

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0649 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

<b>Desc. By:</b>	Melanie Roberts	<b>Locality:</b>	
<b>Date Desc.:</b>	17/10/96	<b>Elevation:</b>	330 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6298000 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	648540 Datum: AGD84	<b>Drainage:</b>	Moderately well 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**

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

<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	15 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	0 degrees

**Surface Soil Condition** Loose

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

**Soil Classification**

<b>Australian Soil Classification:</b>	Endohypersodic Paralithic Hypercalcic Calcarosol	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	All necessary analytical data are available.	<b>Principal Profile Form:</b>	N/A
		<b>Great Soil Group:</b>	N/A

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

**Vegetation**

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

**Profile Morphology**

A1p	0 - 0.1 m	Reddish brown (5YR4/4-Moist); , 0-0% ; Clay loam; Massive grade of structure; Dry; Firm consistence; Abrupt, Smooth change to -
B21	0.1 - 0.3 m	Red (2.5YR4/6-Moist); , 0-0% ; Light clay; Massive grade of structure; Dry; Weak matrix is Highly calcareous; Field pH 9 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B22k	0.3 - 0.6 m	Yellowish red (5YR5/6-Moist); , 0-0% ; Medium clay; Massive grade of structure; Dry; Very firm segregations; Soil Irregular change to -
Ck	0.6 - 0.8 m	Brown (10YR5/3-Moist); Mottles, 5YR56, 10-20% , 30-mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Very many (50 - 100 %), Calcareous, Coarse (6 - 20 mm), Concretions; Soil matrix is Highly calcareous; Field pH 9 (Raupach); Abrupt, Tongued change to -
R	0.8 - 1 m	Rock

**Morphological Notes**

A1p	Clay loam to light clay.
Ck	Weathered rock.
R	Hard dolerite rock - calcareous.

**Observation Notes**

## Site Notes

Soil pit in Minelup/Chinocup Catchment. Calcareous loamy earth or possibly a red/brown non-cracking clay.

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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	7.9B 8.6H 7.8B 8.5H	19B 21B	21.65E	7.08	2.47	0.39		30B	31.59D	1.30
0 - 0.1	7.9B 8.6H 7.8B 8.5H	19B 21B	21.65E	7.08	2.47	0.39		30B	31.59D	1.30
0 - 0.1	7.9B 8.6H 7.8B 8.5H	19B 21B	21.65E	7.08	2.47	0.39		30B	31.59D	1.30
0 - 0.1	7.9B 8.6H 7.8B 8.5H	19B 21B	21.65E	7.08	2.47	0.39		30B	31.59D	1.30
0.1 - 0.3	8.1B 8.9H	20B	20.62E	11.91	1.33	1.03		36B	34.89D	2.86
0.1 - 0.3	8.1B 8.9H	20B	20.62E	11.91	1.33	1.03		36B	34.89D	2.86
0.3 - 0.6	8.2B 9.4H	27B	11.61E	10.95	1.02	2.21		25B	25.79D	8.84
0.3 - 0.6	8.2B 9.4H	27B	11.61E	10.95	1.02	2.21		25B	25.79D	8.84
0.6 - 0.8	8.7B 10H	43B	4.78E	10.22	0.68	5.9		20B	21.58D	29.50
0.6 - 0.8	8.7B 10H	43B	4.78E	10.22	0.68	5.9		20B	21.58D	29.50

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 44.4	4C	0.99D		99B	0.101E					11.9
0 - 0.1 44.4	4C	1.04D 0.99D		120B 99B	0.101E					11.9
0 - 0.1 44.4	4C	1.04D 0.99D		120B 99B	0.101E					11.9
0 - 0.1 44.4	4C	1.04D 0.99D		120B 99B	0.101E					11.9
0.1 - 0.3 57.5	12C	0.43D		51B						14.5
0.1 - 0.3 57.5	12C	0.43D		51B						14.5
0.3 - 0.6 47.9	34C	0.23D		35B						10.8
0.3 - 0.6 47.9	34C	0.23D		35B						10.8
0.6 - 0.8 33.2	14C	0.1D		20B						11.9
0.6 - 0.8	14C	0.1D		20B						11.9

33.2

**Laboratory Analyses Completed for this profile**

15\_NR\_BSa      Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15C1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, 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 <sub>3</sub> ) - 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)