Project Name: DD
Project Code: DD **Site ID:** B250 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.D. Hubble
Date Desc.: 12/10/54
Map Ref.: Sheet No. : 9142 1:100000
Northing/Long.: 151.112777777778
Easting/Lat.: -27.5513888888889
Locality:
Elevation: 396 metres
Rainfall: 660
Runoff: Moderately rapid
Drainage: Imperfectly drained

Geology

ExposureType: Soil pit
Geol. Ref.: QsJK
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 1 m deep,Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Plain
Slope: 0 %
Pattern Type: Plain
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Hypocalcic Mesonatric Black Sodosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dd1.43
Great Soil Group: Solodized solonetz

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Tussock grass, , . *Species includes - Dichanthium sericeum, Aristida species
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus populnea

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.04 m	Light grey (10YR7/2-Dry); ; Sandy clay loam; Weak grade of structure, Platy; Dry; Firm consistence; Field pH 6.2 (pH meter); Common, very fine (0-1mm) roots; Clear change to -
A2	0.04 - 0.08 m	White (10YR8/1-Dry); ; Fine sandy loam (Heavy); Massive grade of structure; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 6.3 (pH meter); Common, very fine (0-1mm) roots; Abrupt change to -
B21	0.08 - 0.25 m	Very dark grey (10YR3/1-Dry); ; Medium clay; Moderate grade of structure, 100-200 mm, Columnar; Moderate grade of structure, 50-100 mm, Prismatic; Moist; Very firm consistence; Field pH 5.9 (pH meter); Few, very fine (0-1mm) roots; Gradual change to -
B22	0.25 - 0.53 m	Very dark grey (10YR3/1-Dry); ; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Field pH 7.6 (pH meter); Gradual change to -
B3	0.56 - 0.97 m	Grey (10YR5/1-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Angular blocky; Massive grade of structure; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.4 (pH meter); Gradual change to -
C	1.02 - 1.83 m	Very dark grey (10YR3/1-Dry); , 10YR42; Medium clay; Massive grade of structure; Moist; Weak consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 5.1 (pH

Morphological Notes

Observation Notes

Site Notes

DARLING DOWNS

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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 - 0.04	6.2H	0.028B								
0.04 - 0.08	6.3H	0.024B								
0.08 - 0.25	5.9H	0.106B	7.1K	7.4	0.13	5.1	6.9D			
0.25 - 0.53	7.6H	0.213B								
0.56 - 0.97	8.4H	0.253B	5.5K	7.6	17	7.7	0.7D			
1.02 - 1.83	5.1H	0.258B								

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 - 0.04		2.47A	17C	0.03F	0.17B		1.50		15C	47	15	19
0.04 - 0.08		1.04A			0.09B			0.4	15C	51	15	15
0.08 - 0.25		1.06A	6C	0.026F	0.1B		1.50		11C	37	8	41
0.25 - 0.53		0.47A							11C	34	10	41
0.56 - 0.97	0.07C	0.28A			0.04B		1.50	0.1	11C	38	11	38
1.02 - 1.83		0.07A		0.011F			1.40		10C	34	13	40

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 - 0.04				0.25C				0.13C	
0.04 - 0.08									
0.08 - 0.25				0.42C				0.25C	
0.25 - 0.53									
0.56 - 0.97				0.46C				0.29C	
1.02 - 1.83				0.47C				0.3C	

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recordede
6A1	Organic carbon - Walkley and Black
7_NR	Total nitrogen (%) - Not recorded
9_NR	Available P (mg/kg) - Not recorded
9A_NR	Total element - P(%) - Not recorded
P10_GRAV	Gravel (%)
P10_NR_C	Clay (%) - Not recorded
P10_NR_CS	Coarse sand (%) - Not recorded
P10_NR_FS	Fine sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded
P3A_NR	Bulk density - Not recorded
P3B_VL_01	0.1 BAR Moisture m3/m3 - Volumetric using suction plate
P3B_VL_15	15 BAR Moisture m3/m3 - Volumetric using pressure plate