

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0080 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b> N.J. McKenzie	<b>Locality:</b>
<b>Date Desc.:</b> 12/02/96	<b>Elevation:</b> 1090 metres
<b>Map Ref.:</b> Sheet No. : 8526 DGPS	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6044984 AMG zone: 55	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 615152 Datum: AGD66	<b>Drainage:</b> Well drained

#### Geology

<b>ExposureType:</b> Soil pit	<b>Conf. Sub. is Parent. Mat.:</b> Probable
<b>Geol. Ref.:</b> SGG	<b>Substrate Material:</b> Granodiorite

#### Land Form

<b>Rel/Slope Class:</b> No Data	<b>Pattern Type:</b> No Data
<b>Morph. Type:</b> Upper-slope	<b>Relief:</b> No Data
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 8 %	<b>Aspect:</b> 0 degrees

**Surface Soil Condition (dry):** Firm

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Acidic Dystrophic Red Kandosol Medium Slightly gravelly	<b>Principal Profile Form:</b> Um6.
Clay-loamy Clay-loamy Very deep	

<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
All necessary analytical data are available.	

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.14 m	Dark brown (7.5YR3/2-Moist); ; Clay loam; Moderate grade of structure, 10-20 mm, Granular; 2-5 mm, Granular; Rough-ped fabric; Moderately moist; Very weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.14 - 0.4 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR32, 2-10% , Distinct; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.4 - 0.63 m	Red (2.5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Diffuse, Smooth change to -
B23	0.63 - 1.35 m	Red (2.5YR4/8-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B3	1.35 - 2 m	Red (2.5YR5/8-Moist); ; Medium sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Field pH 5.5 (Raupach); Clear, Smooth change to -

#### Morphological Notes

B22 Slightly heavier clay than layer 2 and more coarse sand - almost a light clay.

#### Observation Notes

Site is on north side of knoll, above creek flat. Crossed track just west of site.

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.14	4.04C		0.71H	0.41	0.65	0.05	4.93J 0K		6.76E	
0.14 - 0.4	4.25C		0.19H	0.21	0.63	0.03	2.04J 0K		3.1E	
0.4 - 0.63	4.17C		0.3H	0.48	0.63	0.04	1.52J 0K		2.97E	
0.63 - 1.35	4.14C		0.01H	0.23	0.45	0.04	1.21J 0K		1.93E	
1.35 - 2	4.11C		0H	0.21	0.34	0.06	1.37J 0K		1.97E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.14		6.02B		1211.1B	0.28A		0.70	19.79				
0.14 - 0.4		1.46B		777.9B	0.09A		1.11	19.52				
0.4 - 0.63		0.47B		490.7B	0.05A		1.23	17.95				
0.63 - 1.35		0.2B		287.3B	0.02A		1.45	11.38				
1.35 - 2		0.07B		146.7B	0.01A			7.97				

[illegible]

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**Laboratory Analyses Completed for this profile**

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_H	Exchangeable H - by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
2A1	Air-dry moisture content
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_GRAV	Gravel (%)
P3A1	Bulk density - g/cm3