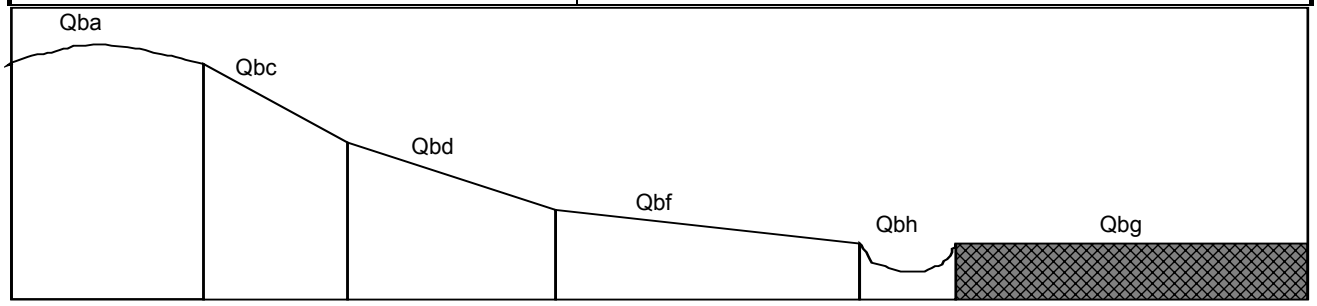
MAP UNIT SYMBOL : Qbg **Area : 332 ha**	MAP UNIT : Quaternary basalt, very gentle slope.



A. GENERAL DESCRIPTION :

Black cracking clay soils are common on the very gentle slopes, particularly near Round Hill. These soils are uniform in nature with very dark grey, medium clay, self mulching top soils and very dark greyish brown heavy clay subsoils. The soil forms into large cracks when dry and hence tha name 'black cracking clay'. The subsoil contains many distinct orange mottles indicating restricted drainage. Variations in soil type include the red gradational and dark brown gradational soils, common on the steeper slopes, and shallow red clay loams associated with outcropping rock. Occassionally the uniform clays will have a lighter clay loam top soil.

SITE CHARACTERISTICS :

Parent Material Age:	Quaternary	**Depth to Seas. Watertable:**	>5.0m
Parent Material Lithology:	Basalt	**Flooding Risk:**	Nil
Landform Pattern:	Gently undulating rises/ low hills	**Drainage:**	Imperfectly drained
Landform Element:	Flat	**Rock Outcrop:**	0%
Slope a) common:	1%	**Depth to Hard Rock:**	0.5-0.8m
Slope b) range:	0-3%	**Present Land Use:**	Grazing
Potential Recharge to Groundwater:	Low		
Major Vegetation Species:	River Red Gum		

LAND DEGRADATION :

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A11 0-70mm Self mulching, very dark grey (10YR3/1) medium clay, moderate subangular blocky structure, peds 20-50mm, rough fabric, very strong consistence, high organic matter content, pH 4.9. Clear transition to:

A12 70-155mm Very dark grey (10YR3/1) medium heavy clay, moderate to strong subangular blocky structure, peds 2-5mm, rough fabric, firm consistence, a few basalt fragments, high organic matter content, pH 4.8. Clear transition to:

B21 155-430mm Very dark greyish-brown (10YR3/2) heavy clay, weak subangular blocky structure, peds 10-20mm, rough fabric, moderately firm consistence, a few basalt fragments, pH 5.2. Clear transition to:

B22 430-670mm Very dark greyish brown (10YR3/2) heavy clay, weak subangular blocky structure, peds 10-20mm, smooth fabric, moderately firm consistence, common basalt fragments, pH 5.7. Clear transition to:

B23	670-720mm	Greyish brown (10YR5/2) heavy clay, many medium sized distinct orange mottles, weak subangular blocky structure, peds 10-20mm, smooth fabric, common coarse basalt fragments, pH 6.5.
C	720mm	Rock (basalt)

CLASSIFICATION

Factual Key (Northcote):	Ug6.1 (major), Gn3/4.1/42, Um6.41 (minor)
Australian Soil Classification:	Haplic, Self Mulching, Black Vertosol; gravelly, medium, fine, very fine, moderate.
Unified Soil Group:	CH

INTERPRETATION OF LABORATORY ANALYSIS

Horizon	pH ($CaCl_2$)	%Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A11	4.9	20.9	VL	VH	S	S	S	H	L
A12	4.8	12.5	VL	VH	S	D	S	H	L
B21	5.2	27.4	VL	VH	D	D	S	M	L
B22	5.7	30.3	VL	VH	D	D	S	H	L
B23	6.5	41.0	VL	VH	D	D	S	L	L

VL : Very low L : Low M : Moderate H : High VH : Very High D : Deficient S : Satisfactory

T : Toxic * see appendix D for analytical results ** : Strongly acidic N.A. : Not Available

SOIL PROFILE CHARACTERISTICS:

Permeability:	Very slow (average 6mm/day, range 2-10 mm/day)
Available Water Capacity:	Low (68 mmH_2O)
Linear Shrinkage (B horizon):	High (19%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	$C_3T_2S_4$	Shallow depth to hard rock , low available water capacity
Effluent Disposal (septic tanks)	5	Very low permeability
Farm Dams	5	Very shallow depth to hard rock
Secondary Roads	4	Imperfect drainage, high linear shrinkage
Rural Residential	5	Effluent disposal, farm dams
Small Farms	4	Agriculture, effluent disposal, farm dams, secondary roads, building foundations