Project Name: Nyabing Kukerin land resourcs survey

Project Code: NYA Site ID: 0727 Observation ID: 1

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Melanie Roberts Locality:

Date Desc.:29/01/97Elevation:320 metresMap Ref.:Rainfall:No Data

Northing/Long.: 6296904 AMG zone: 50 Runoff: No Data Easting/Lat.: 599721 Datum: AGD84 Drainage: Well drained

<u>Geology</u>

ExposureType:Soil pitConf. Sub. is Parent. Mat.:No DataGeol. Ref.:No DataSubstrate Material:No Data

Landform

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

Morph. Type:Mid-slopeRelief:10 metresElem. Type:HillslopeSlope Category:No DataSlope:3 %Aspect:0 degrees

Surface Soil Condition Soft

Erosion (wind); (scald) (sheet) (rill) (mass) (qully)

(stbank) (tunnel)

Soil Classification

Australian Soil Classification:Mapping Unit:N/ASodic Hypocalcic Red DermosolPrincipal Profile Form:N/AASC Confidence:Great Soil Group:N/A

No analytical data are available but confidence is fair.

Site Disturbance Cultivation. Rainfed

Vegetation

<u>Surface Coarse Fragments</u> 50-90%, medium gravelly, 6-20mm, subangular, Dolerite; 0-2%, cobbly, 60-20mm, subangular, Quartz

Profile Morphology

A1p 0 - 0.06 m Yellowish red (5YR4/6-Moist); ; Light clay; Strong grade of structure, 20-50 mm,

Polyhedral; Dry; 2-10%,

fine gravelly, 2-6mm, subangular, Dolerite, coarse fragments; Field pH 6.8 (pH meter); Sharp, Wavy

change to -

B21 0.06 - 1.05 m Yellowish red (5YR5/6-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm,

Columnar; Dry; Soil
matrix is Slightly calcareous; Field pH 8.9 (pH meter); Abrupt, Irregular change to -

B22 1.05 - 1.5 m Brown (7.5YR5/4-Moist); Mottles, 10YR46, 10-20%, 15-30mm, Distinct; Substrate

influence, 5YR81, 20-

50% , 30-mm, Prominent; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Dry; Soil

matrix is Slightly calcareous; Field pH 7.8 (pH meter); Abrupt, Irregular change to -

B3 1.5 - 2.1 m Yellow (10YR7/8-Moist); Mottles, 10YR46, 10-20%, 30-mm, Distinct; Substrate influence,

5YR81, 20-50%, 30-mm, Prominent; Clay loam; Moderate grade of structure, 20-50 mm, Polyhedral;

Dry; Field pH

7.5 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Soil pit with very well structured in B21 horizon, rock sample from this pit.

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Laboratory Test Results:

Depth	рН	1:5 EC	Ex Ca	changeab Mg	le Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Oa .	Wig	K	Cmol				%
0 - 0.06	7.2B 8.1H	22B	10.5E	6.1	0.78	1		24B	18.38D	4.17
0 - 0.06	7.2B 8.1H	22B	10.5E	6.1	0.78	1		24B	18.38D	4.17
0.06 - 1.05	8.7B 9.5H	98B	2.54E	9.19	0.66	10.53		24B	22.92D	43.88
0.06 - 1.05	8.7B 9.5H	98B	2.54E	9.19	0.66	10.53		24B	22.92D	43.88
1.05 - 1.5	6.7B 7H	350B	0.6E	7.34	0.28	7.04		15B	15.26D	46.93
1.05 - 1.5	6.7B 7H	350B	0.6E	7.34	0.28	7.04		15B	15.26D	46.93
1.5 - 2.1	6.8B 7.1H	530B	0.3E	5.02	0.17	6.3		9B	11.79D	70.00
1.5 - 2.1	6.8B 7.1H	530B	0.3E	5.02	0.17	6.3		9B	11.79D	70.00

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle CS	Size FS	Analysis Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.06 38.5	2.5C	1.32D		310B	0.115E						11.4
0 - 0.06 38.5	2.5C	1.32D		310B	0.115E						11.4
0.06 - 1.05 70.3	3.4C	0.2D		69B	0.02E						10.1
0.06 - 1.05 70.3	3.4C	0.2D		69B	0.02E						10.1
1.05 - 1.5 49.8		0.14D		35B	0.005E						22
1.05 - 1.5		0.14D		35B	0.005E						22
49.8 1.5 - 2.1		0.14D		410B	0.005E						31.6
23.3 1.5 - 2.1 23.3		0.14D		410B	0.005E						31.6

Laboratory Analyses Completed for this profile

15_NR_BSa 15_NR_CMR 15C1_CA pretreatment for	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available Exchangeable bases (Ca/Mg ratio) - Not recorded Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC 15C1_K soluble salts	soluble salts CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for 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 15L1_a Sum of Cations	Sum of Bases Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a 15N1_b 18A1_NR 19B_NR 3_NR 4_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Bicarbonate-extractable potassium (not recorded) Calcium Carbonate (CaCO3) - Not recorded Electrical conductivity or soluble salts - Not recorded pH of soil - Not recorded

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pH of 1:5 soil/0.01M calcium chloride extract - direct 4B1

4G_NR 6A1_UC pH buffering capacity, (method not recorded)
Organic carbon (%) - Uncorrected Walkley and Black method

7A1 7C1a Total nitrogen - semimicro Kjeldahl, steam distillation Ammonium-N, in presence or absence of nitrite

7C1e Nitrate-N, in presence of nitrite

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour Bicarbonate-extractable phosphorus (not recorded) 9A3

9B_NR

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 P10_gt2m 75 to 106u particle size analysis, (method not recorded) > 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

106 to 150u particle size analysis, (method not recorded) 150 to 180u particle size analysis, (method not recorded) 180 to 300u particle size analysis, (method not recorded) P10106_150 P10150_180 P10180_300 P10300_600 300 to 600u particle size analysis, (method not recorded) P106001000 600 to 1000u particle size analysis, (method not recorded)