

Project Name: Regional
Project Code: REG **Site ID:** T370 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	23/11/83	Elevation:	30 metres
Map Ref.:	Sheet No. : 8061 1:100000	Rainfall:	2250
Northing/Long.:	145.908333333333	Runoff:	Very slow
Easting/Lat.:	-18.079166666667	Drainage:	Imperfectly drained

Geology

ExposureType:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	QA	Substrate Material:	Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Fan	Slope Category:	Level
Slope:	1 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Melanic-Bleached Chromosolic Redoxic Hydrosol		Principal Profile Form:	Uc3.21
ASC Confidence:		Great Soil Group:	Soloth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation: Low Strata - Tussock grass, 0.51-1m, Isolated plants. *Species includes - Xanthorrhoea johnsonii
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Casuarina littoralis, Melaleuca viridiflora

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A2sb	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Grey (10YR6/1-Dry); Mottles, 10YR82, 20-50% , 5-15mm, Distinct; Mottles, 20-50% , 5-15mm, Distinct; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Many, very fine (0-1mm) roots;
A2sb	0.1 - 0.2 m	Very dark grey (10YR3/1-Moist); Grey (10YR6/1-Dry); Mottles, 10YR82, 20-50% , 5-15mm, Distinct; Mottles, 20-50% , 5-15mm, Distinct; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Many, very fine (0-1mm) roots; Clear, Wavy change to -
B21h	0.2 - 0.25 m	Brown (7.5YR4/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Diffuse, Wavy change to -
B22	0.25 - 0.3 m	Pinkish grey (7.5YR6/2-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Gradual, Wavy change to -
2A21	0.3 - 0.4 m	Light grey (10YR7/2-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clayey sand; Single grain grade of structure; Sandy (grains prominent) fabric; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few, very fine (0-1mm) roots; Gradual, Wavy change to -
2A3	0.4 - 0.6 m	Light grey (10YR7/2-Moist); Mottles, 10YR78, 10-20% , 0-5mm, Faint; Mottles, 10-20% , 0-5mm, Faint; Clayey coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few, fine (1-2mm) roots; Gradual, Wavy change to -
2B21	0.6 - 0.9 m	Light grey (5Y7/1-Moist); Mottles, 10YR78, 10-20% , 0-5mm, Faint; Mottles, 10-20% , 0-5mm, Faint; Coarse sandy medium clay; Massive grade of structure; Earthy fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Diffuse, Broken change to -
2B22	0.9 - 1.2 m	Light grey (5Y7/1-Moist); Mottles, 10R48, 10-20% , 15-30mm, Prominent; Mottles, 10YR78, 10-20% , 15-30mm, Prominent; Medium clay; Massive grade of structure; Earthy fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;

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2B22	1.2 - 1.5 m	Light grey (5Y7/1-Moist); Mottles, 10R48, 10-20% , 15-30mm, Prominent; Mottles, 10YR78, 10-20% , 15-30mm, Prominent; Medium clay; Massive grade of structure; Earthy fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;
2B22	1.5 - 1.8 m	Light grey (5Y7/1-Moist); Mottles, 10R48, 10-20% , 15-30mm, Prominent; Mottles, 10YR78, 10-20% , 15-30mm, Prominent; Medium clay; Massive grade of structure; Earthy fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;
2B22	1.8 - 2 m	Light grey (5Y7/1-Moist); Mottles, 10R48, 10-20% , 15-30mm, Prominent; Mottles, 10YR78, 10-20% , 15-30mm, Prominent; Medium clay; Massive grade of structure; Earthy fabric; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;

Morphological Notes

Observation Notes

A HORIZON WITH A2 THROUGH OUT:THERE ARE CLEAN SAND PATCHES IN A HORIZON

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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 Cmol (+)/kg	Acidity		%
0 - 0.1	6.4A	0.023A	<0.02H	0.07	<0.02	<0.02	1.17F	1.9A 2.5C	1.3F
0.1 - 0.2	6.4A	0.02A							
0.2 - 0.25	6.4A	0.021A	<0.02H	0.04	0.02	0.02	1.18F	1.5A 3.6C	1.33 0.56
0.25 - 0.3	6.4A	0.016A							
0.3 - 0.4	6.4A	0.016A							
0.4 - 0.6	6.4A	0.017A	<0.02H	0.05	<0.02	<0.02	0.69F	1.1A 1.2C	0.8F
0.6 - 0.9	6.4A	0.018A	<0.02H	0.43	<0.02	<0.02	1.5F	2.2A 2.7C	2F
0.9 - 1.2	6.4A	0.018A							
1.2 - 1.5	6.5A	0.017A	<0.02H	1.02	0.05	0.03		2C	1.50
1.5 - 1.8	6.4A	0.017A	<0.02H	1.39	0.06	0.03	1.33F	2.9A 3.5C	1.03 0.86
1.8 - 2	6.3A	0.017A							

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.42C	3B	0.001A	0.05A	0.19A		1	57A	29	10	4
0.1 - 0.2		1.08C			0.04A			3	68A	22	6	4
0.2 - 0.25		1.79C	4B					16	62A	24	8	6
0.25 - 0.3								13	57A	26	9	8
0.3 - 0.4								18	57A	25	9	8
0.4 - 0.6		0.09C	2B					26	56A	23	8	12
0.6 - 0.9		0.13C	2B	0.002A		0.34A		29	48A	13	7	32
0.9 - 1.2								14	42A	11	7	40
1.2 - 1.5		0.05C						12	39A	13	9	40
1.5 - 1.8				0.002A		0.71A		12	39A	12	9	40
1.8 - 2								14	38A	10	8	43

[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 ₄ Digest
12_HF_FE	Total element - Fe(%) - HF/HClO ₄ Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO ₄ Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO ₄ 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 ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) 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
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
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 ₂ SO ₄ (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 (%)