

Project Name: Kaniva, Vic. (Gilgai Soils)
Project Code: REG **Site ID:** A1062 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (VIC)

Site Information

Desc. By:	G. Blackburn	Locality:	
Date Desc.:	14/09/70	Elevation:	120 metres
Map Ref.:	Sheet No. : 7125 1:100000	Rainfall:	480
Northing/Long.:	141.1	Runoff:	No Data
Easting/Lat.:	-36.45	Drainage:	Moderately well drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	Alluvial plain
Morph. Type:	No Data	Relief:	5 metres
Elem. Type:	Plain	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	N/A
		Great Soil Group:	Brown clay

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Dark greyish brown (10YR4/2-Dry); , 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Clay loam; Moderate grade of structure, 5-10 mm, Granular; Strong consistence; Soil matrix is Moderately calcareous; Field pH 8.5 (pH meter); Abundant, fine (1-2mm) roots; Diffuse change to -
B	0.1 - 0.2 m	Brown (10YR4/3-Moist); Brown (10YR5/3-Dry); , 7.5YR54, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; Soil matrix is Moderately calcareous; Abundant, fine (1-2mm) roots; Diffuse change to -
B	0.2 - 0.3 m	Brown (10YR4/3-Moist); , 7.5YR42, 10-20% , 5-15mm, Distinct; , 5YR46, 10-20% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; Few (2 - 10 %), Calcareous, , ; Soil matrix is Moderately calcareous; Field pH 8.5 (pH meter); Many, fine (1-2mm) roots; Diffuse change to -
B	0.3 - 0.4 m	Brown (10YR4/3-Moist); , 5YR46, 10-20% , 5-15mm, Distinct; , 10YR64, 10-20% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Weak consistence; Common (10 - 20 %), Calcareous, , ; Soil matrix is Moderately calcareous; Many, fine (1-2mm) roots; Clear change to -
B	0.4 - 0.5 m	Dark greyish brown (10YR4/2-Moist); , 5YR46, 20-50% , 5-15mm, Distinct; , 10YR43, 20-50% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Firm consistence; Soil matrix is Moderately calcareous; Field pH 9 (pH meter); Many, very fine (0-1mm) roots; Abrupt change to -
B	0.5 - 0.6 m	Yellowish red (5YR5/6-Moist); , 10YR43, 20-50% , 5-15mm, Faint; , 10YR32, 20-50% , 5-15mm, Faint; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Very firm consistence; Very few (0 - 2 %), Calcareous, , ; Soil matrix is Moderately calcareous; Many, very fine (0-1mm) roots; Abrupt change to -
	0.6 - 0.7 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Very firm consistence; Very few (0 - 2 %), Calcareous, , ; Soil matrix is Slightly calcareous; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Abrupt change to -

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0.7 - 0.8 m	Brown (7.5YR5/4-Moist); , 2.5YR64, 10-20% , 0-5mm, Faint; , 7.5YR66, 10-20% , 0-5mm, Faint; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Strong consistence; Soil matrix is Slightly calcareous; Abrupt change to -
0.8 - 0.9 m	Brown (7.5YR5/4-Moist); , 2.5YR52, 10-20% , 5-15mm, Distinct; , 10YR32, 10-20% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Strong consistence; Soil matrix is Moderately calcareous; Field pH 9 (pH meter); Common, fine (1-2mm) roots; Abrupt change to -
0.9 - 1 m	Strong brown (7.5YR5/6-Moist); , 2.5Y72, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Prismatic; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Soil matrix is Highly calcareous; Few, very fine (0-1mm) roots; Abrupt change to -
1 - 1.1 m	Very pale brown (10YR7/4-Moist); , 10YR72, 20-50% , 5-15mm, Faint; , 20-50% , 5-15mm, Faint; Light clay; Strong grade of structure, 10-20 mm, Prismatic; Strong consistence; Few (2 - 10 %), Calcareous, , ; Soil matrix is Highly calcareous; Field pH 9 (pH meter); FewAbrupt change to -
1.1 - 1.2 m	Very pale brown (10YR7/4-Moist); , 10YR42, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Soil matrix is Highly calcareous; Few, very fine (0-1mm) roots; Abrupt change to -
1.2 - 1.3 m	Very pale brown (10YR7/4-Moist); , 10YR42, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules; Soil matrix is Highly calcareous; Few, very fine (0-1mm) roots; Abrupt change to -
1.3 - 1.4 m	Very pale brown (10YR7/4-Moist); , 7.5YR66, 20-50% , 0-5mm, Distinct; , 20-50% , 0-5mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Firm consistence; Very few (0 - 2 %), Calcareous, , Nodules; Soil matrix is Highly calcareous; Abrupt change to -
1.4 - 1.45 m	Very pale brown (10YR7/4-Moist); , 2.5Y74, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Firm consistence; Very few (0 - 2 %), Calcareous, , Nodules; Soil matrix is Highly calcareous; Field pH 9 (pH meter); Clear change to -
1.45 - 1.56 m	Light yellowish brown (2.5Y6/4-Moist); , 10YR32, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Soil matrix is Moderately calcareous; Field pH 8.6 (pH meter); Few, very fine (0-1mm) roots;
1.56 - 1.6 m	Light yellowish brown (2.5Y6/4-Moist); , 10YR63, 2-10% , 5-15mm, Faint; , 10YR32, 2-10% , 5-15mm, Faint; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Soil matrix is Moderately calcareous;
1.6 - 1.7 m	Light yellowish brown (2.5Y6/4-Moist); , 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Soil matrix is Slightly calcareous; Field pH 9 (pH meter);
1.7 - 1.8 m	Light yellowish brown (2.5Y6/4-Moist); , 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Soil matrix is Slightly calcareous;
1.8 - 1.9 m	Light yellowish brown (2.5Y6/4-Moist); , 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules; Soil matrix is Slightly calcareous; Field pH 9.5 (pH meter); Few, very fine (0-1mm) roots;
1.9 - 2 m	Light yellowish brown (2.5Y6/4-Moist); , Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Very firm consistence; Few (2 - 10 %), Calcareous, , Nodules; Soil matrix is Slightly calcareous;

Morphological Notes

Observation Notes

Site Notes

LOWAN

Observation ID: 1

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP			
		Ca	Mg	K	Na	Acidity						
m		dS/m				Na						
						Cmol (+)/kg			%			
0 - 0.1	8H	0.071B	26K	4.2	1.6	0.93						
0.1 - 0.2	8.4H	0.061B	26K	5.9	1.2	1.3						
0.2 - 0.3	8.6H	0.065B	24K	7.5	1.2	1.6						
0.3 - 0.4	8.8H	0.068B										
0.4 - 0.5	9H	0.095B	16K	9	1.3	3.6						
0.5 - 0.6	9.2H	0.14B										
0.6 - 0.7	9.1H	0.23B	10K	15	1.6	8.2						
0.7 - 0.8	9.2H	0.36B										
0.8 - 0.9	9.2H	0.41B	8.2K	15	1.7	9.7						
0.9 - 1	9.1H	0.47B										
1 - 1.1	9.2H	0.5B	6.8K	14	1.6	10						
1.1 - 1.2	9.1H	0.5B										
1.2 - 1.3	9.3H	0.47B	7.4K	12	1.3	8.5						
1.3 - 1.4	9.3H	0.45B										
1.4 - 1.45	9.3H	0.42B	6.2K	10	1.1	8.7						
1.45 - 1.56	9.2H	0.49B										
1.56 - 1.6	9.2H	0.53B	7.6K	13	1.5	7.8						
1.6 - 1.7	9.2H	0.51B										
1.7 - 1.8	9.1H	0.53B	7.5K	15	1.5	10						
1.8 - 1.9	9.1H	0.52B										
1.9 - 2	9.1H	0.52B	7.5K	15	1.6	10						
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle	Size	Analysis		
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1	2.5C	1.8E			0.2B				14C	35	7	40
0.1 - 0.2	11C	1E			0.094B				11C	31	7	42
0.2 - 0.3	12C	0.9E			0.078B				9C	30	8	42
0.3 - 0.4	9.9C	0.66E			0.067B							
0.4 - 0.5	5.6C	0.41E			0.035B				11C	37	10	39
0.5 - 0.6	4.2C	0.27E			0.031B							
0.6 - 0.7	6.2C	0.24E			0.027B				7C	26	6	52
0.7 - 0.8	11C	0.19E			0.018B							
0.8 - 0.9	17C	0.17E			0.017B				6C	20	7	47
0.9 - 1	22C	0.21E			0.019B							
1 - 1.1	27C	0.15E			0.013B				6C	18	6	43
1.1 - 1.2	32C	0.14E			0.013B							
1.2 - 1.3	39C	0.14E			0.01B				5C	15	5	35
1.3 - 1.4	46C	0.1E			0.008B							
1.4 - 1.45	45C	0.07E			0.008B				5C	12	6	32
1.45 - 1.56	22C	0.07E			0.013B							
1.56 - 1.6	13C	0.17E			0.021B				9C	25	11	44
1.6 - 1.7	10C	0.08E			0.013B							
1.7 - 1.8	10C	0.07E			0.013B				9C	26	8	45
1.8 - 1.9	5.7C	0.09E			0.013B							
1.9 - 2	3.5C	0.07E			0.012B				9C	23	8	50
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	

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0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 1
1 - 1.1
1.1 - 1.2
1.2 - 1.3
1.3 - 1.4
1.4 - 1.45
1.45 - 1.56
1.56 - 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_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 (CaCO ₃) - Not recorded
2_LOI	Loss on Ignition (%)
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
6Z	Organic carbon (%) - Not recorded
7_NR	Total nitrogen (%) - 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