

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0214 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	12/07/95	<b>Elevation:</b>	320 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6254175 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	614035 Datum: AGD84	<b>Drainage:</b>	Imperfectly drained

#### Geology

<b>ExposureType:</b>	Auger boring	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Landform

**Rel/Slope Class:** Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	10 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	1 %	<b>Aspect:</b>	0 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

#### Soil Classification

**Australian Soil Classification:**  
Mesotrophic Mottled-Mesonatric Grey Sodosol

**Mapping Unit:** N/A  
**Principal Profile Form:** Dg2.22  
**Great Soil Group:** N/A

**ASC Confidence:**  
All necessary analytical data are available.

**Site Disturbance** Cultivation. Rainfed

#### Vegetation

**Surface Coarse Fragments** 2-10%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

#### Profile Morphology

Ap	0 - 0.1 m	Very dark grey (10YR3/1-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; Moist; Field pH 6
		(Raupach); Abrupt, Wavy change to -
A2	0.1 - 0.15 m	Greyish brown (10YR5/2-Moist); , 0-0% ; Clayey sand; Massive grade of structure; Moist; Field pH 6.5
		(Raupach); Abrupt, Wavy change to -
B21	0.15 - 0.3 m	White (2.5Y8/2-Moist); Mottles, 7.5YR56, 10-20% , 15-30mm, Distinct; Sandy light medium clay;
		Moderate grade of structure; Rough-ped fabric; Moderately moist; Field pH 8 (Raupach);
		Clear change to -
B22	0.3 - 0.5 m	White (2.5Y8/1-Moist); Mottles, 7.5YR56, 2-10% , 5-15mm, Distinct; Sandy medium clay; Moderate
		grade of structure; Rough-ped fabric; Moderately moist; Field pH 8.5 (Raupach); Gradual change to -
B23	0.5 - 0.65 m	Light grey (2.5Y7/1-Moist); , 7.5YR56, 20-50% , 5-15mm, Prominent; Sandy light medium clay; Moderate
		grade of structure; Rough-ped fabric; Moderately moist; Field pH 8 (Raupach); Clear change to -
C	0.65 - 0.7 m	Pinkish grey (7.5YR7/2-Moist); Mottles, 10YR81, 10-20% , 15-30mm, Distinct; , 2.5YR36, 10-20% , 0-5mm, Distinct; Medium clay; Strong grade of structure; Smooth-ped fabric; Dry; Field pH 8 (Raupach);

#### Morphological Notes

A2 Not always present.  
 C Kaolinitic clay.

#### 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				Cmol (+)/kg				%
0 - 0.1	5B 5.8H 5.1B	21B	3.92H	1.61	0.22	0.37	0.11J		6.12D	
0 - 0.1	5B 5.8H 5.1B	21B	3.92H	1.61	0.22	0.37	0.11J		6.12D	
0 - 0.1	5B 5.8H 5.1B	21B	3.92H	1.61	0.22	0.37	0.11J		6.12D	
0 - 0.1	5B 5.8H 5.1B	21B	3.92H	1.61	0.22	0.37	0.11J		6.12D	
0.15 - 0.35	7B 8H	24B	0.89A	2.69	0.05	1.27			4.9D	
0.15 - 0.35	7B 8H	24B	0.89A	2.69	0.05	1.27			4.9D	
0.15 - 0.35	7B 8H	24B	0.89A	2.69	0.05	1.27			4.9D	
0.15 - 0.25 0.4 - 0.5	6.8B 7.1B									

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1 11.5		1.9D							84.5I		4
0 - 0.1 11.5		1.9D							84.5I		4
0 - 0.1 11.5		1.9D							84.5I		4
0 - 0.1 11.5		1.9D							84.5I		4
0.15 - 0.35 41.5	<2C	0.19D							57I		1.5
0.15 - 0.35 41.5	<2C	0.19D							57I		1.5
0.15 - 0.35 41.5	<2C	0.19D							57I		1.5
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\_CMV Exchangeable bases (Ca/Mg ratio) - Not recorded  
15A1\_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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 (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment  
for soluble salts  
15A1\_MG Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment  
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 salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble
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

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15E1_MN	Exchangeable bases (Mn2+) 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
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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
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