

Project Name: DER
Project Code: DER **Site ID:** H247 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock **Locality:** 2.0KM S of Cambridge cutting on rd to Mt.Rumney:1.8KM from t`off on Tasman H`way:2.5CH SE of road side quarry:
Date Desc.: 23/05/62 **Elevation:** 290 metres
Map Ref.: **Rainfall:** 550
Northing/Long.: 147.434722222222 **Runoff:** Very rapid
Easting/Lat.: -42.8625 **Drainage:** Imperfectly drained

Geology

ExposureType: Soil pit **Conf. Sub. is Parent. Mat.:** No Data
Geol. Ref.: No Data **Substrate Material:** Soil pit, 0.71 m deep,Dolerite

Land Form

Rel/Slope Class: No Data **Pattern Type:** No Data
Morph. Type: Ridge **Relief:** No Data
Elem. Type: Cufface **Slope Category:** Steep
Slope: 34.4 % **Aspect:** 225 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Mottled Eutrophic Grey Chromosol **Principal Profile Form:** Dy3.22
ASC Confidence: **Great Soil Group:** Non-calcic brown soil
All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, , Sparse. *Species includes - Danthonia species, Lomandra longifolia
Tall Strata - Tree, , . *Species includes - None Recorded

Surface Coarse Fragments: 20-50%, cobbly, 60-200mm, , Dolerite

Profile Morphology

| | | |
|------|---------------|---|
| A11 | 0 - 0.02 m | Very dark greyish brown (10YR3/2-Moist); ; Loam; Weak grade of structure, <2 mm, Granular; Moist; Very weak consistence; 10-20%, coarse gravelly, 20-60mm, Gravel, coarse fragments; Abundant, fine (1-2mm) roots; Diffuse change to - |
| A12 | 0.02 - 0.08 m | Very dark greyish brown (10YR3/2-Moist); ; Loam (Heavy); Weak grade of structure, <2 mm, Subangular blocky; Moist; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, Gravel, coarse fragments; Abundant, fine (1-2mm) roots; Diffuse change to - |
| A1A2 | 0.08 - 0.18 m | Very dark greyish brown (10YR3/2-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, Gravel, coarse fragments; Abundant, fine (1-2mm) roots; Diffuse change to - |
| A2s | 0.18 - 0.25 m | Dark greyish brown (10YR4/2-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, Gravel, coarse fragments; Abundant, fine (1-2mm) roots; Clear change to - |
| B2 | 0.27 - 0.38 m | Brown (7.5YR4/2-Moist); , 10YR44; Heavy clay; Massive grade of structure; Moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, Gravel, coarse fragments; Few, fine (1-2mm) roots; Gradual change to - |
| BC | 0.38 - 0.53 m | Brown (7.5YR4/2-Moist); , 10YR44; Heavy clay; Massive grade of structure; Moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, Dolerite, coarse fragments; Few, fine (1-2mm) roots; Clear change to - |
| C | 0.53 - 0.71 m | Very dark greyish brown (2.5Y3/2-Moist); , 2.5Y54; , N80; Heavy clay; Massive grade of structure; Moist; Very firm consistence; 10-20%, medium gravelly, 6-20mm, Dolerite, coarse fragments; |

Morphological Notes

Observation Notes

0-38CM CHARCOAL VARIES DOWNWARDS FROM <10% TO <2%:27-71CM GRIT VARIES THROUGH PROFILE FROM <30% TO >90%:

Site Notes

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HOBART

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Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Mg | Cations K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|-------------|------|--------|-------|-----------------|-----------|------------|----------------------|-----|-------|-----|
| m | | dS/m | | | | mol (+)/kg | | | | % |
| 0 - 0.02 | 6.4A | 0.063A | 12.3H | 4.3 | 0.55 | 0.3 | 6.4H 10.1E | | 27.6B | |
| 0.02 - 0.08 | 6.5A | 0.045A | 9.9H | 3.4 | 0.23 | 0.3 | 3.9H 7.9E | | 21.7B | |
| 0.08 - 0.18 | 6.6A | 0.042A | 8.1H | 2.5 | 0.14 | 0.28 | 2.8H 5.7E | | 16.7B | |
| 0.18 - 0.25 | 6.8A | 0.03A | 5.9H | 2.6 | 0.07 | 0.3 | 1.2H 4E | | 12.9B | |
| 0.27 - 0.38 | 6.7A | 0.045A | 9H | 6.9 | 0.08 | 0.76 | 1.8H 4.7E | | 21.4B | |
| 0.38 - 0.53 | 6.7A | 0.051A | 10.5H | 9.2 | 0.12 | 1.2 | 1.7H 4.4E | | 25.4B | |
| 0.53 - 0.71 | 7.4A | 0.068A | 13.2H | 11.6 | 0.15 | 1.7 | 3.1E | | 29.8B | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle | | Size | Analysis | |
|-------------|-------|--------------|-------------|------------|------------|------------|-----------------|----------|-----|------|----------|------|
| | | | | | | | | GV | CS | | FS | Silt |
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.02 | | 5.7D | | 0.014D | 0.29A | | | 4 | 17B | 45 | 17 | 11 |
| 0.02 - 0.08 | | 2.66D | | 0.008D | 0.161A | | | 20 | 18B | 49 | 18 | 10 |
| 0.08 - 0.18 | | 1.93D | | | 0.118A | | | 22 | 21B | 48 | 16 | 11 |
| 0.18 - 0.25 | | 1.11D | | | 0.06A | | | 49 | 22D | 50 | 17 | 11 |
| 0.27 - 0.38 | | 0.55D | | | 0.026A | | | 28 | 17D | 41 | 14 | 28 |
| 0.38 - 0.53 | | | | | | | | 16 | 22D | 33 | 12 | 33 |
| 0.53 - 0.71 | | | | | | | | 48 | 27D | 34 | 11 | 38 |

[illegible]

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Laboratory Analyses Completed for this profile

| | |
|-----------|---|
| 15E1_CA | Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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 |