

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0110 **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>	24/04/96	<b>Elevation:</b>	1115 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6056240 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	611318 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>	Tb	<b>Substrate Material:</b>	Basalt

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Crest	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillcrest	<b>Slope Category:</b>	No Data
<b>Slope:</b>	5 %	<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 Mesotrophic Red Dermosol Thin Non-gravelly Clay-loamy Clayey Moderately deep	<b>Principal Profile Form:</b>	Uf6.21
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Krasnozern
All necessary analytical data are available.		

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

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

O1	0 - 0.06 m	Organic Layer; ;
A1	0.06 - 0.15 m	Dark reddish brown (5YR2.5/2-Moist); Biological mixing, 5YR32, 2-10% , Faint; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Field pH 6 (Raupach); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
A3	0.15 - 0.24 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR2.52, 2-10% , Faint; Silty clay; Moderate grade of structure, 5-10 mm, Polyhedral; 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Irregular change to -
B1	0.24 - 0.43 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR32, 2-10% , Distinct; Silty clay; Moderate grade of structure, 5-10 mm, Subangular blocky; 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; 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; Gradual, Irregular change to -
B2	0.43 - 0.84 m	Reddish brown (5YR4/4-Moist); ; Silty clay; Weak grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric; Moist; Firm consistence; 20-50%, coarse gravelly, 20-60mm, subrounded, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots;

#### Morphological Notes

B2 Basalt floaters increase in concentration to base of layer. Substrate consists of a pavement of basalt gravel. Large roots exist on top of the pavement.

#### Observation Notes

Top of large basalt flow.

#### Site Notes

COMP 15H 1323-1 186D 40M FROM ROAD

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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 - 0.15	4.94C		22.15H	4.88	2.25	0.25	1.19J 0K		30.72E	
0.15 - 0.24	4.8C		11.45H	3.62	1.99	0.18	2.23J 0K		19.45E	
0.24 - 0.43	4.67C		7.48H	3.18	1.54	0.19	2.43J 0K		14.82E	
0.43 - 0.84	4.43C		3.37H	2.7	0.64	0.19	3.47J 0K		10.37E	

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 - 0.06												
0.06 - 0.15		11.54B		2897.7B	0.37A		0.53	45.84				
0.15 - 0.24		5.95B		2843.8B	0.22A		0.72	46.22				
0.24 - 0.43		3.68B		1726.1B	0.14A		0.76	39.63				
0.43 - 0.84		1.64B		1100.1B	0.06A		0.65	28.3				

[illegible]

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**Laboratory Analyses Completed for this profile**

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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