Project Name: **Regional**
Project Code: **REG** **Site ID:** **T76** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: R.F. Isbell
Locality: 8.5KM north along Iron Range Road from Wenlock River:
Date Desc.: 23/07/68
Elevation: 152 metres
Map Ref.: Sheet No. : 7471 1:100000
Rainfall: 1200
Northing/Long.: 142.9875
Runoff: Very slow
Easting/Lat.: -13.0833333333333
Drainage: No Data

Geology

ExposureType: Auger boring
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: SDk
Substrate Material: Auger boring, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Gently undulating rises 9-30m 1-3%
Pattern Type: Alluvial fan
Morph. Type: Upper-slope
Relief: 15 metres
Elem. Type: Plain
Slope Category: Gently inclined
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Parapanic Humic Aeric Podosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Uc2.32
Great Soil Group: Podzol

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

Vegetation:

Mid Strata - Tree, 3.01-6m, Sparse. *Species includes - Melaleuca species, Acacia species
Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - Eucalyptus tetrodonta

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, , Quartz

Profile Morphology

A1	0 - 0.1 m	Dark grey (10YR4/1-Moist); Grey (10YR5/1-Dry); ; Sand; Single grain grade of structure; Very weak consistence; FewClear, Irregular change to -
A21	0.1 - 0.2 m	Grey (10YR6/1-Moist); Light grey (10YR7/1-Dry); ; Sand; Single grain grade of structure; Very weak consistence; FewGradual change to -
A22	0.2 - 0.3 m	Light grey (10YR7/1-Moist); White (10YR8/1-Dry); ; Sand; Single grain grade of structure; Very weak consistence; Few
A22	0.3 - 0.6 m	Light grey (10YR7/1-Moist); White (10YR8/1-Dry); ; Sand; Single grain grade of structure; Very weak consistence; Clear change to -
B	0.6 - 0.9 m	Brown (10YR4/3-Moist); , 7.5YR56, 0-2% ; , 0-2% ; Loamy sand; Massive grade of structure; Strong consistence; , Continuous, Nodular; Gradual change to -
BC	0.9 - 1.1 m	Pale brown (10YR6/3-Moist); ; Loamy sand; Massive grade of structure; Very weak consistence; Very few (0 - 2 %), Other, , Nodules; Clear change to -
C	1.1 - 1.2 m	Very pale brown (10YR7/4-Moist); ; Sand; Single grain grade of structure; Weak consistence; 50-90%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Gradual change to -
C	1.2 - 1.5 m	Reddish yellow (7.5YR6/5-Moist); , 2.5YR58, 0-2% , 0-5mm; , 0-2% , 0-5mm; Coarse sand; Single grain grade of structure; Weak consistence; 20-50%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Gradual change to -
D	1.5 - 1.8 m	Reddish yellow (7.5YR6/5-Moist); , 2.5YR58, 2-10% ; , 2-10% ; Sandy loam (Heavy); Firm consistence; 0-2%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Gradual change to -
D	1.8 - 2 m	White (10YR8/2-Moist); , 2.5YR58; Light clay (Heavy); Very firm consistence; 0-2%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments;

Morphological Notes

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Observation Notes

Site Notes
WENLOCK R.

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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	5.9A	0.006C	0.7B	0.3	0.02	0.9				
0.1 - 0.2	6A	0.004C	0.25B	0.15	0.02	0.4				
0.2 - 0.3	6.1A	0.004C								
0.3 - 0.6	6.2A	0.004C	0.1B	0.15	0.01	0.4				
0.6 - 0.9	6.4A	0.004C	0.1B	0.1	0.05	1.8				
0.9 - 1.1	6.3A	0.007C								
1.1 - 1.2	6.5A	0.004C								
1.2 - 1.5	6.5A	0.004C								
1.5 - 1.8	6.2A	0.002C								
1.8 - 2	6.1A	0.006C	0.1B	1.5	0.13	1.6				

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		0.31A	<1A 4.4B	0.008A	0.012A	0.219A		3	80C	15	1	2
0.1 - 0.2		0.16A	<1A 4B	0.007A	0.006A	0.208A			70C	25	2	3
0.2 - 0.3								10				
0.3 - 0.6		0.11A	1.9B	0.009A	0.001A	0.3A		9	71C	23	3	2
0.6 - 0.9		0.13A	1.6B	0.009A	0.013A	0.33A		18	65C	21	6	6
0.9 - 1.1								20				
1.1 - 1.2								54				
1.2 - 1.5			2.1B	0.009A		0.346A		42	63C	19	4	11
1.5 - 1.8								40				
1.8 - 2			0.2B	0.007A	0.015A	0.554A		28	66C	9	2	22

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 - 0.6									
0.6 - 0.9									
0.9 - 1.1									
1.1 - 1.2									
1.2 - 1.5									
1.5 - 1.8									
1.8 - 2									

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12_NR_CU	Total element - Cu(mg/kg) - Not recorded
12_NR_ZN	Total element - Zn(mg/kg) - Not recorded
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
17A1	Total potassium - X-ray fluorescence
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1	Organic carbon - Walkley and Black
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
9H_NR	Posphate retention % - Not recorded
P10_GRAV	Gravel (%)
P10_NR_C	Clay (%) - Not recorded
P10_NR_CS	Coarse sand (%) - Not recorded
P10_NR_FS	Fine sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded
XRD_C_Il	Illite - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction