

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0495 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Heather Percy	Locality:	
Date Desc.:	07/10/92	Elevation:	305 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6341670 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	517890 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 low hills 30-90m 3-10% **Pattern Type:** Low hills

Morph. Type:	Lower-slope	Relief:	40 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	3 %	Aspect:	45 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:	Mesotrophic Mottled-Subnatic Brown Sodosol	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	Dy3.23
		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

Ap	0 - 0.12 m	Very dark brown (10YR2/2-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; Moist; Loose
		consistence; 20-50%, fine gravelly, 2-6mm, rounded, , coarse fragments; Field pH 5.5
		(Raupach); Many,
		fine (1-2mm) roots; Abrupt, Smooth change to -
A2	0.12 - 0.4 m	Yellowish brown (10YR5/6-Moist); , 0-0% ; Clayey sand; Massive grade of structure; Wet; Loose
		consistence; 10-20%, fine gravelly, 2-6mm, rounded, , coarse fragments; Field pH 6.5
		(Raupach); Many,
		very fine (0-1mm) roots; Clear change to -
B1t	0.4 - 0.5 m	Yellowish brown (10YR5/6-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Faint; Sandy clay loam; Massive
		grade of structure; Wet; Very weak consistence; 10-20%, medium gravelly, 6-20mm, rounded, , coarse
		fragments; Clear change to -
B21t	0.5 - 0.7 m	Yellowish brown (10YR5/6-Moist); Mottles, 10YR68, 20-50% , 5-15mm, Distinct; Clay loam, coarse
		sandy; Massive grade of structure; Wet; Weak consistence; 10-20%, fine gravelly, 2-6mm, rounded, ,
		coarse fragments; Field pH 7.5 (Raupach); Common, very fine (0-1mm) roots;
2B22	0.7 - 1.1 m	Light grey (10YR7/2-Moist); Mottles, 10YR56, 20-50% , 30-mm, Distinct; Mottles, 2.5YR48, 20-50% ,
		30-mm, Distinct; Sandy medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped
		fabric; Wet; Weak consistence; 20-50%, medium gravelly, 6-20mm, rounded, , coarse fragments; Field
		pH 8.5 (Raupach);

Morphological Notes

A2	Top 12-20cm single grained
B21t	Massive when dry (March 1993)
2B22	Water perched on top of this layer. Gravel layered

Observation Notes

Site Notes

Penetrometer: 4.2,3.5,3.6,4.5,3.7

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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	4.2B 4.9H	6B	2.06H	0.24	0.04	0.08	0.73J		2.42D	
0 - 0.1	4.4B 5.1H	15B								
0 - 0.11	4.6B									
0 - 0.1	4.4B 5.1H	15B								
0.12 - 0.5	5.5B 6.7H	3B	0.88A	0.57	0.02	0.22			1.69D	
0.16 - 0.26	5.4B									
0.41 - 0.51	5.75B									
0.5 - 0.7	6B 7.4H	4B	1.16A	1.98	0.05	0.56			3.75D	
0.7 - 1.1	6.3B 7.9H	4B	0.71A	1.84	0.05	0.62			3.22D	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.12		1.66D		200B	0.146E			4.5
5.5								
0 - 0.1		2.13D		230B	0.184E			
0 - 0.11								
0 - 0.1		2.13D		230B	0.184E			
0.12 - 0.5		0.09D		45B	0.016E			2.2
11.6								
0.16 - 0.26								
0.41 - 0.51								
0.5 - 0.7		0.07D		39B	0.013E			1.7
24.4								
0.7 - 1.1		0.05D		33B	0.01E			3.9
26.6								

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
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

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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)