Project Name: **Regional**
Project Code: **REG** **Site ID:** **T321** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 28/11/81
Map Ref.: Sheet No. : 7964 1:100000
Northing/Long.: 145.416666666667
Easting/Lat.: -16.5
Locality:
Elevation: 40 metres
Rainfall: 0
Runoff: No Data
Drainage: No Data

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Lower-slope
Elem. Type: Fan
Slope: 2 %
Pattern Type: Alluvial fan
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Dystrophic Red Kandosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn2.21
Great Soil Group: Red earth

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

Ap	0 - 0.1 m	Reddish brown (5YR4/4-Moist); , 0-0% ; , 0-0% ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Moist; Weak consistence;
Ap	0.1 - 0.3 m	Reddish brown (5YR4/4-Moist); , 0-0% ; , 0-0% ; Light clay (Heavy); Massive grade of structure; Earthy fabric; Moist; Weak consistence; Clear change to -
B21	0.3 - 0.6 m	Yellowish red (5YR5/6-Moist); , 0-0% ; , 0-0% ; Light medium clay (Heavy); Massive grade of structure; Earthy fabric; Moist; Weak consistence;
B22	0.6 - 0.9 m	Red (2.5YR5/6-Moist); , 0-0% ; , 0-0% ; Medium clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Metamorphic rock (unidentified), coarse fragments; Clear change to -
B33	0.9 - 1.2 m	Red (2.5YR4/6-Moist); , 0-0% ; , 0-0% ; Medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Metamorphic rock (unidentified), coarse fragments; Diffuse change to -
B3	1.2 - 1.5 m	Red (2.5YR5/8-Moist); , 0-0% ; , 0-0% ; Medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Metamorphic rock (unidentified), coarse fragments;
B3	1.5 - 1.8 m	Red (2.5YR4/6-Moist); , 10YR66, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Metamorphic rock (unidentified), coarse fragments;
	1.8 - 2.1 m	Red (2.5YR4/6-Moist); , 10YR66, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Metamorphic rock (unidentified), coarse fragments;

Morphological Notes

Observation Notes

Ap HORIZON IS A MIXTURE OF A AND B HORIZON MATERIALS

Site Notes

MOSSMAN

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	5.1A	0.053A	0.89H	0.2	0.27	0.04	1F	2.5A	2.4F	1.60
								3C		1.33
0.1 - 0.3	5.1A	0.05A								
0.3 - 0.6	4.6A	0.05A	0.14H	<0.01	0.1	0.03	1.8F	1.8A	2.1F	1.67
								2C		1.50
0.6 - 0.9	4.6A	0.032A								
0.9 - 1.2	4.8A	0.026A	0.67H	<0.01	0.1	0.02	1.1F	2.11A	1.9F	0.95
								3C		0.67
1.2 - 1.5	5.1A	0.023A								
1.5 - 1.8	5A	0.023A								
1.8 - 2.1	5A	0.02A								

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		0.65D	57B		0.08A			<1	3A	42	26	28
0.1 - 0.3			54B									
0.3 - 0.6		0.15D	6B		0.05A			0	3A	45	24	27
0.6 - 0.9			7B									
0.9 - 1.2			5B					6	4A	43	20	34
1.2 - 1.5												
1.5 - 1.8								3	3A	40	22	35
1.8 - 2.1												

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 - 0.3										
0.3 - 0.6										
0.6 - 0.9										
0.9 - 1.2										
1.2 - 1.5										
1.5 - 1.8										
1.8 - 2.1										

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Laboratory Analyses Completed for this profile

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 (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
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
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
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 (%)