

Project Name: SOIL STRUCTURE & MANAGEMENT
Project Code: SSM **Site ID:** SSM29 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: B. Murphy	Locality:
Date Desc.: 25/03/91	Elevation: No Data
Map Ref.: Sheet No. : 8226 1:50000	Rainfall: No Data
Northing/Long.: 6028300 AMG zone: 55	Runoff: Slow
Easting/Lat.: 466800 Datum: AGD66	Drainage: Moderately well drained

Geology

ExposureType: Undisturbed soil core	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: Q312	Substrate Material: No Data

Land Form

Rel/Slope Class: No Data	Pattern Type: Rises
Morph. Type: Lower-slope	Relief: No Data
Elem. Type: Footslope	Slope Category: No Data
Slope: 2 %	Aspect: 225 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Eutrophic Red Chromosol	Principal Profile Form: Dr2.12
ASC Confidence:	Great Soil Group: Non-calcic brown soil
Confidence level not specified	

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.1 m	Reddish brown (5YR4/4-Moist); Pinkish grey (5YR6/2-Dry); Substrate influence, 10-20% , Faint; Biological mixing, 2-10% , Faint; Fine sandy loam; Weak grade of structure, 10-20 mm, Subangular blocky; <2 mm, Lenticular; Earthy fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Common (1-5 per 100mm2) Medium (2-5mm) macropores, Dry; Very weak consistence; Non-plastic; Normal plasticity; Non-sticky; Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear change to -
B21	0.1 - 0.2 m	Reddish brown (5YR4/4-Moist); ; Light clay; Weak grade of structure, 50-100 mm, Subangular blocky; <2 mm, Prismatic; Earthy fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Very firm consistence; Slightly plastic; Normal plasticity; Slightly sticky; Few cutans, <10% of ped faces or walls coated; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Cultivation pan; Common, very fine (0-1mm) roots; Clear change to -
B22	0.2 - 0.3 m	Red (2.5YR4/6-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; 50-100 mm, Columnar; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; Moderately plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Common, very fine (0-1mm) roots;
B22	0.3 - 0.5 m	Red (2.5YR4/6-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; 50-100 mm, Columnar; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Common, very fine (0-1mm) roots; Gradual change to -

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| B31 | 0.5 - 0.7 m | Strong brown (7.5YR4/6-Moist); Substrate influence, 2-10% , Prominent; Medium clay; Moderate grade of structure, 50-100 mm, Subangular blocky; 50-100 mm, Angular blocky; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, weak, segregations;Common, very fine (0-1mm) roots; |
| B32 | 0.7 - 0.9 m | Strong brown (7.5YR4/6-Moist); Substrate influence, 2-10% , Prominent; Medium clay; Moderate grade of structure, 50-100 mm, Subangular blocky; 50-100 mm, Angular blocky; Rough-ped fabric; Very coarse, (20 - 50) mm crack; Coarse, (10 - 20) mm crack; Medium, (5 - 10) mm crack; Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, weak, segregations;Common, very fine (0-1mm) roots; |

Morphological Notes

A1	Sporadic bleach with orange organic stains along root channels. Platiness at 80 mm.
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Observation Notes

atlas area is Va17 but soils look to be Qc3

Site Notes

ALBURY BERGERMEIER BROCKLESBY OFF LANE

Observation ID: 1

Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.02	4.73B	0.268A	2.72J	1.01	1.02	0.13		5.04I		2.58
0.01 - 0.085										
0.02 - 0.05	4.4B	0.146A	2.29J	0.76	0.69	0.07		4.41I		1.59
0.05 - 0.1	4.26B	0.061A	2.05J	0.69	0.42	0.03		4.91I		0.61
0.1 - 0.2	4.53B	0.035A	3.42J	1.46	0.49	0.03		6.84I		0.44
0.2 - 0.3	5.15B	0.038A	4.34J	2.26	0.63	0.04		6.17I		0.65
0.21 - 0.285										
0.3 - 0.4	5.68B	0.044A	5.3J	3.47	0.6	0.03		9.32I		0.32
0.7 - 0.8	6.5B	0.06A	5.63J	4.9	0.57	0.1		8.58I		1.17

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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
P3B3VLd06	0.6 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd1	1 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd15	15 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd3	3 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P3B3VLd5	5 BAR Moisture m3/m3 - Volumetric using undisturbed 48mm diameter and 15mm height core on pressure plate
P6_LP	Dispersion Index (Loveday and Pyle, 1973)
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