

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 0555 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Jaki Hogstrom	Locality:	
Date Desc.:	16/11/92	Elevation:	240 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6286870 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	483500 Datum: AGD84	Drainage:	Moderately well 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:	Upper-slope	Relief:	20 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	7 %	Aspect:	270 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Sodic Eutrophic Black Dermosol		Principal Profile Form:	Gn4.43
ASC Confidence:		Great Soil Group:	N/A
All necessary analytical data are available.			

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 - 0.1 m	Very dusky red (2.5YR2/2-Moist); , 0-0% ; Clay loam; Weak grade of structure, 5-10 mm, Polyhedral;
		Rough-ped fabric; Moderately moist; Very weak consistence; Field pH 6 (Raupach);
		Abundant, fine (1-2mm) roots; Abrupt, Tongued change to -
B1	0.1 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Light clay; Weak grade of structure, 5-10 mm,
		Polyhedral; Rough-ped fabric; Moderately moist; Very weak consistence; Field pH 6 (Raupach); Many,
		fine (1-2mm) roots; Abrupt, Wavy change to -
B21	0.3 - 0.55 m	Very dark greyish brown (2.5Y3/2-Moist); , 0-0% ; Medium clay; Moderate grade of structure, 100-200
		mm, Columnar; Rough-ped fabric; Moderately moist; Very strong consistence; Field pH 6 (Raupach);
		Common, fine (1-2mm) roots; Gradual, Irregular change to -
B22	0.55 - 1.1 m	Olive grey (5Y4/2-Moist); , 0-0% ; Medium clay; Strong grade of structure, 20-50 mm,
		Polyhedral; Rough-ped fabric; Dry; Very strong consistence; Field pH 8 (Raupach); Few, very fine (0-1mm) roots;
		Clear, Wavy change to -
Cr	1.1 - 1.5 m	Yellow (2.5Y8/6-Moist); Substrate influence, 2.5Y43, 20-50% , 15-30mm, Distinct; Clayey sand; Massive
		grade of structure; Dry; Firm consistence; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach);
		Few, very fine (0-1mm) roots;

Morphological Notes

Cr Weathered rock - dolerite and granite

Observation Notes

Site Notes

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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 - 0.1	5B 5.9H 5.1B 5.9H	7B 13B	8.8H	1.58	0.46	0.32	0.17J		11.16D	
0 - 0.1	5B 5.9H 5.1B 5.9H	7B 13B	8.8H	1.58	0.46	0.32	0.17J		11.16D	
0 - 0.1	5B 5.9H 5.1B 5.9H	7B 13B	8.8H	1.58	0.46	0.32	0.17J		11.16D	
0 - 0.11	5.36B									
0 - 0.1	5B 5.9H 5.1B 5.9H	7B 13B	8.8H	1.58	0.46	0.32	0.17J		11.16D	
0.1 - 0.3	5B 6.4H	2B	9.13H	1.62	0.45	0.33	0.19J		11.53D	
0.1 - 0.3	5B 6.4H	2B	9.13H	1.62	0.45	0.33	0.19J		11.53D	
0.16 - 0.26	4.92B									
0.3 - 0.55	5.6B 7.1H	3B	12.12A	9.92	0.16	1.17			23.37D	
0.3 - 0.55	5.6B 7.1H	3B	12.12A	9.92	0.16	1.17			23.37D	
0.41 - 0.51	6.07B									
0.55 - 1.1	7.1B 8.7H	6B	13.7E	10.04	0.14	2.12		27B	26D	7.85
0.55 - 1.1	7.1B 8.7H	6B	13.7E	10.04	0.14	2.12		27B	26D	7.85
0.55 - 1.1	7.1B 8.7H	6B	13.7E	10.04	0.14	2.12		27B	26D	7.85
1.1 - 1.5	7.8B 9.2H	8B	10.33E	6.5	0.03	2		17B	18.86D	11.76
1.1 - 1.5	7.8B 9.2H	8B	10.33E	6.5	0.03	2		17B	18.86D	11.76
1.1 - 1.5	7.8B 9.2H	8B	10.33E	6.5	0.03	2		17B	18.86D	11.76

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.1		2.12D		290B	0.182E			
12.6								15.2
0 - 0.1		2.84D		320B	0.223E			
12.6		2.12D		290B	0.182E			15.2
0 - 0.1		2.84D		320B	0.223E			
12.6		2.12D		290B	0.182E			15.2
0 - 0.11		2.84D		320B	0.223E			

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0 - 0.1 12.6	2.12D	290B	0.182E	15.2
0.1 - 0.3 25.6	2.84D 0.94D	320B 200B	0.223E 0.084E	14.2
0.1 - 0.3 25.6	0.94D	200B	0.084E	14.2
0.16 - 0.26 0.3 - 0.55 47.3	0.43D	55B	0.046E	10.1
0.3 - 0.55 47.3	0.43D	55B	0.046E	10.1
0.41 - 0.51 0.55 - 1.1 51.4	<2C 0.4D	35B	0.033E	8.5
0.55 - 1.1 51.4	<2C 0.4D	35B	0.033E	8.5
0.55 - 1.1 51.4	<2C 0.4D	35B	0.033E	8.5
1.1 - 1.5 6.3	<2C 0.04D	48B	0.007E	4.6
1.1 - 1.5 6.3	<2C 0.04D	48B	0.007E	4.6
1.1 - 1.5 6.3	<2C 0.04D	48B	0.007E	4.6

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
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CEC	salts
15C1_K soluble salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_MG soluble salts	soluble salts
15C1_NA soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15E1_AL	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_CA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_MG	soluble salts
15E1_MN	Exchangeable bases, CEC and AEC 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	Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts
15L1_a	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
Sum of Cations	Sum of Bases
	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
	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)
19B_NR	Calcium Carbonate (CaCO ₃) - 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)

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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)