Project Name: SOIL STRUCTURE & MANAGEMENT

Project Code: SSM Site ID: SSM141 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: G.M. Bowman Locality:

 Date Desc.:
 07/03/91
 Elevation:
 120 metres

 Map Ref.:
 Sheet No.: 7825
 1:100000
 Rainfall:
 No Data

 Northing/Long.:
 5958530 AMG zone: 55
 Runoff:
 Slow

Easting/Lat.: 283450 Datum: AGD66 Drainage: Imperfectly drained

Geology

ExposureType: No Data Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: Qs Substrate Material: No Data

Land Form

 Rel/Slope Class:
 No Data
 Pattern Type:
 Plain

 Morph. Type:
 Flat
 Relief:
 No Data

 Elem. Type:
 Plain
 Slope Category:
 No Data

 Slope:
 0 %
 Aspect:
 0 degrees

Surface Soil Condition (dry): Surface crust

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AEutrophic Red ChromosolPrincipal Profile Form:Dr2.22

ASC Confidence: Great Soil Group: Non-calcic brown

Confidence level not specified soil

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

Ap 0 - 0.15 m Yellowish red (5YR4/6-Moist); Reddish yellow (5YR6/6-Dry); ; Sandy loam; Weak grade of structure, 20-50 mm, Subangular blocky; 50-100 mm, Lenticular; Sandy (grains prominent)

fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; Non-

plastic; Non-sticky; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -

A2 0.15 - 0.28 m Yellowish red (5YR5/6-Moist); Yellowish red (5YR5/8-Dry); ; Fine sandy clay loam; Moderate

grade of structure, 5-10 mm, Subangular blocky; 50-100 mm, Lenticular; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Firm consistence; Non-plastic; Non-

sticky; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -

B 0.28 - 0.73 m Yellowish red (5YR4/6-Moist); Yellowish red (5YR5/8-Dry); ; Light clay; Strong grade of

structure, 20-50 mm, Subangular blocky; 50-100 mm, Prismatic; Rough-ped fabric; Common (1-5

per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Non-

plastic; Non-sticky; Few, fine (1-2mm) roots; Gradual, Irregular change to -

BC 0.73 - 1 m Brown (7.5YR4/4-Moist); Strong brown (7.5YR5/6-Dry); Substrate influence, 7.5YR56, 20-50%

, Distinct; Substrate influence, 5YR56, 10-20%, Distinct; Heavy clay; Moderate grade of structure, 50-100 mm, Angular blocky; 20-50 mm, Columnar; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Non-

plastic; Non-sticky; Few, fine (1-2mm) roots;

Morphological Notes

Ap Plough layer evident by weaker pedality and darker colour.

A2 Clear change to B but light textured andvery crumbly. Bright brown colours.

B Gradual change to heavier clay with dominantly yellow colour.

Observation Notes

Pasture since 86. Before that crops of peas, wheat and wheat. Pasture 1980-83.

Site Notes

STAN TREWICK - BELMORE

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Laboratory Test Results:

Laboratory	1621 VE	suits.									
Depth	pН	1:5 EC		hangeable	Cations K	Na	Exchangeab Acidity	le CEC	ECEC	;	ESP
m		dS/m	Ca	Mg	N.	Cmol (%
0 - 0.02 0.01 - 0.085	6.08B	1.056A	5J	3.08	1.39	0.18		7.131			2.52
0.02 - 0.05	5.08B	0.205A	1.88J	1.15	0.64	0.07		3.931			1.78
0.05 - 0.1	4.32B	0.06A	1.21J	0.72	0.5	0.03		3.581			0.84
0.1 - 0.28	4.98B	0.059A	1.64J	1.37	0.22	0.07		3.631			1.93
0.28 - 0.4	5.38B	0.056A	3.6J	4.7	0.26	0.1		71			1.43
0.31 - 0.385											
0.7 - 0.8	5.59B	0.047A	3.9J	8.5	0.3	0.19		10.11			1.88
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Tota K			le Size		s Clay
m	%	%	mg/kg	%	%	%		,	%	Oiit	Olay
0 - 0.02 0.01 - 0.085		3.19C					1.61			32	9
0.02 - 0.05		1.08C								33	11
0.05 - 0.1		0.66C								32	11
0.1 - 0.28		0.27C								27	18
0.28 - 0.4		0.35C								24	37
0.31 - 0.385							1.71				
0.7 - 0.8		0.26C								19	36
Depth	COLE	Sat.		imetric/Vo	olumetric V 0.5 Bar	Vater Co 1 Bar	ntents 5 Bar	15 Bar	K sat	K unsa	ıt
m		Jai.	0.03 Bai		/g - m3/m		J Bai		nm/h	mm/h	
0 - 0.02 0.01 - 0.085 0.02 - 0.05 0.05 - 0.1		0.32F	0.26F	0.251							
0.1 - 0.28 0.28 - 0.4 0.31 - 0.385 0.7 - 0.8		0.35F	0.29F	0.281							

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Laboratory Analyses Completed for this profile

13A1_AL	Oxalate-extractable aluminium
13A1_FE	Oxalate-extractable iron
13A1_MN	Oxalate-extractable manganese
13A1_SI	Oxalate-extractable silicon

13C1_AL Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_MN Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_SI Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon

14H1_CASoluble bases/SE (Ca,Mg,K,Na)14H1_KSoluble bases/SE (Ca,Mg,K,Na)14H1_MGSoluble bases/SE (Ca,Mg,K,Na)14H1_NASoluble bases/SE (Ca,Mg,K,Na)

15F1_CA Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts

15F1_K Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts 15F1_MG Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts 15F1_NA Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts

15F3 CEC by 0.01M silver-thiourea (AgTU)+ 15N1 Exchangeable sodium percentage (ESP)

3A1 EC of 1:5 soil/water extract

4B1 pH of 1:5 soil/0.01M calcium chloride extract - direct

6B3 Total organic carbon - high frequency induction furnace, infrared

P10_CF_C Clay (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P3A1 Bulk density - g/cm3

P3B3VLc001
P3B3VLc003
P3B3VLc005
P3B3VLc01
P3B3VLc01
P3B3VLc03
P3B3VLc33
P3B3VLc34
P3B3VLc37
P3B

P6_LP Dispersion Index (Loveday and Pyle, 1973)

PWS1-2mm 1000-2000 micron fraction (%) - Wet Sieving after chemical dispersion

PWS20-63 212-425 212-425 micron fraction (%) - Wet Sieving after chemical dispersion

PWS425-1mm 425-1000 micron fraction (%) - Wet Sieving after chemical dispersion

PWS63-212 micron fraction (%) - Wet Sieving after chemical dispersion

PWS63-212 micron fraction (%) - Wet Sieving after chemical dispersion