Project Name: Knox Creek Plain survey (Kununurra)

Project Code: KNX Site ID: 0131 Observation ID: 1

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Noel Schoknecht Locality:

Date Desc.:11/06/94Elevation:No DataMap Ref.:Rainfall:No Data

Northing/Long.: 8279062 AMG zone: 52 Runoff: No Data Easting/Lat.: 498421 Datum: AGD84 Drainage: No Data

<u>Geology</u>

 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: Relief: No Data Flat 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/AN/APrincipal Profile Form:N/AASC 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 - 0.08 m Dark greyish brown (2.5Y4/2-Moist); ; Light medium clay; Strong grade of structure, 5-10

mm, Granular;

Rough-ped fabric; Dry; Firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2

mm),

Concretions; Field pH 7.3 (pH meter); Clear change to -

A12 0.08 - 0.25 m Dark grevish brown

Subangular

Dark greyish brown (2.5Y4/2-Moist); ; Medium clay; Strong grade of structure, 20-50 mm,

blocky; Rough-ped fabric; Very strong consistence; Very few (0 - 2 %), Manganiferous, m).

Fine (0 - 2 mm), Concretions; Field pH 7.8 (pH meter); Gradual change to -

B2 0.25 - 1.13 m Dark

100-200 mm,

Dark greyish brown (2.5Y4/2-Moist); ; Medium heavy clay; Moderate grade of structure,

Subangular blocky; Smooth-ped fabric; Moderately moist; Rigid consistence; Very few (0 -

2 %),

Manganiferous, Fine (0 - 2 mm), Concretions; Field pH 8.9 (pH meter); Clear change to -

BC 1.13 - 1.56 m

%),

Brown (7.5YR4/4-Moist); ; Medium heavy clay; Moist; Firm consistence; Very few (0 - 2 Manganiferous, Fine (0 - 2 mm), Concretions; Very few (0 - 2 %), Calcareous, Fine (0 - 2

mm),

Concretions; Field pH 8 (pH meter); Gradual change to -

C 1.56 - 1.85 m Angular blocky; Strong brown (7.5YR5/6-Moist); ; Medium clay; Weak grade of structure, 20-50 mm,

Smooth-ped fabric; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 -

2 mm),

Concretions; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH

8.2 (pH meter);

Morphological Notes

Observation Notes

Site Notes

Adj. to k36. 5photos. Weakly gilgaied with common surface cracks and <5mm thick crust. "C"horizon is of different parentage. Slickensides

in layer3. Main roots to 0.75m fine to 1.56m and prominent cracks to .5m, fine to 1m. PEDAL GREY VERTO

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Laboratory Test Results:

Depth	рН	1:5 EC	Exc Ca	changeabl Mg	e Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	ou .	9			(+)/kg			%
0 - 0.08	6.2B 6.9H	11B	14.88A	12.91	0.74	0.16			28.69D	
0.08 - 0.25	7B 7.9H	5B	17.19A	12.33	0.26	0.36			30.14D	
0.25 - 0.7	7.7B 8.9H	9B	15.21E	11.86	0.23	1.63		27B	28.93D	6.04
0.7 - 1.13	8.1B 9.1H	32B	10.54E	12.47	0.23	4.14		27B	27.38D	15.33
1.13 - 1.56	8B 8.5H	130B	10.61E	12.92	0.24	5.51		28B	29.28D	19.68
1.56 - 1.85	8B 8.8H	58B	8.41E	10.26	0.24	4.8		24B	23.71D	20.00

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle CS	Size FS	Analysis Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.08 40.3		0.76D		65B	0.054E						11.6
0.08 - 0.25 42.6		0.29D		42B	0.023E						11.3
0.25 - 0.7 42.8	<2C	0.2D		39B	0.019E						10.7
0.7 - 1.13 43.7	2C	0.24D		39B	0.019E						11.4
1.13 - 1.56 48	<2C	0.11D		40B	0.012E						10.9
1.56 - 1.85 46	<2C	0.06D		49B	0.01E						8.4

Laboratory Analyses Completed for this profile

12A1_ZN 15_NR_BSa 15_NR_CMR	DTPA - extractable copper, zinc, manganese and iron Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available 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 salts
15A1_CEC 15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
ioi soluble	salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
	soluble salts
15C1_CEC 15C1_K soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for

soluble salts

15J_BASES 15L1_a 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 19B_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Calcium Carbonate (CaCO3) - Not recorded

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Electrical conductivity or soluble salts - Not recorded 3_NR

4_NR 4B1

pH of soil - Not recorded pH of 1:5 soil/0.01M calcium chloride extract - direct 5_NR Water soluble Chloride - Cl(%) - Not recordede

6A1_UC Organic carbon (%) - Uncorrected Walkley and Black method

7A1 Total nitrogen - semimicro Kjeldahl, steam distillation

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 1000 to 2000u particle size analysis, (method not recorded) 9A3 P10_1m2m P10_20_75 P10_75_106 20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded)

P10_NR_C Clay (%) - Not recorded

Sand (%) - Not recorded arithmetic difference, auto generated Silt (%) - Not recorded

P10_NR_Saa P10_NR_Z P10106_150 106 to 150u particle size analysis, (method not recorded) P10150_180 150 to 180u particle size analysis, (method not recorded) 180 to 300u particle size analysis, (method not recorded) 300 to 600u particle size analysis, (method not recorded) 600 to 1000u particle size analysis, (method not recorded) P10180_300 P10300_600 P106001000