

Project Name: Soils of the Lower Macquarie Valley, New South Wales
Project Code: Macquarie **Site ID:** 258 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	15/06/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8534 1:10000	Rainfall:	No Data
Northing/Long.:	6459800 AMG zone: 55	Runoff:	Moderately rapid
Easting/Lat.:	599800 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:	Upper-slope	Relief:	No Data
Elem. Type:	No Data	Slope Category:	No Data
Slope:	%	Aspect:	No Data

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	GIN GIN AEOLIAN DEPOSITS
		Principal Profile Form:	Gn3.12
		Great Soil Group:	N/A

ASC Confidence:

Confidence level not specified

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.19 m	Yellowish red (5YR3/6-Moist); ; Sandy clay loam; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Common (1-5 per 100mm2) macropores, Common (1-5 per 100mm2) macropores, Few (<1 per 0.01m2) macropores, Moderately moist; Weak consistence; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Abundant, fine (1-2mm) roots; Abundant, medium (2-5mm) roots; Abundant, coarse (>5mm) roots; Gradual, Smooth
B1	0.19 - 0.45 m	Red (2.5YR4/8-Moist); ; Sandy clay loam; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Many (>5 per 100mm2) macropores, Few (<1 per 0.01m2) macropores, Moderately moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Diffuse, Smooth change to -
B21	0.45 - 0.9 m	Dark red (2.5YR3/6-Moist); ; Sandy clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Many (>5 per 100mm2) macropores, Common (1-5 per 0.01m2) macropores, Dry; Firm consistence; Many cutans, >50% of ped faces or walls coated; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots; Diffuse, Smooth change to -
B22	0.9 - 1.35 m	Red (10R4/6-Moist); , 7.5YR6/6, 20-50% , 5-15mm, Distinct; Sandy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) macropores, Few (<1 per 0.01m2) macropores, Dry; Firm consistence; Many cutans, >50% of ped faces or walls coated; Field pH 7.5 (Raupach); Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

Gin Gin 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	5.4A	0.036A	0.4E	0.1	0.3	0			0.8D	
0.3 - 0.35	5.1A	0.043A								
0.7 - 0.75	6.9A	0.012A	4.7E	2.9	0.1	0.2			7.9D	
1.3 - 1.35	7.8A	0.044A								

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							1.45		20.7A	36.7	10.8	31.9
0.3 - 0.35							1.47					
0.7 - 0.75							1.67		15A	25	11.5	48.6
1.3 - 1.35							1.75					

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	0.034A			0.14G				0.09D	
0.3 - 0.35	0.008A			0.16G				0.09D	
0.7 - 0.75	0.019A			0.16G				0.13D	
1.3 - 1.35	0.019A			0.21G				0.16D	

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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)