

**Project Name:** NC  
**Project Code:** NC **Site ID:** C451 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (NSW)

**Site Information**

<b>Desc. By:</b>	P.H. Walker	<b>Locality:</b>	Bellgrave Falls Road:next hill north of C450
<b>Date Desc.:</b>	02/12/60	<b>Elevation:</b>	40 metres
<b>Map Ref.:</b>	Sheet No. : 9435 1:100000	<b>Rainfall:</b>	1200
<b>Northing/Long.:</b>	152.75	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	-31.091666666667	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Porous, Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Terrace (alluvial)
<b>Morph. Type:</b>	Crest	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillcrest	<b>Slope Category:</b>	Level
<b>Slope:</b>	2 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Melacic Magnesic Red Chromosol		<b>Principal Profile Form:</b>	Gn3.14
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Red podzolic soil
Analytical data are incomplete but reasonable confidence.			

**Site Disturbance:** Limited clearing, for example selective logging

**Vegetation:**

Tall Strata - Tree, , Closed or dense. \*Species includes - Eucalyptus agglomerata, Unknown species,

Angophora

**Surface Coarse Fragments:**

**Profile Morphology**

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence; Field pH 5.4 (pH meter);
A2	0.1 - 0.33 m	Very dark greyish brown (10YR3/2-Moist); , 5YR56, 20-50% ; , 20-50% ; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Nodules; Field pH 5.7 (pH meter);
B11	0.33 - 0.46 m	Yellowish red (5YR5/6-Moist); , 7.5YR42, 10-20% ; , 10-20% ; Light clay; Massive grade of structure; Moist; Weak consistence; Field pH 6 (pH meter);
B12	0.46 - 0.91 m	Dark red (2.5YR3/6-Moist); , 2.5Y54, 10-20% ; , 10-20% ; Light clay; Massive grade of structure; Moist; Weak consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Field pH 6 (pH meter);
B2	0.91 - 1.68 m	Red (2.5YR4/6-Moist); , 10YR56, 20-50% ; , 20-50% ; Medium clay (Heavy); Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Firm consistence; Field pH 5.5 (pH meter);
BC	1.68 - 2.03 m	Dark red (10R3/6-Moist); , 5YR46, 20-50% ; , 10YR56, 20-50% ; Medium clay (Heavy); Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 5.8 (pH meter);
C	2.74 - 2.9 m	Red (10R5/6-Moist); , 5Y81, 20-50% ; , 10YR68, 20-50% ; Sandy light clay; Massive grade of structure; Moderately moist; Strong consistence; 10-20%, medium gravelly, 6-20mm, angular, dispersed, Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct;
C	3.35 - 3.45 m	Red (10R5/6-Moist); , 5Y81, 20-50% ; , 10YR68, 20-50% ; Sandy light clay; Massive grade of structure; Dry; Strong consistence; 20-50%, medium gravelly, 6-20mm, angular, dispersed, Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct;
C	3.84 - 3.96 m	Red (10R5/6-Moist); , 5Y81, 20-50% ; , 10YR68, 20-50% ; Sandy light clay (Heavy); Massive grade of structure; Dry; Strong consistence; 20-50%, medium gravelly, 6-20mm, angular, dispersed, Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct;

**Morphological Notes**

**Observation Notes**

ALLUVIUM:K5 TERRACE SOIL:WORM FILL TO 90CM:

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**Site Notes**

KEMPSEY

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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 - 0.1	5.4A	0.033A	0.51K	1.2	0.27	0.16		9.7J		1.65
0.1 - 0.33	5.7A	0.024A								
0.33 - 0.46	6A	0.021A	0.2K	2.4	0.18	0.34		8.4J		4.05
0.46 - 0.91	6A	0.03A								
0.91 - 1.68	5.5A	0.042A								
1.68 - 2.03	5.8A	0.027A								

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**Laboratory Analyses Completed for this profile**

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6_DC	Organic carbon (%) - Dry combustion
7_NR	Total nitrogen (%) - Not recorded
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance