

Project Name: Knox Creek Plain survey (Kununurra)
Project Code: KNX **Site ID:** 0135 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Christopher Grose	Locality:	
Date Desc.:	13/06/94	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	8274132 AMG zone: 52	Runoff:	No Data
Easting/Lat.:	499977 Datum: AGD84	Drainage:	No Data

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:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

Surface Soil Condition Cracking

Erosion:

Soil Classification

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

Site No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse

Profile

A11	0 - 0.06 m	Dark greyish brown (10YR4/2-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular
		blocky; Rough-ped fabric; Dry; Very strong consistence; Field pH 6.9 (pH meter); Clear change to -
A12	0.06 - 0.5 m	Dark greyish brown (2.5Y4/2-Moist); ; Medium heavy clay; Strong grade of structure, 100-200 mm,
		Prismatic; Rough-ped fabric; Dry; Rigid consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7.3 (pH meter); Gradual change to -
B2	0.5 - 1.41 m	Dark greyish brown (10YR4/2-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm,
		Subangular blocky; Smooth-ped fabric; Moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Soil matrix is
		Slightly calcareous; Field pH 8.4 (pH meter); Gradual change to -
B2	1.41 - 2 m	Dark greyish brown (10YR4/2-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm,
		Subangular blocky; Smooth-ped fabric; Moist; Strong consistence; Few (2 - 10 %), mm), Crystals; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Soil matrix is Slightly
		calcareous; Field pH 7.7 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Prominent surface cracks with thin surface crust <5mm and weak gilgai. Colour in layer3 approaches 2.5y 4/2. Main root body to 75cms.
 Layer2 structure breaks to w/6/sb/r. Few slickensides in layers 3 and 4 PEDAL GREY VERTOSOL.Sampled 0-6;6-

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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 - 0.06	6.6B 7.1H	31B	20.16A	14.92	1.41	0.53			37.02D	
0.06 - 0.5	7.1B 7.8H	15B	20.98A	15.75	1.19	0.63			38.55D	
0.5 - 0.95	7.6B 8.6H	13B	18.26E	13.7	0.61	1.81		35B	34.38D	5.17
0.95 - 1.41	7.8B 8.5H	42B	18.27E	15.73	0.62	3.01		37B	37.63D	8.14
1.41 - 2	7.7B 7.8H	320B	18.85E	15.26	0.54	3.11		33B	37.76D	9.42

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 - 0.06		0.44D		61B	0.026E			15.9
59.7								
0.06 - 0.5		0.26D		49B	0.019E			15.2
60.1								
0.5 - 0.95	<2C	0.29D		49B	0.019E			15.9
62.2								
0.95 - 1.41	<2C	0.25D		54B	0.017E			11.2
45								
1.41 - 2		0.13D		41B	0.009E			12
45.3								

Laboratory Analyses Completed for this profile

12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
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
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

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5_NR	Water soluble Chloride - Cl(%) - Not recorded
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
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_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)