

Project Name: WQR
Project Code: WQR **Site ID:** B538 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	Locality:	
Date Desc.:	01/01/64	Elevation:	183 metres
Map Ref.:	Sheet No. : 8541 1:100000	Rainfall:	508
Northing/Long.:	148.066666666667	Runoff:	Rapid
Easting/Lat.:	-28.475	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Qs	Substrate Material:	Auger boring, 1 m deep, Unconsolidated material (unidentified)

Land Form

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

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Mottled Calcic Red Chromosol		Principal Profile Form:	Dr2.13
ASC Confidence:		Great Soil Group:	Red-brown earth
All necessary analytical data are available.			

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

Vegetation:

Mid Strata - Tree, , . *Species includes - Geijera parviflora, Eremophila mitchellii
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus populnea

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.18 m	Dark red (2.5YR3/6-Moist); ; Fine sandy loam; Massive grade of structure; Dry; Firm consistence; Field pH 7 (pH meter); Gradual change to -
A12	0.18 - 0.3 m	Dark red (2.5YR3/6-Moist); ; Fine sandy loam; Massive grade of structure; Many (>5 per 0.01m2) Medium (2-5mm) macropores, Dry; Weak consistence; Field pH 6 (pH meter); Clear
B1	0.3 - 0.47 m	Dark red (2.5YR3/6-Moist); ; Sandy medium clay; Weak grade of structure, 10-20 mm, Polyhedral; Few (<1 per 100mm2) macropores, Dry; Strong consistence; Field pH 6.1 (pH meter); Gradual change to -
B2	0.47 - 0.71 m	Dark red (2.5YR3/6-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Dry; Strong consistence; Field pH 6.6 (pH meter); Gradual change to -
B2	0.71 - 0.84 m	Red (2.5YR4/6-Moist); , 5YR56; , 10YR63; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Dry; Firm consistence; Field pH 7.5 (pH meter); Gradual change to -
B2	0.84 - 0.91 m	Reddish brown (5YR5/4-Moist); , 10YR62; Clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Dry; Firm consistence; Field pH 8.1 (pH meter); Gradual change to -
B31k	0.91 - 1.07 m	Reddish brown (5YR5/4-Moist); , 2.5YR46, 20-50% , 5-15mm, Prominent; , 10YR62, 20-50% , 5-15mm, Prominent; Clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Dry; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter); Gradual change to -
B32k	1.07 - 1.3 m	Light brownish grey (2.5Y6/3-Moist); , 5YR54, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Clay loam (Heavy); Weak grade of structure, 5-10 mm, Polyhedral; Dry; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 8.8 (pH meter); Gradual change to -
B33k	1.35 - 1.83 m	Light brownish grey (2.5Y6/3-Moist); , 5YR54, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Clay loam (Heavy); Weak grade of structure, 5-10 mm, Polyhedral; Dry; Firm consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.8 (pH

Morphological Notes

Observation Notes

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1.35-1.83M B33k - DIFFUSE CARBONATE THROUGHOUT HORIZON - MASS EFFERVESCES WITH ACID:

Site Notes

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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 - 0.18	7H	0.01B	5.2K	0.98	0.8	0.06	1.6D			
0.18 - 0.3	6H	0.01B								
0.3 - 0.47	6.1H	0.01B	7.2K	2.8	0.67	0.29	1.4D			
0.47 - 0.71	6.6H	0.01B								
0.71 - 0.84	7.5H	0.02B								
0.84 - 0.91	8.1H	0.03B	12.9K	6.6	1.2	1.1	0D			
0.91 - 1.07	8.7H	0.06B								
1.07 - 1.3	8.8H	0.07B								
1.35 - 1.83	8.8H	0.1B								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.18		0.56A	18C	0.025F	0.05B				21C	53	7	17
0.18 - 0.3		0.27A			0.032B				21C	53	7	16
0.3 - 0.47		0.39A			0.029B				19C	48	8	23
0.47 - 0.71		0.18A			0.029B				14C	37	8	40
0.71 - 0.84		0.08A			0.022B				15C	35	9	39
0.84 - 0.91	0.19C	0.09A		0.013F	0.019B				14C	37	10	37
0.91 - 1.07	0.95C			0.013F					14C	36	7	38
1.07 - 1.3												
1.35 - 1.83	5.1C			0.01F					12C	34	8	37

[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
19B_NR	Calcium Carbonate (CaCO3) - 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_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