

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 139 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	05/05/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8534 1:10000	Rainfall:	No Data
Northing/Long.:	6466900 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	596800 Datum: AGD66	Drainage:	Poorly drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	%	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	MACQUARIE ALLUVIUM BACKPLAI
N/A		Principal Profile Form:	Gn3.47
		Great Soil Group:	N/A

ASC Confidence:

Confidence level not specified

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation:

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

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.23 m	Brown (7.5YR4/3-Moist); ; Sandy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 50-100 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, Very firm consistence; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Diffuse, Smooth change to -
B1	0.23 - 0.48 m	Very dark greyish brown (10YR3/2-Moist); ; Medium 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, Strong consistence; Field pH 8 (Raupach); Common, very fine (0-1mm) roots; Clear, Irregular change to -
B21	0.48 - 0.76 m	Brown (7.5YR4/4-Moist); ; Medium clay; Moderate 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, Strong consistence; Field pH 8 (Raupach); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B22	0.76 - 1.15 m	Yellowish red (5YR4/6-Moist); , 7.5YR52, 20-50% , 5-15mm, Faint; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Very firm consistence; Field pH 8 (Raupach); Gradual, Smooth change to -
BC	1.15 - 1.4 m	Yellowish red (5YR3/6-Moist); ; Sandy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Many (>5 per 100mm2) Fine (1-2mm) macropores, Very firm consistence; Many cutans, >50% of ped faces or walls coated; Field pH 8.5 (Raupach);

Morphological Notes

BC 4/5 have sign cutans; and a fair amount of sand and root channels - buried soil - bright complex profile.

Observation Notes

Ellengerah Soil Profile Class

Site Notes

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 139 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 139 **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	7.1A	0.056A	2.6E	2.1	0.1	0.5			5.3D	
0.3 - 0.35	6.9A	0.066A								
0.7 - 0.75	8.4A	0.792A	7.4E	6.1	0.3	3.4			17.2D	
1.3 - 1.35	7.4A	1.099A								

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							1.47		12.4A	26.4	18.4	42.9
0.3 - 0.35							1.43					
0.7 - 0.75							1.69		14.6A	22.5	20.8	39.1
1.3 - 1.35							1.49					

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	0.094A			0.24G				0.14D	
0.3 - 0.35	0.1A			0.26G				0.12D	
0.7 - 0.75	0.044A			0.18G				0.14D	
1.3 - 1.35	0.052A			0.2G				0.15D	

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 139 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Analyses Completed for this profile

15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 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 ³
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)