Project Name: CAN
Project Code: CAN **Site ID:** CP144 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By:	G.A. Stewart	**Locality:**	Over Gin Gin Bridge Macquarie River before culvert Trangie Road
Date Desc.:	09/06/79	**Elevation:**	225 metres
Map Ref.:	Sheet No. : SH8534 1:10000	**Rainfall:**	500
Northing/Long.:	148.083333333333	**Runoff:**	Very slow
Easting/Lat.:	-31.9333333333333	**Drainage:**	Imperfectly drained

Geology

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

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:	0 %	**Aspect:**	280 degrees

Surface Soil Condition (dry): Cracking, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Epicalcareous-Endohypersodic Self-Mulching Brown Vertosol

Mapping Unit: N/A
Principal Profile Form: Ug5.34

ASC Confidence:
Analytical data are incomplete but reasonable confidence.

Great Soil Group: Grey clay

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments:

Profile Morphology

0 - 0.1 m	Dark brown (7.5YR3/4-Moist); ; Medium heavy clay; Moderate grade of structure, 2-5 mm, Angular blocky; Very coarse, (20 - 50) mm crack; Very weak consistence; Moderately plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.3 (pH meter);
0.1 - 0.2 m	Dark brown (7.5YR3/4-Moist); ; Medium heavy clay; Moderate grade of structure, 2-5 mm, Angular blocky; Coarse, (10 - 20) mm crack; Very weak consistence; Moderately plastic; Slightly sticky; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.4 (pH meter);
0.2 - 0.3 m	Dark brown (7.5YR3/4-Moist); ; Medium heavy clay; Moderate grade of structure, 2-5 mm, Angular blocky; Very weak consistence; Moderately plastic; Slightly sticky; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter); Sharp change to -
0.3 - 0.4 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.7 (pH meter);
0.4 - 0.5 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.8 (pH meter);
0.5 - 0.6 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.9 (pH meter);
0.6 - 0.7 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.9 (pH meter);
0.7 - 0.8 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.8 (pH meter);
0.8 - 0.9 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 8.7 (pH meter);

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0.9 - 1 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Concretions; Field pH 8.1 (pH meter);
1 - 1.1 m	Reddish brown (5YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Many (20 - 50 %), Calcareous, , Concretions; Field pH 7.8 (pH meter);
1.1 - 1.2 m	Reddish brown (5YR4/4-Moist); , 5YR43, 2-10% ; , 2-10% ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.6 (pH meter);
1.2 - 1.3 m	Reddish brown (5YR4/4-Moist); ; Medium heavy clay; Weak grade of structure, 2-5 mm, Angular blocky; Firm consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.7 (pH meter);
1.3 - 1.4 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 8.1 (pH meter);
1.4 - 1.5 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 8 (pH meter);
1.5 - 1.6 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 7.1 (pH meter);
1.6 - 1.7 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 6.3 (pH meter);
1.7 - 1.8 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 5.6 (pH meter);
1.8 - 1.9 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 5.3 (pH meter);
1.9 - 2 m	Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Angular blocky; Firm consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 5.2 (pH meter);

Morphological Notes

Observation Notes

SHINY SURFACES >30CM

Site Notes

TRANGIE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	8.3A	0.12C	23.5K	4.3	1.1	0.3	5.6B	34.8J		0.86
0.1 - 0.2	8.4A	0.13C								
0.2 - 0.3	8.6A	0.16C								
0.3 - 0.4	8.7A	0.22C								
0.4 - 0.5	8.8A	0.26C								
0.5 - 0.6	8.9A	0.33C								
0.6 - 0.7	8.9A	0.39C								
0.7 - 0.8	8.8A	0.49C								
0.8 - 0.9	8.7A	0.61C								
0.9 - 1	8.1A	1.55C								
1 - 1.1	7.8A	2.4C								
1.1 - 1.2	7.6A	2.9C								
1.2 - 1.3	7.7A	2.5C								
1.3 - 1.4	8.1A	1.03C								
1.4 - 1.5	8A	0.92C								
1.5 - 1.6	7.1A	0.89C								
1.6 - 1.7	6.3A	0.92C								
1.7 - 1.8	5.6A	0.91C								
1.8 - 1.9	5.3A	0.87C								
1.9 - 2	5.2A	0.84C								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1	2.07A	1.09D							8D	34	9	43
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 - 1.5												
1.5 - 1.6												
1.6 - 1.7												
1.7 - 1.8												
1.8 - 1.9												
1.9 - 2												

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
0 - 0.1								0.17B		

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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 - 1.5
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
19A1	Carbonates - rapid titration
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
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