

**Project Name:** CAN  
**Project Code:** CAN **Site ID:** CP243 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b>	C.J. Chartres	<b>Locality:</b>	Moruya
<b>Date Desc.:</b>	18/02/86	<b>Elevation:</b>	25 metres
<b>Map Ref.:</b>	Sheet No. : 8926 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	150.12	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-35.64222225 Datum: AGD66	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Till

#### Landform

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	15 metres
<b>Elem. Type:</b>	No Data	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

#### Surface Soil Condition

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>	N/A	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	Confidence level not specified	<b>Principal Profile Form:</b>	Dd2.3
		<b>Great Soil Group:</b>	N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); Light brownish grey (10YR6/2-Dry); ; Loam; Massive grade of
		structure; Very weak consistence; Clear change to -
A2	0.05 - 0.09 m	Greyish brown (10YR5/2-Moist); Light grey (10YR7/2-Dry); ; Clayey sand; Massive grade of structure;
		Very weak consistence; Abrupt, Irregular change to -
B2	0.09 - 0.2 m	Very dark greyish brown (10YR3/2-Moist); Yellowish red (5YR5/6-Moist); ; Heavy clay; Weak grade of
		structure, 50-100 mm, Angular blocky; Firm consistence; Clear change to -
B3	0.2 - 0.35 m	Very dark greyish brown (10YR3/2-Moist); Yellowish brown (10YR5/4-Moist); ; Medium clay; Massive
		grade of structure; Firm consistence; Gradual change to -
C1	0.38 - 0.6 m	Dark greyish brown (10YR4/2-Moist); Light yellowish brown (2.5Y6/4-Moist); ; Clay loam; Massive grade
		of structure; Weak consistence;
C2	0.65 - 0.75 m	Dark greyish brown (10YR4/2-Moist); Light yellowish brown (2.5Y6/4-Moist); ; Massive grade of
		structure; Strong consistence;
C2	0.65 - 0.75 m	Very dark brown (10YR2/2-Moist); ;
C3	2 - 2.2 m	Light grey (2.5Y7/2-Moist); ; Loam; Strong consistence;
C4	4.5 - 4.55 m	; Massive grade of structure; Very strong consistence;
C5	1.1 - 1.15 m	;

#### Morphological Notes

A1	Abundant roots
A2	Sporadic A2
B2	first colour is the dominant matrix colour, second is fine material; dry and moist colours are the same
B3	first colour is the dominant matrix colour, second is coarse material; dry and moist colours are the same

C1 weathered granite fabric prominent; first colour is the dominant matrix colour, second is coarse material; dry and moist colours are the same  
C2 weathered granite matrix  
C2 clay band in planar feature in weathered granite matrix  
C3 weathered granite matrix  
C4 weathered granite matrix  
C5 matrix of weathered granite/clay band 10yr2/2 in planar feature of weathered granite. Approximately 1 m of west cutting has been removed.

### Observation Notes

### Site Notes

On Princess Highway 7.9 km S. of Moruya P.O. Road cutting, sampled at hill crest. Volunteer grasses in cleared eucalypt woodland. On Moruya tonalite geology (with common sodic feldspars).

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### Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable	Cations	Na	Exchangeable	CEC	ECEC	ESP
m		dS/m		Mg	K	Cmol (+)/kg	Acidity			%
0 - 0.05	5.7A	0.03A	2.8F	1.9	0.2	0.14				
0.05 - 0.09	5.9A	0.02A	0.84F	0.63	0.1	0.09				
0.09 - 0.2	5.7A	0.04A	0.66F	7.4	0.13	1.2				
0.2 - 0.35	5.7A	0.05A	0.43F	8.2	0.13	1.4				
0.38 - 0.6	5.6A	0.12A	0.09F	10.6	0.15	3.5				
0.65 - 0.75	5.4A	0.15A	0.07F	7.3	0.18	4.2				
	5.2A	0.26A	0.05F	7.6	0.17	6.1				
0.65 - 0.75	5.4A	0.15A	0.07F	7.3	0.18	4.2				
	5.2A	0.26A	0.05F	7.6	0.17	6.1				
2 - 2.2	5.7A	0.19A	0.01F	9.9	0.19	4.8				
4.5 - 4.55	6.8A	0.02A	0.07F	4.8	0.14	2.4				
1.1 - 1.15	6A	0.07A	0.02F	5.5	0.11	3.9				

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.05		1.41A						33A 42 16
7								
0.05 - 0.09		0.32A						45A 38 10
5								
0.09 - 0.2		0.47A						27A 20 8
44								
0.2 - 0.35		0.38A						30A 21 8
38								
0.38 - 0.6		0.1A						38A 17 8
25								
0.65 - 0.75		0.08A						37A 10 11
12								
		0.09A						
0.65 - 0.75		0.08A						37A 10 11
12								
		0.09A						
2 - 2.2		0.08A						
4.5 - 4.55		0.01A						
1.1 - 1.15		0.09A						

### Laboratory Analyses Completed for this profile

13C1\_AL Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon  
13C1\_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon  
15D1\_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium acetate at pH 7.0, pretreatment for

soluble salts;	
15D1_K manual leach	manual leach Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts;
15D1_MG manual leach	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts;
15D1_NA manual leach	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts;
15I4	CEC measurement - titration of ammonium and chloride ions
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6A1	Organic carbon - Walkley and Black
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method