

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM131 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: G.M. Bowman	Locality:
Date Desc.: 26/02/91	Elevation: 121 metres
Map Ref.: Sheet No. : 7525 1:100000	Rainfall: No Data
Northing/Long.: 5987600 AMG zone: 54	Runoff: Very slow
Easting/Lat.: 714600 Datum: AGD66	Drainage: No Data

Geology

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

Land Form

Rel/Slope Class: No Data	Pattern Type: Alluvial plain
Morph. Type: Flat	Relief: No Data
Elem. Type: Valley flat	Slope Category: No Data
Slope: 0 %	Aspect: No Data

Surface Soil Condition (dry): Hardsetting, Trampled

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Subnatric Red Sodosol	Principal Profile Form: Dr2.13
ASC Confidence:	Great Soil Group: Red-brown earth
Confidence level not specified	

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.08 m	Reddish brown (5YR4/4-Moist); ; Fine sandy clay loam; Weak grade of structure, 10-20 mm, Angular blocky; <2 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; Non-plastic; Slightly sticky; Few, very fine (0-1mm) roots; Sharp, Smooth change to -
A12p	0.08 - 0.16 m	Reddish brown (5YR4/4-Moist); ; Silty clay loam; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Non-plastic; Slightly sticky; Cultivation pan, Very strongly cemented, Continuous, Vesicular; Common, very fine (0-1mm) roots; Sharp, Irregular
B1	0.16 - 0.19 m	Dark reddish brown (2.5YR3/4-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Slightly plastic; Moderately sticky; Common, very fine (0-1mm) roots; Sharp, Irregular change to -
B21	0.19 - 0.6 m	Dark red (2.5YR3/6-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Very plastic; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, faint; Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B22	0.6 - 1 m	Yellowish red (5YR5/6-Moist); ; Medium heavy clay; Weak grade of structure, 5-10 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Coarse, (10 - 20) mm crack; Moderately moist; Very plastic; Moderately sticky; Few cutans, <10% of ped faces or walls coated, faint; Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations, weak, segregations; Soil matrix is Slightly calcareous; Few, very fine (0-1mm) roots;

Morphological Notes

A11p	Plough layer, hardsetting.
A12p	Plough pan. Masive vesicular.

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B1 Thin A-B transitional horizon formed by agro-plough.

B21 B horizon.

B22 BCa horizon. Large carbonate blebs.

Observation Notes

Heavily worked paddock on Byrne's property. Was agropoughed to break up pan (not) B horizon. Pan has reformed.

Site Notes

FINLAYS 130 Paddock, BYRNES, CHARLTON

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[illegible]

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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_CA	Soluble bases/SE (Ca,Mg,K,Na)
14H1_K	Soluble bases/SE (Ca,Mg,K,Na)
14H1_MG	Soluble bases/SE (Ca,Mg,K,Na)
14H1_NA	Soluble 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
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P3A1	Bulk density - g/cm3
P3B3VLc001	0.01 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc003	0.03 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc005	0.05 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc01	0.1 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLc03	0.3 BAR Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P3B3VLcSAT	Saturated Moisture m3/m3 - Volumetric using undisturbed 98mm diameter core on suction plate
P6_LP	Dispersion Index (Loveday and Pyle, 1973)
PWS1-2mm	1000-2000 micron fraction (%) - Wet Sieving after chemical dispersion
PWS20-63	20-63 micron fraction (%) - Wet Sieving after chemical dispersion
PWS212-425	212-425 micron fraction (%) - Wet Sieving after chemical dispersion
PWS425-1mm	425-1000 micron fraction (%) - Wet Sieving after chemical dispersion
PWS63-212	63-212 micron fraction (%) - Wet Sieving after chemical dispersion