

## CALCAREOUS SANDY LOAM

**General Description:** *Calcareous sandy loam to light sandy clay loam becoming more clayey and calcareous with depth over variable rubbly calcrete (sometimes indurated to sheet calcrete)*

**Landform:** Flats in a very gently undulating landscape

**Substrate:** Calcreted Tertiary sandy clay and clay

**Vegetation:** Mallee



<b>Type Site:</b>	Site No.:	MR002	1:50,000 mapsheet:	7029-3 (Loxton)
	Hundred:	Gordon	Easting:	465380
	Section:	392	Northing:	6192680
	Sampling date:	24/06/1993	Annual rainfall:	260 mm average

Flat between gentle rises. Firm surface, no stone. Vineyard.

### Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-10	Dark reddish brown soft moderately calcareous light sandy clay loam. Clear to:
10-20	Reddish brown firm highly calcareous light sandy clay loam. Abrupt to:
20-40	Yellowish red friable very highly calcareous light sandy clay loam. Clear to:
40-60	Yellowish red friable very highly calcareous sandy clay loam with 20-50% fine carbonate segregations. Clear to:
60-80	Red friable very highly calcareous sandy light clay with 20-50% fine carbonate segregations. Clear to:
80-90	Rubbly calcrete. Sharp to:
90-91	Sheet calcrete.



**Classification:** Ceteric, Petrocalcic, Hypercalcic Calcarosol; thick, non-gravelly, loamy / clayey, moderate



## Summary of Properties

**Drainage:** Well drained. The soil is unlikely to remain wet for more than a day or so following heavy or prolonged rainfall, or irrigation.

**Fertility:** Natural fertility is moderate, as indicated by the exchangeable cation data. All measured nutrient elements are well supplied. Organic carbon levels are moderate.

**pH:** Alkaline throughout.

**Rooting depth:** 80 cm in pit, but few roots below 60 cm.

### Barriers to root growth:

**Physical:** There are no physical barriers above the calcrete. This would be a major barrier at shallower depth (eg less than 40 cm).

**Chemical:** There are no apparent chemical barriers to root growth.

**Waterholding capacity:** Approximately 120 mm total available and 60 mm readily available water at the sampling site.

**Seedling emergence:** No impediments to establishment of cover crops.

**Workability:** Good.

### Erosion Potential:

**Water:** Low.

**Wind:** Low.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaCl <sub>2</sub>	CO <sub>3</sub> %	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	
0-10	8.4	8.0	4.1	0.17	1.00	1.1	112	560	1.1	9.7	4	9.2	6.0	11.2	8.7	2.9	0.50	1.77	4.5
10-20	8.6	8.1	5.2	0.13	0.80	0.6	27	349	0.9	2.7	4	4.3	3.2	9.5	8.6	2.7	0.43	1.20	4.5
20-40	8.6	8.1	12.0	0.14	0.92	0.5	5	208	0.9	0.7	3	2.6	0.3	9.0	9.8	2.9	0.59	0.80	6.6
40-60	8.8	8.2	31.0	0.16	0.80	0.5	4	200	1.7	0.7	2	1.2	0.2	10.3	8.2	4.2	0.78	0.81	7.6
60-80	8.8	8.2	28.7	0.16	0.74	0.3	<4	226	2.5	0.8	2	1.1	0.4	11.6	8.5	4.9	0.70	0.92	6.0
80-91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**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.

**Further information:** [DEWNR Soil and Land Program](#)

