Project Name: Regional

Project Code: REG Site ID: T204 Observation ID: 1

Agency Name: CSIRO Division of Soils (QLD)

**Site Information** 

Desc. By: R.F. Isbell Locality: Near TV transmitter on south peak of Bellenden Ker

near crest:

**Date Desc.:** 14/09/72 **Elevation:** 1550 metres

 Map Ref.:
 Sheet No.: 8063
 1:100000
 Rainfall:
 0

 Northing/Long.:
 145.871111111111
 Runoff:
 Rapid

Easting/Lat.: -17.465555555555 Drainage: Moderately well drained

Geology

ExposureType: Auger boring Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: Pgm Substrate Material: Auger boring, 1 m deep,Granite

**Land Form** 

Rel/Slope Class:No DataPattern Type:MountainsMorph. Type:Upper-slopeRelief:0 metres

Elem. Type: Hillslope Slope Category: Moderately inclined Slope: 4xpect: Moderately inclined 90 degrees

Surface Soil Condition (dry): Soft

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AMelacic-Mottled Dystrophic Brown KandosolPrincipal Profile Form:Gn3ASC Confidence:Great Soil Group:Xanthozem

All necessary analytical data are available.

**<u>Site Disturbance:</u>** No effective disturbance. Natural

Vegetation: Low Strata - Fern, 0.51-1m, Mid-dense. \*Species includes - None recorded

Tall Strata - Tree, 3.01-6m, Mid-dense. \*Species includes - None Recorded

Surface Coarse Fragments: 20-50%, bouldery, 600mm-2m, subrounded, Granite

**Profile Morphology** 

FIOILIE	WICE PHOLOGY	
A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam (Heavy); Weak grade of structure, 2-5 mm, Granular; Weak consistence; Abundant, fine (1-2mm) roots; Gradual change to -
A11	0.1 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam (Heavy); Weak grade of structure, 2-5 mm, Granular; Weak consistence; Many, fine (1-2mm) roots; Diffuse change to -
A21	0.2 - 0.3 m	Brown (10YR4/3-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, Granular; Massive grade of structure; Weak consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Common, fine (1-2mm) roots; Gradual change to -
A22	0.3 - 0.4 m	Dark yellowish brown (10YR4/4-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Weak consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Common, fine (1-2mm) roots; Gradual change to -
B1	0.4 - 0.6 m	Yellowish brown (10YR5/5-Moist); ; Clay loam (Heavy); Weak grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Few, fine (1-2mm) roots; Gradual change to -
B2	0.6 - 0.9 m	Yellowish brown (10YR5/6-Moist); , 7.5YR56, 10-20%, 5-15mm, Distinct; , 10-20%, 5-15mm, Distinct; Sandy light clay (Light); Weak grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Firm consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated; Few, fine (1-2mm) roots;

BC 0.9 - 1 m Yellowish brown (10YR5/6-Moist); ; Sandy light clay;

**Morphological Notes** 

BC Parent material:

**Observation Notes** 

BC (90-100CM) GRITTY LC WITH MANY AREAS OF SOFT WEATHERED MEDIUM GRAINED GRANITE:

**Site Notes** 

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## **Laboratory Test Results:**

Depth	рН	1:5 EC		hangeable			Exchangeable	CEC		ECEC		ESP
m		dS/m	Ca	Mg	K	Na Cmol (+	Acidity )/kg					%
0 - 0.1	4.3A	0.065A	0.26B	0.3	0.07	0.05						
0.1 - 0.2 0.2 - 0.3	4.5A 4.7A	<0.05A <0.05A	0.08B	0.13	0.08	0.07						
0.3 - 0.4 0.4 - 0.6	4.8A 4.9A	<0.05A <0.05A	0.08B	0.05	0.06	0.05						
0.6 - 0.9 0.9 - 1	5A 5A	<0.05A <0.05A	0.08B	0.05	0.03	0.05						
Depth	CaCO3	Organic	Avail. P	Total P	Total	Total			rticle		Analysi	
m	%	<b>C</b> %	mg/kg	%	N %	K %	Density Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.1 0.1 - 0.2		1.78D	12B	0.013A			6A					
0.1 - 0.2 0.2 - 0.3 0.3 - 0.4		1.4D 0.81D 0.61D	11B 9B	0.016A	0.18 0.06 0.04	8A 0.7	1A	56	47A	31	16	5
0.3 - 0.4		0.61D 0.48D	2B	0.021A		-	6A	10	39A	29	18	15
0.6 - 0.9 0.9 - 1		0.27D		0.022A		1.3	2A	8	31A	33	22	14
Depth	COLE			/imetric/Vol					K sa	at	K unsa	t
m		Sat.	0.05 Bar	0.1 Bar g/g	0.5 Bar g - m3/m3	1 Bar	5 Bar 15	Bar	mm	/h	mm/h	
0 - 0.1 0.1 - 0.2 0.2 - 0.3												

0.2 - 0.3 0.3 - 0.4 0.4 - 0.6 0.6 - 0.9 0.9 - 1

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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\_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
15A2\_MG
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts

17A1 Total potassium - X-ray fluorescence
3A1 EC of 1:5 soil/water extract
4A1 pH of 1:5 soil/water suspension

5A2 Chloride - 1:5 soil/water extract, automated colour

6A1\_UC Organic carbon (%) - Uncorrected Walkley and Black method TA2 Total nitrogen - semimicro Kjeldahl , automated colour

9A1 Total phosphorus - X-ray fluorescence

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 Fine sand (%) - Coventry and Fett pipette method P10\_CF\_Z Silt (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P10\_GRAV Gravel (%)