

**Project Name:** DD  
**Project Code:** DD **Site ID:** B200 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	C.H. Thompson	<b>Locality:</b>	
<b>Date Desc.:</b>	01/10/53	<b>Elevation:</b>	427 metres
<b>Map Ref.:</b>	Sheet No. : 9242 1:100000	<b>Rainfall:</b>	660
<b>Northing/Long.:</b>	151.525	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	-27.5580555555556	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Czw	<b>Substrate Material:</b>	Soil pit, 1.6 m deep,Basalt

#### Land Form

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

**Surface Soil Condition (dry):** Self-mulching

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Epicalcareous-Endohypersodic Self-Mulching Red Vertosol	<b>Principal Profile Form:</b>	Ug5.16
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Black earth
All necessary analytical data are available.		

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

#### Vegetation:

Tall Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Aristida species, Dichanthium sericeum

**Surface Coarse Fragments:** 0-2%, cobbly, 60-200mm, , Basalt

#### Profile Morphology

AB	0 - 0.1 m	Very dark grey (10YR3/1-Dry); ; Heavy clay; Strong grade of structure, <2 mm, Granular; Moderately moist; Very weak consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.6 (pH meter); Common, fine (1-2mm) roots; Clear change to -
B21	0.1 - 0.3 m	Very dark grey (10YR3/1-Dry); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very firm consistence; 0-2%, Quartz, coarse fragments; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9.3 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B21	0.3 - 0.64 m	Very dark grey (10YR3/1-Dry); ; Heavy clay; Moderate grade of structure, Lenticular; , Angular blocky; Moderately moist; Very firm consistence; 0-2%, Quartz, coarse fragments; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9.4 (pH meter); Few, fine (1-2mm) roots; Gradual change to -
B21	0.64 - 0.91 m	Very dark grey (10YR3/1-Dry); ; Heavy clay; Moderate grade of structure, Lenticular; , Angular blocky; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9 (pH meter); Few, fine (1-2mm) roots; Gradual change to -
B22	0.91 - 1.14 m	Very dark brown (10YR2/2-Moist); , 10YR43; Heavy clay; Moderate grade of structure, Lenticular; , Angular blocky; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9 (pH meter); Gradual change to -
B22	1.19 - 1.52 m	Yellowish brown (10YR5/4-Moist); , 10YR43; Heavy clay; Moderate grade of structure, Lenticular; , Angular blocky; Moist; Firm consistence; 0-2%, Substrate material, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter);

#### Morphological Notes

#### Observation Notes

0-10CM GRANULAR GRADING TO BLOCKY STRUCTURE

#### Site Notes

DARLING DOWNS

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				cmol (+)/kg				%
0 - 0.1	8.6H	0.06B								
0.1 - 0.3	9.3H	0.12B	31.6K	18.9	0.56	6.3			57.4E	
0.3 - 0.64	9.4H	0.38B								
0.64 - 0.91	9H	0.68B								
0.91 - 1.14	9H	0.74B								
1.19 - 1.52	9H	0.74B								

Depth	CaCO <sub>3</sub>	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>	GV	CS	FS %	Silt	Clay
0 - 0.1	11.1C	1.9E	980C	0.126F					4C	15	14	52
0.1 - 0.3		1.26A										
0.3 - 0.64		1E										
0.64 - 0.91		0.75E										
0.91 - 1.14		0.47E										
1.19 - 1.52		0.2E										

[illegible]

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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_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 (CaCO <sub>3</sub> ) - 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 recorded
6A1	Organic carbon - Walkley and Black
6Z	Organic carbon (%) - Not recorded
9_NR	Available P (mg/kg) - Not recorded
9A_NR	Total element - P(%) - Not recorded
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