

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 134 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b>	N.J. McKenzie	<b>Locality:</b>	
<b>Date Desc.:</b>	04/05/85	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	1:10000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6465936 AMG zone: 55	<b>Runoff:</b>	No runoff
<b>Easting/Lat.:</b>	595967 Datum: AGD66	<b>Drainage:</b>	Very poorly drained

#### Geology

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

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Closed Depression	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	No Data	<b>Slope Category:</b>	No Data
<b>Slope:</b>	%	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):** Cracking

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	MACQUARIE
N/A			ALLUVIUM
			BACKPLAI
		<b>Principal Profile Form:</b>	Ug5.28
		<b>Great Soil Group:</b>	N/A

#### **ASC Confidence:**

Confidence level not specified

**Site Disturbance:** Limited clearing, for example selective logging

#### Vegetation:

Tall Strata - Tussock grass, 0.51-1m, . \*Species includes - None Recorded

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.27 m	Weak red (2.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Subangular blocky; Rough-ped fabric; Very strong consistence; Field pH 7 (Raupach); Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B21	0.27 - 0.68 m	Weak red (2.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Very strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B22	0.68 - 1.5 m	Weak red (2.5YR4/2-Moist); , 7.5YR55, 10-20% , 5-15mm, Faint; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Massive grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Strong consistence; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Nodules; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (Raupach);

#### Morphological Notes

B22 Like 133, the surface 0.5cm is pale and leashed = (dispersive) 10YR4/3 moist. Moist to 25cm

#### Observation Notes

Ellengerah Soil Profile Class

#### Site Notes

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 134 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0.1 - 0.15	7.6A	0.104A	2.4E	2.8	0.5	1.1			6.8D	
0.3 - 0.35	8.5A	0.141A								
0.7 - 0.75	8.8A	0.296A	7.3E	6.8	0.9	4.6			19.6D	
1.3 - 1.35	8.9A	0.283A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0.1 - 0.15							1.39		0.8A	15.8	24.3	59.1
0.3 - 0.35							1.35					
0.7 - 0.75							1.42		0.2A	9.5	29.7	60.7
1.3 - 1.35							1.27					

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
				g/g	m3/m3				mm/h
0.1 - 0.15	0.103A			0.29G				0.18D	
0.3 - 0.35	0.103A			0.32G				0.2D	
0.7 - 0.75	0.077A			0.27G				0.2D	
1.3 - 1.35	0.078A			0.33G				0.17D	

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 134 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Laboratory Analyses Completed for this profile**

15C1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15J_BASES	Sum of Bases
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
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
P3A1	Bulk density - g/cm <sup>3</sup>
P3B1GV_15	15 BAR Moisture g/g - Gravimetric of ground sample (<2mm) using pressure plate
P3B4GV_01	0.1 BAR Moisture g/g - Gravimetric of soil clods (Soil Survey Staff,1967)
P5_COLE	Coefficient of Linear Extensibility (Grossman et al. 1968)