Project Name: MEA
Project Code: MEA **Site ID:** H246 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Date Desc.: 16/05/62
Map Ref.:
Northing/Long.: 146.956944444444
Easting/Lat.: -41.5263888888889
Locality: 4.8KM W of Carrick on property "Quamby Plains":98 along paton`s trial plots in "gravel pit paddock":
Elevation: 155 metres
Rainfall: 710
Runoff: Moderately rapid
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 2.5 m deep,Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: No Data
Morph. Type: Flat
Elem. Type: No Data
Slope: 2 %
Pattern Type: Terrace (alluvial)
Relief: No Data
Slope Category: Gently inclined
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Ferric Mesotrophic Brown Chromosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.
Mapping Unit: N/A
Principal Profile Form: Dy4.41
Great Soil Group: Lateritic podzolic soil

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

Vegetation:

Mid Strata - Tree, , Isolated plants. *Species includes - Acacia species
Tall Strata - Tree, , Isolated plants. *Species includes - None Recorded

Surface Coarse Fragments: 2-10%, stony, 200-600mm, , Coal

Profile Morphology

Ap	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy sand; Weak grade of structure, <2 mm, Granular; Moist; Weak consistence; 0-2%, Charcoal, coarse fragments; CommonDiffuse change to -
Ap	0.1 - 0.15 m	Greyish brown (10YR5/2-Moist); ; Sand (Heavy); Single grain grade of structure; Moist; Weak consistence; 0-2%, Charcoal, coarse fragments; CommonSharp change to -
A2	0.18 - 0.33 m	Pale brown (10YR6/3-Moist); , 7.5YR56; Sand; Single grain grade of structure; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, stratified, Quartz, coarse fragments; , Ferruginous, Extremely coarse (> 60 mm), ; Sharp change to -
A2	0.33 - 0.38 m	Pale brown (10YR6/3-Moist); Light grey (10YR7/2-Dry); ; Sand; Single grain grade of structure; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, rounded, stratified, Quartz, coarse fragments; , Ferruginous, Extremely coarse (> 60 mm), ; Abrupt change to -
B1	0.39 - 0.53 m	Yellowish brown (10YR5/6-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Columnar; Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Firm consistence; FewDiffuse change to -
B	0.53 - 0.71 m	Yellowish brown (10YR5/6-Moist); , 2.5Y54; , 2.5YR36; Medium heavy clay; Weak grade of structure, 50-100 mm, Columnar; Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Firm consistence; FewDiffuse change to -
	0.71 - 0.86 m	Yellowish brown (10YR5/6-Moist); , 2.5Y54; , 5YR48; Medium heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Firm consistence; Diffuse change to -
	1.22 - 1.32 m	Strong brown (7.5YR5/6-Moist); , 5Y62; , 5YR48; Medium heavy clay; Weak consistence; 0-2%, Gravel, coarse fragments; Diffuse change to -
	1.68 - 1.78 m	Yellowish red (5YR4/8-Moist); , 5Y61; , 7.5YR56; Medium clay; Weak consistence; 0-2%, Gravel, coarse fragments; Diffuse change to -
	2.39 - 2.46 m	Dark red (2.5YR3/6-Moist); , 5Y71; , 10YR68; Heavy clay; Weak consistence; 0-2%, Gravel, coarse fragments;

Morphological Notes

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Observation Notes

71-86CM SOME SHEAR FACES:38-39CM BLEACHED DISCONTINUOUS A2:>246CM BRITTLE RED FERRUGINOUS HARDENED CLAY:

Site Notes

WESTBURY

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	5.5A	0.051A	2H	0.41	0.1	0.18	3.4H 5.4E		8.1B	
0.1 - 0.15	5.5A	0.03A	1.5H	0.21	0.05	0.06	3.1H 4.6E		6.4B	
0.18 - 0.33	6A	0.015A	0.59H	0.22	0.04	0.08	1.4H 2.5E		3.3B	
0.33 - 0.38	6.1A	0.015A								
0.39 - 0.53	5.8A	0.03A	4.7H	6.1	0.18	0.25	5.6H 11.3E		22.5B	
0.53 - 0.71	5.8A	0.027A	3.9H	6.8	0.18	0.37	6.7H 12.7E		24B	
0.71 - 0.86	5.8A	0.024A								
1.22 - 1.32	5.6A	0.03A	2.7H	5.1	0.15	0.49	8.8H 13.3E		21.7B	
1.68 - 1.78	5.3A	0.024A								
2.39 - 2.46	5.1A	0.027A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.77D		0.012D	0.122A	0.018C		12	22B	59	13	4
0.1 - 0.15		1.24D			0.075A	0.012C		41	16D	66	13	4
0.18 - 0.33		0.39D			0.026A	0.012C		43	23D	58	13	6
0.33 - 0.38												
0.39 - 0.53		0.75D			0.063A	0.326C		0	6D	15	3	76
0.53 - 0.71						0.411C		0	4D	11	2	83
0.71 - 0.86												
1.22 - 1.32						0.304C		1	4D	12	3	80
1.68 - 1.78												
2.39 - 2.46												

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.1										
0.1 - 0.15										
0.18 - 0.33										
0.33 - 0.38										
0.39 - 0.53										
0.53 - 0.71										
0.71 - 0.86										
1.22 - 1.32										
1.68 - 1.78										
2.39 - 2.46										

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Laboratory Analyses Completed for this profile

15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C_H1	Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
17A_HCL	Total element - K(%) - By boiling HCl
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A_HCL	Total element - P(%) - By boiling HCl
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette
XRD_C_Gt	Geothite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction