Project Name: BAGO-MARAGLE FOREST SOIL SURVEY

Project Code: BGM\_FSS Site ID: 0087 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

**Site Information** 

Desc. By: N.J. McKenzie Locality:

Date Desc.: Elevation: 13/03/96 1175 metres Sheet No.: 8526 DGPS Map Ref.: Rainfall: No Data Northing/Long.: 6046810 AMG zone: 55 Runoff: No Data Easting/Lat.: 614346 Datum: AGD66 Rapidly drained Drainage:

**Geology** 

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: TB Substrate Material: Basalt

**Land Form** 

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:CrestRelief:No DataElem. Type:HillcrestSlope Category:No DataSlope:0 %Aspect:No Data

Surface Soil Condition (dry): Firm

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AHaplic Eutrophic Red Ferrosol Medium Very gravelly Clay-Principal Profile Form:Um6.23

loamy Clay-loamy Moderately deep

ASC Confidence: Great Soil Group: N/A

All necessary analytical data are available.

**<u>Site Disturbance:</u>** No effective disturbance other than grazing by hoofed animals

**Vegetation:** 

**Surface Coarse Fragments:** 

**Profile Morphology** 

O1 0 - 0.02 m Organic Layer; ;

A1 0.02 - 0.15 m Dark reddish brown (5YR2.5/2-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Granular;

Rough-ped fabric; Dry; Firm consistence; 50-90%, medium gravelly, 6-20mm, angular tabular, stratified, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -

B2 0.15 - 0.52 m Dark reddish brown (2.5YR3/4-Moist); Clay loam; Weak grade of structure, 10-20 mm,

Polyhedral; 2-5 mm, Granular; Moderately moist; Very weak consistence; 50-90%, coarse gravelly, 20-60mm, angular tabular, stratified, Basalt, 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; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Sharp, Irregular change

**Morphological Notes** 

A1 Very granular pedality and abundant casts.

B2 Earthy red B2/1 with abundant rocks - some cracks of soil may penetrate to >0.50m.

**Observation Notes** 

Residual site on crest. Very shallow and rocky. Very tall trees indicate water extraction from >0.5m in rock fissures.

**Site Notes** 

COMP 119H, BRG181 850M FR BM086,4366-1

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## **Laboratory Test Results:**

Depth	рН	1:5 EC			e Cations K		xchangeable	CEC	ECEC	ESP
m		dS/m	Ca r	Иg	K	Na Cmol (+)	Acidity /kg			%
0 - 0.02	4.00		45.0411	0.0	4.00	0.05	0.401		04.005	_
0.02 - 0.15	4.8C		15.61H	2.8	1.29	0.05	2.18J 0K		21.93E	
0.15 - 0.52	4.65C		4.58H	2.48	1.36	0.04	2.19J 0K		10.65E	Ī
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Par GV	ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3	GV	%	Siit Clay
0 - 0.02										
0.02 - 0.15		9.06B		4290.3	B 0.2	8A	0.75	37.48		
0.15 - 0.52		2.28B		3099.1	B 0.1	Α	0.93	28.33		
Depth	COLE		Gravimetric/Volumetric Water Contents						K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar g	0.5 Bar /g - m3/m	1 Bar 3	5 Bar 15	Bar	mm/h	mm/h

0 - 0.02 0.02 - 0.15 0.15 - 0.52

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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
15E1\_MG
15E1\_NA
Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
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