

**Project Name:** Bencubbin land resources survey (Merredin North)  
**Project Code:** MDN **Site ID:** 0327 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Gerard Grealish  
**Date Desc.:** 08/08/91  
**Map Ref.:**  
**Northing/Long.:** 6571271 AMG zone: 50  
**Easting/Lat.:** 560867 Datum: AGD84  
**Locality:**  
**Elevation:** No Data  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** No Data

#### Geology

**ExposureType:** Soil pit  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** No Data

#### Landform

**Rel/Slope Class:** No Data  
**Morph. Type:** Mid-slope  
**Elem. Type:** Hillslope  
**Slope:** 3 %  
**Pattern Type:** Peneplain  
**Relief:** No Data  
**Slope Category:** No Data  
**Aspect:** 45 degrees

#### Surface Soil Condition

#### Erosion

#### Soil Classification

**Australian Soil Classification:**  
 Epiphypersodic Pedal Hypercalcic Calcarosol  
**ASC Confidence:**  
 Analytical data are incomplete but reasonable confidence.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Gc2.22  
**Great Soil Group:** N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1 0 - 0.06 m Dark reddish brown (5YR3/2-Moist); ; Loam; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Firm consistence; Field pH 9.5 (pH meter); Diffuse change to -  
 A3 0.06 - 0.32 m Reddish brown (5YR4/4-Moist); ; Loam; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Firm consistence; Field pH 9.5 (pH meter); Diffuse change to -  
 B21 0.32 - 0.8 m Yellowish red (5YR5/6-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Very firm consistence; 20-50%, coarse fragments; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Fragments; Soil matrix is Very highly calcareous; Field pH 9.5 (pH meter);  
 B22 0.8 - m ; Light clay;

#### Morphological Notes

A1 25% CLAY  
 A3 25% CLAY  
 B21 40% CLAY--GRAVEL: BLACKNODULES-RED INSIDE-SILICA CEMENT?

#### Observation Notes

#### 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				%
0.01 - 0.05	7.8B 8.4H	18B	13E	3.4	3.9	0.28		24B	20.58D	1.17
0.16 - 0.2	8.2B	470B	8.41E	6.58	2.58	5.67		22B	23.24D	25.77

0.56 - 0.6	8.5H 8.4B 8.9H	330B	3.62E	7.26	1.74	6.3		20B	18.92D	31.50
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Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>			%	
0.01 - 0.05 15.6	9C	1.61D		250B							23.8
0.16 - 0.2 27.3	19C	0.47D		120B							30.5
0.56 - 0.6 36.8	30C	0.18D		75B							20

#### Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
15C1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	
	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15J_BASES	Sum of Bases
15L1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
Sum of Cations	
	and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)