

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T386 **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>	28/08/84	<b>Elevation:</b>	760 metres
<b>Map Ref.:</b>	Sheet No. : 7963 1:100000	<b>Rainfall:</b>	1400
<b>Northing/Long.:</b>	145.465277777778	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-17.271666666667	<b>Drainage:</b>	Poorly drained

**Geology**

<b>ExposureType:</b>	Existing vertical exposure	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	PH	<b>Substrate Material:</b>	Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Valley flat	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Bleached-Ferric Dermosolic Redoxic Hydrosol		<b>Principal Profile Form:</b>	Gn3.04
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Soloth
All necessary analytical data are available.			

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

**Vegetation:**

Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - Eucalyptus species, Melaleuca species

**Surface Coarse Fragments:**

**Profile Morphology**

A1	0 - 0.1 m	Greyish brown (10YR5/2-Moist); , 0-0% ; , 0-0% ; Silty loam; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Dry; Very weak consistence; Many, fine (1-2mm) roots; Clear, Wavy change to -
A2	0.1 - 0.2 m	Light brownish grey (10YR6/2-Moist); White (10YR8/1-Dry); , 0-0% ; , 0-0% ; Silty clay loam; Massive grade of structure; Rough-ped fabric; Dry; Very weak consistence; Field pH 5.8 (pH meter); Many, fine (1-2mm) roots; Clear, Wavy change to -
A2g	0.2 - 0.3 m	Brown (10YR5/3-Moist); , 0-0% ; , 0-0% ; Silty medium clay; Weak grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Dry; Weak consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Concretions; Many, fine (1-2mm) roots; Clear, Wavy change to -
B21	0.3 - 0.45 m	Light yellowish brown (10YR6/4-Moist); , 10YR58, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Dry; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 5.5 (pH meter); Many, fine (1-2mm) roots; Diffuse change to -
B22	0.45 - 0.6 m	Light yellowish brown (10YR6/4-Moist); , 2.5YR48, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Light medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 5.5 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B1g	0.6 - 0.8 m	Light brownish grey (10YR6/2-Moist); , 2.5YR48, 10-20% , 5-15mm, Prominent; , 10-20% , 5-15mm, Prominent; Medium clay; Strong grade of structure, 20-50 mm, Columnar; Smooth-ped fabric; Moderately moist; Very firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 5.5 (pH meter); Common, fine (1-2mm) roots; Clear, Wavy change to -
B2g	0.8 - 0.9 m	Greyish brown (10YR5/2-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 10YR58, 10-20% , 5-15mm, Prominent; Sandy medium clay; Moderate grade of structure, 20-50 mm, Columnar; Smooth-ped fabric; Moderately moist; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, prominent; Few, fine (1-2mm) roots;

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B2g	0.9 - 1.2 m	Greyish brown (10YR5/2-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 10YR58, 10-20% , 5-15mm, Prominent; Sandy medium clay; Moderate grade of structure, 20-50 mm, Columnar; Smooth-ped fabric; Moderately moist; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, prominent; Few, fine (1-2mm) roots;
B2g	1.2 - 1.5 m	Greyish brown (10YR5/2-Moist); , 10YR62, 10-20% , 5-15mm, Prominent; , 10YR58, 10-20% , 5-15mm, Prominent; Sandy medium clay; Moderate grade of structure, 20-50 mm, Columnar; Smooth-ped fabric; Moderately moist; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, prominent; Few, fine (1-2mm) roots;

**Morphological Notes**

**Observation Notes**

RAINFOREST 16C:PARENT MATERIAL OLDER ALLUVIUM FROM RHYOLITE:

**Site Notes**

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol	(+)/kg		
0 - 0.1	3.9D 5A	0.042A	0.09H	0.42	0.29	0.07	1.35F	2.2A 5C	3.18 1.40
0.1 - 0.2	5.1A	0.022A							
0.2 - 0.3	4D 5.2A	0.018A	0.03H	0.6	0.18	0.06	1.44F	2.5A	2.40
0.3 - 0.45	4D 5.4A	0.011A	0.03H	0.71	0.2	0.06	2.16F	3.2A	1.88
0.45 - 0.6	3.9D 5.7A	0.01A	<0.02H	1.17	0.26	0.08	2.56F	4.6A	1.74
0.6 - 0.8	3.9D 5.8A	0.013A	0.03H	2.42	0.38	0.15	2.88F	5.9A 8C	2.54 1.88
0.8 - 0.9	6A	0.013A							
0.9 - 1.2	4D 6.2A	0.012A	0.03H	4.68	0.43	0.22	1.75F	7.2A 9C	3.06 2.44
1.2 - 1.5	6.1A	0.015A							

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis		
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.1		1.46C	7B	0.009A	0.08A	1.56A		0	7A	38	46	9
0.1 - 0.2		0.69C						0	10A	36	44	11
0.2 - 0.3		0.57C	3B					9	11A	33	41	14
0.3 - 0.45								1	7A	33	39	20
0.45 - 0.6				0.007A		1.92A		0	5A	34	36	25
0.6 - 0.8								0	4A	30	34	32
0.8 - 0.9								6	7A	32	32	29
0.9 - 1.2				0.004A		1.98A		5	10A	37	24	29
1.2 - 1.5								3	17A	32	27	24

[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/HClO <sub>4</sub> Digest
12_HF_FE	Total element - Fe(%) - HF/HClO <sub>4</sub> Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO <sub>4</sub> Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO <sub>4</sub> Digest
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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble salts
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
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 H <sub>2</sub> SO <sub>4</sub> (BSES)
9H1	Phosphate retention
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 (%)