

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0071 **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>	21/02/96	<b>Elevation:</b>	869 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6021638 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	612891 Datum: AGD66	<b>Drainage:</b>	Rapidly drained

#### Geology

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

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	15 %	<b>Aspect:</b>	135 degrees

**Surface Soil Condition (dry):** Firm

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Bleached Mesotrophic Brown Kurosol Thin Moderately gravelly Loamy Clay-loamy Deep	<b>Principal Profile Form:</b>	Db3.31
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Brown podzolic soil
All necessary analytical data are available.		

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

#### Vegetation:

**Surface Coarse Fragments:** 20-50%, fine gravelly, 2-6mm, subangular, Quartz

#### Profile Morphology

O1	0 - 0.05 m	Organic Layer; ;
A1	0.05 - 0.09 m	Dark brown (7.5YR3/2-Moist); ; Coarse sandy loam; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 4 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Abrupt, Smooth change to -
A21j	0.09 - 0.18 m	Brown (10YR4/3-Moist); Very pale brown (10YR7/4-Dry); ; Loamy coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Smooth change to -
A22	0.18 - 0.39 m	Yellowish brown (10YR5/4-Moist); Light yellowish brown (10YR6/4-Dry); ; Coarse sandy loam; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Dry; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 4 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
B1t	0.39 - 0.56 m	Dark yellowish brown (10YR4/4-Moist); Yellowish brown (10YR5/4-Dry); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Adamellite, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Smooth change to -
B21t	0.56 - 0.71 m	Strong brown (7.5YR5/6-Moist); Brownish yellow (10YR6/6-Dry); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Adamellite, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Smooth change to -
B22t	0.71 - 1.15 m	Strong brown (7.5YR5/6-Moist); ; Coarse sandy clay loam; Weak grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Moderately moist; Firm consistence; 20-50%, coarse gravelly, 20-60mm, subrounded, Adamellite, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots;

#### Morphological Notes

A1 Coarse quartz gravel dominates next 3 layers indicating a colluvial origin.

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A21j                      as for layer 1.

A22                      As for layer 1 and 2.

B1t                      Quartz gravel decreases and clay increases.  
B22t                      Large in situ boulders in pit.

**Observation Notes**

**Site Notes**

COMP 41H, 12409-1,198DEG,770M FROM 69

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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 - 0.05										
0.05 - 0.09	3.82C		9.71H	1.91	0.59	0.04	1.62J 3.01K		16.88E	
0.09 - 0.18	4.12C		2.7H	0.59	0.44	0.03	1.95J 0K		5.71E	
0.18 - 0.39	3.99C		0.33H	0.22	0.19	0.04	1.74J 0K		2.52E	
0.39 - 0.56	4.12C		0.37H	0.27	0.32	0.03	1.73J 0K		2.72E	
0.56 - 0.71	4.29C									
0.71 - 1.15	4.18C		0.39H	0.97	0.67	0.04	1.41J 0K		3.48E	

Depth  m	CaCO3  %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.05												
0.05 - 0.09		10.19B		290.1B	0.37A		1.00	60.72				
0.09 - 0.18		2.44B		147.9B	0.11A		1.15	57.57				
0.18 - 0.39		1.31B		107.5B	0.05A		1.29	44.65				
0.39 - 0.56		0.74B		89.3B	0.03A		1.27	40.08				
0.56 - 0.71		0.63B		88.7B	0.03A		1.45	47				
0.71 - 1.15		0.36B		106.1B	0.02A			39.13				

[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