DEEP SAND

General Description: *Thick reddish brown siliceous sand, paler coloured at depth with minor fine carbonate accumulations either throughout or in the subsoil*

Landform: Dunes and drift banks (eg against escarpments).

Substrate: Windblown Molineaux or Bunyip Sand.

Vegetation:

Type Site: Site No.: MO036

1:50,000 sheet:	6727-4 (Monarto)	Hundred:	Monarto
Annual rainfall:	375 mm	Sampling date:	1976
Landform:	Footslope of escarpment where drift sand has accumulated, 8% slope		
Surface:	Loose with no stones		

Soil Description:

Depth (cm)	*Description*
0-17	Reddish brown loose single grain sand. Clear to:
17-50	Reddish brown soft single grain sand with minor (less than 2%) schist gravel. Gradual to:
50-150	Yellowish red and light brown friable massive sand.

Classification: Basic, Arenic, Red-Orthic Tenosol; thick, non-gravelly, sandy / sandy, very deep

Summary of Properties

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

Fertility: Inherent fertility is low, as indicated by the low clay content and the exchangeable cation data. Nutrient retention capacity is low, with phosphorus, nitrogen, zinc, copper and manganese deficiencies most likely. Organic matter is necessary to provide nutrient retention capacity.

pH: Neutral to mildly alkaline throughout.

Rooting depth: Not recorded. Estimate 50 cm in pit.

Barriers to root growth:

Physical: None.

Chemical: There are no toxic barriers, but low fertility (nutrient status and retention capacity) limit root growth.

Water holding capacity: Approximately 50 mm in the root zone.

Seedling emergence: Satisfactory except in seasons when water repellence is a problem.

Workability: The loose surface is easily worked.

Erosion Potential

Water: Low, except where water repellence is a problem.

Wind: High to extreme.

Laboratory Data

Depth cm	Coarse sand %	Fine sand %	Silt %	Clay %	pH H_2O	CO_3 %	EC 1:5 dS/m	Cl mg/kg	CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
										Ca	Mg	Na	K	
0-17	30	65	2	2	7.4	0.9	<0.06	<50	6	2.4	0.83	0.19	0.45	3.2
17-50	44	51	2	2	6.8	0.2	<0.06	<50	6	2.4	0.72	0.14	0.25	2.3
50-150	37	59	0	2	7.7	0.1	<0.06	<50	4	1.2	0.98	0.10	0.23	na

Note: 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.