DEEP SAND

General Description: *Loose red brown sand becoming redder and weakly calcareous with depth*

Landform: Dunefield

Substrate: Windblown Molineaux Sand.

Vegetation: Mallee

Type Site: Site No.: MM051

1:50,000 sheet:	6828-4 (Swan Reach)	Hundred:	Forster
Annual rainfall:	280 mm	Sampling date:	03/08/92
Landform:	Crest of low dune, 4% slope		
Surface:	Soft with no stones		

Soil Description:

Depth (cm)	*Description*
0-11	Reddish brown loose light sandy loam. Clear to:
11-45	Yellowish red soft loamy sand. Gradual to:
45-85	Yellowish red soft loamy sand. Diffuse to:
85-140	Yellowish red moderately calcareous soft loamy sand. Clear to:
140-185	Yellowish red highly calcareous soft loamy sand. Minor quartz grit throughout.

Classification: Calcareous, Arenic, Red-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 low as indicated by the exchangeable cation data, and low clay and organic matter contents. Deficiencies of phosphorus, nitrogen, zinc, copper and manganese can be expected, and all (nitrogen not tested) are deficient or marginal at the sampling site.

pH Neutral at the surface, alkaline with depth.

Rooting depth 180 cm in pit, but few roots below 45 cm.

Barriers to root growth

Physical: No physical barriers.

Chemical: No chemical barriers. Low nutrient status and retention capacity are causing low root densities.

Water holding capacity Approximately 45 mm at sampling site.

Seedling emergence: Satisfactory, except in water repellency years.

Workability: Soft / loose surface is easily worked.

Erosion Potential

Water: Low.

Wind: Moderately high.

Laboratory Data

Depth cm	pH H_2O	pH $CaC1_2$	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	7.0	6.8	-	0.05	0.22	0.43	6	100	0.5	0.1	5.9	1.9	0.2	2.3	2.4	0.6	0.13	0.13	na
0-11	7.0	6.8	-	0.05	0.19	0.33	<5	89	0.4	0.1	4.3	1.7	0.3	2.4	2.4	0.5	0.09	0.12	na
11-45	8.9	8.5	0.1	0.07	0.18	0.08	<5	72	0.4	0.1	2.6	0.2	0.4	2.0	2.0	0.3	0.12	0.10	na
45-85	8.9	8.4	0.1	0.08	0.20	0.07	<5	65	0.7	0.1	2.7	0.1	0.3	4.1	2.9	0.8	0.10	0.16	2.4
85-140	9.0	8.4	1.1	0.09	0.24	0.10	<5	82	0.6	0.2	1.7	0.1	0.5	3.7	2.6	1.5	0.11	0.14	3.0
140-185	9.1	8.6	0.9	0.09	0.26	0.04	<5	120	0.6	0.1	1.4	0.1	0.4	2.6	1.4	1.4	0.12	0.19	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.