

Project Name: WQR
Project Code: WQR **Site ID:** B489 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	Locality:	
Date Desc.:	22/11/61	Elevation:	244 metres
Map Ref.:	Sheet No. : 8453 1:100000	Rainfall:	676
Northing/Long.:	147.516666666667	Runoff:	Very slow
Easting/Lat.:	-22.052777777778	Drainage:	Poorly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Czb	Substrate Material:	Auger boring, 3 m deep, Clay

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Alluvial plain
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Plain	Slope Category:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Endoacidic Self-Mulching Black Vertosol		Principal Profile Form:	Ug5.15
ASC Confidence:		Great Soil Group:	Brown clay

All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, , . *Species includes - Panicum queenslandicum, Bothriochloa ewartiana
Tall Strata - Tree, 3.01-6m, Isolated clumps. *Species includes - Acacia harpophylla

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.03 m	Very dark brown (10YR2/2-Dry); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Loose consistence; 0-2%, medium gravelly, 6-20mm, coarse fragments; Field pH 6.7 (pH meter); Sharp change to -
B2	0.03 - 0.15 m	Very dark greyish brown (10YR3/2-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm, Polyhedral; Moist; Weak consistence; Moderately plastic; Field pH 6.7 (pH meter); Clear change to -
B2	0.15 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm, Polyhedral; Dry; Strong consistence; Field pH 5.9 (pH meter); Gradual change to -
B2	0.3 - 0.76 m	Dark yellowish brown (10YR3/5-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 20-50 mm, Lenticular; Dry; Strong consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 5.5 (pH meter); Gradual change to -
B2	0.76 - 1.07 m	Dark brown (10YR3/3-Dry); ; Heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 20-50 mm, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 5 (pH meter); Gradual change to -
B2	1.07 - 1.37 m	Dark brown (10YR3/3-Dry); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 10-20 mm, Lenticular; Moderately moist; Firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 4.3 (pH meter); Gradual change to -
B2	1.37 - 1.83 m	Grey (10YR5/1-Moist); , 10R36, 20-50% , 0-5mm, Distinct; , 20-50% , 0-5mm, Distinct; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 4.3 (pH meter); Gradual change to -
B2	1.83 - 2.29 m	Dark grey (7.5YR4/1-Dry); , 2.5YR34, 20-50% , 0-5mm, Distinct; , 20-50% , 0-5mm, Distinct; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 4.2 (pH meter); Gradual change to -

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B2	2.29 - 2.74 m	Dark grey (7.5YR4/1-Dry); , 2.5YR34, 20-50% , 0-5mm, Distinct; , 20-50% , 0-5mm, Distinct; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 4.2 (pH meter); Gradual change to -
B2	2.74 - 3.1 m	Grey (2.5Y5/1-Moist); , 10R36, 20-50% , 15-30mm, Prominent; , 20-50% , 15-30mm, Prominent; Heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 10-20 mm, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 4.2 (pH meter);

Morphological Notes

Observation Notes

0-3CM PLATY GRADING TO GRANULAR STRUCTURE:SUBSTRATE PROBABLY OLD LACUSTRINE OR RIVERINE ALLUVIUM:

Site Notes

WELLS PLAINS

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			
0 - 0.03	6.7H	0.02B	11.3K	13	0.19	1.4	9.3D		
0.03 - 0.15	6.7H	0.03B	13.8K	10.9	0.04	3.2	8D		
0.15 - 0.3	5.9H	0.33B	13.9K	11	0.04	3	8.2D		
0.3 - 0.76	5.5H	1.01B	13.6K	11.6	0.04	4.6	7.8D		
0.76 - 1.07	5H	1.99B	13.9K	12	0.04	4.9	4.9D		
1.07 - 1.37	4.3H	1.91B	16.2K	14.4	0.04	5.8	5.8D		
1.37 - 1.83	4.3H	0.98B							
1.83 - 2.29	4.2H	0.83B							
2.29 - 2.74	4.2H	0.8B							
2.74 - 3.1	4.2H	1.03B							

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.03		0.69A			0.06B			0	2C	20	18	61
0.03 - 0.15		0.38A	2C	0.021F	0.041B			0	2C	17	18	64
0.15 - 0.3		0.33A	1C		0.036B			0	2C	16	18	53
0.3 - 0.76		0.19A	4C		0.029B			0	2C	15	17	53
0.76 - 1.07		0.02A	6C		0.019B			0	1C	13	15	56
1.07 - 1.37		0A	3C	0.023F	0.014B			0	1C	11	14	58
1.37 - 1.83		0A	3C		0.012B							
1.83 - 2.29		0A	2C		0.008B							
2.29 - 2.74			3C		0.009B							
2.74 - 3.1		0A	7C	0.022F	0.009B							

[illegible]

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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
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
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