Project Name: HEL
Project Code: HEL **Site ID:** H120 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Locality: .5KM north west of Waratah Highway 3.2KM south west of Elliot:
Date Desc.: 19/05/55
Elevation: 213 metres
Map Ref.: Sheet No. : 8015 1:100000
Rainfall: 1270
Northing/Long.: 145.748611111111
Runoff: Moderately rapid
Easting/Lat.: -41.1166666666667
Drainage: Moderately well drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Basalt

Land Form

Rel/Slope Class: Rolling hills 90-300m 10-32%
Pattern Type: Plateau
Morph. Type: Simple-slope
Relief: 183 metres
Elem. Type: Bank
Slope Category: Gently inclined
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Humose Mesotrophic Red Ferrosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn3.11
Great Soil Group: Krasnozem

Site Disturbance:
Cultivation. Irrigated, past or present

Vegetation:

Surface Coarse Fragments:

Profile Morphology

0 - 0.08 m	Reddish brown (5YR4/4-Moist); ; Clay loam; Moderate grade of structure, <2 mm, Granular; Weak consistence; Many
0.08 - 0.15 m	Reddish brown (5YR4/4-Moist); ; Clay loam; Moderate grade of structure, <2 mm, Granular; Weak consistence; ManyDiffuse change to -
0.15 - 0.23 m	Yellowish red (5YR4/5-Moist); ; Light clay; Strong grade of structure, 5-10 mm, Angular blocky; Weak consistence; Common
0.23 - 0.38 m	Yellowish red (5YR4/5-Moist); ; Strong grade of structure, 5-10 mm, Angular blocky; Strong grade of structure, <2 mm, Angular blocky; Weak consistence; Few (2 - 10 %), Unidentified, Fine (0 - 2 mm), Concretions; Common
0.38 - 0.56 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Strong grade of structure, <2 mm, Angular blocky; FewDiffuse change to -
0.56 - 0.76 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Weak grade of structure, <2 mm, Angular blocky; , Unidentified, , Concretions;
0.76 - 0.91 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Weak grade of structure, <2 mm, Angular blocky; Weak consistence;
0.91 - 1.09 m	Reddish brown (5YR4/4-Moist); ; Heavy clay; Weak grade of structure, <2 mm, Subangular blocky; Weak consistence;
1.52 - 1.68 m	Reddish brown (5YR4/4-Moist); ; Heavy clay; Weak consistence; 2-10%, fine gravelly, 2-6mm, Gravel, coarse fragments; Few (2 - 10 %), Unidentified, , Concretions;
2.29 - 2.44 m	Brown (7.5YR4/4-Moist); ; Heavy clay; 0-2%, Sandstone, coarse fragments;

Morphological Notes

Observation Notes

0-56CM WORM ACTIVITY:56-168CM SOME BLACK STAINING ON FACES:>198CM BLACKINCLUSIONS PROMINENT:

Site Notes

WELLINGTON

Project Name: HEL
Project Code: HEL **Site ID:** H120 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Project Name: HEL
Project Code: HEL **Site ID:** H120 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

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	5.7A							27.6C		
0.08 - 0.15	5.4A		6.3H	2	0.25	0.16	18.3H 38E		46.7B	
0.15 - 0.23	5.2A							24.4C		
0.23 - 0.38	5.2A		2H	1.6	0.25	0.13	17.5H 32.2E		36.2B	
0.38 - 0.56	5.3A							22.6C		
0.56 - 0.76	5.1A		0.74H	1.2	0.11	0.13	14.8H 26.6E		28.8B	
0.76 - 0.91	5A									
0.91 - 1.09	4.6A									
1.52 - 1.68	4.7A									
2.29 - 2.44	4.8A		0.11H	0.67	0.05	0.12	28.9E		29.8B	

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		7.2D		0.106D	0.365A							
0.08 - 0.15		6.7D		0.088D	0.326A				2B	6	17	67
0.15 - 0.23		6D			0.236A							
0.23 - 0.38		4D		0.058D	0.162A				1B	5	14	77
0.38 - 0.56		2.3D										
0.56 - 0.76		1.2D		0.06D					1D	6	17	74
0.76 - 0.91												
0.91 - 1.09												
1.52 - 1.68												
2.29 - 2.44												

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									
0.23 - 0.38									
0.38 - 0.56									
0.56 - 0.76									
0.76 - 0.91									
0.91 - 1.09									
1.52 - 1.68									
2.29 - 2.44									

Project Name: **HEL**
Project Code: **HEL** **Site ID:** **H120** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (TAS)**

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
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
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
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_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