



General Description:

Adjacent to the major streams and rivers the present flood plain has soils that are predominantly gradational. However, throughout the more extensive areas associated with the Campaspe River and Five Mile Creek, yellow and dark duplex soils also occur. The high seasonal watertable and risk of flooding, and imperfect site drainage restrict land use to grazing.

Site characteristics: Site No. 6

Parent material		Depth seasonal	1.0 m
Age:	Quaternary	watertable:	
Lithology:	Alluvium		
Landform		Potential recharge to	Low
Pattern:	Level plain	groundwater:	
Element:	Lower terrace		
Slope		Flooding risk:	High
common:	1%		
range:	0-1%		
Rock outcrop:	0%	Drainage:	Imperfectly drained
		Depth to hardrock:	> 3 m
		Proportion of Shire:	3.9%

Native vegetation: Narrow-leaf Peppermint, Messmate
Present land use: Grazing (native and introduced pastures)

Land	Water erosion		Wind	Salting	Acidification
degradation:	Sheet/rill	Gully			
Susceptibility	Low	Low	Very low	High	Low
Incidence	Nil	Low	Nil	Moderate	Nil

Soil profile characteristics:

Permeability (measured - average, range):	45, 5 - 140 mm/day
(estimated):	-
Available water capacity:	170 mm H₂0
Linear Shrinkage (B horizon):	9.0%

Soil profile description:

A 0-5 cm Dark brown (10YR 3/3) loam, weak subangular blocky structure, 4mm,

rough fabric, loose consistence, pH 7.0. Sharp boundary to

A2 5-18 cm Brown (10YR 4/3, 7/3 dry) clay loam, bleached, apedal massive firm

consistence, pH 7.0. Clear transition to

 B_1 18-30 cm Light brownish grey (10YR 6/2) light clay, moderate subangular blocky

structure smooth fabric, moderately firm consistence, few ferruginous

nodules, pH 7.5. Clear transition to

B2 30-80+ cm Light yellowish brown (2.5YR 6/2) medium clay, moderate angular blocky

structure 6 mm, smooth fabric, common distinct yellow mottles, firm

consistence, pH 8.0.

B3 80-150 + cm Pale yellow (2.5YR 7/4) light clay, weak subangular blocky structure, smooth

fabric, moderately weak consistent pH 8.0.

Soil classification:

Factual Key (Northcote): Gn 3.06 (Minor Dy 3.21)

Australian Soil Classification: Bleached, Eutrophic Grey, Dermosol, very deep, medium loamy,

non-gravelly

Unified Soil Group: NA

Interpretation of soil analyses*

Horizon	pН	Gravel	E.C.	Nutrient	Р	K	Al	Org.	Dispersibility
				status				matter	
A ₁	7.0	< 1	VL	M	D	S	S	Н	L
A ₂	7.0	< 1	VL	VL	D	D	S	M	L
B ₁	7.5	< 1	VL	L	NA	NA	S	L	M
B ₂	8.0	< 1	VL	L	NA	NA	S	L	Н
B ₃	8.0	< 1	VL	L	NA	NA	S	L	Н

 VL: Very Low
 L: Low
 M: Moderate
 H: High
 VH: Very High

 D: Deficient
 S: Satisfactory
 T: Toxic
 ** Acid
 NA: Not available

Land capability assessment

Land use	Class	Major limiting feature (s)
Agriculture (CTS values)	C ₃ T ₁ S ₄	Shallow depth to seasonal watertable
Effluent disposal (septic tanks)	5	Poor site drainage, high flood risk
Farm dams (earthen)	4	High dispersibility of subsoil
Building foundations * slab * stumps/footings	4 4	Imperfect drainage, high flood risk Imperfect site drainage