

**Project Name:** CAN      **Site ID:** CP123      **Observation ID:** 1  
**Project Code:** CAN      **Agency Name:** CSIRO Division of Soils (VIC)

#### Site Information

Desc. By:	C.L. Watson	Locality:	800M east of CP122:Kalkee
Date Desc.:	11/10/78	Elevation:	150 metres
Map Ref.:	Sheet No. : 7324 1:100000	Rainfall:	440
Northing/Long.:	142.3	Runoff:	No Data
Easting/Lat.:	-36.5166666666667	Drainage:	Imperfectly drained

#### Geology

Exposure Type:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Slightly porous, Unconsolidated material (unidentified)

#### Land Form

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

**Surface Soil Condition (dry):** Self-mulching, Recently cultivated

#### Erosion:

#### Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Epicalcareous-Endohypersodic Self-Mulching Red Vertosol		Principal Profile Form:	Ug5.6
<b>ASC Confidence:</b>		Great Soil Group:	N/A

Analytical data are incomplete but reasonable confidence.

**Site Disturbance:** Cultivation. Rainfed

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

0 - 0.12 m	Brown (7.5YR4/2-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Very firm consistence; Field pH 7.3 (pH meter); Sharp change to -
0.12 - 0.2 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Weak consistence; Field pH 7.8 (pH meter); Diffuse change to -
0.2 - 0.3 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Weak consistence; Field pH 8.4 (pH meter);
0.3 - 0.42 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; 20-50 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter); Sharp change to -
0.42 - 0.52 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; 20-50 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , Concretions; Field pH 9.1 (pH meter); Sharp change to -
0.52 - 0.6 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 2-10% ; , 2-10% ; Light medium clay; 2-5 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.2 (pH meter);
0.6 - 0.7 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 10-20% ; , 10-20% ; Light medium clay; 2-5 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Concretions; Field pH 9.2 (pH meter);
0.7 - 0.8 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 20-50% ; , 20-50% ; Light medium clay; 2-5 mm, Angular blocky; Firm consistence; Common (10 - 20 %), Calcareous, , Soft segregations; Field pH 9.1 (pH meter);
0.8 - 0.9 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 20-50% ; , 20-50% ; Light medium clay; 2-5 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 9 (pH meter);
0.9 - 1.05 m	Brown (7.5YR5/4-Moist); , 5YR44, 20-50% ; , 20-50% ; Light medium clay; 2-5 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (pH meter);

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- 1.05 - 1.1 m Brown (7.5YR5/4-Moist); , 5YR44, 20-50% ; , 20-50% ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.7 (pH meter);
- 1.1 - 1.2 m Brown (7.5YR5/4-Moist); , 5YR44, 10-20% ; , 10-20% ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.9 (pH meter);
- 1.2 - 1.3 m Brown (7.5YR5/4-Moist); , 5YR44, 2-10% ; , 2-10% ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.9 (pH meter);
- 1.3 - 1.4 m Brown (7.5YR5/4-Moist); , 5YR44, 0-2% ; , 0-2% ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.8 (pH meter);
- 1.4 - 1.5 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.8 (pH meter);
- 1.5 - 1.6 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.8 (pH meter);
- 1.6 - 1.7 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.8 (pH meter);
- 1.7 - 1.8 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter);
- 1.8 - 1.9 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.6 (pH meter);
- 1.9 - 2 m Brown (7.5YR5/4-Moist); ; Light medium clay; 2-5 mm, Angular blocky; Weak consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);

**Morphological Notes**

**Observation Notes**

UG5.34 IF NOT SELF MULCHING:SHINY SURFACES >12CM:~70CM SOME FINE WHITE CRYSTALS POSSIBLY GYPSUM:

**Site Notes**

HORSHAM

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Exchangeable Cations			Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
			Ca	Mg	K					
0 - 0.12	7.3A	0.12A	17.5K	3.2	3.6	0.38	9B	33.7J		1.13
0.12 - 0.2	7.8A	0.09A								
0.2 - 0.3	8.4A	0.21A								
0.3 - 0.42	8.7A	0.31A								
0.42 - 0.52	9.1A	0.4A								
0.52 - 0.6	9.2A	0.61A								
0.6 - 0.7	9.2A	0.91A								
0.7 - 0.8	9.1A	1.1A								
0.8 - 0.9	9A	1.4A								
0.9 - 1.05	9A	1.5A								
1.05 - 1.1	8.7A	1.3A								
1.1 - 1.2	8.9A	1.7A								
1.2 - 1.3	8.9A	1.8A								
1.3 - 1.4	8.8A	1.9A								
1.4 - 1.5	8.8A	2.2A								
1.5 - 1.6	8.8A	2.3A								
1.6 - 1.7	8.8A	2.5A								
1.7 - 1.8	8.7A	2.5A								
1.8 - 1.9	8.6A	2.6A								
1.9 - 2	8.6A	2.5A								

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	GV	Particle CS	Size FS %	Analysis Silt Clay
0 - 0.12			1.89D								
0.12 - 0.2											
0.2 - 0.3											
0.3 - 0.42											
0.42 - 0.52											
0.52 - 0.6											
0.6 - 0.7											
0.7 - 0.8											
0.8 - 0.9											
0.9 - 1.05											
1.05 - 1.1											
1.1 - 1.2											
1.2 - 1.3											
1.3 - 1.4											
1.4 - 1.5											
1.5 - 1.6											
1.6 - 1.7											
1.7 - 1.8											
1.8 - 1.9											
1.9 - 2											

Depth m	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar		
0 - 0.12								0.16B	

0 - 0.12 0.16B

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0.12 - 0.2  
0.2 - 0.3  
0.3 - 0.42  
0.42 - 0.52  
0.52 - 0.6  
0.6 - 0.7  
0.7 - 0.8  
0.8 - 0.9  
0.9 - 1.05  
1.05 - 1.1  
1.1 - 1.2  
1.2 - 1.3  
1.3 - 1.4  
1.4 - 1.5  
1.5 - 1.6  
1.6 - 1.7  
1.7 - 1.8  
1.8 - 1.9  
1.9 - 2

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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_CEC	CEC - 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
15G_C_AL1	Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P3B_GV_15	15 BAR Moisture g/g - Gravimetric using pressure plate