

A. GENERAL DESCRIPTION :

Drainage lines or depressions within the sedimentary steep, rolling and undulating hills and undulating low hills. The width of these drainage lines ranges between 5m and 70m and the soils are variable. The dominant soil type is a yellow duplex soil. Fine sandy loams, including a bleached horizon, overlie a heavily mottled medium clay. Occassionally the profiles may be gradational in nature with fine sandy clay loam subsoils. The soils in this unit are generally low in nutrients in the top soil and can have moderate to high salt contents in the subsoil. This map unit is highly susceptible to gully erosion, wind erosion and salting.

SITE CHARACTERISTICS :

Parent Material Age:	Devonian	Depth to Seas. Watertable:	1.0-2.0m	
Parent Material Lithology:	Sedimentary	Flooding Risk:	Moderate	
Landform Pattern:	Steep/rolling/undulating hills/undulating low hills	Drainage:	Imperfectly drained	
Landform Element:	Drainage depression	Rock Outcrop:	0%	
Slope a) common:	3%	Depth to Hard Rock:	>1.8m	
Slope b) range:	0-10%	Present Land Use:	Forest/ grazing	
Potential Recharge to Groun	dwater: Low			
Major Vegetation Species:	Red Gum, Gre	y Box, Silver Wattle		

LAND DEGRADATION :

Land Degradation	Water Erosion		Wind Erosion	Mass Movement	Salting	Acidification
	sheet / rill	gully				
Susceptibility	Low	High	High	Very low	High	High
Incidence	Low	High	Low	Very low	Moderate	Not available

B. SOIL PROFILE

PROFILE DESCRIPTION

A1	0-35mm	Dark brown	(10YR4/3)	fine	sandy	loam,	moderate	cast	structure,	peds	less	than	2mm,
		moderately w	eak consis	tence	e, pH 4.	2. Cle	ar transitio	n to:					

A21 35-185mm Dark greyish brown (10YR4/2) fine sandy loam, bleached when dry, apedal, earthy fabric, moderately firm consistence, a few iron nodules, pH 3.9. Gradual transition to:

A22 185-385mm Light yellowish brown (10YR6/4) fine sandy loam, bleached (10YR8/2) when dry, a few medium sized faint brown mottles, apedal, earthy fabric, very firm consistence, a few iron nodules, pH 3.9. Clear transition to:

B21 385-590mm Brown (10YR5/3) medium clay, abundant medium sized distinct red and pale mottles, moderate subangular blocky structure, peds 10-20mm, rough fabric, very strong consistence, pH 4.1. Gradual transition to:

B22	590-930mm	Dark grey (10YR4/1) light medium clay, many medium sized distinct orange and pale mottles, moderate prismatic structure, peds 20-50mm, smooth fabric, very strong consistence, common iron and manganese nodules, pH 4.2. Diffuse transition to:
B23	930-1670mm	Greyish brown (10YR5/2) silty clay, many medium sized distinct orange mottles, weak prismatic structure, peds 10-20mm, rough fabric, pH 6.5. Gradual transition to:
B3	1670-1870 ⁺ mm	Grey (10YR5/1) fine sandy clay loam, many medium sized pale orange and yellow mottles, weak subangular blocky structure, peds 20-50mm, rough fabric, pH 7.1.

CLASSIFICATION

Factual Key (Northcote):	Dy3.42 (major)
Australian Soil Classification:	Mottled-Subnatric, Eutrophic, Brown Sodosol; thin, slightly gravelly, loamy/clayey, very deep.
Unified Soil Group:	CL

INTERPRETATION OF LABORATORY ANALYSIS

Horizon	pH (CaCl ₂)	%Gravel	E.C. (salts)	Nutrient Status	Р	К	AI	Organic matter	Dispersibility
A1	4.2**	2.1	VL	VL	D	S	Т	Н	L
A21	3.9**	7.1	VL	VL	D	S	Т	М	L
A22	4.1**	10.9	VL	VL	D	D	Т	L	М
B21	4.2**	6.5	VL	L	D	D	Т	L	М
B22	5.9	14.2	VL	М	D	D	S	L	Н
B23	6.5	3.2	М	М	D	D	S	VL	VH
B3	7.1	2.2	М	М	D	D	S	VL	Н
VL : Very low L : Low M : Moderate H : High				l : High	VH : V	/ery High	D : Deficie	ent S:	Satisfactory
T : Toxic * see appendix D for analytical results						** : Strongly acidic			. : Not Available

SOIL PROFILE CHARACTERISTICS:

Permeability:	Slow (average 19mm/day, range 10-45 mm/day)
Available Water Capacity:	Very high (290 mmH ₂ O)
Linear Shrinkage (B horizon):	Low (9.5%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C₃T₂S₄	Shallow depth to seasonal watertable, highly susceptibile to gully and wind erosion
Effluent Disposal (septic tanks)	4	Imperfect drainage, low permeability
Farm Dams	4	Shallow depth to seasonal watertable, shallow depth to hard rock, highly dispersible subsoil
Secondary Roads	4	Imperfect drainage
Rural Residential	4	Effluent disposal, farm dams, secondary roads, building foundations
Small Farms	4	Agriculture, farm dams, secondary roads, buiding foundations