

Project Name: Nyabing Kukerin land resources survey
Project Code: NYA **Site ID:** 0495 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Heather Percy	Locality:	
Date Desc.:	26/03/96	Elevation:	310 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6333200 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	620880 Datum: AGD84	Drainage:	No Data

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:	Mid-slope	Relief:	30 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	1 %	Aspect:	45 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Hypercalcic Subnatric Red Sodosol	Principal Profile Form:	Dr2.13
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 No surface coarse fragments; 2-10%, , subangular, Gneiss

Profile Morphology

A1	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Clay loam; Weak grade of structure, 10-20 mm, Subangular
		blocky; Rough-ped fabric; Dry; Very firm consistence; Field pH 7.5 (Raupach); Abrupt, Smooth change
		to -
B21	0.1 - 0.35 m	Red (2.5YR4/6-Moist); , 0-0% ; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral;
		Rough-ped fabric; Dry; Strong consistence; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach);
		Abrupt, Wavy change to -
B22k	0.35 - 0.6 m	Red (2.5YR4/6-Moist); , 0-0% ; Medium clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough-
		ped fabric; Dry; Strong consistence; 20-50%, medium gravelly, 6-20mm, Calcarenite, coarse fragments;
		Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Soil matrix is Highly
		calcareous; Clear, Wavy change to -
B23k	0.6 - 0.95 m	Yellowish red (5YR5/6-Moist); , 0-0% ; Light clay; Weak grade of structure, 20-50 mm, Polyhedral;
		Rough-ped fabric; Dry; Strong consistence; 10-20%, medium gravelly, 6-20mm, Calcrete, coarse
		fragments; Very many (50 - 100 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Soil
		matrix is Highly calcareous; Field pH 9.5 (Raupach); Gradual, Wavy change to -
B3?	0.95 - 1.4 m	Yellowish red (5YR5/6-Moist); , 7.5YR5/6, 20-50% , 5-15mm, Faint; Coarse sandy clay loam; Massive
		grade of structure; Dry; 10-20%, fine gravelly, 2-6mm, subrounded, , coarse fragments; 2-10%, medium
		gravelly, 6-20mm, subrounded, , coarse fragments; Few (2 - 10 %), Calcareous, Medium
		segregations; Soil matrix is Moderately calcareous; Field pH 9 (Raupach); Clear, Irregular
		change to -

C 1.4 - 1.7 m ; Clay loam; Massive grade of structure; Dry; Field pH 6 (Raupach);

Morphological Notes

Observation Notes

Site Notes

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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	6.4B 7.2H 6.4B 7.4H	12B	9.7A	7.39	2	0.78			19.87D	
0 - 0.1	6.4B 7.2H 6.4B 7.4H	12B	9.7A	7.39	2	0.78			19.87D	
0 - 0.1	6.4B 7.2H 6.4B 7.4H	12B	9.7A	7.39	2	0.78			19.87D	
0 - 0.1	6.4B 7.2H 6.4B 7.4H	12B	9.7A	7.39	2	0.78			19.87D	
0.1 - 0.35	8.3B 9.3H	30B	8.87E	8.78	2.08	3.15		23B	22.88D	13.70
0.1 - 0.35	8.3B 9.3H	30B	8.87E	8.78	2.08	3.15		23B	22.88D	13.70
0.35 - 0.6	8.6B 9.9H	55B	3.1E	7.42	2.37	7.2		18B	20.09D	40.00
0.35 - 0.6	8.6B 9.9H	55B	3.1E	7.42	2.37	7.2		18B	20.09D	40.00
0.6 - 0.95	8.7B 10.1H	78B	1.5E	4.69	1.73	9.39		15B	17.31D	62.60
0.6 - 0.95	8.7B 10.1H	78B	1.5E	4.69	1.73	9.39		15B	17.31D	62.60
0.95 - 1.4	8.7B 9.9H	91B	1.2E	3.17	1.01	7.91		12B	13.29D	65.92
0.95 - 1.4	8.7B 9.9H	91B	1.2E	3.17	1.01	7.91		12B	13.29D	65.92
1.4 - 1.6	8.4B 9H	200B	0.61E	2.82	0.82	8.61		12B	12.86D	71.75
1.4 - 1.6	8.4B 9H	200B	0.61E	2.82	0.82	8.61		12B	12.86D	71.75

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt
0 - 0.1 25.9		1.97D		300B	0.116E					16.9
0 - 0.1 25.9		1.83D 1.97D		300B 300B	0.116E					16.9
0 - 0.1 25.9		1.83D 1.97D		300B 300B	0.116E					16.9
0 - 0.1		1.83D 1.97D		300B 300B	0.116E					16.9

25.9				
0.1 - 0.35	7C	1.83D	300B	
52.4		0.59D	160B	13.5
0.1 - 0.35	7C	0.59D	160B	13.5
52.4				

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0.35 - 0.6 52.4	17C	0.26D	91B	12.2
0.35 - 0.6 52.4	17C	0.26D	91B	12.2
0.6 - 0.95 43.8	19C	0.12D	50B	8.9
0.6 - 0.95 43.8	19C	0.12D	50B	8.9
0.95 - 1.4 35.8	3C	0.08D	39B	5.7
0.95 - 1.4 35.8	3C	0.08D	39B	5.7
1.4 - 1.6 24.7	<2C	0.1D	150B	28.2
1.4 - 1.6 24.7	<2C	0.1D	150B	28.2

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 (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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
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 (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
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)