

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 202 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	13/06/85	Elevation:	No Data
Map Ref.:	1:10000	Rainfall:	No Data
Northing/Long.:	6458433 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	595233 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:	Open depression (vale)	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	%	Aspect:	No Data

Surface Soil Condition (dry): Cracking

Erosion: Stable,

Soil Classification

Australian Soil Classification:		Mapping Unit:	TRANGIE COWAL ALLUVIUM
N/A			

ASC Confidence:

Confidence level not specified

Principal Profile Form: Ug5.25

Great Soil Group: N/A

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation:

Tall Strata - Tree, , Sparse. *Species includes - Eucalyptus populnea

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.05 m	Brown (7.5YR4/2-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, Weak consistence; Field pH 6 (Raupach); Abundant, very fine (0-1mm) roots; Abundant, fine (1-2mm) roots; Clear, Smooth change to -
B21	0.05 - 0.65 m	Brown (7.5YR4/2-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Firm consistence; Field pH 7.5 (Raupach); Many, very fine (0-1mm) roots; Gradual, Smooth change to -
B22	0.65 - 0.95 m	Brown (10YR4/3-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
2BA	0.95 - 1.5 m	Reddish brown (5YR4/4-Moist); , 7.5YR54, 10-20% , 5-15mm, Distinct; Light medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Firm consistence; Many cutans, >50% of ped faces or walls coated; Field pH 8 (Raupach);

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	6.6A	0.052A	7.9E	2.5	0.6	0.2			11.2D	
0.3 - 0.35	7.8A	0.051A								
0.7 - 0.75	8.8A	0.132A	7.2E	4.3	0.6	1.1			13.2D	
1.3 - 1.35	8.7A	0.271A								

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							1.56		12.7A	25.6	26.6	35.2
0.3 - 0.35							1.69					
0.7 - 0.75							1.59		10.5A	25.6	22.6	41.2
1.3 - 1.35							1.56					

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	0.047A			0.19G				0.14D	
0.3 - 0.35	0.047A			0.19G				0.15D	
0.7 - 0.75	0.069A			0.2G				0.16D	
1.3 - 1.35	0.052A			0.21G				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)