Project Name: BAGO-MARAGLE FOREST SOIL SURVEY

Project Code: BGM_FSS Site ID: 0057 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan Locality:

Date Desc.: Elevation: 20/02/96 1181 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: 6027359 AMG zone: 55 Runoff: No Data Easting/Lat.: 615098 Datum: AGD66 Drainage: Well drained

Geology

 ExposureType:
 No Data
 Conf. Sub. is Parent. Mat.:
 Probable

 Geol. Ref.:
 Dga
 Substrate Material:
 Adamellite

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Upper-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:19 %Aspect:225 degrees

Surface Soil Condition (dry): Loose

Erosion: Partial, Minor (sheet)

Soil Classification

Australian Soil Classification:Mapping Unit:N/AAcidic Dystrophic Brown Dermosol Medium Slightly gravellyPrincipal Profile Form:Gn4.8

Loamy Clayey Very deep

ASC Confidence: Great Soil Group: Red podzolic soil

All necessary analytical data are available.

<u>Site Disturbance:</u> No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 2-10%, cobbly, 60-200mm, subrounded tabular, Adamellite; 2-10%, cobbly, 60-200mm, subangular,

Adamellite; 2-10%,

fine gravelly, 2-6mm, subangular tabular, Coal

Profile Morphology

Profile	<u> worphology</u>	
O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.15 m	Very dark greyish brown (10YR3/2-Moist); ; Coarse sandy loam; Single grain grade of structure; Earthy fabric; Dry; Loose consistence; 2-10%, coarse gravelly, 20-60mm, subrounded, Adamellite, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to -
A2	0.15 - 0.29 m	Brown (10YR4/3-Moist); Pale brown (10YR6/3-Dry); Biological mixing, 10YR32, 10-20%, Distinct; Coarse sandy clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 2-5 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Irregular change to -
B21t	0.29 - 0.56 m	Strong brown (7.5YR4/6-Moist); Biological mixing, 10YR32, 2-10%, Distinct; Coarse sandy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, subrounded, Adamellite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Diffuse, Irregular change to -
B22	0.56 - 1.27 m	Yellowish red (5YR5/8-Moist); ; Clay loam, sandy; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded, Adamellite, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse change to -
В3	1.27 - 1.67 m	Strong brown (7.5YR5/8-Moist); ; Coarse sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; 10-20%, medium gravelly, 6-20mm, subangular, Adamellite, coarse fragments; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Gradual change to -

Morphological Notes

A1 Coarse textile indicates colluvial origin.

B21t Concentration of tree roots.

Observation Notes

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Pit adjacent to large tors. Depth highly variable.

Site Notes

COMP 38H,3703-1,180DEG,1000M FROM ROAD

BAGO-MARAGLE FOREST SOIL SURVEY

BGM_FSS Site ID: 0057 Observation ID: 1

Project Name: BAGO-MARAGLE FOREST SOI Project Code: BGM_FSS Site ID: 005 Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth	рН	1:5 EC			e Cations		Exchangeable	CEC	ECEC	ESP	
m		dS/m	Ca I	Ca Mg K Na Acidity Cmol (+)/kg					%		
0 - 0.02											
0.02 - 0.15	4.29C		9.83H	1.32	0.49	0	0.86J 1.08K		13.58E	•	
0.15 - 0.29	4.13C		1.31H	0.37	0.39	0	2.2J 0K		4.26E		
0.29 - 0.56	3.98C		0.72H	0.52	0.6	0.01	3.01J 0K		4.85E		
0.56 - 1.27	3.9C		0H	0.12	0.82	0.04	3.58J 0K		4.55E		
1.27 - 1.67	4.12C		0H	0.04	0.76	0.03	1.17J 0K		2E		
Depth	CaCO3	Organic	Avail.	Total	Total	l Tota	l Bulk	Par	rticle Size	Analysis	
Берш	Cacos	C	P	P	N	K	Density	GV	CS FS	Silt Clay	
m	%	%	mg/kg	%	%	%	Mg/m3		%		
0 - 0.02											
0.02 - 0.15		7.59B		229.3E	-	-	0.90	43.99			
0.15 - 0.29 0.29 - 0.56		2.13B 1.14B		127.4E 147B	0.0 0.0		1.31 1.35	42.89			
0.29 - 0.56		0.49B		161B		13A 13A	1.35	28.88 26.28			
1.27 - 1.67		0.49B 0.11B		97.4B		A	1.10	24.73			
Depth	COLE	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 13	5 Bar 15	Bar	mm/h	mm/h	

0 - 0.02 0.02 - 0.15

0.15 - 0.29 0.13 - 0.29 0.29 - 0.56 0.56 - 1.27 1.27 - 1.67

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Laboratory Analyses Completed for this profile

15_NR Sum of Ex. cations + Ex. acidity - Not recorded

15E1_AL 15E1_CA Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

Exchangeable H - by compulsive exchange, no pretreatment for soluble salts 15E1_H

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_K 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

Air-dry moisture content 2A1

pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 4B2 6B2 Total organic carbon - high frequency induction furnace, volumetric

7A2

Total nitrogen - semimicro Kjeldahl , automated colour Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

P10_GRAV Gravel (%)

P3A1 Bulk density - g/cm3