

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T388 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	M.D. Laffan	<b>Locality:</b>	
<b>Date Desc.:</b>	02/08/84	<b>Elevation:</b>	770 metres
<b>Map Ref.:</b>	Sheet No. : 7963 1:100000	<b>Rainfall:</b>	1500
<b>Northing/Long.:</b>	145.470555555556	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-17.329722222222	<b>Drainage:</b>	Rapidly drained

**Geology**

<b>ExposureType:</b>	Existing vertical exposure	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	PGZ	<b>Substrate Material:</b>	Granite

**Land Form**

<b>Rel/Slope Class:</b>	Undulating low hills 30-90m 3-10%	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	10 %	<b>Aspect:</b>	40 degrees

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Melanic Paralithic Chernic Tenosol		<b>Principal Profile Form:</b>	Uc2.21
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Siliceous sand
All necessary analytical data are available.			

**Site Disturbance:** Limited clearing, for example selective logging

**Vegetation:**

Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - None Recorded

**Surface Coarse Fragments:** 0-2%, fine gravelly, 2-6mm, angular, Quartz

**Profile Morphology**

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, reoriented, Quartz, coarse fragments; Field pH 0.6 (pH meter); Common, fine (1-2mm) roots;
A1	0.1 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, reoriented, Quartz, coarse fragments; Field pH 0.6 (pH meter); Common, fine (1-2mm) roots; Clear, Wavy change to -
A2	0.2 - 0.3 m	Brown (10YR4/3-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, angular, reoriented, Quartz, coarse fragments; Field pH 0.6 (pH meter); Common, fine (1-2mm) roots;
A2	0.3 - 0.4 m	Brown (10YR4/3-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, angular, reoriented, Quartz, coarse fragments; Field pH 0.6 (pH meter); Common, fine (1-2mm) roots; Clear, Wavy change to -
B21	0.4 - 0.6 m	Dark yellowish brown (10YR4/4-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam (Heavy); Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, reoriented, Quartz, coarse fragments; Field pH 0.6 (pH meter); Common, fine (1-2mm) roots; Clear, Wavy change to -
B22	0.6 - 0.9 m	Yellowish brown (10YR5/6-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam (Heavy); Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, undisturbed, Quartz, coarse fragments; Field pH 6.5 (pH meter); Few, fine (1-2mm) roots;
B22	0.9 - 1.2 m	Yellowish brown (10YR5/6-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam (Heavy); Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, undisturbed, Quartz, coarse fragments; Field pH 6.5 (pH meter); Few, fine (1-2mm) roots; Gradual, Wavy change to -

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B3	1.2 - 1.5 m	Strong brown (7.5YR4/6-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Weak grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, undisturbed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Few, fine (1-2mm) roots;
B3	1.5 - 1.8 m	Strong brown (7.5YR4/6-Moist); , 0-0% ; , 0-0% ; Coarse sandy loam; Weak grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, undisturbed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Few, fine (1-2mm) roots;

**Morphological Notes**

**Observation Notes**

R'FOREST 16C:PARENT MATERIAL STRONGLY DISAGGREGATED WEAKLY TO MODERATE WEATHERED GRANITE:

**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	5.4D 6.3A	0.077A	7.4H	2.1	0.27	0.02	0.22F	5.8A 11C	10F	0.34 0.18
0.1 - 0.2	6.2A	0.038A								
0.2 - 0.3	6.1A	0.023A								
0.3 - 0.4	6.2A	0.017A								
0.4 - 0.6	4.5D 6.2A	0.013A	0.34H	0.28	0.18	0.04	0.43F	1A	1.3F	4.00
0.6 - 0.9	6.3A	0.01A								
0.9 - 1.2	4.7D 6.3A	0.008A	0.11H	0.13	0.17	0.03	0.22F	0.8A 3C	0.7F	3.75 1.00
1.2 - 1.5	6.2A	0.013A								
1.5 - 1.8	6.2A	0.011A								

Depth m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS	FS %	Silt	Clay
0 - 0.1		3.51C	9B	0.017A	0.12A	4.12A		11	55A	22	10	13
0.1 - 0.2												
0.2 - 0.3			4B					27	66A	17	8	9
0.3 - 0.4												
0.4 - 0.6				0.009A		4.02A		18	66A	19	6	10
0.6 - 0.9												
0.9 - 1.2				0.008A		4.44A		21	62A	23	9	6
1.2 - 1.5												
1.5 - 1.8								28	68A	15	9	9

[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/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
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 <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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
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
5A2	Chloride - 1:5 soil/water extract, automated colour
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 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 (%)