



A. GENERAL DESCRIPTION

The soils of this unit are mainly found on the granite in the north of the Shire, although it also occurs in the granodiorite, where there is a small isolated pocket of yellow soil. The soils are quite shallow on the upper slopes, although the depth to hardrock can be over 1 metre on the lower slopes. The soils are deeper on the granodiorite than on the granite. Rock outcrop only occurs on the granite, and the coverage is variable, with some areas only having a few tors, whereas other areas can have up to 40% outcrop. Gradational soils with a whole coloured subsoil are common. The B horizons are often light in colour. The soils are acidic and have potentially toxic aluminium levels.

SITE CHARACTERISTICS

Parent Material Age:	Devonian	Depth to Seas. Watertable:	>2.0 m
Parent Material Lithology:	Granite, Granodiorite	Flooding Risk:	Nil
Landform Pattern:	Rolling low hills	Drainage:	Well drained
Landform Element:	Hillslope	Rock Outcrop:	10-40%
Slope a) common:	18%	Depth to Hard Rock:	0.8 m (variable)
Slope b) range:	11-20%	Present Land Use:	Grazing, forested
Potential Recharge to Groundwater: Moderate			
Major Native Vegetation Species: Narrow-leaved Peppermint, Manna Gum, Messmate, Cherry Ballart, Silver Wattle, Blackwood, Black Wattle			

LAND DEGRADATION

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A1	0-85 mm	Dark brown (10YR3/3) sandy clay loam, weak subangular blocky structure, peds 2-5 mm, rough fabric, loose consistence, fine subangular quartz and granite gravel fragments are common, pH 5.0. Clear transition to:
B1	85-320 mm	Yellowish brown (10YR5/4) heavy clay loam with coarse sand, bleached (10YR8/3) when dry, weak subangular blocky structure, peds 10-20 mm, rough fabric, moderately weak consistence, fine subrounded quartz and granite gravel fragments are common, pH 5.5. Clear transition to:
B2	320-520 mm	Yellowish brown (10YR5/4) sandy clay, weak subangular blocky structure, peds 20-50 mm, rough fabric, moderately firm consistence, many fine subrounded quartz and granite gravel fragments, pH 6.0. Clear transition to:

C 520-780 mm Partially weathered granitic rock Granitic rock.

R 780 mm+

CLASSIFICATION

Factual Key: Gn4.51

Australian Soil Classification: Haplic, Mesotrophic, Brown Kandosol; thin, gravely, clay loamy/clayey, moderate

Unified Soil Group: CL

INTERPRETATION OF LABORATORY ANALYSIS*

Horizon	pH (CaCl ₂)	% Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A1	3.8**	17.6	VL	VL	D	S	T	H	L
B1	4.4**	17.0	VL	VL	D	S	T	M	L
B2	4.6	36.7	VL	VL	D	S	T	L	L

VL: Very Low L: Low M: Moderate H: High VH: Very High D: Deficient S: Satisfactory
 T: Potentially Toxic NA: Not Available * see appendix D for analytical results ** Strongly Acidic

SOIL PROFILE CHARACTERISTICS:

Permeability: Moderate (average 445 mm/day, range 40-900 mm/day)

Available Water Capacity: Low (75 mm H₂O)

Linear Shrinkage (B horizon): Low (3%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₂ T ₃ S ₄	Depth of topsoil, depth to hardrock, available water capacity, gravel and boulder content
Effluent Disposal (septic tanks)	3	Slope, depth to hard rock
Farm Dams	4	Slope, depth to hardrock, permeability
Building Foundations slab	4	Slope, stone and boulder content
stumps/footings	4	Stone and boulder content