

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0076 **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>	13/12/95	<b>Elevation:</b>	738 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6022706 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	615614 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>	Dga	<b>Substrate Material:</b>	Adamellite

#### 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>	Footslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	24 %	<b>Aspect:</b>	225 degrees

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

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Humose-Acidic Eutrophic Brown Kandosol Medium Slightly gravelly Loamy Clayey Very deep	<b>Principal Profile Form:</b>	Gn2.21
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Brown earth
All necessary analytical data are available.		

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

#### Vegetation:

**Surface Coarse Fragments:** 10-20%, coarse gravelly, 20-60mm, subrounded tabular,

#### Profile Morphology

A11	0 - 0.14 m	Very dark brown (10YR2/2-Moist); ; Coarse sandy loam; Weak grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Moderately moist; Loose consistence; 2-10%, Coal, coarse fragments; 2-10%, Quartz, coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
A12	0.14 - 0.25 m	Very dark brown (10YR2/2-Moist); ; Coarse sandy clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Very weak consistence; 2-10%, Quartz, coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
AB	0.25 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); Biological mixing, 10YR43, 10-20% , Faint; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, Quartz, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Irregular change to -
B1	0.3 - 0.49 m	Brown (7.5YR4/3-Moist); Biological mixing, 10YR22, 2-10% , Faint; Clay loam, sandy; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; Field pH 5.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Smooth change to -
B21	0.49 - 0.75 m	Brown (7.5YR4/4-Moist); Biological mixing, 10YR33, 2-10% , Distinct; Coarse sandy clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; 0-2%, coarse fragments; Field pH 5.5 (Raupach); Gradual, Smooth change to -
B22	0.75 - 1 m	Strong brown (7.5YR4/6-Moist); ; Coarse sandy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual change to -
B23	1 - 1.54 m	Yellowish brown (10YR5/6-Moist); Substrate influence, 10R48, 2-10% , Prominent; Substrate influence, 10YR62, 0-2% , Faint; Coarse sandy clay loam; Earthy fabric; Moist; Weak consistence; Field pH 4.5 (Raupach);

#### Morphological Notes

#### Observation Notes

#### Site Notes

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COMP 42H,10859-3,328D,110M FR CREEKS

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol	Exchangeable Acidity (+)/kg	CEC	ECEC	ESP %
0 - 0.14	4.46C		7.67H	1.9	0.7	0.06	1.09J 0.11K		11.52E	
0.14 - 0.25	4.72C		8.6H	2.19	0.92	0.06	1.05J 0K		12.81E	
0.25 - 0.3	5C		7.31H	1.89	0.86	0.05	0.55J 0K		10.65E	
0.3 - 0.49	5C		2.62H	1.14	0.86	0.02	0.27J 0K		4.9E	
0.49 - 0.75	4.93C		1.45H	1.06	0.83	0.01	0.2J 0K		3.54E	
0.75 - 1	4.85C		1.31H	1.67	1.08	0.02	0.12J 0K		4.2E	
1 - 1.54	4.24C		0.92H	1.66	1.21	0.03	1.18J 0K		4.99E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.14		7.76B		378.1B	0.35A		0.60	30.36				
0.14 - 0.25		5.15B		291.6B	0.2A		1.08	28.12				
0.25 - 0.3		2.93B		214.3B	0.11A		1.19	32.23				
0.3 - 0.49		1.18B		156.2B	0.06A		1.28	31.19				
0.49 - 0.75		0.72B		122.9B	0.04A		1.46	35.06				
0.75 - 1		0.33B		107.2B	0.02A			33.22				
1 - 1.54		0.27B		100B	0.02A			37.62				

[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