

**Project Name:** Katanning land resources survey  
**Project Code:** KLC **Site ID:** 0723 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b> Heather Percy	<b>Locality:</b>
<b>Date Desc.:</b> 19/02/93	<b>Elevation:</b> 325 metres
<b>Map Ref.:</b>	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6330040 AMG zone: 50	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 537840 Datum: AGD84	<b>Drainage:</b> Rapidly 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

#### Land Form

<b>Rel/Slope Class:</b> Undulating rises 9-30m 3-10%	<b>Pattern Type:</b> Rises
<b>Morph. Type:</b> Upper-slope	<b>Relief:</b> 25 metres
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 6 %	<b>Aspect:</b> 0 degrees

#### Surface Soil Condition Firm

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Bleached-Ferric Magnesic Brown Kurosol	<b>Principal Profile Form:</b> Dy5.81
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
All necessary analytical data are available.	

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

#### Vegetation:

**Surface Coarse** 50-90%, medium gravelly, 6-20mm, subrounded, ; No surface coarse fragments

#### Profile

A1 0 - 0.12 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Dry;
Strongly water repellent, "Field pH 5.5 (Raupach); Abundant, fine (1-2mm) roots; Sharp, Smooth change to -	
A2e 0.12 - 0.4 m	Pale brown (10YR6/3-Moist); , 0-0% ; Single grain grade of structure; Dry; Loose consistence; 50-90%, medium gravelly, 6-20mm, subrounded, , coarse fragments; 10-20%, coarse gravelly, 20-60mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Many, fine (1-2mm) roots; Clear, Tongued change to -
B2t 0.4 - 0.8 m	Yellowish brown (10YR5/8-Moist); Mottles, 10R36, 20-50% , 5-15mm, Prominent; Sandy clay loam; Massive grade of structure; Dry; Strong consistence; 50-90%, coarse gravelly, 20-60mm, subrounded, , coarse fragments; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Field pH 5.5 (Raupach); Few, fine (1-2mm) roots; Gradual, Irregular change to -
2C 0.8 - 1.3 m	Red (10R4/8-Moist); Mottles, 10YR72, 20-50% , 30-mm, Prominent; Mottles, 10YR68, 10-20% , 15-30mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Dry; Very firm consistence; 20-50%, fine gravelly, 2-6mm, rounded, , coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Nodules; Field pH 5.5 (Raupach);

#### Morphological Notes

A1	Highly organic (humic)
B2t	Appears to be layered. Roots in cracks/in cemented layer
2C	Roots in cracks extend into this layer

#### Observation Notes

#### Site Notes

Long crop rotation, currently in pasture- good clover country

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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 - 0.12	5.3B 6H	20B	12.92H	2.51	1.05	0.3	0.1J		16.78D	
0 - 0.1	5.4B 6.1H 5.2B	22B								
0 - 0.12	5.3B 6H	20B	12.92H	2.51	1.05	0.3	0.1J		16.78D	
0 - 0.1	5.4B 6.1H 5.2B	22B								
0 - 0.1	5.4B 6.1H 5.2B	22B								
0.12 - 0.4	4.7B 5.7H	2B	1.2H	0.48	0.12	0.05	0.32J		1.85D	
0.12 - 0.4	4.7B 5.7H	2B	1.2H	0.48	0.12	0.05	0.32J		1.85D	
0.15 - 0.25	4.7B									
0.4 - 0.8	4.5B 5.3H	4B	0.48H	1.63	0.12	0.15	0.21J		2.38D	
0.4 - 0.8	4.5B 5.3H	4B	0.48H	1.63	0.12	0.15	0.21J		2.38D	
0.4 - 0.5	4.4B									
0.8 - 1.2	4.8B 5.4H	9B	0.14H	3.05	0.04	0.54	0.04J		3.77D	
0.8 - 1.2	4.8B 5.4H	9B	0.14H	3.05	0.04	0.54	0.04J		3.77D	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.12 3.3		6.51D		480B	0.448E						3.5
0 - 0.1		7.69D		780B	0.599E						
0 - 0.12 3.3		6.51D		480B	0.448E						3.5
0 - 0.1		7.69D		780B	0.599E						
0 - 0.1		7.69D		780B	0.599E						
0.12 - 0.4 7.1		0.67D		65B	0.041E						4
0.12 - 0.4 7.1		0.67D		65B	0.041E						4
0.15 - 0.25											
0.4 - 0.8 24.3		0.21D		30B	0.014E						4.2
0.4 - 0.8 24.3		0.21D		30B	0.014E						4.2
0.4 - 0.5											
0.8 - 1.2 57.6		0.13D		28B	0.011E						8.6
0.8 - 1.2 57.6		0.13D		28B	0.011E						8.6

**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
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts

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15E1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MN	Exchangeable bases (Mn <sup>2+</sup> ) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
18A1_NR	Bicarbonate-extractable potassium (not recorded)
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method 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)