

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0050 **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>	09/05/96	<b>Elevation:</b>	1157 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6047749 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	602064 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>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	11 %	<b>Aspect:</b>	180 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Dystrophic Grey Dermosol Medium Moderately gravelly Clay-loamy Clay-loamy Shallow	<b>Principal Profile Form:</b>	Um6.
<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

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.15 m	Brown (7.5YR4/2-Moist); ; Clay loam; Strong grade of structure, 10-20 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; 20-50%, medium gravelly, 6-20mm, subrounded, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Irregular change to -
B2	0.15 - 0.35 m	Brown (7.5YR5/2-Moist); Biological mixing, 7.5YR42, 20-50% , Distinct; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 50-90%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Irregular change to -
BC	0.35 - 0.48 m	Brown (7.5YR5/4-Moist); ; Medium sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 50-90%, coarse gravelly, 20-60mm, angular, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Sharp, Irregular change to -

#### Morphological Notes

A1	Strongly structured and comprising of abundant casts - v.few macropores and quite dense.
B2	Abundant macropores (worm casts to surface). Very rocky layer.
BC	Thin BC with yellow and minimal pedogenic development.

#### Observation Notes

Minimal profile development. V.active worms in shallow moist profile. Local area is being incised and creek has thick Melaleuca and spagnum.

#### Site Notes

35150-1 COMP 74H 270D 125M ROAD INTER

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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 - 0.03										
0.03 - 0.15	3.95C		0.95H	0.46	0.4	0	5.01J 0K		6.82E	
0.15 - 0.35	4.11C		0.14H	0.2	0.41	0	3.35J 0K		4.11E	
0.35 - 0.48	4.01C		0H	0.14	0.28	0	2.05J 0K		2.47E	

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 - 0.03												
0.03 - 0.15		5.02B		456.3B	0.16A		1.10	19.04				
0.15 - 0.35		2.01B		415.4B	0.09A		1.28	9.93				
0.35 - 0.48		0.54B		269.1B	0.03A		1.38	12.96				

[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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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/cm <sup>3</sup>