Project Name: NAR
Project Code: NAR **Site ID:** B805 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.D. Hubble
Date Desc.: 01/06/72
Map Ref.: Sheet No. : 9046 1:100000
Northing/Long.: 150.783333333333
Easting/Lat.: -25.6980555555556
Locality:
Elevation: 300 metres
Rainfall: 716
Runoff: Rapid
Drainage: Moderately well drained

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: PLa
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Undisturbed soil core, 1 m deep,No Data

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10%
Morph. Type: No Data
Elem. Type: Pediment
Slope: 0 %
Pattern Type: Rises
Relief: 30 metres
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Epicalcareous-Endohypersodic Self-Mulching Black Vertosol
Mapping Unit: N/A
Principal Profile Form: Gn3.43

ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Black earth

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1p	0 - 0.05 m	Black (5YR2/1-Moist); ; Light clay; Moderate grade of structure, <2 mm, Granular; Moderately moist; Very weak consistence; 0-2%, medium gravelly, 6-20mm, angular, Andesite, coarse fragments; Field pH 7.8 (pH meter); Common, fine (1-2mm) roots; Abrupt change to -
A2p	0.05 - 0.1 m	Black (5YR2/1-Moist); ; Light clay; Moderate grade of structure, <2 mm, Granular; Moderately moist; Very weak consistence; 0-2%, medium gravelly, 6-20mm, angular, Andesite, coarse fragments; Field pH 7.8 (pH meter); Common, fine (1-2mm) roots; Clear change to -
B21	0.1 - 0.2 m	Very dark grey (5YR3/1-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Lenticular; Strong grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Andesite, coarse fragments; Field pH 8 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B22	0.2 - 0.3 m	Very dark grey (5YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 5-10 mm, Lenticular; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 8.8 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B22	0.3 - 0.45 m	Very dark grey (7.5YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 10-20 mm, Lenticular; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B23	0.45 - 0.6 m	Dark reddish brown (5YR3/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, Substrate material, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (pH meter); Common, fine (1-2mm) roots; Gradual change to -
B23	0.6 - 0.8 m	Dark reddish brown (5YR3/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Moderately moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, Substrate material, coarse fragments; Few (2 - 10 %), Manganiferous, , Soft segregations; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (pH meter); Few, fine (1-2mm) roots; Clear change to -

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B3	0.8 - 0.9 m	Reddish brown (5YR4/4-Moist); ; Heavy clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Strong consistence; 0-2%, medium gravelly, 6-20mm, subangular, Substrate material, coarse fragments; Few (2 - 10 %), Manganiferous, , Soft segregations; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter); Few, fine (1-2mm) roots; Gradual change to -
B3C	0.9 - 1.2 m	Yellow (10YR7/5-Moist); , 10YR54, 20-50% , 15-30mm, Distinct; , 5YR44, 20-50% , 15-30mm, Distinct; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence; 10-20%, angular, Substrate material, coarse fragments; Common (10 - 20 %), Manganiferous, , Soft segregations; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (pH meter); Few, fine (1-2mm) roots; Gradual change to -
B3C	1.2 - 1.5 m	Pale yellow (2.5Y7/4-Moist); , 10YR54, 20-50% , 5-15mm, Distinct; , 5YR44, 20-50% , 5-15mm, Distinct; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence; 20-50%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Many (20 - 50 %), Manganiferous, , Laminae; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (pH meter); Few, fine (1-2mm) roots; Gradual change to -
B3C	1.5 - 1.7 m	Pale yellow (2.5Y7/4-Moist); , 10YR54, 20-50% , 5-15mm, Distinct; , 5YR44, 20-50% , 5-15mm, Distinct; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence; 20-50%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Many (20 - 50 %), Manganiferous, , Laminae; Few, very fine (0-1mm) roots; Clear change to -
B3C	1.7 - 1.8 m	Yellowish brown (10YR5/4-Moist); , 2.5Y74, 20-50% , 5-15mm, Distinct; , 5YR44, 20-50% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence; 20-50%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Many (20 - 50 %), Manganiferous, , Laminae; Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

0-10CM POROUS GRANULAR STRUCTURE. WELL-DEVELOPED SLICKENSIDES BELOW 45CM (SLIGHT ABOVE). ESSENTIALLY C HORIZON WITH CLAYVEINS AND POCKETS BELOW 90CM. VEGETATION PREVIOUSLY BRIGALOW BELAH FOREST.

Site Notes

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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 - 0.05	7.8H	0.1C	21.6K	5.2	2.5	0.58	22.6D			
0.05 - 0.1	7.7H	0.04C	17.2K	5.9	1.5	0.6	23.5D			
0.1 - 0.2	8.2H	0.03C	14.2K	7	0.3	1.2	17.8D			
0.2 - 0.3	8.8H	0.04C								
0.3 - 0.45	9H	0.14C	12.5K	12.2	0.24	3.8	16.6D			
0.45 - 0.6	9.1H	0.23C								
0.6 - 0.8	9.1H	0.36C	8.5K	12	0.17	6.1	12D			
0.8 - 0.9	9.2H	0.37C								
0.9 - 1.2	9.4H	0.52C	6.5K	10.4	0.06	8.2	8.6D			
1.2 - 1.5	9.1H	0.7C								
1.5 - 1.7	9.1H	0.71C								
1.7 - 1.8	8.9H	0.76C								

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 - 0.05	0.32C	5.31A	32B		0.582B				5C	15	23	45
0.05 - 0.1	0.26C	2.99A	14B		0.361B				6C	14	23	50
0.1 - 0.2	0.1C	1.33A	7B		0.169B				7C	14	22	52
0.2 - 0.3	0.24C	0.88A	8B		0.117B				4C	13	19	61
0.3 - 0.45	0.9C	0.76A			0.102B				4C	12	19	64
0.45 - 0.6	4.25C	0.63A			0.087B				4C	23	26	47
0.6 - 0.8	8.59C	0.6A			0.081B				5C	10	20	60
0.8 - 0.9		0.28A			0.038B				5C	12	25	52
0.9 - 1.2	12.3C	0.18A			0.033B				4C	17	16	43
1.2 - 1.5									9C	28	33	29
1.5 - 1.7		0.14A			0.035B							
1.7 - 1.8												

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 - 0.05									
0.05 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.45									
0.45 - 0.6									
0.6 - 0.8									
0.8 - 0.9									
0.9 - 1.2									
1.2 - 1.5									
1.5 - 1.7									
1.7 - 1.8									

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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
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
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
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
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