Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **2311** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	28/02/95	**Elevation:**	330 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6265090 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	542570 Datum: AGD84	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	No Data

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	**Pattern Type:**	Rises
Morph. Type:	Mid-slope	**Relief:**	20 metres
Elem. Type:	Hillslope	**Slope Category:**	No Data
Slope:	4 %	**Aspect:**	225 degrees

Surface Soil Condition Loose

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

Soil Classification

Australian Soil Classification:
Mesotrophic Mottled-Subnatric Grey Sodosol
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Dy5.41
Great Soil Group: N/A

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

Vegetation:

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

Profile

A1 0 - 0.12 m Very dark grey (10YR3/1-Moist); , 0-0% ; Loamy coarse sand; Single grain grade of structure; Moderately moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 2-10%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 5.5 (Raupach); Abundant, very fine (0-1mm) roots; Abrupt, Wavy change to -

A21 0.12 - 0.25 m Brown (10YR5/3-Moist); Mottles, 7.5YR56, 20-50% , 0-5mm, Distinct; Clayey coarse sand; Massive grade of structure; Moderately moist; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Clear, Smooth change to -

A22e 0.25 - 0.4 m Light grey (10YR7/2-Moist); Mottles, 7.5YR56, 2-10% , 5-15mm, Distinct; Clayey coarse sand; Single grain grade of structure; Moderately moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 10-20%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Wavy change to -

B2 0.4 - 0.7 m Light brownish grey (10YR6/2-Moist); , 2.5YR46, 20-50% , 15-30mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Field pH 6 (Raupach); Clear, Wavy change to -

B3 0.7 - 1.05 m Light grey (10YR7/2-Moist); Mottles, 2.5YR46, 20-50% , 15-30mm, Distinct; Sandy light medium clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Field pH 5.5 (Raupach);

Morphological Notes

A22e Mottled at base of layers

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.12	4.4B 5.1H	10B	2.5H	0.44	0.08	0.16	0.32J		3.18D	
0 - 0.12	4.4B 5.1H	10B	2.5H	0.44	0.08	0.16	0.32J		3.18D	
0 - 0.1	4.4B 4.5B 5.2H	10B								
0 - 0.1	4.4B 4.5B 5.2H	10B								
0 - 0.1	4.4B 4.5B 5.2H	10B								
0.12 - 0.25	4.5B 5.6H	2B	0.88H	0.4	0.04	0.08	0.18J		1.4D	
0.12 - 0.25	4.5B 5.6H	2B	0.88H	0.4	0.04	0.08	0.18J		1.4D	
0.15 - 0.25	4.5B									
0.25 - 0.4	4.9B 6.4H	1B	0.32H	0.34	0.02	0.06	0.03J		0.74D	
0.25 - 0.4	4.9B 6.4H	1B	0.32H	0.34	0.02	0.06	0.03J		0.74D	
0.4 - 0.6	4.1B 5.7H	5B	0.88H	6	0.1	1.2	0.69J		8.18D	
0.4 - 0.6	4.1B 5.7H	5B	0.88H	6	0.1	1.2	0.69J		8.18D	
0.45 - 0.55	4.1B									
0.6 - 0.7	4B 5.7H	5B	0.56H	8.4	0.07	1.7	1.2J		10.73D	
0.6 - 0.7	4B 5.7H	5B	0.56H	8.4	0.07	1.7	1.2J		10.73D	
0.7 - 1	3.7B 5.5H	4B	0.37H	9.6	0.1	2.2	1.5J		12.27D	
0.7 - 1	3.7B 5.5H	4B	0.37H	9.6	0.1	2.2	1.5J		12.27D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt
m	%	Clay %	mg/kg	%	%	%	Mg/m3			%	
0 - 0.12 5.2		1.82D		190B	0.171E						6.4
0 - 0.12 5.2		1.82D		190B	0.171E						6.4
0 - 0.1		1.67D		160B	0.15E						
0 - 0.1		1.67D		160B	0.15E						
0 - 0.1		1.67D		160B	0.15E						
0.12 - 0.25 4.9		0.24D		50B	0.025E						5
0.12 - 0.25 4.9		0.24D		50B	0.025E						5
0.15 - 0.25											
0.25 - 0.4 2.4		0.09D		24B	0.01E						5
0.25 - 0.4 2.4		0.09D		24B	0.01E						5

0.4 - 0.6 0.15D 28B 0.023E 9
35.3

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0.4 - 0.6	0.15D	28B	0.023E		9
35.3					
0.45 - 0.55					
0.6 - 0.7	0.11D	24B	0.019E		8.7
44.6					
0.6 - 0.7	0.11D	24B	0.019E		8.7
44.6					
0.7 - 1	0.08D	17B	0.015E		14.3
30.5					
0.7 - 1	0.08D	17B	0.015E		14.3
30.5					

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) 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 (Mn2+) 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)