Project Name: ESK
Project Code: ESK **Site ID:** H156 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock
Locality: 2.4KM south-south-east of Cressy on property Firbank:
Date Desc.: 01/02/57
Elevation: 140 metres
Map Ref.:
Rainfall: 690
Northing/Long.: 147.084722222222
Runoff: Very slow
Easting/Lat.: -41.7152777777778
Drainage: Very poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Pattern Type: Flood plain
Morph. Type: Flat
Relief: 0 metres
Elem. Type: Supratidal flat
Slope Category: Level
Slope: 0 %
Aspect: 0 degrees

Surface Soil Condition (dry): Cracking

Erosion:

Soil Classification

Australian Soil Classification:
Mottled Self-Mulching Aquic Vertosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Ug6.1
Great Soil Group: Humic gley

Site Disturbance: No effective disturbance. Natural

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded
Tall Strata - Sedge, , . *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.08 m	Very dark brown (10YR2/2-Moist); ; Clay loam (Fibric); Moderate grade of structure, 2-5 mm, Granular; Dry; Strong consistence; AbundantDiffuse change to -
	0.08 - 0.15 m	Black (10YR2/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Weak consistence; Many
	0.15 - 0.23 m	Black (10YR2/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Weak consistence; Many
	0.3 - 0.48 m	(N2/0-Moist); ; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Weak consistence; Common (10 - 20 %), Unidentified, Fine (0 - 2 mm), Concretions; Common
	0.53 - 0.64 m	(N3/0-Moist); , 7.5YR58; Heavy clay; Weak grade of structure, Prismatic; Strong consistence; Many (20 - 50 %), Unidentified, Medium (2 -6 mm), Concretions; Few
	0.71 - 0.91 m	(N3/0-Moist); , 7.5YR58; Clayey sand (Heavy); Weak grade of structure, Prismatic; Firm consistence; Common (10 - 20 %), Unidentified, Medium (2 -6 mm), Concretions; Few
	0.91 - 1.22 m	(N3/0-Moist); , 7.5YR58; Sandy medium clay; Weak grade of structure, 50-100 mm, Prismatic; Slightly plastic; Normal plasticity; Common (10 - 20 %), Unidentified, , Concretions;
	1.37 - 1.55 m	Yellowish brown (10YR5/6-Moist); , 10YR66; Sandy medium clay; Massive grade of structure; Moderately plastic; Normal plasticity;

Morphological Notes

Observation Notes

137-155CM SC WITH POCKETS OF WEAKLY COMPACTED DG SC:91-122CM SLICKENSIDES ON PED FACES:

Site Notes

WESTMORLAND

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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 - 0.08	6A	0.054A	17.8H	7.8	0.48	0.3	13.1H 25.9E		52.3B	
0.08 - 0.15	5.8A	0.036A								
0.15 - 0.23	5.9A	0.039A	14.9H	6	0.32	0.27	12.3H 22.2E		43.7B	
0.3 - 0.48	6.3A	0.027A	10.9H	3.6	0.11	0.23	5.7H 11.6E		26.4B	
0.53 - 0.64	6.7A	0.027A								
0.71 - 0.91	6.8A	0.03A								
0.91 - 1.22	7A	0.027A	7.8H	3.7	0.07	0.28	3.4E		15.3B	
1.37 - 1.55	6.7A	0.033A								

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 - 0.08		6.8D		0.061D	0.57A			0	8B	21	12	50
0.08 - 0.15		6.5D		0.062D	0.506A							
0.15 - 0.23		4.8D		0.048D	0.418A			0	5B	19	14	49
0.3 - 0.48		1.9D		0.027D	0.151A			0	15D	32	18	37
0.53 - 0.64		1D			0.083A							
0.71 - 0.91		0.48D			0.046A							
0.91 - 1.22				0.009D				0	26D	34	12	28
1.37 - 1.55												

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 - 0.08										
0.08 - 0.15										
0.15 - 0.23										
0.3 - 0.48										
0.53 - 0.64										
0.71 - 0.91										
0.91 - 1.22										
1.37 - 1.55										

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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)
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_Ka	Kaolin - X-Ray Diffraction
XRD_C_Lp	Lepidocrosite - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction