HEL **Project Name:** 

**Project Code:** Site ID: H135 Observation ID: 1 HEL

**Agency Name: CSIRO Division of Soils (TAS)** 

**Site Information** 

J. Loveday Locality: Tewlnesbury Potato Seed Station:

Desc. By: Date Desc.: Elevation: 08/02/56 549 metres Sheet No.: 8015 1:100000 Map Ref.: Rainfall: 1550 Northing/Long.: 145.69722222222 Runoff: Rapid Well drained Easting/Lat.: -41.24583333333334 Drainage:

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: **Substrate Material:** Auger boring, Basalt No Data

**Land Form** 

Rel/Slope Class: Rolling low hills 30-90m 10-Pattern Type: Plateau Morph. Type: Elem. Type: Simple-slope Relief: 61 metres Hillslope **Slope Category:** Gently inclined Aspect: No Data Slope: 15.8 %

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

**Australian Soil Classification: Mapping Unit:** N/A Haplic Mesotrophic Brown Ferrosol **Principal Profile Form:** Gn4.11 **Great Soil Group: ASC Confidence:** Krasnozem

Analytical data are incomplete but reasonable confidence.

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

Vegetation:

## **Surface Coarse Fragments:**

Profile Morphology							
A	0 - 0.08 m	Brown (10YR4/3-Moist); ; Clay loam; Weak grade of structure, <2 mm, Subangular blocky; Dry; Firm consistence; Diffuse change to -					
Α	0.08 - 0.15 m	Brown (10YR4/3-Moist); ; Clay loam; Weak grade of structure, <2 mm, Subangular blocky; Moderately moist; Firm consistence; Sharp change to -					
В	0.17 - 0.28 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Moderately moist; Weak consistence; Diffuse change to -					
В	0.28 - 0.43 m	Dark brown (10YR3/3-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderately moist; Weak consistence; 0-2%, Basalt, coarse fragments; Diffuse change to -					
В	0.46 - 0.61 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, <2 mm, Angular blocky; Moderately moist; Weak consistence; Diffuse change to -					
В	0.61 - 0.74 m	Dark brown (10YR3/3-Moist); ; Medium clay; Strong grade of structure, <2 mm, Angular blocky; Moderately moist; Weak consistence; Diffuse change to -					
ВС	0.81 - 0.94 m	Yellowish brown (10YR5/4-Moist); ; Medium clay; Massive grade of structure; Moderately moist; Weak consistence; 0-2%, Other, coarse fragments; Few (2 - 10 %), Unidentified, Fine (0 - 2 mm), Concretions;					
С	1.04 - 1.22 m	Yellowish brown (10YR5/6-Moist); ; Medium clay; Massive grade of structure; Moderately moist; Weak consistence; 0-2%, Other, coarse fragments; Few (2 - 10 %), Unidentified, Fine (0 - 2 mm), Concretions;					

2.77 - 2.87 m

## **Morphological Notes**

10YR56(M) mealy decomposed basalt + occasional BL staining:

## **Observation Notes**

81-122CM OCCASIONAL WHITE INCLUSIONS HALLOYSITE:

**Site Notes** 

**BURNIE** 

Project Name: HEL
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Laboratory	v Test Results:

<u>Laboratory</u> Depth	pH	1:5 EC		changeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (-	Acidity +)/kg			%
0 - 0.08	4.9A		3.2H	1	0.35	0.2	27.3H 51.9E			
0.08 - 0.15 0.17 - 0.28	4.7A 4.7A		2.8H	1	0.36	0.1	23H 40.8E		45.1E	3
0.28 - 0.43 0.46 - 0.61 0.61 - 0.74 0.81 - 0.94 1.04 - 1.22 2.77 - 2.87	4.5A 4.7A 4.6A 4.7A 4.8A 4.6A						40.0L			
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P	Total N %	Tota K %	al Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt Clay
0 - 0.08 0.08 - 0.15 0.17 - 0.28 0.28 - 0.43 0.46 - 0.61 0.61 - 0.74 0.81 - 0.94 1.04 - 1.22 2.77 - 2.87		7.3D 7D 4.7D 3.3D		0.19D 0.181D 0.134D	0.40	8A		2E		15 66 12 75
Depth m	COLE	Sat.		vimetric/Vo 0.1 Bar g/g	lumetric W 0.5 Bar g - m3/m3	1 Bar	ntents 5 Bar 15 I	Bar	sat n/h	K unsat mm/h
0 - 0.08 0.08 - 0.15 0.17 - 0.28 0.28 - 0.43 0.46 - 0.61 0.61 - 0.74 0.81 - 0.94 1.04 - 1.22 2.77 - 2.87										

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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

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

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
Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
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 Total nitrogen - semimicro Kjeldahl , automated colour

9A\_HCL Total element - P(%) - By boiling HCl

P10A1\_C
P10A1\_CS
P10A1\_CS
P10A1\_FS
P10A1\_FS
P10A1\_Z
Clay (%) - Pipette
Coarse sand (%) - Pipette
Fine sand (%) - Pipette
Silt (%) - Pipette