

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 262 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	01/10/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8533 1:10000	Rainfall:	No Data
Northing/Long.:	6457300 AMG zone: 55	Runoff:	Rapid
Easting/Lat.:	601000 Datum: AGD66	Drainage:	Well 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:	Crest	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:	N/A	Mapping Unit:	GIN GIN AEOLIAN DEPOSITS
		Principal Profile Form:	Dr2.22
		Great Soil Group:	N/A

ASC Confidence:

Confidence level not specified

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation:

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Eucalyptus populnea, Callitris species

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.19 m	Dark reddish brown (5YR3/4-Moist); ; Clay loam; Moderate grade of structure, 50-100 mm, Subangular blocky; Rough-ped fabric; Many (>5 per 100mm ²) Very fine (0.075-1mm) macropores, Many (>5 per 100mm ²) Fine (1-2mm) macropores, Common (1-5 per 100mm ²) Medium (2-5mm) macropores, Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, coarse fragments; 2-10%, medium gravelly, 6-20mm, subangular, dispersed, coarse fragments; 2-10%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; Field pH 7 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Smooth change to -
A2	0.19 - 0.35 m	Yellowish red (5YR3/5-Moist); Reddish yellow (5YR6/6-Dry); ; Clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Many (>5 per 100mm ²) Very fine (0.075-1mm) macropores, Many (>5 per 100mm ²) Fine (1-2mm) macropores, Common (1-5 per 0.01m ²) Medium (2-5mm) macropores, Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, angular, dispersed, coarse fragments; 2-10%, medium gravelly, 6-20mm, subangular, dispersed, coarse fragments; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, coarse fragments; Field pH 7.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.35 - 1.05 m	Red (2.5YR4/6-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Common (1-5 per 100mm ²) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm ²) Fine (1-2mm) macropores, Few (<1 per 0.01m ²) Medium (2-5mm) macropores, Moderately moist; Firm consistence; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subrounded, dispersed, coarse fragments; Common cutans, 10-50% of ped faces or walls coated; Field pH 8 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Gradual, Smooth change to -

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 262 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

B22 1.05 - 1.4 m Red (2.5YR5/6-Moist); ; Medium clay; Strong grade of structure, 10-20 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, Few (<1 per 0.01m²) Medium (2-5mm) macropores, Dry; Firm consistence; 20-50%, coarse gravelly, 20-60mm, angular, dispersed, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subrounded, dispersed, coarse fragments; Common cutans, 10-50% of ped faces or walls coated; Field pH 7.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots;

Morphological Notes

A1 Fair amount of rotten rock in profile

Observation Notes

Mitchell Soil Profile Class, Well Drained Phase

Site Notes

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 262 **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	7.2A	0.045A	2E	0.4	0.3	0.1			2.8D	
0.3 - 0.35	7.2A	0.025A								
0.7 - 0.75	7.9A	0.13A	6.8E	4.2	0.4	0.6			12D	
1.3 - 1.35	7.8A	0.306A								

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							1.73		25.4A	45.3	11.7	17.6
0.3 - 0.35							1.79					
0.7 - 0.75							1.51		6.5A	14	5.1	74.4
1.3 - 1.35							1.51					

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	0.022A			0.12G				0.07D	
0.3 - 0.35	0.013A			0.12G				0.06D	
0.7 - 0.75	0.05A			0.23G				0.18D	
1.3 - 1.35	0.035A			0.24G				0.18D	

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 262 **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)