

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 2320 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Heather Percy	Locality:
Date Desc.: 13/04/95	Elevation: 290 metres
Map Ref.:	Rainfall: No Data
Northing/Long.: 6330600 AMG zone: 50	Runoff: No Data
Easting/Lat.: 518930 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: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type: Mid-slope	Relief: 10 metres
Elem. Type: Hillslope	Slope Category: No Data
Slope: 3 %	Aspect: 135 degrees

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification: N/A	Mapping Unit: N/A
ASC Confidence: Confidence level not specified	Principal Profile Form: Dr2.13
	Great Soil Group: N/A

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

Vegetation:

Surface Coarse 10-20%, medium gravelly, 6-20mm, subrounded, ; 2-10%, , subrounded,

Profile

A1c	0 - 0.05 m	Dark reddish brown (2.5YR3/3-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Dry; Very firm
		consistence; 20-50%, fine gravelly, 2-6mm, subangular, , coarse fragments; 2-10%, medium gravelly, 6-20mm, subangular, , coarse fragments; Field pH 6.5 (Raupach); Abrupt, Smooth change to -
B2t	0.05 - 0.55 m	Dark red (2.5YR3/6-Moist); , 0-0% ; Medium clay; Moderate grade of structure, 200-500 mm, Prismatic; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very strong consistence; 10-20%, fine gravelly, 2-6mm, rounded, , coarse fragments; Many (20 - 50 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 8.5 (Raupach); Clear, Wavy change to -
B3	0.55 - 1.4 m	Red (2.5YR4/6-Moist); Mottles, 7.5YR58, 10-20% , 5-15mm, Distinct; Substrate influence, 20% , 15-30mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach); Gradual, Irregular change to -
C	1.4 - 2 m	Yellowish brown (10YR5/6-Moist); Mottles, 2.5YR46, 20-50% , 15-30mm, Distinct; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach);

Morphological Notes

B2t	Black
C	Weathered dolerite

Observation Notes

Site Notes

red soil LMU

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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 - 0.05	5.4B 6.1H	17B	11H	2.9	1.3	0.51	0.04J		15.71D	
0 - 0.05	5.4B 6.1H	17B	11H	2.9	1.3	0.51	0.04J		15.71D	
0 - 0.1	5.4B 6.2H	11B								
	5.4B 6.2H									
0 - 0.1	5.4B 6.2H	11B								
	5.4B 6.2H									
0 - 0.1	5.4B 6.2H	11B								
	5.4B 6.2H									
0 - 0.1	5.4B 6.2H	11B								
	5.4B 6.2H									
0.05 - 0.25	7.8B 8.8H	13B	5.6E	7.3	0.98	1.2		17B	15.08D	7.06
0.05 - 0.25	7.8B 8.8H	13B	5.6E	7.3	0.98	1.2		17B	15.08D	7.06
0.25 - 0.55	8.3B 9.3H	22B	4.2E	7.6	0.96	2		16B	14.76D	12.50
0.25 - 0.55	8.3B 9.3H	22B	4.2E	7.6	0.96	2		16B	14.76D	12.50
0.55 - 0.85	8.6B 9.8H	39B	3.9E	11	1.1	4.6		20B	20.6D	23.00
0.55 - 0.85	8.6B 9.8H	39B	3.9E	11	1.1	4.6		20B	20.6D	23.00
0.85 - 1.15	8.7B 9.8H	41B	4.9E	13	1	7.5		27B	26.4D	27.78
0.85 - 1.15	8.7B 9.8H	41B	4.9E	13	1	7.5		27B	26.4D	27.78
1.15 - 1.4	8.8B 9.9H	43B	4.1E	11	1	7.7		24B	23.8D	32.08
1.15 - 1.4	8.8B 9.9H	43B	4.1E	11	1	7.7		24B	23.8D	32.08
1.4 - 1.7	8.8B 9.9H	48B	3.7E	10	0.88	11		24B	25.58D	45.83
1.4 - 1.7	8.8B 9.9H	48B	3.7E	10	0.88	11		24B	25.58D	45.83
1.7 - 2	8.6B 9.7H	32B	2.2E	11	0.85	13		27B	27.05D	48.15
1.7 - 2	8.6B 9.7H	32B	2.2E	11	0.85	13		27B	27.05D	48.15

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Depth	CaCO ₃	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle Size	Analysis
m	%	%	mg/kg	%	%	%	Mg/m ³		FS	Silt
0 - 0.05 8.8		4.67D		410B	0.351E					13
0 - 0.05 8.8		4.67D		410B	0.351E					13
0 - 0.1		3.51D		380B	0.268E					
		3.51D		380B	0.268E					
0 - 0.1		3.51D		380B	0.268E					
		3.51D		380B	0.268E					
0 - 0.1		3.51D		380B	0.268E					
		3.51D		380B	0.268E					
0 - 0.1		3.51D		380B	0.268E					
		3.51D		380B	0.268E					
0.05 - 0.25 43.9	<2C	0.32D		120B	0.031E					10.2
0.05 - 0.25 43.9	<2C	0.32D		120B	0.031E					10.2
0.25 - 0.55 43.2	2C	0.25D		120B	0.023E					10.4
0.25 - 0.55 43.2	2C	0.25D		120B	0.023E					10.4
0.55 - 0.85 43.5	12C	0.17D		99B	0.017E					17.7
0.55 - 0.85 43.5	12C	0.17D		99B	0.017E					17.7
0.85 - 1.15 31.6	4C	0.08D		110B	0.01E					26
0.85 - 1.15 31.6	4C	0.08D		110B	0.01E					26
1.15 - 1.4 25.3	7C	0.08D		100B	0.011E					19.3
1.15 - 1.4 25.3	7C	0.08D		100B	0.011E					19.3
1.4 - 1.7 24.1	5C	0.07D		90B	0.006E					24.3
1.4 - 1.7 24.1	5C	0.07D		90B	0.006E					24.3
1.7 - 2 18.1	<2C	0.07D		100B	0.006E					20.1
1.7 - 2 18.1	<2C	0.07D		100B	0.006E					20.1

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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)
19B_NR	Calcium Carbonate (CaCO3) - 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

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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)