Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **0496** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	07/10/92	**Elevation:**	No Data
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6342000 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	517030 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: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type:	Flat	**Relief:**	10 metres
Elem. Type:	Valley flat	**Slope Category:**	No Data
Slope:	1 %	**Aspect:**	45 degrees

Surface Soil Condition

Hardsetting, Hardsetting

Erosion:

(wind); (sheet) (rill) (gully)

Soil Classification

Australian Soil Classification:
Ferric-Sodic Mesotrophic Yellow Chromosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Dy3.63
Great Soil Group: N/A

Site

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

Vegetation:

Surface Coarse

No surface coarse fragments; No surface coarse fragments

Profile

A1 0 - 0.08 m Very dark greyish brown (10YR3/2-Moist); ; Sandy loam; Single grain grade of structure; Moist; Loose consistence; 10-20%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Many, fine (1-2mm) roots; Abrupt, Wavy change to -

A2 0.08 - 0.15 m Brownish yellow (10YR6/6-Moist); Mechanical, 10YR32, 20-50% , 5-15mm, Distinct; Sandy loam; Single grain grade of structure; Moist; Loose consistence; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Many, fine (1-2mm) roots; Abrupt, Irregular change to -

B21t 0.15 - 0.6 m Light yellowish brown (10YR6/4-Moist); Mottles, 10YR68, 20-50% , 15-30mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moderately moist; Field pH 7 (Raupach); Common, fine (1-2mm) roots; Clear, Wavy change to -

B22t 0.6 - 1.05 m Light grey (10YR7/2-Moist); Mottles, 10YR56, 20-50% , 15-30mm, Distinct; Mottles, 10YR46, 10-20% , 5-15mm, Distinct; Light clay; Strong grade of structure, 50-100 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Field pH 7 (Raupach); Abrupt, Wavy change to -

B3 1.05 - 1.55 m Light yellowish brown (10YR6/4-Moist); Mottles, 10YR56, 20-50% , 15-30mm, Distinct; Mottles, 10YR46, 2-10% , 5-15mm, Distinct; Sandy light medium clay; Moderate grade of structure, 50-100 mm, Polyhedral; Rough-ped fabric; Moist; Field pH 7.5 (Raupach);

Morphological Notes

A1	10% O GCL. Earthworms
A2	10% O,GC,L
B3	Water entered at this layer.

Observation Notes

Site Notes

penetrometer readings:4.5;3.4;3.5;3.8;4.5;5.0

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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 - 0.08	5.2B 6.2H	8B	5.18H	1	0.32	0.26	0.12J		6.76D	
0 - 0.1	5.1B 5.7H	20B								
0 - 0.08	5.2B 6.2H	8B	5.18H	1	0.32	0.26	0.12J		6.76D	
0 - 0.11	5.33B									
0 - 0.1	5.1B 5.7H	20B								
0.08 - 0.15	5B 6.2H	2B	3.59H	0.82	0.1	0.19	0.32J		4.7D	
0.08 - 0.15	5B 6.2H	2B	3.59H	0.82	0.1	0.19	0.32J		4.7D	
0.15 - 0.6	5.4B 6.2H	4B	1.77H	1.68	0.04	0.18	0.04J		3.67D	
0.15 - 0.6	5.4B 6.2H	4B	1.77H	1.68	0.04	0.18	0.04J		3.67D	
0.16 - 0.26	5.35B									
0.41 - 0.51	6.1B									
0.6 - 1.05	6.1B 7H	8B	1.37A	3.91	0.02	1			6.3D	
0.6 - 1.05	6.1B 7H	8B	1.37A	3.91	0.02	1			6.3D	
1.05 - 1.55	6.1B 7.4H	6B	0.53A	2.6	0.03	1.22			4.38D	
1.05 - 1.55	6.1B 7.4H	6B	0.53A	2.6	0.03	1.22			4.38D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt
		Clay									
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.08		1.94D		230B	0.138E						9.3
7.9											
0 - 0.1		1.91D		230B	0.156E						
0 - 0.08		1.94D		230B	0.138E						9.3
7.9											
0 - 0.11											
0 - 0.1		1.91D		230B	0.156E						
0.08 - 0.15		1.22D		110B	0.046E						8.2
10.2											
0.08 - 0.15		1.22D		110B	0.046E						8.2
10.2											
0.15 - 0.6		0.2D		66B	0.018E						7.5
36.9											
0.15 - 0.6		0.2D		66B	0.018E						7.5
36.9											
0.16 - 0.26											
0.41 - 0.51											
0.6 - 1.05		0.09D		46B	0.007E						16.9
51.3											
0.6 - 1.05		0.09D		46B	0.007E						16.9
51.3											
1.05 - 1.55		0.06D		40B	0.004E						12.1
26.9											
1.05 - 1.55		0.06D		40B	0.004E						12.1
26.9											

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
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
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
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)