

**Project Name:** Knox Creek Plain survey (Kununurra)  
**Project Code:** KNX **Site ID:** 0133 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Christopher Grose	<b>Locality:</b>	
<b>Date Desc.:</b>	13/06/94	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	8277086 AMG zone: 52	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	495904 Datum: AGD84	<b>Drainage:</b>	No Data

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Land Form

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

#### Surface Soil Condition Cracking

#### Erosion:

#### Soil Classification

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

**Site** No effective disturbance other than grazing by hoofed animals

#### Vegetation:

#### Surface Coarse

#### Profile

A11	0 - 0.05 m	Brown (10YR4/3-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Subangular
		blocky; Rough-ped fabric; Dry; Strong consistence; Field pH 7.4 (pH meter); Clear change to -
A12	0.05 - 0.45 m	Brown (10YR4/3-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Subangular blocky;
		Rough-ped fabric; Dry; Strong consistence; Field pH 7.8 (pH meter); Gradual change to -
B21	0.45 - 0.79 m	Brown (10YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky;
		Smooth-ped fabric; Moderately moist; Very strong consistence; Very few (0 - 2 %), Manganiferous, Fine
		(0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Field pH 8.6 (pH
		meter); Gradual change to -
B22	0.79 - 1.48 m	Brown (10YR4/3-Moist); ; Medium heavy clay; Strong grade of structure, 50-100 mm, Subangular blocky;
		Smooth-ped fabric; Moderately moist; Very strong consistence; Very few (0 - 2 %), Manganiferous, Fine
		(0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Soil matrix is Slightly
		calcareous; Field pH 8.4 (pH meter); Gradual change to -
B23	1.48 - 2 m	Brown (7.5YR4/3-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-
		ped fabric; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; Very
		few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Soil matrix is Slightly calcareous; Field pH 8.2 (pH
		meter);

#### Morphological Notes

#### Observation Notes

#### Site Notes

Distinctly gilgaied with occasional cracks and is self-mulching. Ped faces in layers 1&2 are darker and slickensides in layer3 and more

prominent in layers 4&5. Some intra ped cutans - discontinuous in layer 3. Wide cracks to 50cms, roots t

**Project Name:** Knox Creek Plain survey (Kununurra)  
**Project Code:** KNX **Site ID:** 0133 **Observation** 1  
**Agency Name:** Agriculture Western Australia

**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	6.5B	56B	22.26A	13.79	1.44	0.6			38.09D	
	6.8H									
0.05 - 0.45	7.1B	79B	25.93A	14.78	1.33	0.97			43.01D	
	7.4H									
0.45 - 0.79	7.6B	74B	21.03E	12.5	0.68	2.75		36B	36.96D	7.64
	8H									
1.48 - 2	7.9B	62B	18.02E	13.55	0.65	4.57		37B	36.79D	12.35
	8.6H	380B	17.95E	15.74	0.73	5.53		36B	39.95D	15.36
	7.7B									
1.48 - 2	7.8H									
	7.9B	62B	18.02E	13.55	0.65	4.57		37B	36.79D	12.35
	8.6H	380B	17.95E	15.74	0.73	5.53		36B	39.95D	15.36
	7.7B									
	7.8H									

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 - 0.05		0.73D		74B	0.042E				19.7
0.05 - 0.45		0.26D		59B	0.023E				19.4
0.45 - 0.79	<2C	0.28D		62B	0.022E				18.3
1.48 - 2	<2C	0.22D		64B	0.019E				19.6
		0.08D		55B	0.01E				6.4
		30.2							
1.48 - 2	<2C	0.22D		64B	0.019E				19.6
		0.08D		55B	0.01E				6.4
		30.2							

**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 soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15J_BASES	Sum of Bases
15L1_a Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay

**Project Name:** Knox Creek Plain survey (Kununurra)  
**Project Code:** KNX **Site ID:** 0133 **Observation** 1  
**Agency Name:** Agriculture Western Australia

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 (CaCO <sub>3</sub> ) - 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
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)