

DEEP BLEACHED SILICEOUS SAND

General Description: *Thick bleached sand with a yellowish sandy subsoil*

Landform: Gently undulating plain.

Substrate: Windblown sand.

Vegetation:



Type Site: Site No.: SE053

1:50,000 sheet: 6923-2 (Kennion)

Hundred:

Mt Muirhead

Annual rainfall: 750 mm

Sampling date:

15/04/96

Landform: Midslope of very low rise on plain, 2% slope

Surface: Soft wit no stones

Soil Description:

Depth (cm) *Description*

0-19 Very dark grey soft single grain loamy sand.
Abrupt to:

19-41 Bleached soft single grain sand. Diffuse to:

41-100 Bleached soft single grain fine sand. Diffuse to:

100-150 Bleached with light yellowish brown speckles
loose single grain fine sand. Diffuse to:

150-180 Yellowish brown loose single grain fine sand.



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

Summary of Properties

Drainage	Rapidly drained. The soil never remains wet for more than a few hours.
Fertility	Inherent fertility is low, as indicated by the exchangeable cation data. Nutrient retention capacity is limited by lack of clay, but is boosted by favourable organic matter levels. Potassium, calcium and magnesium levels are all low, as is surface phosphorus. High sub surface phosphorus indicates leaching.
pH	Acidic throughout.
Rooting depth	180 cm in pit.
Barriers to root growth	
Physical:	There are no physical barriers.
Chemical:	There are no toxic barriers. Low nutrient retention capacity is the main cause of sub-optimal root growth.
Water holding capacity	Approximately 110 mm in the root zone.
Seedling emergence:	Fair to satisfactory, depending on the degree of water repellence.
Workability:	The soft surface is easily worked.
Erosion Potential	
Water:	Low.
Wind:	Moderate

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	SO ₄ -S 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	5.4	4.6	0	0.07	0.62	1.7	25	68	10	0.3	1.32	42	10.3	5.75	5.6	3.57	0.49	0.10	0.11	na
0-19	5.2	4.4	0	0.05	0.43	1.4	24	51	14	0.3	-	-	-	-	4.4	2.54	0.29	0.12	0.07	na
19-41	5.5	4.6	0	0.02	0.09	0.2	41	35	5	0.1	-	-	-	-	1.5	0.54	0.11	0.10	0.02	na
41-81	6.1	5.2	0	0.01	0.09	0.2	16	32	5	0.1	-	-	-	-	1.3	0.54	0.14	0.11	0.05	na
100-140	6.4	5.7	0	0.01	0.07	0.1	<4	37	2	0.0	-	-	-	-	0.9	0.32	0.07	0.10	0.01	na
150-180	6.3	5.5	0	0.01	0.10	0.1	<4	26	7	0.0	-	-	-	-	1.0	0.30	0.13	0.10	0.27	na

Note: Paddock sample bulked from 20 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.