

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0488 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	28/02/96	<b>Elevation:</b>	305 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6293600 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	622580 Datum: AGD84	<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>	No Data

**Landform**

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Alluvial plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	2 metres
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition** Hardsetting, Hardsetting

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

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Calcic Mottled-Mesonatric Yellow Sodosol		<b>Principal Profile Form:</b>	Dy3.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.			

**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**

A1p 0 - 0.1 m (grains  (0-1mm) roots;	Very dark grey (10YR3/1-Moist); , 0-0% ; Loamy sand; Massive grade of structure; Sandy prominent) fabric; Dry; Very weak consistence; Field pH 5.5 (Raupach); Many, very fine Abrupt, Smooth change to -
A21 0.1 - 0.2 m structure; Sandy  very fine (0-	Yellowish brown (10YR5/4-Moist); , 0-0% ; Clayey coarse sand; Massive grade of (grains prominent) fabric; Dry; Very weak consistence; Field pH 6.5 (Raupach); Common, 1mm) roots; Clear, Smooth change to -
A22e 0.2 - 0.3 m structure; Sandy  fine (0-1mm)	Pale brown (10YR6/3-Moist); , 0-0% ; Clayey coarse sand; Single grain grade of (grains prominent) fabric; Dry; Loose consistence; Field pH 7 (Raupach); Common, very roots; Sharp, Wavy change to -
B1 0.3 - 0.4 m sandy clay  consistence; Field	Light brownish grey (10YR6/2-Moist); Mottles, 10YR56, 10-20% , 0-5mm, Distinct; Coarse loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Very strong pH 8.5 (Raupach); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B21 0.4 - 0.8 m light medium  consistence;  Gradual, Wavy	Brownish yellow (10YR6/6-Moist); Mottles, 2.5YR46, 10-20% , 5-15mm, Distinct; Sandy clay; Moderate grade of structure, 200-500 mm, Prismatic; Rough-ped fabric; Dry; Strong Soil matrix is Slightly calcareous; Field pH 9 (Raupach); Few, very fine (0-1mm) roots; change to -
B22k 0.8 - 1.1 m Weak grade of  20 %),  Gradual, Wavy	Light grey (10YR7/1-Moist); Mottles, 10YR66, 20-50% , 15-30mm, Distinct; Medium clay; structure, 50-100 mm, Polyhedral; Rough-ped fabric; Strong consistence; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Soil matrix is Moderately calcareous; change to -

B3 1.1 - 1.6 m Light grey (10YR7/1-Moist); Mottles, 2.5YR46, 10-20% , 30-mm, Prominent; , 10YR66,  
 10-20% , 15- 30mm, Distinct; Fine sandy light clay; Weak grade of structure, 50-100 mm, Polyhedral;  
 Rough-ped fabric; Dry; Strong consistence; Soil matrix is Slightly calcareous; Field pH 9 (Raupach);

### Morphological Notes

A1p Medium to coarse sand.

### Observation Notes

### Site Notes

Soil pit in Kuringup catchment.

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### Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	4.9B 5.8H 4.9B 5.8H 5.1B 6H	6B 7B 11B	2.87H	0.52	0.17	0.13	0.1J		3.69D	
0 - 0.1	4.9B 5.8H 4.9B 5.8H 5.1B 6H	6B 7B 11B	2.87H	0.52	0.17	0.13	0.1J		3.69D	
0 - 0.1	4.9B 5.8H 4.9B 5.8H 5.1B 6H	6B 7B 11B	2.87H	0.52	0.17	0.13	0.1J		3.69D	
0 - 0.1	4.9B 5.8H 4.9B 5.8H 5.1B 6H	6B 7B 11B	2.87H	0.52	0.17	0.13	0.1J		3.69D	
0 - 0.1	4.9B 5.8H 4.9B 5.8H 5.1B 6H	6B 7B 11B	2.87H	0.52	0.17	0.13	0.1J		3.69D	
0.1 - 0.2	5.6B 6.7H 5.8B 7H	2B	1.63A	0.38	0.08	0.1			2.19D	
0.1 - 0.2	5.6B 6.7H 5.8B 7H	2B	1.63A	0.38	0.08	0.1			2.19D	
0.1 - 0.2	5.6B 6.7H 5.8B 7H	2B	1.63A	0.38	0.08	0.1			2.19D	
0.2 - 0.3	6.1B 7.2H	2B	0.76A	0.21	0.02	0.1			1.09D	
0.2 - 0.3	6.1B 7.2H	2B	0.76A	0.21	0.02	0.1			1.09D	
0.3 - 0.4	7.3B	10B	1.3E	2.78	0.16	1.44		6B	5.68D	24.00

0.3 - 0.4	8.8H 7.3B 8.8H	10B	1.3E	2.78	0.16	1.44		6B	5.68D	24.00
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0.4 - 0.6	7.6B 9.1H	13B	2.39E	5.32	0.25	2.73		12B	10.69D	22.75
0.4 - 0.6	7.6B 9.1H	13B	2.39E	5.32	0.25	2.73		12B	10.69D	22.75
0.4 - 0.5	7.6B 9.1H	12B								
0.6 - 0.8	8.1B 9.2H	25B	1.89E	5.04	0.4	2.82		10B	10.15D	28.20
0.6 - 0.8	8.1B 9.2H	25B	1.89E	5.04	0.4	2.82		10B	10.15D	28.20
0.8 - 1.1	8.5B 9.5H	36B	1.6E	5.03	0.34	3.23		10B	10.2D	32.30
0.8 - 1.1	8.5B 9.5H	36B	1.6E	5.03	0.34	3.23		10B	10.2D	32.30
1.1 - 1.6	8B 9.3H	22B	0.7E	4.47	0.34	3.32		9B	8.83D	36.89
1.1 - 1.6	8B 9.3H	22B	0.7E	4.47	0.34	3.32		9B	8.83D	36.89

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 5.2		1.03D		94B	0.112E						3.8
0 - 0.1 5.2		1.51D 1.03D		130B 94B	0.112E						3.8
0 - 0.1 5.2		1.51D 1.03D		130B 94B	0.112E						3.8
0 - 0.1 5.2		1.51D 1.03D		130B 94B	0.112E						3.8
0 - 0.1 5.2		1.51D 1.03D		130B 94B	0.112E						3.8
0.1 - 0.2 4		0.19D		33B							3.2
0.1 - 0.2 4		0.19D		33B							3.2
0.1 - 0.2 4		0.19D		33B							3.2
0.2 - 0.3 2.2		0.1D		27B							2
0.2 - 0.3 2.2		0.1D		27B							2
0.3 - 0.4 25.7	<2C	0.06D		27B							3.7
0.3 - 0.4 25.7	<2C	0.06D		27B							3.7
0.4 - 0.6 50.5	<2C	0.08D		28B							2
0.4 - 0.6 50.5	<2C	0.08D		28B							2
0.4 - 0.5 44.8	<2C	0.05D		27B							2.5
0.6 - 0.8 44.8	<2C	0.05D		27B							2.5
0.8 - 1.1 40.8	<2C	0.06D		25B							2.5
0.8 - 1.1 40.8	<2C	0.06D		25B							2.5
1.1 - 1.6	<2C	0.03D		21B							2.1

33.8					
1.1 - 1.6	<2C	0.03D	21B		2.1
33.8					

**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 (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

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15A1_K 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
15A1_MG 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
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
15C1_CA pretreatment for	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5, soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
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
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 Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using 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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_gt2m	> 2mm particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)