

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 348 **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>	06/11/85	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : 8434 1:10000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6474075 AMG zone: 55	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	591800 Datum: AGD66	<b>Drainage:</b>	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>	Flat	<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, Firm

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	MACQUARIE ALLUVIUM BACKPLAI
N/A		<b>Principal Profile Form:</b>	Ug5.15
		<b>Great Soil Group:</b>	N/A

#### **ASC Confidence:**

Confidence level not specified

**Site Disturbance:** Extensive clearing, for example poisoning, ringbarking

#### Vegetation:

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

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.08 m	Dark brown (10YR3/3-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Field pH 6 (Raupach); Abundant, very fine (0-1mm) roots; Abundant, fine (1-2mm) roots; Clear, Smooth change to -
B1	0.08 - 0.42 m	Very dark greyish brown (10YR3/2-Moist); ; Medium heavy clay; Strong grade of structure, 50-100 mm, Polyhedral; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Many cutans, >50% of ped faces or walls coated; Field pH 7 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Diffuse, Smooth change to -
B21	0.42 - 0.65 m	Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 0.01m2) Medium (2-5mm) macropores, Moist; Many cutans, >50% of ped faces or walls coated; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Gradual, Smooth change to -
B22	0.65 - 1.15 m	Yellowish brown (10YR5/4-Moist); , 7.5YR56, 10-20% , 5-15mm, Faint; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Many (>5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 0.01m2) Medium (2-5mm) macropores, Moderately moist; Many cutans, >50% of ped faces or walls coated; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (Raupach); Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B3	1.15 - 1.35 m	Brown (7.5YR4/4-Moist); , 10YR63, 10-20% , 5-15mm, Faint; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Many (>5 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 0.01m2) Medium (2-5mm) macropores, Moderately moist; Many cutans, >50% of ped faces or walls coated; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (Raupach); Few, very fine (0-1mm) roots;

#### Morphological Notes

A1 Similar to 347

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie      **Site ID:** 348      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

Ellengerah Soil Profile Class

**Site Notes**

**Observation Notes**

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 348 **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	6.8A	0.068A	8.8E	5.4	0.6	0.8			15.6D	
0.3 - 0.35	8.6A	0.113A								
0.7 - 0.75	8.8A	0.565A	9.2E	8.3	0.3	4.3			22.1D	
1.3 - 1.35	8.9A	0.505A								

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							1.38		2.1A	23.8	33.8	40.3
0.3 - 0.35							1.49					
0.7 - 0.75							1.48		1.1A	33.7	28.1	37.1
1.3 - 1.35							1.62					

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	0.06A			0.25G				0.16D	
0.3 - 0.35	0.103A			0.25G				0.18D	
0.7 - 0.75	0.072A			0.24G				0.16D	
1.3 - 1.35	0.071A			0.17G				0.14D	

**Project Name:** Soils of the Lower Macquarie Valley, New South Wales  
**Project Code:** Macquarie **Site ID:** 348 **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)