

Project Name: Regional
Project Code: REG **Site ID:** T389 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: M.D. Laffan	Locality:
Date Desc.: 06/12/83	Elevation: 650 metres
Map Ref.: Sheet No. : 8063 1:100000	Rainfall: 2000
Northing/Long.: 145.683333333333	Runoff: No Data
Easting/Lat.: -17.286666666667	Drainage: Well drained

Geology

ExposureType: Existing vertical exposure	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: PZB	Substrate Material: Metamorphic rock (unidentified)

Land Form

Rel/Slope Class: Steep hills 90-300m 32-56%	Pattern Type: No Data
Morph. Type: Upper-slope	Relief: No Data
Elem. Type: Hillslope	Slope Category: No Data
Slope: 42 %	Aspect: 180 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Acidic Magnesic Brown Dermosol	Principal Profile Form: Gn3.24
ASC Confidence:	Great Soil Group: Xanthozem
All necessary analytical data are available.	

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Mottles; Mottles; Clay loam; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Dry; Very weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, reoriented, Sand, coarse fragments; Field pH 4.5 (pH meter); Many, medium (2-5mm) roots;
A1	0.1 - 0.15 m	Dark greyish brown (10YR4/2-Moist); Mottles; Mottles; Clay loam; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Dry; Very weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, reoriented, Sand, coarse fragments; Field pH 4.5 (pH meter); Many, medium (2-5mm) roots; Gradual, Wavy change to -
B2	0.15 - 0.2 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, subangular, reoriented, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (pH meter); Many, medium (2-5mm) roots;
B2	0.2 - 0.3 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, subangular, reoriented, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (pH meter); Many, medium (2-5mm) roots;
B2	0.3 - 0.4 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, subangular, reoriented, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (pH meter); Many, medium (2-5mm) roots; Gradual, Wavy change to -
BC	0.4 - 0.6 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, coarse gravelly, 20-60mm, angular, undisturbed, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (pH meter); Common, medium (2-5mm) roots; Clear, Irregular change to -
C1	0.6 - 0.8 m	;

Morphological Notes

C1 Strongly weathered metamorphic bedrock (siltstone):

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Observation Notes

R'FOREST 1B:40-80CM PSEUDO MOTTELS FROM WEATHERED ROCK:

Site Notes

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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 - 0.1	3.8D	0.037A	0.05H	0.44	0.2	0.1	4.79F	3.6A	5.6F	2.78
	4.9A							12C		0.83
0.1 - 0.15	4.9A	0.032A								
0.15 - 0.2	5.1A	0.026A								
0.2 - 0.3	4.1D	0.019A	0.03H	0.4	0.13	0.09	2.23F	2.8A	2.9F	3.21
	5.3A							9C		1.00
0.3 - 0.4	5.6A	0.013A								
0.4 - 0.6	4.2D	0.01A	<0.02H	0.42	0.05	0.06	1.22F	2A	1.8F	3.00
	5.7A							3C		2.00
0.6 - 0.8	5.8A	0.009A								

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 - 0.1		3.54C	12B	0.036A	0.33A	2.3A		3	13A	31	25	31
0.1 - 0.15												
0.15 - 0.2												
0.2 - 0.3		1.54C	4B	0.03A		2.34A		3	12A	30	28	30
0.3 - 0.4												
0.4 - 0.6				0.02A		2.12A		7	20A	27	29	24
0.6 - 0.8								9	24A	26	31	19

[illegible]

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12_HF_CU	Total element - Cu(mg/kg) - HF/HClO ₄ Digest
12_HF_FE	Total element - Fe(%) - HF/HClO ₄ Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO ₄ Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO ₄ Digest
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) 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
15G_C	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4
15J1	Effective CEC
17A1	Total potassium - X-ray fluorescence
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4C1	pH of 1:5 soil/1M potassium chloride extract - direct
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES)
9H1	Phosphate retention
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)