Project Name: **Regional**
Project Code: **REG** **Site ID:** **T384** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By:	M.D. Laffan	**Locality:**	
Date Desc.:	23/02/84	**Elevation:**	990 metres
Map Ref.:	Sheet No. : 7963 1:100000	**Rainfall:**	1400
Northing/Long.:	145.428611111111	**Runoff:**	No Data
Easting/Lat.:	-17.2666666666667	**Drainage:**	Well drained

Geology

ExposureType:	Existing vertical exposure	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	PH	**Substrate Material:**	Rhyolite

Land Form

Rel/Slope Class:	Steep hills 90-300m 32-56%	**Pattern Type:**	No Data
Morph. Type:	Mid-slope	**Relief:**	No Data
Elem. Type:	Hillslope	**Slope Category:**	No Data
Slope:	50 %	**Aspect:**	23 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Melanic Dystrophic Brown Dermosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Um6.12
Great Soil Group: Lithosol

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Surface Coarse Fragments: 20-50%, cobbly, 60-200mm, angular, Sand

Profile Morphology

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Mottles; Mottles; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; 10-20%, cobbly, 60-200mm, angular, reoriented, Sand, coarse fragments; Field pH 6.5 (pH meter); Many, medium (2-5mm) roots;
A1	0.1 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); Mottles; Mottles; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; 10-20%, cobbly, 60-200mm, angular, reoriented, Sand, coarse fragments; Field pH 6.5 (pH meter); Many, medium (2-5mm) roots; Gradual change to -
B2	0.2 - 0.3 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Very weak consistence; 10-20%, stony, 200-600mm, angular, reoriented, Sand, coarse fragments; Field pH 6 (pH meter); Common, medium (2-5mm) roots; Sharp change to -
B2	0.3 - 0.4 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Very weak consistence; 10-20%, stony, 200-600mm, angular, reoriented, Sand, coarse fragments; Field pH 6 (pH meter); Common, medium (2-5mm) roots; Sharp change to -
B2	0.4 - 0.55 m	Dark yellowish brown (10YR4/4-Moist); Mottles; Mottles; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Very weak consistence; 10-20%, stony, 200-600mm, angular, reoriented, Sand, coarse fragments; Field pH 6 (pH meter); Common, medium (2-5mm) roots; Sharp change to -
R	0.55 - 0.65 m	Rock

Morphological Notes

R Weakly w'd weak fractured rhyolite bedrock:cracks>10CM:

Observation Notes

RAINFOREST 16C:SHALLOW VARIANT:

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Cmol (+)/kg							%
0 - 0.1	4.1D	0.039A	3.42H	1.4	0.38	0.09	1.07F	5A	6.4F	1.80
	5.5A							5C		
0.1 - 0.2	5.6A	0.023A								
0.2 - 0.3	5.5A	0.017A								
0.3 - 0.4	4.2D	0.017A	0.47H	0.52	0.23	0.04	2.13F	3.7A	3.4F	1.08
	5.4A							8C		0.50
0.4 - 0.55	5.5A	0.015A								

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		3.92C	9B	0.02A	0.14A	2.26A		6	24A	12	42	23
0.1 - 0.2		2.27C						6	21A	12	43	25
0.2 - 0.3			5B					3	18A	12	40	30
0.3 - 0.4				0.013A		2.52A		10	23A	10	38	30
0.4 - 0.55								11	26A	12	34	28

Depth	COLE	Gravimetric/Volumetric Water Contents Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	K sat	K unsat
m		g/g - m3/m3							mm/h	mm/h
0 - 0.1										
0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.4										
0.4 - 0.55										

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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
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
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 H2SO4 (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 (%)