

**Project Name:** Nyabing Kukerin land resources survey  
**Project Code:** NYA **Site ID:** 0412 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

**Desc. By:** Heather Percy **Locality:**  
**Date Desc.:** 30/08/95 **Elevation:** 270 metres  
**Map Ref.:** **Rainfall:** No Data  
**Northing/Long.:** 6242650 AMG zone: 50 **Runoff:** No Data  
**Easting/Lat.:** 634400 Datum: AGD84 **Drainage:** Imperfectly drained

**Geology**

**ExposureType:** Auger boring **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:** 5 metres  
**Elem. Type:** Hillslope **Slope Category:** No Data  
**Slope:** 1 % **Aspect:** 270 degrees

**Surface Soil Condition** Hardsetting, Hardsetting

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

**Soil Classification**

**Australian Soil Classification:** **Mapping Unit:** N/A  
 Hypercalcic Subnatric Grey Sodosol **Principal Profile Form:** Dy2.13  
**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** 10-20%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

**Profile Morphology**

A1 0 - 0.08 m Very dark grey (10YR3/1-Moist); , 0-0% ; Sandy clay loam; Massive grade of structure;  
 Dry; Field pH 6.5 (Raupach); Abrupt, Wavy change to -  
 B21 0.08 - 0.25 m Pale brown (10YR6/3-Moist); , 0-0% ; Sandy medium clay; Moderate grade of structure;  
 Dry; Soil matrix is Slightly calcareous; Field pH 9 (Raupach); Clear change to -  
 B22k 0.25 - 0.32 m Brown (10YR5/3-Moist); Mottles, 5YR56, 10-20% , 0-5mm, Distinct; Light medium clay;  
 Moderate grade of structure; Rough-ped fabric; Dry; Many (20 - 50 %), Calcareous, Coarse (6 - 20 mm),  
 Soft segregations; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach);

**Morphological Notes**

B21 Organic cutans.

**Observation Notes**

**Site Notes**

"Hardsetting grey clay".

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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 - 0.08	6.2B 6.8H	27B	6.39A	4.3	0.61	0.55			11.85D	
0 - 0.08	6.2B 6.8H	27B	6.39A	4.3	0.61	0.55			11.85D	
0 - 0.08	6.2B	27B	6.39A	4.3	0.61	0.55			11.85D	

0.08 - 0.28	6.8H 8.3B 9.1H	38B	4.24E	5.56	0.66	1.54		13B	12D	11.85
0.08 - 0.28	8.3B 9.1H	38B	4.24E	5.56	0.66	1.54		13B	12D	11.85
0.08 - 0.28	8.3B 9.1H	38B	4.24E	5.56	0.66	1.54		13B	12D	11.85

Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis	GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>				%	
0 - 0.08 17		2.31D								72.5l		10.5
0 - 0.08 17		2.31D								72.5l		10.5
0 - 0.08 17		2.31D								72.5l		10.5
0.08 - 0.28 45.5	2C	0.44D								45.5l		9
0.08 - 0.28 45.5	2C	0.44D								45.5l		9
0.08 - 0.28 45.5	2C	0.44D								45.5l		9

#### Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CM	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CEC	salts
15C1_K soluble salts	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_MG soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15J_BASES	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15L1_a Sum of Cations	Sum of Bases
15N1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_b	and measured clay
19B_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
3_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
	Electrical conductivity or soluble salts - Not recorded

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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
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