Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID: N2** **Observation ID: 1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

Site Information

Desc. By:	R. Moreton	**Locality:**	Property owner, Glen Moore.
Date Desc.:	15/11/05	**Elevation:**	170 metres
Map Ref.:	GPS S.A. Off	**Rainfall:**	983
Northing/Long.:	5447211 AMG zone: 55	**Runoff:**	Rapid
Easting/Lat.:	540809 Datum: GDA94	**Drainage:**	Well drained

Geology

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

Landform

Rel/Slope Class:	Rolling low hills 30-90m 10-32%	**Pattern Type:**	Hills
Morph. Type:	Upper-slope	**Relief:**	No Data
Elem. Type:	Hillslope	**Slope Category:**	Gently inclined
Slope:	12 %	**Aspect:**	220 degrees

Surface Soil Condition
Firm

Erosion

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Acidic Eutrophic Red Ferrosol Medium Slightly gravelly Clay-loamy Clayey Deep **Principal Profile Form:** N/A

ASC Confidence: **Great Soil Group:** N/A
All necessary analytical data are available.

Site Disturbance

Vegetation

Surface Coarse Fragments
No surface coarse fragments

Profile Morphology

A1 0 - 0.22 m Dark reddish brown (2.5YR3/3-Moist); Mottles, 2.5YR36, 2-10% , 5-15mm, Faint; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Rough-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Firm consistence; Non-plastic; Very sticky; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Basalt, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -

B1 0.22 - 0.58 m Dark red (2.5YR3/6-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Weak consistence; Non-plastic; Very sticky; Few, very fine (0-1mm) roots; Gradual, Smooth change to -

B2 0.58 - 1.05 m Dark red (2.5YR3/6-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; Weak grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Weak consistence; Non-plastic; Very sticky;

Morphological Notes

A1 Penetration Resistance: Firm
B1 Penetration Resistance: Firm. Sampled from .28 to .58m, Label N2C.
B2 Penetration Resistance: Firm. Deep B2 Horizon. Sampled from .60m to .90m, Label N2D and from .90 to 1.05m, Label N2E.

Observation Notes

Substrate Rock of Basalt (BA) was not reached during Soil Pit observation. Vegetation was Pasture and wild radish

Site Notes

Element Slope Class, Gentle. Mode of Geomorphic Activity Eroded and Volcanic as the Geomorphic agent. Inundatino Frequency was no inundation.

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N2 **Observation** 1
Agency Name: TAS Department of Primary Industries and Fisheries

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 - 0.075	5.6C 6.5A	0.09A	12.23A	3.1	1.89	0.5	0D 0G 0A		17.72B	
0.175 - 0.225	5.5C 6.4A	0.088A	12.77A	2.7	1.51	0.6	0D 0G 0A		17.58B	
0.28 - 0.58	4.1C 5.2A	0.105A	3.44A	0.71	0.44	0.38	0.16D 0.92G 1.66A		6.63B	
0.6 - 0.9	4.4C 4.8A	0.081A	3.18A	0.72	0.25	0.49	0.27D 1.22G 2.4A		7.04B	
0.9 - 1.05	4.4C 5A	0.087A	3.17A	0.85	0.26	0.48	0.22D 0.9G 1.95A		6.71B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
		Clay						GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.075		4.05B	129H 34.3I		0.35D						
0.175 - 0.225		4.12B	129H 36.9I		0.34D						
0.28 - 0.58		1.03B	3H 1I		0.13D						
0.6 - 0.9		1.02B	13H 2.6I		0.11D						
0.9 - 1.05		0.86B	3H 1I		0.1D						

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	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15G_C_AL2	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination By AAS
15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride

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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	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no longer recommended
9C2	Olsen-extractable phosphorus - automated colour