

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0033 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

<b>Desc. By:</b>	P. Ryan	<b>Locality:</b>	
<b>Date Desc.:</b>	24/11/95	<b>Elevation:</b>	1130 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6034931 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	617481 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>	Os	<b>Substrate Material:</b>	Sandstone

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	43 %	<b>Aspect:</b>	90 degrees

**Surface Soil Condition (dry):** Loose, Other

**Erosion:** Partial, Minor (sheet)

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Melacic Magnesic Red Kandosol Medium Moderately gravelly Clay-loamy Clayey Deep	<b>Principal Profile Form:</b>	Gn2.11
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Red earth

All necessary analytical data are available.

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:**

**Surface Coarse Fragments:** 10-20%, , , Sandstone

**Profile Morphology**

O1	0 - 0.06 m	Organic Layer; ;
A11	0.06 - 0.27 m	Black (5YR2.5/1-Moist); ; Medium sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moderately moist; Loose consistence; 20-50%, medium gravelly, 6-20mm, subrounded, Sandstone, coarse fragments; Field pH 4.5 (Raupach); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, medium (2-5mm) roots; Abrupt, Smooth change to -
A12	0.27 - 0.39 m	Black (5YR2.5/1-Moist); Biological mixing, 5YR33, 10-20% , Faint; Medium sandy clay loam; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, rounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Wavy change to -
A13	0.39 - 0.6 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR44, 10-20% , Faint; Clay loam, sandy; Moderate grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subrounded tabular, Sandstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
B1	0.6 - 0.81 m	Reddish brown (2.5YR4/4-Moist); Biological mixing, 5YR32, 2-10% , Distinct; Medium sandy clay; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change to -
B2	0.81 - 1.36 m	Red (2.5YR4/6-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Few, fine (1-2mm) roots; Clear change to -

**Morphological Notes**

A11 Loose colluvial layer.

A12 Coherent A horizon, may be buried by layer one.  
A13 Organic layer infilling an old root channel?

**Observation Notes**

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Surface disturbance by lyrebird scratching. Terracettes of litter and soil along slope. Lyrebird mounds below plot.

**Site Notes**

COMP 7H,2083-1,104D,400M FROM RD CRES

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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 - 0.06										
0.06 - 0.27	4.32C		5.25H	1.07	0.62	0.01	3.06J 0K		10.01E	
0.27 - 0.39	4.21C		0.52H	0.37	0.38	0.02	3.36J 0K		4.65E	
0.39 - 0.6	4.24C		0.16H	0.48	0.32	0.04	2.61J 0K		3.61E	
0.6 - 0.81	4.32C		0H	0.57	0.33	0	1.43J 0K		2.32E	
0.81 - 1.36	4.12C		0H	0.61	0.32	0	1.77J 0K		2.7E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.06											
0.06 - 0.27		8.5B		294.4B	0.23A		0.62	35.86			
0.27 - 0.39		4.33B		286.7B	0.14A		0.88	28.73			
0.39 - 0.6		3.34B		245.8B	0.11A		1.15	23.65			
0.6 - 0.81		1.8B		210.8B	0.06A		1.25	29.69			
0.81 - 1.36		0.75B		176.7B	0.03A		1.43	28.52			

[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