Project Name: **Regional**
Project Code: **REG** **Site ID:** **T247** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: R.F. Isbell
Date Desc.: 30/06/76
Map Ref.: Sheet No. : 8063 1:100000
Northing/Long.: 145.679166666667
Easting/Lat.: -17.225
Locality: Forestry track 6.2KM NE of Lake Barrine turnoff:2.6KM east of Boar Pocket Road:
Elevation: 800 metres
Rainfall: 1800
Runoff: Moderately rapid
Drainage: Moderately well drained

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: Pgm
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Granite

Land Form

Rel/Slope Class: No Data
Morph. Type: Ridge
Elem. Type: Hillslope
Slope: 17.6 %
Pattern Type: Hills
Relief: No Data
Slope Category: Moderately inclined
Aspect: No Data

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Dystrophic Brown Dermosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn3.74
Great Soil Group: Xanthozem

Site Disturbance:

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Brown (10YR4/3-Moist); ; Loam; Strong grade of structure, 5-10 mm, Cast; Weak consistence; AbundantClear change to -
A2	0.1 - 0.2 m	Brown (10YR4/3-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Angular blocky; Weak consistence; CommonClear change to -
B21	0.2 - 0.3 m	Yellowish brown (10YR5/5-Moist); ; Light clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; FewGradual change to -
B22	0.3 - 0.45 m	Yellowish brown (10YR5/7-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Very firm consistence; FewGradual change to -
B22	0.45 - 0.6 m	Brownish yellow (10YR6/7-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Very firm consistence; FewGradual change to -
B3	0.6 - 0.9 m	Reddish yellow (7.5YR6/8-Moist); , 10YR76, 2-10% , Faint; , 2-10% , Faint; Sandy medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Weak consistence; FewGradual change to -
BC	0.9 - 1.2 m	Reddish yellow (7.5YR6/6-Moist); , 5YR58; , 10YR68; Sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Common (1-5 per 100mm2) Medium (2-5mm) macropores, Weak consistence; 10-20%, fine gravelly, 2-6mm, Quartz, coarse fragments; FewGradual change to -
BC	1.2 - 1.5 m	Reddish yellow (7.5YR6/6-Moist); , 5YR58; , 10YR68; Sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Common (1-5 per 100mm2) Medium (2-5mm) macropores, Weak consistence; 10-20%, fine gravelly, 2-6mm, Quartz, coarse fragments; FewGradual change to -
BC	1.5 - 1.8 m	; Heavy clay; Massive grade of structure; Very weak consistence;

Morphological Notes

BC Weathered granitic saprolite 7.5YR66 cley grit:

Observation Notes

60-150CM MICA VISIBLE:150-180CM VERY W'D GN SAPROLITE:1CM QZ VEIN AT >45CM:

Site Notes

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LAKE BARRINE

Project Name: Regional
Project Code: REG **Site ID:** T247 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

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 - 0.1	4.8A		0.56B	0.69	0.05	0.3		19.4C		1.55
0.1 - 0.2	5.1A									
0.2 - 0.3	5A		0.56B	0.69	0.3	0.05	2.08F		3.7F	
0.3 - 0.45	4.9A									
0.45 - 0.6	4.8A		0.16B	0.13	0.16	0.02	2.68F	4.5C	3.2F	0.44
0.6 - 0.9	4.8A		0.16B	0.09	0.07	0.04	2.6F		3F	
0.9 - 1.2	4.8A		0.08B	0.05	0.08	0.06	2.82F		3.1F	
1.2 - 1.5	4.8A									
1.5 - 1.8	5A									

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		3.96D	11B		0.33A			38	42A	7	13	38
0.1 - 0.2		1.56D	5B		0.135A			44	37A	7	14	42
0.2 - 0.3		0.93D		0.008A	0.09A	0.63A		40	24A	9	17	49
0.3 - 0.45		0.42D			0.045A			38	20A	13	22	45
0.45 - 0.6		0.19D	3B	0.005A	0.023A	0.68A		28	20A	16	24	40
0.6 - 0.9		0.11D	1B					34	24A	20	22	34
0.9 - 1.2				0.003A		0.73A		32	26A	18	19	36
1.2 - 1.5								30	25A	18	25	32
1.5 - 1.8				0.004A		0.98A						

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 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.45									
0.45 - 0.6									
0.6 - 0.9									
0.9 - 1.2									
1.2 - 1.5									
1.5 - 1.8									

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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/HClO4 Digest
12_HF_FE	Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO4 Digest
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	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
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
4A1	pH of 1:5 soil/water suspension
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
9H1	Phosphate retention
MIN_EC	Exchange Capacity - Minerology
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 (%)
XRD_C_Il	Illite - X-Ray Diffraction
XRD_C_K2O	K2O - X-Ray Diffraction or Clay Fraction (air dry)
XRD_C_Ka	Kaolin - X-Ray Diffraction