

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0310 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Heather Percy  
**Date Desc.:** 31/07/95  
**Map Ref.:**  
**Northing/Long.:** 6243920 AMG zone: 50  
**Easting/Lat.:** 632480 Datum: AGD84  
**Locality:**  
**Elevation:** 275 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:** Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

**Morph. Type:** Upper-slope  
**Elem. Type:** Hillslope  
**Slope:** 1 %  
**Relief:** 10 metres  
**Slope Category:** No Data  
**Aspect:** 90 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

**Australian Soil Classification:**  
 Hypocalcic Hypernatric Yellow Sodosol  
**ASC Confidence:**  
 All necessary analytical data are available.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dg2.13  
**Great Soil Group:** N/A

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

#### Vegetation

**Surface Coarse Fragments** 10-20%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

#### Profile Morphology

A1 0 - 0.08 m Very dark grey (10YR3/1-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Moist;  
 Field pH 6 (Raupach); Abrupt, Wavy change to -  
 B21 0.08 - 0.5 m Pale yellow (2.5Y7/4-Moist); , 0-0% ; Sandy medium clay; Moderate grade of structure;  
 Rough-ped fabric; Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, Calcrete,  
 coarse fragments; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach); Clear change to -  
 B22 0.5 - 0.6 m Pale yellow (2.5Y7/4-Moist); Mottles, 7.5YR78, 10-20% , 5-15mm, Distinct; Mottles,  
 2.5YR58, 2-10% , 0-5mm, Distinct; Sandy medium clay; Moderate grade of structure; Rough-ped fabric;  
 Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, Calcrete, coarse fragments; Soil  
 matrix is Moderately calcareous; Field pH 9.5 (Raupach);

#### Morphological Notes

#### Observation Notes

#### Site Notes

"Hardsetting grey clay".

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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				Na	Acidity			%
						Cmol (+)/kg				
0 - 0.08	5.9B 6.7H	14B	4.47A	2.33	0.43	0.47			7.7D	

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0 - 0.08	5.9B 6.7H	14B	4.47A	2.33	0.43	0.47			7.7D	
0.08 - 0.28	8.1B 9H	31B	3.37E	6.65	0.26	4.28		13B	14.56D	32.92
0.08 - 0.28	8.1B 9H	31B	3.37E	6.65	0.26	4.28		13B	14.56D	32.92
0.08 - 0.28	8.1B 9H	31B	3.37E	6.65	0.26	4.28		13B	14.56D	32.92

Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis	GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>				%	
0 - 0.08 10		1.49D								83.5I		6.5
0 - 0.08 10		1.49D								83.5I		6.5
0 - 0.08 10		1.49D								83.5I		6.5
0.08 - 0.28 31	<2C	0.15D								65I		4
0.08 - 0.28 31	<2C	0.15D								65I		4
0.08 - 0.28 31	<2C	0.15D								65I		4

#### 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 for soluble	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
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_CA for soluble	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
15A1_MG for soluble	salts
15A1_NA for soluble	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
15C1_CA pretreatment for	salts
15C1_CEC	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_K soluble salts	soluble salts
15C1_MG soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15J_BASES	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15L1_a Sum of Cations	Sum of Bases
15N1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_b	and measured clay
19B_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
3_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
	Electrical conductivity or soluble salts - Not recorded

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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