

Project Name: CAN
Project Code: CAN **Site ID:** CP203 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By:	P.H. Walker	Locality:	In oat paddock of Bonnie Doon farm near Diatomite Mine
Date Desc.:	03/12/81	Elevation:	45 metres
Map Ref.:	Sheet No. : 8725 1:100000	Rainfall:	430
Northing/Long.:	149.175	Runoff:	Moderately rapid
Easting/Lat.:	-36.2013888888889	Drainage:	Well drained

Geology

Exposure Type:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Soil pit, 2 m deep, Non-porous, dense, Clay

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	Pattern Type:	Pediment
Morph. Type:	Crest	Relief:	10 metres
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	2 %	Aspect:	0 degrees

Surface Soil Condition (dry): Hardsetting

Erosion: Moderate (sheet)

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Haplic Calcic Brown Dermosol	Principal Profile Form:	Gn3.13
ASC Confidence:	Great Soil Group:	Red earth

Analytical data are incomplete but reasonable confidence.

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments: 0-2%, medium gravelly, 6-20mm, subangular, Quartz

Profile Morphology

A1	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); ; Loam; Massive grade of structure, <2 mm; Moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 6.1 (pH meter); Gradual change to -
A1	0.1 - 0.2 m	Dark reddish brown (2.5YR3/3-Moist); ; Loam (Heavy); Massive grade of structure, <2 mm; Moist; Very firm consistence; Field pH 6.3 (pH meter); Clear change to -
B11	0.2 - 0.3 m	Dark reddish brown (2.5YR3/4-Moist); ; Clay loam; Weak grade of structure, 50-100 mm, Subangular blocky; Moist; Firm consistence; Field pH 6.7 (pH meter); Gradual change to -
B12	0.3 - 0.4 m	Dark yellowish brown (10YR3/4-Moist); ; Light clay; Weak grade of structure, 50-100 mm, Subangular blocky; Moist; Firm consistence; Field pH 6.8 (pH meter); Gradual change to -
B21	0.4 - 0.5 m	Dark yellowish brown (10YR3/4-Moist); ; Light clay; Weak grade of structure, 50-100 mm, Subangular blocky; Moist; Very firm consistence; Field pH 7 (pH meter); Gradual change to -
B22	0.5 - 0.6 m	Dark yellowish brown (10YR3/4-Moist); Dark yellowish brown (10YR3/4-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Dry; Very strong consistence; Field pH 7.1 (pH meter); Clear change to -
B23	0.6 - 0.7 m	Dark yellowish brown (10YR3/4-Moist); Dark yellowish brown (10YR3/4-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7.2 (pH meter); Clear change to -
B31	0.7 - 0.8 m	Dark yellowish brown (10YR3/4-Moist); Dark yellowish brown (10YR3/4-Dry); ; Heavy clay; Strong grade of structure, 100-200 mm, Prismatic; Moist; Very firm consistence; Field pH 7.2 (pH meter); Gradual change to -
B32	0.8 - 0.9 m	Dark brown (10YR3/3-Moist); Dark brown (10YR3/3-Dry); ; Heavy clay; Strong grade of structure, 100-200 mm, Prismatic; Moist; Field pH 7.3 (pH meter); Gradual change to -
Bk	0.9 - 0.95 m	Dark brown (10YR3/3-Moist); Dark brown (10YR3/3-Dry); , 2.5YR58, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Heavy clay; Strong grade of structure, 100-200 mm, Prismatic; Dry; Few cutans, <10% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Laminae; Field pH 8.3 (pH meter); Abrupt change to -

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Bk	0.95 - 1 m	Red (2.5YR5/8-Moist); ; Clay loam; , Platy; Dry; Firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Common (10 - 20 %), Calcareous, , Laminae; Field pH 8.7 (pH meter); Gradual change to -
Bk	1 - 1.2 m	Yellowish red (5YR5/8-Moist); ; Clay loam; , Platy; Dry; Firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Many (20 - 50 %), Calcareous, , Laminae; Field pH 8.8 (pH meter); Abrupt change to -

Morphological Notes

Observation Notes

Site Notes

LAKE BUNYAN

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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 Cmol (+)/kg	Acidity		%
0 - 0.1	6.1A	0.05A	4.7K	1.1	1.1	0	10B	16.9J	0.00
0.1 - 0.2	6.3A	0.03A	5.7K	1.3	1	0	9B	17J	0.00
0.2 - 0.3	6.7A	0.03A							
0.3 - 0.4	6.8A	0.03A	7.6K	2.4	1.7	0.17	15.5B	27.4J	0.62
0.4 - 0.5	7A	0.02A							
0.5 - 0.6	7.1A	0.02A	10.5K	3.7	1.9	0.29	17.2B	33.6J	0.86
0.6 - 0.7	7.2A	0.02A							
0.7 - 0.8	7.2A	0.02A	18.4K	6.5	1.8	0.41	14.7B	41.8J	0.98
0.8 - 0.9	7.3A	0.02A							
0.9 - 0.95	8.3A	0.14A							
0.95 - 1	8.7A	0.12A							
1 - 1.15	8.8A	0.12A							

[illegible][illegible]

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Laboratory Analyses Completed for this profile

13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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
19A1	Carbonates - rapid titration
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
7_NR	Total nitrogen (%) - Not recorded