

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 136 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	05/02/84	Elevation:	No Data
Map Ref.:	1:10000	Rainfall:	No Data
Northing/Long.:	6466320 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	596433 Datum: AGD66	Drainage:	Very 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:	Simple-slope	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	%	Aspect:	No Data

Surface Soil Condition (dry): Cracking

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	MACQUARIE ALLUVIUM BACKPLAI
N/A		Principal Profile Form:	Ug5.29
		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, . *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Platy; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Very strong consistence; Field pH 7 (Raupach); Many, very fine (0-1mm) roots; Abrupt, Smooth change to -
AB	0.05 - 0.75 m	Weak red (2.5YR4/1-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Very strong consistence; Field pH 7.5 (Raupach); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B2	0.75 - 1.35 m	Brown (7.5YR4/4-Moist); , 7.5YR42, 10-20% , 5-15mm, Faint; Light medium clay; Moderate grade of structure; Rough-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Medium (2-5mm) macropores, Very strong consistence; Field pH 8.5 (Raupach); Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

Ellengerah Soil Profile Class

Site Notes

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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	6.9A	0.06A	3E	2.5	0.3	0.5			6.3D	
0.3 - 0.35	7.9A	0.129A								
0.7 - 0.75	8.5A	0.507A	13.1E	9.5	0.4	5.9			28.9D	
1.3 - 1.35	8.3A	0.439A								

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							1.42		4.7A	22.4	28.4	44.5
0.3 - 0.35							1.50					
0.7 - 0.75							1.53		0.8A	11.8	41.1	46.3
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	0.109A			0.3G				0.17D	
0.3 - 0.35	0.104A			0.24G				0.2D	
0.7 - 0.75	0.053A			0.23G				0.19D	
1.3 - 1.35	0.048A			0.22G				0.18D	

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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)
XRD_C_II	Illite - X-Ray Diffraction
XRD_C_Kt	Kaolinite - X-Ray Diffraction
XRD_C_St	Smectite - X-Ray Diffraction