NC **Project Name:** 

C450 Observation ID: 1 **Project Code:** NC Site ID:

**CSIRO Division of Soils (NSW) Agency Name:** 

**Site Information** 

Locality: Desc. By: P.H. Walker Belgrave Falls Road (adjacent to Wards place)

Date Desc.: 01/12/60 Elevation: 30 metres Map Ref.: Sheet No.: 9435 1:100000 Rainfall: 1200 Northing/Long.: Runoff: 152.75 Slow

Easting/Lat.: -31.09583333333333 Drainage: Imperfectly drained

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Soil pit No Data

Geol. Ref.: Substrate Material: Porous, Unconsolidated material No Data

(unidentified)

**Land Form** 

Pattern Type: Rel/Slope Class: Undulating rises 9-30m 3-10% Terrace (alluvial)

Morph. Type: Crest Relief: No Data Elem. Type: Hillcrest Slope Category: Level Aspect: No Data Slope: 2 %

Surface Soil Condition (dry): Soft

**Erosion:** 

**Soil Classification** 

Australian Soil Classification: **Mapping Unit:** N/A Melanic Mesotrophic Red Chromosol **Principal Profile Form:** N/A

**Great Soil Group:** Red podzolic soil **ASC Confidence:** 

All necessary analytical data are available.

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated Low Strata - Sod grass, , . \*Species includes - None recorded Vegetation:

#### **Surface Coarse Fragments:**

| <u>Pr</u> | ofile Morphology |   |
|-----------|------------------|---|
| A1        | 0 - 0.18 m       | Very dark brown (10YR2/2-Moist); ; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence; Field pH 5.5 (pH meter);   |
| A1        | 0.18 - 0.3 m     | Very dark greyish brown (10YR3/2-Moist); ; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence;  |
| A2        | 0.3 - 0.43 m     | Very dark greyish brown (10YR3/2-Moist); , 10YR43, 20-50%; , 20-50%; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence; Field pH 5.6 (pH meter);                             |
| В1        | 0.43 - 0.58 m    | Brown (10YR5/3-Moist); , 2.5YR56, 20-50%; , 10YR31, 20-50%; Clay loam, fine sandy; Massive grade of structure; Moist; Weak consistence; Field pH 5.6 (pH meter);                                      |
| B2        | 0.58 - 0.86 m    | Red (2.5YR4/6-Moist); , 10YR56, 10-20%; , 10-20%; Medium clay; Massive grade of structure; Moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 5.8 (pH meter): |

B2 0.86 - 1.17 m Red (2.5YR4/6-Moist); , 2.5Y66, 20-50%; , 20-50%; Medium clay (Heavy); Weak grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; Field pH 5.7 (pH meter);

Red (10R4/6-Moist); , 10YR54, 20-50%; , 5YR46, 20-50%; Medium clay; Massive grade of B2 1.17 - 1.37 m

structure; Moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 5.6 (pH meter);

BC 1.37 - 1.73 m Strong brown (7.5YR4/8-Moist); , 10YR43, 20-50%; , 10YR71, 20-50%; Medium clay; Massive grade of structure; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, dispersed,

Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 5.5

(pH meter);

С 1.73 - 2.03 m Dusky red (7.5R3/4-Moist); , 10R46, 20-50%; , 10R43, 20-50%; Medium clay; Massive grade of

structure; Moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, dispersed, Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; , Unidentified, ,

Tubules; Field pH 5.4 (pH meter); Common

Red (10R5/6-Moist); , 10YR66, 20-50%; , 5Y81, 20-50%; Medium clay; Massive grade of structure; Dry; Strong consistence; 10-20%, medium gravelly, 6-20mm, dispersed, Shale, С 2.54 - 3.05 m

coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct;

NC **Project Name:** 

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3.2 - 3.35 m

Weak red (10R4/4-Moist); , 5Y81, 20-50%; , 10YR68, 20-50%; Light clay; Massive grade of structure; Very firm consistence; 20-50%, medium gravelly, 6-20mm, dispersed, Gravel, coarse

fragments; Few cutans, <10% of ped faces or walls coated, distinct; Common

Dark reddish brown (2.5YR3/4-Moist); , 10R68, 20-50%; , 5Y81, 20-50%; Light clay; Massive 3.68 - 3.86 m

grade of structure; 50-90%, medium gravelly, 6-20mm, dispersed, Gravel, coarse fragments; Few

cutans, <10% of ped faces or walls coated, distinct; Few

## **Morphological Notes**

## **Observation Notes**

ALLUVIUM:K4 SOIL:WORM ACTIVITY TO 3M (RELIC AT DEPTH)

### **Site Notes**

KEMPSEY

Project Name: NC
Project Code: NC Site ID: C450
Agency Name: CSIRO Division of Soils (NSW) Observation ID: 1

# **Laboratory Test Results:**

| Depth                    | рН           | 1:5 EC           | Ex     | changeable<br>Mg | Cations<br>K | Na     | Exchangeable<br>Acidity | CEC  | ECEC | ESP  |
|--------------------------|--------------|------------------|--------|------------------|--------------|--------|-------------------------|------|------|------|
| m                        | m dS/n       | dS/m             | ·a     | Wig              | K            | Cmol ( | •                       |      |      | %    |
| 0 - 0.18                 | 5.5A         | 0.042A           | 2K     | 1.8              | 0.22         | 0.16   |                         | 13J  |      | 1.23 |
| 0.18 - 0.3<br>0.3 - 0.43 | 5.6A<br>5.6A | 0.024A<br>0.033A | 0.41K  | 2.4              | 0.46         | 0.17   |                         | 7.8J |      | 2.18 |
| 0.43 - 0.58              | 5.8A         | 0.018A           | 0.1110 |                  | 0.10         | 0.11   |                         | 7.00 |      | 2.10 |
| 0.58 - 0.86              | 5.7A         | 0.021A           |        |                  |              |        |                         |      |      |      |
| 0.86 - 1.17              | 5.6A         | 0.021A           |        |                  |              |        |                         |      |      |      |
| 1.17 - 1.37              | 5.5A         | 0.027A           |        |                  |              |        |                         |      |      |      |
| 1.37 - 1.73              | 5.4A         | 0.027A           |        |                  |              |        |                         |      |      |      |

| Depth       | CaCO3 | Organic | Avail. | Total | Total | Total | Bulk    | P  | article | Size | Analysi | s    |
|-------------|-------|---------|--------|-------|-------|-------|---------|----|---------|------|---------|------|
|             | 0.4   | C       | P      | P     | N     | K     | Density | G۷ | CS      | FS   | Silt    | Clay |
| m           | %     | %       | mg/kg  | %     | %     | %     | Mg/m3   |    |         | %    |         |      |
| 0 - 0.18    |       | 3.3F    |        |       | 0.192 | !B    |         |    | 9D      | 52   | 2 21    | 14   |
| 0.18 - 0.3  |       |         |        |       |       |       |         |    | 7D      | 51   | 21      | 19   |
| 0.3 - 0.43  |       |         |        |       | 0.054 | B     |         |    | 6D      | 39   | 18      | 35   |
| 0.43 - 0.58 |       |         |        |       |       |       |         |    |         |      |         |      |
| 0.58 - 0.86 |       |         |        |       |       |       |         |    | 3D      | 20   | ) 13    | 62   |
| 0.86 - 1.17 |       |         |        |       |       |       |         |    |         |      |         |      |
| 1.17 - 1.37 |       |         |        |       |       |       |         |    |         |      |         |      |
| 1.37 - 1.73 |       |         |        |       |       |       |         |    | 3D      | 25   | 5 17    | 52   |
|             |       |         |        |       |       |       |         |    |         |      |         |      |

| Depth | COLE | Gravimetric/Volumetric Water Contents |          |         |         |       |       |        | K sat | K unsat |
|-------|------|---------------------------------------|----------|---------|---------|-------|-------|--------|-------|---------|
|       |      | Sat.                                  | 0.05 Bar | 0.1 Bar | 0.5 Bar | 1 Bar | 5 Bar | 15 Bar |       |         |
| m     |      | g/g - m3/m3                           |          |         |         |       |       |        |       | mm/h    |

<sup>0 - 0.18</sup> 0.18 - 0.3 0.3 - 0.43

<sup>0.43 - 0.58</sup> 0.58 - 0.86

<sup>0.86 - 1.17</sup> 1.17 - 1.37 1.37 - 1.73

Project Name: NC

Project Code: NC Site ID: C450 Observation ID: 1

Agency Name: CSIRO Division of Soils (NSW)

## **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\_KExch. basic cations (K++) - meq per 100g of soil - Not recorded15\_NR\_MGExch. basic cations (Mg++) - meq per 100g of soil - Not recorded15\_NR\_NAExch. basic cations (Na++) - meq per 100g of soil - Not recorded

2\_LOI
2A1
Air-dry moisture content
3A1
EC of 1:5 soil/water extract
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