Project Name: **Regional**
Project Code: **REG** **Site ID:** **T274** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: G.G. Murtha
Date Desc.: 30/10/79
Map Ref.: Sheet No. : 8162 1:100000
Northing/Long.: 146.116666666667
Easting/Lat.: -17.6666666666667
Locality: On J.T.T.R.E.
Elevation: 10 metres
Rainfall: 3000
Runoff: No runoff
Drainage: Imperfectly drained

Geology

ExposureType: Soil pit
Geol. Ref.: QR
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: No Data

Land Form

Rel/Slope Class: No Data
Morph. Type: Crest
Elem. Type: Beach ridge
Slope: 0 %
Pattern Type: Beach ridge plain
Relief: 1 metres
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:
Parapanic Humic Semiaquic Podosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Uc2.33
Great Soil Group: Podzol

Site Disturbance: No effective disturbance. Natural

Vegetation:

Mid Strata - Shrub, 1.01-3m, Mid-dense. *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Melaleuca viridiflora, Acacia species

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Dark grey (10YR4/1-Moist); Grey (10YR6/1-Dry); ; Sand; Single grain grade of structure; Dry; Loose consistence; Many, medium (2-5mm) roots; Gradual change to -
A12	0.1 - 0.2 m	Grey (10YR5/1-Moist); Grey (10YR6/1-Dry); ; Sand; Single grain grade of structure; Dry; Loose consistence; Few, fine (1-2mm) roots; Gradual change to -
A2	0.2 - 0.3 m	Light brownish grey (10YR6/2-Moist); Light grey (10YR7/2-Dry); ; Sand; Single grain grade of structure; Dry; Loose consistence;
A2	0.3 - 0.4 m	Light brownish grey (10YR6/2-Moist); Light grey (10YR7/2-Dry); ; Sand; Single grain grade of structure; Dry; Loose consistence; Organic pan, Moderately cemented, Continuous, Massive; Clear, Irregular change to -
B2h	0.4 - 0.6 m	Black (10YR2/1-Moist); , 5YR22, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Sand; Massive grade of structure; Dry; Very strong consistence; Gradual change to -
B3	0.6 - 0.9 m	Light yellowish brown (10YR6/4-Moist); , 5YR22, 10-20% , 5-15mm, Distinct; , 10YR62, 10-20% , 5-15mm, Distinct; Sand; Massive grade of structure; Dry; Firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Pumice, coarse fragments; Diffuse change to -
C	0.9 - 1.2 m	Very pale brown (10YR7/3-Moist); White (10YR8/2-Dry); ; Coarse sand; Single grain grade of structure; Dry; Loose consistence;

Morphological Notes

Observation Notes

60-90CM THE RED MOTTLES ARE CEMENTED:GREY MOTTES ARE NON WETTING

Site Notes

COWLEY BEACH

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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	5.1A	0.013A	0.16H	0.06	<0.01	<0.01	0.56F	1A	0.8F	
0.1 - 0.2	5.2A	0.012A								
0.2 - 0.3	5.4A	0.009A	<0.01H	<0.01	<0.01	<0.01	0.4F	0.5A	0.4F	
0.3 - 0.4	5.7A	0.017A								
0.4 - 0.6	5.3A	0.015A	<0.01H	<0.01	<0.01	<0.01	1.24F	1A	1.3F	
0.6 - 0.9	5.5A	0.021A								
0.9 - 1.2	5.7A	0.007A								

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		0.62D	5B	0.001A	0.01A	0.4A		<2	95A	4	1	1
0.1 - 0.2		0.17D			0.01A			<2	92A	6	1	1
0.2 - 0.3		0.11D	2B		0.04A			<2	90A	7	2	1
0.3 - 0.4		0.08D			0.01A							
0.4 - 0.6		0.99D	5B		0.05A			<2	93A	3	1	3
0.6 - 0.9		0.42D			0.03A							
0.9 - 1.2				0.001A		1.15A		12	96A	2	0	1

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 - 0.4									
0.4 - 0.6									
0.6 - 0.9									
0.9 - 1.2									

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
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
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
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
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 (%)