

**Project Name:** Katanning land resources survey  
**Project Code:** KLC                   **Site ID:** 2317                   **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Heather Percy	<b>Locality:</b>	
<b>Date Desc.:</b>	12/04/95	<b>Elevation:</b>	280 metres
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6302120 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	512910 Datum: AGD84	<b>Drainage:</b>	Imperfectly 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>	Gently undulating rises 9-30m 1-3%	<b>Pattern Type:</b>	Rises
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<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	20 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	270 degrees

#### Surface Soil Condition

Hardsetting, Hardsetting

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

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Mesotrophic Mottled-Subnartic Yellow Sodosol		<b>Principal Profile Form:</b>	Dy3.12
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A

Confidence level not specified

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

#### Vegetation:

**Surface Coarse** No surface coarse fragments; No surface coarse fragments

#### Profile

A1p        0 - 0.08 m structure; Dry; 10- (Raupach); Many, very	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Clayey sand; Massive grade of 20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 5.5 fine (0-1mm) roots; Sharp, Smooth change to -
A3e        0.08 - 0.23 m structure; Dry; gravelly, 6- 1mm) roots;	Light yellowish brown (10YR6/4-Moist); , 0-0% ; Clayey coarse sand; Massive grade of 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 10-20%, medium 20mm, subrounded, , coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0- Abrupt, Smooth change to -
B2        0.23 - 0.55 m 20% , 5-15mm, fabric; Dry;	Brownish yellow (10YR6/6-Moist); , 10YR72, 2-10% , 5-15mm, Distinct; , 7.5YR58, 10- Distinct; Light medium clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped Field pH 6 (Raupach); Few, fine (1-2mm) roots; Clear, Wavy change to -
C11        0.55 - 1.05 m 2.5YR46, 2-10% , 5- medium gravelly, 6- subrounded, , coarse (Raupach); Few,	Brownish yellow (10YR6/6-Moist); Mottles, 7.5YR58, 2-10% , 15-30mm, Distinct; , 15mm, Distinct; Coarse sandy clay loam; Massive grade of structure; Dry; 20-50%, 20mm, angular, Granite, coarse fragments; 10-20%, medium gravelly, 6-20mm, fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Field pH 6.5 fine (1-2mm) roots; Clear, Smooth change to -
C12        1.05 - 1.4 m , 5-15mm, gravelly, 6-20mm, Nodules; Field pH	White (10YR8/1-Moist); Mottles, 10YR68, 10-20% , 15-30mm, Distinct; , 2.5YR46, 2-10% Distinct; Coarse sandy light clay; Massive grade of structure; Dry; 10-20%, medium subrounded, , coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), 6.5 (Raupach); Few, fine (1-2mm) roots;

#### Morphological Notes

C11 Weathered granite

**Observation Notes**

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Cations Mg	K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.08	4.4B 5.3H	7B	2H	0.51	0.09	0.15	0.37J		2.75D	
0 - 0.08	4.4B 5.3H	7B	2H	0.51	0.09	0.15	0.37J		2.75D	
0 - 0.1	4.3B 5.3H		5B							
0 - 0.1	4.3B 5.3H		5B							
0.08 - 0.23	4.1B 5.2H	2B	0.46H	0.29	0.04	0.06	0.41J		0.85D	
0.08 - 0.23	4.1B 5.2H	2B	0.46H	0.29	0.04	0.06	0.41J		0.85D	
0.23 - 0.43	5.5B 6H	5B	1.4H	2.6	0.03	0.26	<0.02J		4.29D	
0.23 - 0.43	5.5B 6H	5B	1.4H	2.6	0.03	0.26	<0.02J		4.29D	
0.43 - 0.55	5.7B 6.2H	6B	1H	3.6	0.02	0.39	<0.02J		5.01D	
0.43 - 0.55	5.7B 6.2H	6B	1H	3.6	0.02	0.39	<0.02J		5.01D	
0.55 - 0.85	5.5B 5.9H	7B	0.4H	2.6	0.02	0.4	<0.02J		3.42D	
0.55 - 0.85	5.5B 5.9H	7B	0.4H	2.6	0.02	0.4	<0.02J		3.42D	
0.85 - 1.05	5.3B 5.8H	8B	0.16H	2.8	0.03	0.49	<0.02J		3.48D	
0.85 - 1.05	5.3B 5.8H	8B	0.16H	2.8	0.03	0.49	<0.02J		3.48D	
1.05 - 1.4	5.4B 6.2H	8B	0.07H	3.7	0.02	0.62	<0.02J		4.41D	
1.05 - 1.4	5.4B 6.2H	8B	0.07H	3.7	0.02	0.62	<0.02J		4.41D	

Depth m	CaCO <sub>3</sub> %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m <sup>3</sup>	GV	Particle CS	Size FS	Analysis Silt
0 - 0.08 5.8		1.87D		120B	0.136E						6.1
0 - 0.08 5.8		1.87D		120B	0.136E						6.1
0 - 0.1		1.61D		100B	0.121E						
0 - 0.1		1.61D		100B	0.121E						
0.08 - 0.23 11.1		0.28D		33B	0.025E						5.4
0.08 - 0.23 11.1		0.28D		33B	0.025E						5.4
0.23 - 0.43 42.9		0.16D		42B	0.026E						6.5
0.23 - 0.43 42.9		0.16D		42B	0.026E						6.5
0.43 - 0.55 40.2		0.09D		29B	0.016E						6.1
0.43 - 0.55 40.2		0.09D		29B	0.016E						6.1

0.55 - 0.85 25.5	0.05D	18B	0.005E	7.5
0.55 - 0.85 25.5	0.05D	18B	0.005E	7.5
0.85 - 1.05 27.6	0.03D	18B	0.005E	6.8
0.85 - 1.05 27.6	0.03D	18B	0.005E	6.8

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1.05 - 1.4 26.7	0.05D	15B	0.005E	7.4
1.05 - 1.4 26.7	0.05D	15B	0.005E	7.4

**Laboratory Analyses Completed for this profile**

15_NR_BSs	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
15E1_CA salts	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)