Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0160** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By:	P. Ryan	**Locality:**	
Date Desc.:	09/04/97	**Elevation:**	607 metres
Map Ref.:	Sheet No. : 8526 DGPS	**Rainfall:**	No Data
Northing/Long.:	6020804 AMG zone: 55	**Runoff:**	No Data
Easting/Lat.:	615542 Datum: AGD66	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Undisturbed soil core	**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:	Lower-slope	**Relief:**	No Data
Elem. Type:	Pediment	**Slope Category:**	No Data
Slope:	5 %	**Aspect:**	90 degrees

Surface Soil Condition (dry): Hardsetting

Erosion: Partial, Minor (sheet) Partial, Minor (gully)

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: N/A
Great Soil Group: Soloth

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.08 m	Black (10YR2/1-Moist); ; Fine sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Dry; Very weak consistence; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear change to -
A21e	0.08 - 0.15 m	Light brownish grey (10YR6/2-Moist); White (10YR8/2-Dry); ; Fine sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; 0-2%, medium gravelly, 6-20mm, subangular, coarse fragments; Field pH 5.5 (Raupach); Gradual change to -
A22e	0.15 - 0.6 m	Light yellowish brown (10YR6/4-Moist); White (10YR8/2-Dry); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 - 6 mm), Nodules, strong, segregations;Field pH 6 (Raupach);
B1	0.6 - 0.9 m	; Very firm consistence;
B21	0.9 - 1.5 m	; Strong consistence;

Morphological Notes

A21e	Deep bleached A2 horizon. Dense coarse fragment of ferruginous aplite? Dispersive.
A22e	As for layer 3. Dispersive.
B1	Drill core could not pick up portions of this layer. Very firm consistence.
B21	Drill - core could not penetrate this layer.

Observation Notes

Proline auger had great difficulty in penetrating this dry, densipan A-B horizon.

Site Notes

EASTERN POWERLINE RD,600M NE OF LEOS

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.08	4C		1.54H	0.42	0.11	0	1.95J 0.22K		4.25E	
0.08 - 0.15	4.14C		0.12H	0.08	0.03	0	0.5J 0K		0.73E	
0.15 - 0.6	4.48C		0.23H	0.12	0.03	0	0.15J 0K		0.53E	
0.6 - 0.9										
0.9 - 1.5										

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.08		2.76B		138.9B	0.15A			0.98				
0.08 - 0.15		0.21B		33.8B	0.02A			10.89				
0.15 - 0.6		0.1B		44.9B	0.01A			18.5				
0.6 - 0.9												
0.9 - 1.5												

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.08										
0.08 - 0.15										
0.15 - 0.6										
0.6 - 0.9										
0.9 - 1.5										

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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 (%)