Project Name: DD
Project Code: DD **Site ID:** B158 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.G. Beckmann	**Locality:**	
Date Desc.:	01/11/51	**Elevation:**	530 metres
Map Ref.:	Sheet No. : 9242 1:100000	**Rainfall:**	760
Northing/Long.:	151.825	**Runoff:**	Moderately rapid
Easting/Lat.:	-27.5338888888889	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	Tm	**Substrate Material:**	Auger boring, 2 m deep,Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Undulating low hills 30-90m 3-10%	**Pattern Type:**	Low hills
Morph. Type:	No Data	**Relief:**	30 metres
Elem. Type:	Pediment	**Slope Category:**	Very gently sloped
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Epicalcareous Self-Mulching Black Vertosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Ug5.16
Great Soil Group: Black earth

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

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

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

AB	0 - 0.18 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Strong grade of structure, Granular; Medium, (5 - 10) mm crack; Dry; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 7.4 (pH meter); Gradual change to -
B2	0.18 - 0.69 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8 (pH meter); Gradual change to -
B2	0.69 - 0.86 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, Lenticular; Moderately moist; Firm consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.7 (pH meter); Gradual change to -
B	0.89 - 1.52 m	Yellowish brown (10YR5/4-Moist); ; Medium clay; Strong grade of structure, Lenticular; Moderately moist; Firm consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.9 (pH meter); Gradual change to -
B	1.52 - 2.13 m	Brown (10YR5/3-Moist); ; Medium clay; Strong grade of structure, Lenticular; Moderately moist; Firm consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9.1 (pH meter);

Morphological Notes

Observation Notes

0-18CM STRONG GRANULAR GRADING TO FINE BLOCKY STRUCTURE

Site Notes

DARLING DOWNS

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.18	7.4H	0.044B	55.8K	38.9	0.74	0.95	6.6D		103E	
0.18 - 0.69	8H	0.119B	53.2K	32.8	0.45	2.7	3.2D	96.7J	92.6E	2.79
0.69 - 0.86	8.7H	0.137B								
0.89 - 1.52	8.9H	0.121B	27.5K	28.9	0.28	2.7		61.5J	59.4E	4.39
1.52 - 2.13	9.1H	0.142B								

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 - 0.18		3.66E	44C	0.055F	0.225B				2C	7	11	75
0.18 - 0.69	0.278C	2.73E		0.037F	0.012B				2C	7	13	71
0.69 - 0.86	13.9C	0.75E						3	2C	12	12	58
0.89 - 1.52	15.9C							8	3C	20	16	40
1.52 - 2.13	20.3C							14	2C	12	8	57

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 - 0.18										
0.18 - 0.69										
0.69 - 0.86										
0.89 - 1.52										
1.52 - 2.13										

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Laboratory Analyses Completed for this profile

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - 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
6Z	Organic carbon (%) - Not recorded
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