

SANDY LOAM OVER RED SANDY CLAY

General Description: *Sandy loam over a coarsely structured red sandy clay, calcareous with depth*

Landform: Flats on gently undulating plains or dunefields

Substrate: Tertiary sands.

Vegetation: Mallee



Type Site: Site No.: MM006

1:50,000 sheet:	6928-3 (Halidon)	Hundred:	Wilson
Annual rainfall:	315 mm	Sampling date:	05/09/91
Landform:	Flat on very gently undulating plain		
Surface:	Firm with no stones		

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-12	Dark reddish brown soft sandy loam. Abrupt to:
12-27	Red soft sandy loam. Sharp to:
27-36	Red sandy clay with coarse columnar structure and sandy loam between columns. Clear to:
36-62	As above, without the sandy loam. Clear to:
62-88	Yellowish red calcareous sandy loam. Gradual to:
88-115	Orange very highly calcareous loamy sand. Diffuse to:
115-150	Orange moderately calcareous loamy sand. Diffuse to:
150-195	Orange loamy sand with 20-50% ironstone. Diffuse to:
195-	Yellowish brown sandy loam.



Classification: Sodic, Calcic, Red Chromosol; medium, non-gravelly, loamy / clayey, deep

Summary of Properties

Drainage	Well drained. Soil rarely remains saturated for more than a few days.
Fertility	Inherent fertility is moderate, as indicated by the exchangeable cation data. Improved organic matter status will augment nutrient retention capacity. Phosphorus, copper and zinc are deficient at the sampling site.
pH	Slightly acidic at the surface, alkaline with depth.
Rooting depth	50 cm in pit.
Barriers to root growth	
Physical:	Hard sandy substrate material from 60 cm limits root growth.
Chemical:	No apparent chemical barriers, other than low nutrient status.
Water holding capacity	Approximately 65 mm.
Seedling emergence:	Satisfactory.
Workability:	Firm surface is easily worked.
Erosion Potential	
Water:	Low.
Wind:	Low to moderately low.

Laboratory Data

Depth cm	pH H ₂ O	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	6.3	6.2	<0.1	0.08	0.50	0.46	11	120	0.38	0.14	8.1	3.2	0.29	3.6	2.40	0.61	0.06	0.19	1.7
0-12	6.4	6.1	<0.1	0.06	0.25	0.70	14	130	0.41	0.15	16	7.1	0.94	4.6	4.26	0.74	0.06	0.20	1.3
12-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27-36	7.1	6.5	<0.1	0.06	0.31	0.19	2.4	110	0.76	0.11	6.9	0.58	0.30	6.2	7.20	2.20	0.30	0.22	4.8
36-50	6.8	6.8	<0.1	0.06	0.31	0.16	1.6	86	1.3	0.08	13	0.54	0.36	15.9	10.65	3.67	0.34	0.26	2.1
50-62	6.9	6.9	<0.1	0.06	0.32	0.13	1.4	55	1.0	0.08	3.5	0.48	0.14	15.1	10.01	3.91	0.38	0.23	2.5
62-88	8.8	7.3	0.9	0.14	0.46	0.07	1.6	63	0.62	0.10	3.3	0.22	0.37	4.2	6.46	2.66	0.33	0.15	7.9
88-115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115-150	9.2	7.6	1.5	0.23	0.73	0.07	1.5	63	0.94	0.11	2.5	0.09	0.29	6.3	4.06	2.29	0.88	0.12	14.0
150-195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
195+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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.