

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0651 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Melanie Roberts	Locality:	
Date Desc.:	18/10/96	Elevation:	325 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6252280 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	624970 Datum: AGD84	Drainage:	Poorly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

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

Morph. Type:	Lower-slope	Relief:	10 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	0 %	Aspect:	180 degrees

Surface Soil Condition Cracking, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Epibasic Pedal Calcic Calcarosol	Principal Profile Form:	N/A
ASC Confidence:	Great Soil Group:	N/A

All necessary analytical data are available.

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

Vegetation

Surface Coarse Fragments 10-20%, medium gravelly, 6-20mm, subrounded, Calcrete; No surface coarse fragments

Profile Morphology

A1	0 - 0.05 m	Dark grey (10YR4/1-Moist); , 0-0% ; Clay loam, sandy; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Strong consistence; Field pH 8 (Raupach); Common, very fine (0-1mm) roots; Sharp, Wavy change to -
B21k	0.05 - 0.4 m	Pale yellow (2.5Y7/3-Moist); , 0-0% ; Sandy light medium clay; Strong grade of structure, Prismatic; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Soft segregations; Soil matrix is Slightly calcareous; Field pH 9 (Raupach); Common, very fine (0-1mm) roots; Clear, Wavy change to -
B22	0.4 - 1 m	Pale yellow (2.5Y7/3-Moist); Mottles, 2.5YR76, 10-20% , 30-mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Field pH 7 (Raupach); Few, very fine (0-1mm) roots; Clear, Irregular change to -
B23	1 - 1.6 m	Light grey (2.5Y7/2-Moist); Substrate influence, 10YR81, 20-50% , 15-30mm, Prominent; , 2.5YR48, 20-50% , 15-30mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Firm consistence; Field pH 5.5 (Raupach);

Morphological Notes

A1	Remolded completed dispersion.
B21k	Elsewhere in pit this layer had abundant soft and many hard carbonate concretions.

Observation Notes

Site Notes

Calcareous loamy earth

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0651 **Observation** 1
Agency Name: Agriculture Western Australia

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 - 0.05	7.1B 8H	12B	9.85A	8.09	0.69	0.56			19.19D	
0 - 0.05	7.1B 8H	12B	9.85A	8.09	0.69	0.56			19.19D	
0 - 0.1	7B 7.8H 7B	12B								
0 - 0.1	7.8H 7B 7.8H 7B	12B								
0 - 0.1	7.8H 7B 7.8H 7B	12B								
0 - 0.1	7.8H 7B 7.8H 7B	12B								
0 - 0.1	7.8H 7B 7.8H 7B	12B								
0.05 - 0.25	8.4B 9.2H	43B	4.01E	8.68	0.53	2.7		16B	15.92D	16.88
0.05 - 0.4	8.1B 9H	40B	3.06E	7.93	0.54	2.99		14B	14.52D	21.36
0.05 - 0.25	8.4B 9.2H	43B	4.01E	8.68	0.53	2.7		16B	15.92D	16.88
0.05 - 0.4	8.1B 9H	40B	3.06E	7.93	0.54	2.99		14B	14.52D	21.36
0.4 - 0.8	7.7B 8.7H	56B	0.78E	6.08	0.53	4.76		13B	12.15D	36.62
0.4 - 0.8	7.7B 8.7H	56B	0.78E	6.08	0.53	4.76		13B	12.15D	36.62
0.8 - 1.2	5.2B 5.8H 5.2B 5.8H	87B	0.2H 0.2H	4.8 4.8	0.3 0.3	4.3 4.3	0.07J 0.07J		9.6D 9.6D	
0.8 - 1.2	5.2B 5.8H 5.2B 5.8H	87B	0.2H 0.2H	4.8 4.8	0.3 0.3	4.3 4.3	0.07J 0.07J		9.6D 9.6D	
0.8 - 1.2	5.2B 5.8H 5.2B 5.8H	87B	0.2H 0.2H	4.8 4.8	0.3 0.3	4.3 4.3	0.07J 0.07J		9.6D 9.6D	
0.8 - 1.2	5.2B 5.8H 5.2B 5.8H	87B	0.2H 0.2H	4.8 4.8	0.3 0.3	4.3 4.3	0.07J 0.07J		9.6D 9.6D	
1.2 - 1.6	4.4B 5H	110B	0.1H	4.13	0.28	3.5	0.16J		8.01D	

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0651 **Observation** 1
Agency Name: Agriculture Western Australia

1.2 - 1.6 4.4B 110B 0.1H 4.13 0.28 3.5 0.16J 8.01D
 5H

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 - 0.05 31.1	<2C	1.44D		140B							5.8
0 - 0.05 31.1	<2C	1.44D		140B							5.8
0 - 0.1		1.47D		140B	0.104E						
0 - 0.1		1.47D		140B	0.104E						
0 - 0.1		1.47D		140B	0.104E						
0 - 0.1		1.47D		140B	0.104E						
0 - 0.1		1.47D		140B	0.104E						
0 - 0.1		1.47D		140B	0.104E						
0.05 - 0.25 47	<2C	0.2D							50I		3
0.05 - 0.4 44.3	<2C	0.13D		59B							3.1
0.05 - 0.25 47	<2C	0.2D							50I		3
0.05 - 0.4 44.3	<2C	0.13D		59B							3.1
0.4 - 0.8 45.2	<2C	0.08D		70B							4.1
0.4 - 0.8 45.2	<2C	0.08D		70B							4.1
0.8 - 1.2 59.2		0.12D		100B							12.1
		0.12D		100B							12.1
0.8 - 1.2 59.2		0.12D		100B							12.1
		0.12D		100B							12.1
0.8 - 1.2 59.2		0.12D		100B							12.1
		0.12D		100B							12.1
0.8 - 1.2 59.2		0.12D		100B							12.1
		0.12D		100B							12.1
1.2 - 1.6 57.9		0.1D		80B							19.1
1.2 - 1.6 57.9		0.1D		80B							19.1

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
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - 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 ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CA pretreatment for	salts Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC	soluble salts 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 ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0651 **Observation** 1
Agency Name: Agriculture Western Australia

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_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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO ₃) - 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_S	Sand (%) - 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)