for lack of root penetration.

Waterholding capacity: 40 mm in rootzone.

Seedling emergence: Satisfactory, but can be reduced by water repellence in dry years.

Workability: Soft / loose surface is easily worked.

Erosion Potential:

Water: Low.

Wind: Moderate to moderately high.

Laboratory Data

Depth cm	pH H_2O	pH $CaCl_2$	CO_3 %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
										Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	7.1	6.7	<1	0.03	0.35	0.4	12	61	1.8	0.06	10	2.4	0.42	2.8	1.90	0.23	0.11	0.12	na
0-12	6.8	6.4	<1	0.03	0.33	0.3	10	68	0.63	<0.05	12	2.4	0.24	2.9	1.99	0.24	0.08	0.11	na
12-25	7.2	6.7	<1	0.02	0.24	0.1	6	<40	<0.4	<0.05	9.5	0.21	0.11	2.2	0.87	0.16	0.07	0.07	na
25-70	7.2	6.9	<1	0.01	0.12	<0.1	4	<40	<0.4	<0.05	6.3	<0.06	0.14	1.9	0.52	0.17	0.08	0.07	na
70-120	7.3	6.9	<1	0.01	0.07	<0.1	<2	<40	<0.4	<0.05	5.6	<0.06	0.15	2.1	0.33	0.16	0.07	0.10	na
120-160	7.0	6.7	<1	0.01	0.06	<0.1	<2	<40	<0.4	<0.05	4.8	0.08	0.09	1.9	0.52	0.20	0.08	0.07	na
160-210	6.7	6.6	<1	0.01	0.05	<0.1	<2	<40	<0.4	<0.05	5.0	0.17	0.12	1.7	0.23	0.23	0.08	0.06	na

Note: Paddock sample bulked from cores (0-10 cm) taken around the pit.
CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.
ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

Further information: DEWNR Soil and Land Program