

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** N29 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

#### Site Information

<b>Desc. By:</b> Christopher Grose	<b>Locality:</b> Camelsford, Near Upper Blessington
<b>Date Desc.:</b> 07/09/05	<b>Elevation:</b> 451 metres
<b>Map Ref.:</b> GPS S.A. Off	<b>Rainfall:</b> 1055
<b>Northing/Long.:</b> 5408940 AMG zone: 55	<b>Runoff:</b> Moderately rapid
<b>Easting/Lat.:</b> 549815 Datum: GDA94	<b>Drainage:</b> Imperfectly drained

#### Geology

<b>ExposureType:</b> Soil pit	<b>Conf. Sub. is Parent. Mat.:</b> No Data
<b>Geol. Ref.:</b> Dgr	<b>Substrate Material:</b> No Data

#### Landform

<b>Rel/Slope Class:</b> Rolling low hills 30-90m 10-32%	<b>Pattern Type:</b> Low hills
<b>Morph. Type:</b> Mid-slope	<b>Relief:</b> No Data
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> Gently inclined
<b>Slope:</b> 7 %	<b>Aspect:</b> 146 degrees

**Surface Soil Condition** Soft

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Ferric Eutrophic Yellow Dermosol Medium Slightly gravelly Loamy Clayey Deep	<b>Principal Profile Form:</b> N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> N/A
Analytical data are incomplete but reasonable confidence.	

#### Site Disturbance

#### Vegetation

**Surface Coarse Fragments** 2-10%, bouldery, 600mm-2m, ,

#### Profile Morphology

<p>A1 0 - 0.12 m 10-20 mm,  Common (1-5 per plastic; Non-</p>	<p>Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Loam; Moderate grade of structure, Subangular blocky; Moderate grade of structure, 2-5 mm, Granular; Earthy fabric; 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; Moderately sticky; Common, very fine (0-1mm) roots; Clear, Smooth change to -</p>
<p>A3 0.12 - 0.33 m 10 mm, macropores, 200mm, subrounded, dispersed, Common,</p>	<p>Dark greyish brown (10YR4/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 5- Subangular blocky; Rough-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) Moderately moist; Very weak consistence; Non-plastic; Non-sticky; 10-20%, cobbly, 60- subrounded, dispersed, Dolerite, coarse fragments; 2-10%, stony, 200-600mm, Dolerite, coarse fragments; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules; very fine (0-1mm) roots; Clear, Wavy change to -</p>
<p>B21gc 0.33 - 0.6 m structure, 20-50 mm, ped fabric; Few cobbly, 60-200mm, Coarse (6 -</p>	<p>Light yellowish brown (10YR6/4-Moist); , 0-0% ; Light medium clay; Weak grade of Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Rough- (&lt;1 per 100mm2) Fine (1-2mm) macropores, Wet; Very weak consistence; 50-90%, subrounded, dispersed, Dolerite, coarse fragments; Very many (50 - 100 %), Ferruginous, 20 mm), Nodules; Few, very fine (0-1mm) roots; Abrupt, Wavy change to -</p>
<p>B22gc 0.6 - 0.84 m medium clay; mm, Angular Weak consistence;</p>	<p>Pale brown (10YR6/3-Moist); Mottles, 10YR56, 20-50% , 15-30mm, Prominent; Light Moderate grade of structure, 10-20 mm, Prismatic; Moderate grade of structure, 10-20 blocky; Smooth-ped fabric; Few (&lt;1 per 100mm2) Fine (1-2mm) macropores, Moist; Very plastic; Normal plasticity; Moderately sticky; Few, very fine (0-1mm) roots; Abrupt,</p>

Wavy change to -

Cg 0.84 - 1.05 m Greyish brown (2.5Y5/2-Moist); Mottles, 10YR56, 10-20% , 15-30mm, Prominent; Light medium clay;  
Weak grade of structure, 10-20 mm, Prismatic; Smooth-ped fabric; Few (<1 per 100mm2)  
Fine (1-2mm) macropores, Moist; Firm consistence; Very plastic; Normal plasticity; Moderately sticky;  
Common cutans, 10-50% of ped faces or walls coated, distinct; Few, very fine (0-1mm) roots;

### **Morphological Notes**

A3 Clay loam, gravelly. N29C 13-33  
B21gc Gravells and Water seeping from B21. N29D 33-60cm  
B22gc Light medium clay, gritty. N29E 60-84cm  
Cg Light medium clay, gritty. N29F 84-105cm

### **Observation Notes**

plantation Forestry

### **Site Notes**

Mode of Geomorphic Activity: Aggraded. Agent: Sheet Wash.

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### **Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.075	4.8C 5.8A	0.074A	5.93A	1.18	0.21	0.14	0.237D 0.24G 0.52225A		7.98225B	
0.13 - 0.33	5C 6A	0.022A	2.14A	0.79	0.09	0.09	0.08225D 0.06G 0.1327A		3.2427B	
0.15 - 0.225	4.8C 5.7A	0.047A	4.96A	1	0.14	0.13	0.20925D 0.68G 0.631A		6.861B	
0.33 - 0.6	5C 5.9A	0.013A	1.09A	0.76	0.11	0.08	0.02125D 0.11G 0.059075A		2.099075B	
0.6 - 0.84	4.4C 5.6A	0.015A	3.1A	4.29	0.13	0.21	0.436D 0.71G 1.585A		9.315B	
0.84 - 1.05	4.1C 5.4A	0.011A	5.67A	8.12	0.21	0.4	0.61725D 0.76G 2.995A		17.395B	

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt
0 - 0.075		3.45B	20H 5I		0.28D					
0.13 - 0.33		0.93B	13H 5.2I		0.07D					
0.15 - 0.225		2.76B	18H 3I		0.22D					
0.33 - 0.6		0.27B	7H 2.4I		0.02D					
0.6 - 0.84		0.29B	4H 1.3I		0.03D					
0.84 - 1.05		0.33B	5H 1.6I		0.03D					

**Laboratory Analyses Completed for this profile**

10B_NR	Extractable sulfur (mg/kg) - Not recorded
12_NR_FE	Total element - Fe(%) - Not recorded
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_MN	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
12C1	Calcium chloride extractable boron - manual colour
15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_K for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts

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15A1_MG for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15G_C_AL2 By AAS	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination
15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
15N1	Exchangeable sodium percentage (ESP)
18A1	Bicarbonate-extractable potassium
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A5	Total nitrogen - high frequency induction furnace, thermal conductivity
7C1a	Ammonium-N, in presence or absence of nitrite
7C1b	(Nitrate+nitrite)-N, in presence of nitrite
9B2_COL longer	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no recommended
9C2	Olsen-extractable phosphorus - automated colour

