

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0126 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b> N.J. McKenzie	<b>Locality:</b>
<b>Date Desc.:</b> 10/05/96	<b>Elevation:</b> 1295 metres
<b>Map Ref.:</b> Sheet No. : 8526 DGPS	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6052807 AMG zone: 55	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 603014 Datum: AGD66	<b>Drainage:</b> Rapidly drained

#### Geology

<b>ExposureType:</b> No Data	<b>Conf. Sub. is Parent. Mat.:</b> Probable
<b>Geol. Ref.:</b> Sgg	<b>Substrate Material:</b> Granodiorite

#### 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> 11 %	<b>Aspect:</b> 270 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Dystrophic Red Kandosol	<b>Principal Profile Form:</b> Um6.
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
All necessary analytical data are available.	

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.13 m	Black (5YR2.5/1-Moist); ; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Wavy change to -
B1	0.13 - 0.25 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR2.5/2, 20-50% , Distinct; Silty clay loam; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.25 - 0.5 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR3.5/2, 2-10% , Distinct; Silty clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moist; Very weak consistence; 0-2%, medium gravelly, 6-20mm, subangular, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.5 - 1.2 m	Red (2.5YR4/6-Moist); ; Silty clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moist; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
C	1.2 - 1.45 m	Light yellowish brown (10YR6/4-Moist); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; 50-90%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Field pH 6 (Raupach); Abrupt change to -

#### Morphological Notes

A1	A relatively compact A1 with a very dark colour. Surface has subclover and may have been trampled or trafficked.
B1	Clear transition to B1.

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B21      Earthy and uniform layer. Texture has a slightly grittier feel than other profiles on granodiorite.  
B22      Similar to 3 but coarse frags have increased.  
C      Difficult to auger even to 1.45m because of large rocks .

**Observation Notes**

An open patch in ash regen. possibly a landing. Quite grassy with sub-clover. Profile appears more moist and differentiated compared to profiles under thick forest.

**Site Notes**

14917-1 COMP38H 2D,250M FR TRACK/CREST

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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 - 0.13	4.77C		10.42H	1.99	1.04	0.06	3.03J 0K		16.54E	
0.13 - 0.25	4.7C		3.21H	1.01	0.5	0.03	1.38J 0K		6.12E	
0.25 - 0.5	4.19C		0.76H	0.73	0.28	0.03	1.69J 0K		3.5E	
0.5 - 1.2	4.08C		0.39H	0.44	0.24	0.03	1.8J 0K		2.89E	
1.2 - 1.45	4.28C		0.06H	0.06	0.11	0.02	0.54J 0K		0.79E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.13		8.04B		810.7B	0.39A		0.75	11.73				
0.13 - 0.25		2.63B		634.6B	0.15A		1.02	14.7				
0.25 - 0.5		0.45B		382.7B	0.03A		1.12	5.56				
0.5 - 1.2		0.2B		361.8B	0.02A		1.27	6.89				
1.2 - 1.45		0.11B		301B	0.01A			9.84				

[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