

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0072 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	14/12/95	Elevation:	618 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6020654 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	614707 Datum: AGD66	Drainage:	No Data

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Dga	Substrate Material:	Adamellite

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Crest	Relief:	No Data
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	9 %	Aspect:	270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Mesotrophic Red Dermosol Thin Non-gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	Gn3.11
ASC Confidence:	Great Soil Group:	No suitable group

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.08 m	Very dark greyish brown (10YR3/2-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Polyhedral; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
A3	0.08 - 0.17 m	Brown (10YR4/3-Moist); Biological mixing, 10YR32, 10-20% , Faint; Light clay; Moderate grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Wavy change to -
B21	0.17 - 0.36 m	Yellowish red (5YR4/6-Moist); Biological mixing, 7.5YR42, 2-10% , Distinct; Light medium clay; Moderate grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, 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; Diffuse, Smooth change to -
B22	0.36 - 0.56 m	Red (2.5YR4/6-Moist); ; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, Adamellite, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
BC	0.56 - 0.67 m	Red (2.5YR4/6-Moist); Substrate influence, 7.5YR58, 10-20% , Distinct; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 20-50%, medium gravelly, 6-20mm, subangular, Adamellite, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots;
2B31	0.67 - 2.02 m	Brownish yellow (10YR6/8-Moist); Substrate influence, 5YR58, 10-20% , Distinct; Coarse sandy clay loam; Earthy fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Diffuse, Smooth change to -

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2B31	2.02 - 2.72 m	Brownish yellow (10YR6/8-Moist); Substrate influence, 5YR58, 10-20% , Distinct; Coarse sandy clay loam; Earthy fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Clear change to -
2B32	2.72 - 3.02 m	Brownish yellow (10YR6/8-Moist); Substrate influence, 10YR82, 10-20% , Distinct; Coarse sandy clay loam; Earthy fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments;

Morphological Notes

BC	Weathering aplite colluvium.
2B31	Gradual change to weathering adamellite.

Observation Notes

Parent material of upper profile is aplite colluvium overlying adamellite.

Site Notes

COMP 42H,13216-1,BRG 276D FR CKS JCN

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.02										
0.02 - 0.08	4.19C		4.92H	1.3	0.42	0.04	2.76J 0K		9.45E	
0.08 - 0.17	4.2C		2.22H	0.79	0.4	0.04	2.58J 0K		6.03E	
0.17 - 0.36	4.39C		1.75H	1.28	0.57	0.03	1.3J 0K		4.93E	
0.36 - 0.56	4.25C		0.95H	1.42	0.73	0.02	1.96J 0K		5.08E	
0.56 - 0.67	4.22C		0.66H	1.21	0.65	0.03	1.93J 0K		4.48E	
0.67 - 2.02	4.02C		0H	0.43	0.25	0.02	2.64J 0K		3.33E	
2.02 - 2.72	3.98C		0H	0.4	0.22	0.05	3.24J 0K		3.92E	
2.72 - 3.02	3.92C		0H	0.41	0.27	0.05	3.06J 0K		3.8E	

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 - 0.02												
0.02 - 0.08		6.15B		388.7B	0.22A		1.05	35.57				
0.08 - 0.17		2.77B		275.3B	0.12A		1.33	45.56				
0.17 - 0.36		1.01B		163.3B	0.05A		1.35	34.64				
0.36 - 0.56		0.3B		153.3B	0.02A		1.42	37.84				
0.56 - 0.67		0.21B		133.5B	0.02A			32.58				
0.67 - 2.02		0.08B		61.5B	0.01A			25.21				
2.02 - 2.72		0.03B		99.1B	0.01A			17.21				
2.72 - 3.02		0.06B		64B	0.01A			23.97				

[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