Project Name: TYE
Project Code: TYE **Site ID:** H227 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock
Date Desc.: 13/09/61
Map Ref.:
Northing/Long.: 146.845833333333
Easting/Lat.: -42.5458333333333
Locality: 1.2KM NE of Hamilton on property "Uralla":
Elevation: 140 metres
Rainfall: 510
Runoff: Rapid
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: Bms
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Soil pit, 0.89 m deep,Sandstone

Land Form

Rel/Slope Class: No Data
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 17.6 %
Pattern Type: Hills
Relief: No Data
Slope Category: Moderately inclined
Aspect: 0 degrees

Surface Soil Condition (dry):

Erosion: Severe (gully)

Soil Classification

Australian Soil Classification:
Mottled Eutrophic Brown Chromosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dy3.23
Great Soil Group: Solodic soil

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, , Closed or dense. *Species includes - Danthonia species

Tall Strata - Tree, , . *Species includes - Eucalyptus ovata, Eucalyptus viminalis

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.1 m	Dark brown (10YR3/3-Moist); ; Sandy loam; Weak grade of structure, <2 mm, Granular; Moist; Very weak consistence; ManyGradual change to -
A1A2	0.1 - 0.2 m	Dark brown (10YR3/3-Moist); ; Sandy loam; Weak grade of structure, <2 mm, Granular; Moist; Very weak consistence; CommonDiffuse change to -
A2	0.2 - 0.25 m	Yellowish brown (10YR5/4-Moist); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; 2-10%, coarse gravelly, 20-60mm, Sandstone, coarse fragments; FewClear, Irregular change to -
A2B	0.25 - 0.3 m	; Sandy loam; 2-10%, coarse gravelly, 20-60mm, Sandstone, coarse fragments; Diffuse change to -
B21	0.3 - 0.44 m	Dark yellowish brown (10YR4/4-Moist); , 2.5Y53; , 10YR32; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Moderately moist; Strong consistence; 0-2%, coarse gravelly, 20-60mm, Sandstone, coarse fragments; FewClear change to -
B22	0.44 - 0.6 m	Greyish brown (2.5Y5/3-Moist); , 2.5Y42; , 10YR44; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Strong consistence; 2-10%, angular platy, Sandstone, coarse fragments; FewGradual change to -
	0.6 - 0.76 m	Yellowish brown (10YR5/4-Moist); , 2.5Y53; , 10YR42; Sandy medium clay; Massive grade of structure; Very strong consistence; 10-20%, medium gravelly, 6-20mm, angular platy, Sandstone, coarse fragments; Gradual change to -
	0.81 - 0.89 m	Greyish brown (2.5Y5/3-Moist); , 5YR48; Sandy medium clay; Massive grade of structure; Very strong consistence; 50-90%, angular platy, Sandstone, coarse fragments; Abrupt, Irregular change to -

Morphological Notes

Observation Notes

81-89CM UPPER PART OF W`D SA IS HIGHLY FERRUGINOUS:30-60CM 10YR32 SURFACE STAINING:PM MIX OF MICACEOUS/SILICEOUS SA:

Site Notes

ELLENDALE

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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	6.3A	0.03A	3.3H	1.2	0.77	0.23	2.3H 4.4E		9.9B	
0.1 - 0.2	7A	0.024A								
0.2 - 0.25	7.3A	0.03A	1.8H	1.7	0.41	0.57	0.5E		5B	
0.25 - 0.3	7.6A	0.173A								
0.3 - 0.44	7.5A	0.071A	3.7H	8.5	1.1	0.4	3.7E		21B	
0.44 - 0.6	8.6A	0.232A								
0.6 - 0.76	9.2A	0.271A								
0.81 - 0.89	9.2A	0.443A	2.93H	5.4	0.59	3.2			12.1B	

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		1.71D		0.018D	0.127A			0	4D	63	21	13
0.1 - 0.2		0.62D		0.014D	0.063A							
0.2 - 0.25		0.43D			0.009A			1	4D	65	16	14
0.25 - 0.3												
0.3 - 0.44								0	2D	31	16	52
0.44 - 0.6												
0.6 - 0.76												
0.81 - 0.89								43	4B	55	13	27

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 - 0.2									
0.2 - 0.25									
0.25 - 0.3									
0.3 - 0.44									
0.44 - 0.6									
0.6 - 0.76									
0.81 - 0.89									

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Laboratory Analyses Completed for this profile

12_HCL_FE	Total element - Fe(%) - Total acid(HCl) extractable Fe
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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)
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