BLEACHED SILICEOUS SAND

General Description: *Thick bleached sand, organically darkened at the surface, grading to a 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.:	MM082	1:50,000 mapsheet:	6826-4 (Binnie)
Hundred:	Strawbridge	Easting:	385750
Section:	9	Northing:	6047300
Sampling date:	14/10/1992	Annual rainfall:	460 mm average

Low sandhill, loose surface, no stones.

Soil Description:

Depth (cm)	*Description*
0-14	Dark greyish brown loose single grain sand. Clear to:
14-40	Very pale brown (bleached) loose single grain sand. Diffuse to:
40-80	Brown, yellowish red and very pale brown soft single grain sand. Diffuse to:
80-130	Reddish yellow, yellowish red and very pale brown soft single grain sand. Diffuse to:
130-220	Reddish yellow and yellowish red soft single grain sand.

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

Summary of Properties

Drainage: Rapidly drained. 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. Copper levels are low at the sampling site. Organic carbon concentrations are also below ideal.

pH: Neutral throughout.

Rooting depth: 40 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: 25 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	7.4	6.7	1	0.04	0.37	0.5	19	78	1.4	0.09	-	2.2	0.87	2.3	1.69	0.34	0.08	0.17	na
0-14	7.1	6.4	<1	0.03	0.18	0.4	12	76	<0.40	<0.05	-	2	0.23	2.0	1.78	0.31	0.06	0.18	na
14-40	6.8	6.4	<1	0.02	0.12	0.1	7	<40	<0.40	<0.05	-	0.09	0.19	0.8	0.61	0.16	0.08	0.05	na
40-80	7.1	6.8	<1	0.01	0.11	<0.1	<2	<40	<0.40	<0.05	-	<0.06	<0.06	0.6	0.47	0.14	0.04	0.05	na
80-130	7.4	7.0	<1	0.01	0.08	<0.1	<2	<40	<0.40	<0.05	-	0.061	<0.06	0.6	0.42	0.14	0.05	0.06	na
130-220	7.5	7.1	<1	0.01	0.11	<0.1	<2	49	49	<0.05	-	0.12	<0.06	1.3	0.83	0.34	0.06	0.10	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