Project Name: DD
Project Code: DD **Site ID:** B209 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: C.H. Thompson
Date Desc.: 03/11/53
Map Ref.: Sheet No. : 9242 1:100000
Northing/Long.: 151.663888888889
Easting/Lat.: -27.56
Locality:
Elevation: 457 metres
Rainfall: 610
Runoff: Moderately rapid
Drainage: Moderately well drained

Geology

ExposureType: Soil pit
Geol. Ref.: Tm
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 1 m deep,Porous, Basalt

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Pediment
Slope: 6.12 %
Pattern Type: Pediplain
Relief: 15 metres
Slope Category: No Data
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: Ug5.13
Great Soil Group: Black earth

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

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

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, , Basalt

Profile Morphology

AB	0 - 0.08 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Weak consistence; 0-2%, medium gravelly, 6-20mm, Basalt, coarse fragments; Field pH 7.1 (pH meter); Common, fine (1-2mm) roots; Clear change to -
B2	0.08 - 0.3 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, Basalt, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 7.6 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B2	0.3 - 0.61 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 7.9 (pH meter); Few, very fine (0-1mm) roots; Gradual change to -
B2	0.61 - 0.76 m	Very dark brown (10YR2/2-Moist); , 5YR33; Heavy clay; Moderate grade of structure, Lenticular; Moderately moist; Very firm consistence; 0-2%, coarse gravelly, 20-60mm, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.4 (pH meter); Few, very fine (0-1mm) roots; Gradual change to -
B3	0.76 - 1.02 m	Reddish brown (5YR4/3-Moist); ; Medium clay; Weak grade of structure, Lenticular; Moderately moist; Firm consistence; 10-20%, coarse gravelly, 20-60mm, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse change to -
C	1.02 - 1.37 m	; Field pH 8.7 (pH meter);

Morphological Notes

C Mottled strongly weathered scoriaceous basalt

Observation Notes

0-8CM 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 Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.08	7.1H	0.03B	28.6K	26.6	1.8	0.29	10.3D			
0.08 - 0.3	7.6H	0.04B								
0.3 - 0.61	7.9H	0.09B								
0.61 - 0.76	8.4H	0.23B								
0.76 - 1.02	8.5H	0.22B	25.2K	38.2	0.5	2.5				
1.02 - 1.37	8.7H	0.17B								

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 - 0.08		3.17A	1214C	0.323F	0.19B			0.2	1C	10	16	68
0.08 - 0.3		1.51A						0.2	0.5C	9	15	70
0.3 - 0.61	0.01C	1.33A	1167C	0.28F				0.2	0.5C	9	14	73
0.61 - 0.76												
0.76 - 1.02	6.01C	0.16A						24	8C	23	16	45
1.02 - 1.37				0.519F								

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 - 0.08									
0.08 - 0.3									
0.3 - 0.61									
0.61 - 0.76									
0.76 - 1.02									
1.02 - 1.37									

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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