Project Name: SC
Project Code: SC **Site ID:** C303 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By: B.E. Butler
Locality: 2.25KM along Ilaroo Road from Shoalhaven River Bridge
Date Desc.: 01/01/56
Elevation: 75 metres
Map Ref.: Sheet No. : 9028 1:100000
Rainfall: 940
Northing/Long.: 150.580555555556
Runoff: Slow
Easting/Lat.: -34.8541666666667
Drainage: Poorly drained

Geology

ExposureType: No Data
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Slightly porous, Sandstone

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10%
Pattern Type: Plateau
Morph. Type: Crest
Relief: No Data
Elem. Type: Hillcrest
Slope Category: Very gently sloped
Slope: 2 %
Aspect: No Data

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Mottled Magnesic Yellow Chromosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: N/A
Great Soil Group: Yellow earth

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, , Mid-dense. *Species includes - None Recorded

Surface Coarse Fragments: 0-2%, fine gravelly, 2-6mm, rounded, Sandstone

Profile Morphology

A1	0 - 0.01 m	Light yellowish brown (10YR6/4-Moist); ; Sandy loam; Moderate grade of structure, 20-50 mm, Platy; Dry; Firm consistence; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 6 (pH meter); Many
A12	0.01 - 0.18 m	Brownish yellow (10YR6/7-Moist); ; Sandy loam (Heavy); Moderate grade of structure, 5-10 mm, Subangular blocky; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 6.4 (pH meter); Sharp change to -
A13	0.18 - 0.36 m	Brownish yellow (10YR6/7-Moist); , 10-20% ; , 10-20% ; Sandy loam (Heavy); Massive grade of structure; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 5.8 (pH meter); Gradual change to -
A14	0.36 - 0.51 m	Brownish yellow (10YR6/7-Moist); , 10-20% ; , 10-20% ; Sandy loam; Massive grade of structure; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Field pH 5.7 (pH meter);
B11	0.56 - 0.64 m	Brownish yellow (10YR6/7-Moist); , 2-10% ; , 2-10% ; Light clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Weak consistence; Slightly plastic; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Few (2 - 10 %), , Coarse (6 - 20 mm), Tubules; Field pH 5.8 (pH meter);
B11	0.64 - 0.84 m	Brownish yellow (10YR6/7-Moist); , 10-20% ; , 10-20% ; Light clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; Slightly plastic; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Concretions; Field pH 5.7 (pH meter);
D	1.07 - 1.27 m	Yellowish red (5YR4/5-Moist); , 5YR73, 20-50% ; , 10YR58, 20-50% ; Medium clay; Moist; Firm consistence; Moderately plastic; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Concretions; Field pH 5.6 (pH meter);

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D	1.85 - 2.06 m	Strong brown (7.5YR5/7-Moist); , 2.5Y82, 20-50% ; , 10R36, 20-50% ; Medium clay; Moist; Firm consistence; Very plastic; 0-2%, coarse gravelly, 20-60mm, subrounded platy, dispersed, Substrate material, coarse fragments; Field pH 5.5 (pH meter);

Morphological Notes

Observation Notes

GENTLY CONVEX PERMIAN SANDSTONE PLATEAU:185-206CM COUNTRY CLAY:PROFILE SHOWS FE STONEY ZONE THEN MOTTLED LAYER:

Site Notes

KIAMA/NOWRA

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.01	6A	<0.03A								
0.01 - 0.18	6.4A	<0.03A								
0.18 - 0.36	5.8A	<0.03A	0.48K	1.4	0.2	0.07	6.4E		8.6B	
0.36 - 0.51	5.7A	<0.03A								
0.56 - 0.64	5.8A	<0.03A	0.08K	2.9	0.15	0.16	9.3E		12.6B	
0.64 - 0.84	5.7A	<0.03A								
1.07 - 1.27	5.6A	<0.03A								
1.85 - 2.06	5.5A	<0.03A								

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 - 0.01		2.59D							33D	49	10	7
0.01 - 0.18									31D	43	11	15
0.18 - 0.36									28D	42	8	23
0.36 - 0.51									28D	35	10	29
0.56 - 0.64		0.2D							23D	24	8	45
0.64 - 0.84									13D	26	16	45
1.07 - 1.27									22D	23	11	46
1.85 - 2.06									14D	42	18	19

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 - 0.01									
0.01 - 0.18									
0.18 - 0.36									
0.36 - 0.51									
0.56 - 0.64									
0.64 - 0.84									
1.07 - 1.27									
1.85 - 2.06									

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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
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
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