

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0145 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

**Desc. By:** Heather Percy  
**Date Desc.:** 15/06/95  
**Map Ref.:**  
**Northing/Long.:** 6269370 AMG zone: 50  
**Easting/Lat.:** 592710 Datum: AGD84  
**Locality:**  
**Elevation:** 300 metres  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** Poorly drained

**Geology**

**Exposure Type:** Auger boring  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** No Data

**Landform**

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

**Morph. Type:** Mid-slope  
**Elem. Type:** Hillslope  
**Slope:** 1 %  
**Relief:** 5 metres  
**Slope Category:** No Data  
**Aspect:** 270 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

**Soil Classification**

**Australian Soil Classification:**  
 Hypocalcic Mesonatric Brown Sodosol  
**ASC Confidence:**  
 No analytical data are available but confidence is fair.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dy2.13  
**Great Soil Group:** N/A

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

**Vegetation**

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

**Profile Morphology**

A1 0 - 0.05 m Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Sand; Single grain grade of structure; Moist; Field  
 pH 6 (Raupach); Abrupt, Wavy change to -  
 B21 0.05 - 0.35 m Yellowish brown (10YR5/8-Moist); , 0-0% ; Medium clay; Moderate grade of structure; Rough-ped  
 fabric; Moderately moist; Soil matrix is Slightly calcareous; Field pH 9 (Raupach); Gradual change to -  
 B22k 0.35 - 0.5 m Olive yellow (2.5Y6/6-Moist); , 0-0% ; Medium clay; Moderate grade of structure; Rough-ped fabric;  
 Moderately moist; Common (10 - 20 %), Ferruginous, Fine (0 - 2 mm), Nodules; Few (2 - 10 %),  
 Calcareous, Medium (2 - 6 mm), Nodules; Soil matrix is Moderately calcareous; Field pH 9 (Raupach);

**Morphological Notes**

B22k Dry below 40cm.

**Observation Notes**

**Site Notes**

"Hardsetting grey clay" - extra soil sample collected for pH cacl2.

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	5.2B	10B								

	6.3H	32B									
	8.2B	10B									
	9.2H	32B									
	5.2B										
	6.3H										
	8.2B										
	9.2H										
0 - 0.1	5.2B	10B									
	6.3H	32B									
	8.2B	10B									
	9.2H	32B									
	5.2B										
	6.3H										
	8.2B										
	9.2H										
0 - 0.1	5.2B	10B									
	6.3H	32B									
	8.2B	10B									
	9.2H	32B									
	5.2B										
	6.3H										
	8.2B										
	9.2H										
0 - 0.1	5.2B	10B									
	6.3H	32B									
	8.2B	10B									
	9.2H	32B									
	5.2B										
	6.3H										
	8.2B										
	9.2H										
0.05 - 0.25	8.1B	28B	4.3E	5.36	0.5	2.32		13B	12.48D	17.85	
	9H										
0.05 - 0.25	8.1B	28B	4.3E	5.36	0.5	2.32		13B	12.48D	17.85	
	9H										
0.15 - 0.25	8.5B	60B									
	9.4H										
0.4 - 0.5	5.1B	6B									
	6.3H										

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt
										%	
0 - 0.1											
0 - 0.1											
0 - 0.1											
0 - 0.1											
0.05 - 0.25	<2C								46I		2
52											
0.05 - 0.25	<2C								46I		2
52											

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0.15 - 0.25  
 0.4 - 0.5

**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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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
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
P10_gt2m	> 2mm particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_S	Sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded