Project Name: **Katanning land resources survey**
Project Code: **KLC** **Site ID:** **2338** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By:	Heather Percy	**Locality:**	
Date Desc.:	21/09/95	**Elevation:**	285 metres
Map Ref.:		**Rainfall:**	No Data
Northing/Long.:	6315060 AMG zone: 50	**Runoff:**	No Data
Easting/Lat.:	584930 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:	Level plain <9m <1%	**Pattern Type:**	Alluvial plain
Morph. Type:	Flat	**Relief:**	5 metres
Elem. Type:	Plain	**Slope Category:**	No Data
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified

Mapping Unit: N/A
Principal Profile Form: Dr2.13
Great Soil Group: N/A

Site Cultivation. Rainfed

Vegetation:

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

Profile

Ap 0 - 0.1 m Dark reddish brown (5YR3/2-Moist); , 0-0% ; Clay loam; Massive grade of structure; Dry; Very firm consistence; 10-20%, medium gravelly, 6-20mm, rounded, , coarse fragments; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 7.5 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Smooth change to -

B21 0.1 - 0.25 m Red (2.5YR4/6-Moist); , 0-0% ; Medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Very firm consistence; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Soil matrix is Very highly calcareous; Field pH 9.5 (Raupach); Common, very fine (0-1mm) roots; Clear, Wavy change to -

B22 0.25 - 0.7 m Red (2.5YR4/6-Moist); , 0-0% ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Strong consistence; Many (20 - 50 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Many (20 - 50 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Soil matrix is Highly calcareous; Field pH 9.5 (Raupach); Few, very fine (0-1mm) roots; Clear change to -

B23k 0.7 - 1.5 m Red (2.5YR4/6-Moist); , 0-0% ; Medium clay; Weak grade of structure, 20-50 mm, Polyhedral; Smooth-ped fabric; Dry; Strong consistence; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft segregations; Many (20 - 50 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach);

Morphological Notes

Ap Black gravel

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 - 0.1	6.6B 6.8H	58B	10.47A	5.02	1.19	0.43			17.11D	
0 - 0.1	6.6B 6.8H	58B	10.47A	5.02	1.19	0.43			17.11D	
0.1 - 0.25	8.1B 8.8H	30B	9.99E	9.42	1.3	1.91		20B	22.62D	9.55
0.1 - 0.25	8.1B 8.8H	30B	9.99E	9.42	1.3	1.91		20B	22.62D	9.55
0.25 - 0.55	8.4B 9.5H	36B	4.89E	10.12	1.7	4.32		20B	21.03D	21.60
0.25 - 0.55	8.4B 9.5H	36B	4.89E	10.12	1.7	4.32		20B	21.03D	21.60
0.55 - 0.7	8.6B 9.8H	67B	1.61E	8.26	1.88	8.38		20B	20.13D	41.90
0.55 - 0.7	8.6B 9.8H	67B	1.61E	8.26	1.88	8.38		20B	20.13D	41.90
0.7 - 1	8.7B 9.8H	77B	0.88E	7.5	1.89	10.62		20B	20.89D	53.10
0.7 - 1	8.7B 9.8H	77B	0.88E	7.5	1.89	10.62		20B	20.89D	53.10

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 - 0.1	0C	1.28D		230B	0.09E						11.3	20
0 - 0.1	0C	1.28D		230B	0.09E						11.3	20
0.1 - 0.25	5C	0.48D		93B	0.04E						11.1	44.2
0.1 - 0.25	5C	0.48D		93B	0.04E						11.1	44.2
0.25 - 0.55	18C	0.2D		62B	0.022E						8.8	47
0.25 - 0.55	18C	0.2D		62B	0.022E						8.8	47
0.55 - 0.7	19C	0.11D		48B	0.014E						9.3	51.3
0.55 - 0.7	19C	0.11D		48B	0.014E						9.3	51.3
0.7 - 1	16C	0.08D		41B	0.012E						11	49.7
0.7 - 1	16C	0.08D		41B	0.012E						11	49.7

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 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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,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

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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
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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - 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
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)