

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0190 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Heather Percy  
**Date Desc.:** 05/07/95  
**Map Ref.:**  
**Northing/Long.:** 6257780 AMG zone: 50  
**Easting/Lat.:** 597790 Datum: AGD84  
**Locality:**  
**Elevation:** 310 metres  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** Poorly drained

#### Geology

**ExposureType:** Auger boring  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** No Data

#### Landform

**Rel/Slope Class:** Level plain <9m <1%  
**Morph. Type:** Flat  
**Elem. Type:** Plain  
**Slope:** 0 %  
**Pattern Type:** Alluvial plain  
**Relief:** 5 metres  
**Slope Category:** No Data  
**Aspect:** No Data

#### Surface Soil Condition Hardsetting, Hardsetting

#### Erosion (wind); (sheet) (rill) (gully)

#### Soil Classification

**Australian Soil Classification:** Hypocalcic Hypernatric Red Sodosol  
**ASC Confidence:** All necessary analytical data are available.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dr2.13  
**Great Soil Group:** N/A

#### Site Disturbance Complete clearing. Pasture, native or improved, cultivated at some stage

#### Vegetation

#### Surface Coarse Fragments No surface coarse fragments; No surface coarse fragments

#### Profile Morphology

Ap 0 - 0.08 m Very dark grey (10YR3/1-Moist); , 0-0% ; Clay loam, sandy; Massive grade of structure; Moist; Field pH 6 (Raupach); Abrupt, Wavy change to -  
 B21 0.08 - 0.4 m Reddish brown (5YR4/4-Moist); , 0-0% ; Sandy light medium clay; Moderate grade of structure; Moderately moist; Weak consistence; Field pH 7.5 (Raupach); Clear change to -  
 B22 0.4 - 0.7 m Light yellowish brown (10YR6/4-Moist); , 0-0% ; Sandy light medium clay; Weak grade of structure; Rough-ped fabric; Dry; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Soft segregations; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach);

#### Morphological Notes

#### Observation Notes

#### Site Notes

Site near boundary between plain and rise (Tn2).

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#### Laboratory Test Results:

| Depth<br>m             | pH           | 1:5 EC<br>dS/m | Ca    | Exchangeable<br>Mg | Cations<br>K | Na<br>Cmol (+)/kg | Exchangeable<br>Acidity | CEC | ECEC  | ESP<br>% |
|------------------------|--------------|----------------|-------|--------------------|--------------|-------------------|-------------------------|-----|-------|----------|
| 0 - 0.08               | 5.4B<br>6.4H | 17B            | 3.42H | 2.53               | 0.33         | 0.66              | <0.02J                  |     | 6.94D |          |
| 0 - 0.08               | 5.4B<br>6.4H | 17B            | 3.42H | 2.53               | 0.33         | 0.66              | <0.02J                  |     | 6.94D |          |
| 0 - 0.08               | 5.4B<br>6.4H | 17B            | 3.42H | 2.53               | 0.33         | 0.66              | <0.02J                  |     | 6.94D |          |
| 0 - 0.1<br>0.08 - 0.28 | 5.2B<br>6.2B | 13B            | 1.9A  | 2.9                | 0.05         | 1.9               |                         |     | 6.75D |          |

|             |              |     |      |     |      |     |       |
|-------------|--------------|-----|------|-----|------|-----|-------|
| 0.08 - 0.28 | 7.5H<br>6.2B | 13B | 1.9A | 2.9 | 0.05 | 1.9 | 6.75D |
| 0.08 - 0.28 | 7.5H<br>6.2B | 13B | 1.9A | 2.9 | 0.05 | 1.9 | 6.75D |
| 0.15 - 0.25 | 7.5H<br>6.2B |     |      |     |      |     |       |
| 0.4 - 0.5   | 7.7B         |     |      |     |      |     |       |

| Depth       | CaCO <sub>3</sub> | Organic C<br>Clay | Avail.<br>P | Total<br>P | Total<br>N | Total<br>K | Bulk<br>Density   | Particle<br>GV | Size<br>CS | Analysis<br>FS | Silt |
|-------------|-------------------|-------------------|-------------|------------|------------|------------|-------------------|----------------|------------|----------------|------|
| m           | %                 | %                 | mg/kg       | %          | %          | %          | Mg/m <sup>3</sup> |                |            | %              |      |
| 0 - 0.08    |                   | 2.14D             |             |            |            |            |                   |                | 80I        |                | 7.5  |
| 12.5        |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0 - 0.08    |                   | 2.14D             |             |            |            |            |                   |                | 80I        |                | 7.5  |
| 12.5        |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0 - 0.08    |                   | 2.14D             |             |            |            |            |                   |                | 80I        |                | 7.5  |
| 12.5        |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0 - 0.1     |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0.08 - 0.28 |                   | 0.47D             |             |            |            |            |                   |                | 74I        |                | 8    |
| 18          |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0.08 - 0.28 |                   | 0.47D             |             |            |            |            |                   |                | 74I        |                | 8    |
| 18          |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0.08 - 0.28 |                   | 0.47D             |             |            |            |            |                   |                | 74I        |                | 8    |
| 18          |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0.15 - 0.25 |                   |                   |             |            |            |            |                   |                |            |                |      |
| 0.4 - 0.5   |                   |                   |             |            |            |            |                   |                |            |                |      |

#### Laboratory Analyses Completed for this profile

|                |   |
|----------------|---|
| 15_NR_BSa      | Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available   |
| 15_NR_CMRR     | Exchangeable bases (Ca/Mg ratio) - Not recorded   |
| 15A1_CA        | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment   |
| for soluble    |   |
|                | salts   |
| 15A1_CEC       | Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts  |
| 15A1_K         | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment   |
| for soluble    |   |
|                | salts   |
| 15A1_MG        | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment   |
| for soluble    |   |
|                | salts   |
| 15A1_NA        | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment   |
| for soluble    |   |
|                | salts   |
| 15E1_AL        | Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts   |
| 15E1_CA        | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble |
| salts          |   |
| 15E1_K         | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts   |
| 15E1_MG        | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts   |
| 15E1_MN        | Exchangeable bases (Mn <sup>2+</sup> ) by compulsive exchange, no pretreatment for soluble salts  |
| 15E1_NA        | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts   |
| 15J_BASES      | Sum of Bases  |
| 15L1_a         | Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using  |
| Sum of Cations | and measured clay   |

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|          |  |
|----------|--|
| 15N1_a   | Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC            |
| 15N1_b   | Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations |
| 3_NR     | Electrical conductivity or soluble salts - Not recorded                                    |
| 4_NR     | pH of soil - Not recorded  |
| 4B1      | pH of 1:5 soil/0.01M calcium chloride extract - direct                                     |
| 6A1_UC   | Organic carbon (%) - Uncorrected Walkley and Black method                                  |
| P10_gt2m | > 2mm particle size analysis, (method not recorded)  |
| P10_NR_C | Clay (%) - Not recorded  |
| P10_NR_S | Sand (%) - Not recorded  |
| P10_NR_Z | Silt (%) - Not recorded  |