Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID:** **C32** **Observation ID:** **1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

Site Information

Desc. By: H. Hawkins **Locality:** paddock Wstbn 5, Owner: Mike Badcock.
Date Desc.: 07/09/06 **Elevation:** 130 metres
Map Ref.: GPS S.A. Off **Rainfall:** 1006
Northing/Long.: 5438781 AMG zone: 55 **Runoff:** Rapid
Easting/Lat.: 437960 Datum: GDA94 **Drainage:** Moderately well drained

Geology

ExposureType: Soil pit **Conf. Sub. is Parent. Mat.:** Probable
Geol. Ref.: Tbla **Substrate Material:** Basalt

Landform

Rel/Slope Class: Rolling low hills 30-90m 10-32% **Pattern Type:** Low hills
Morph. Type: Upper-slope **Relief:** No Data
Elem. Type: Hillslope **Slope Category:** Moderately inclined
Slope: 24 % **Aspect:** 83 degrees

Surface Soil Condition

Recently cultivated

Erosion

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Haplic Eutrophic Red Ferrosol Medium Non-gravelly Clay-loamy Clay-loamy Very 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

0-2%, medium gravelly, 6-20mm, angular, Basalt

Profile Morphology

A11p 0 - 0.06 m Dark reddish brown (2.5YR2/3-Moist); Dark reddish brown (2.5YR3/4-Dry); , 0-0% ; Clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Fine, (0 - 5) mm crack; Dry; Very weak consistence; Moderately plastic; Normal plasticity; Non-sticky; Few, very fine (0-1mm) roots; Abrupt, Wavy change to -

A12 0.06 - 0.28 m Dark reddish brown (2.5YR3/4-Moist); Dark reddish brown (2.5YR3/3-Dry); Mechanical, 2.5YR44, 2- 10% , 0-5mm, Faint; Clay loam; Moderate grade of structure, 20-50 mm, Polyhedral; Moderate grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; Very plastic; Normal plasticity; Non-sticky; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Basalt, coarse fragments; Few, very fine (0-1mm) roots; Abrupt, Wavy change to -

B21t 0.28 - 0.77 m Reddish brown (2.5YR4/3-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 20-50 mm, Angular blocky; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Moderately plastic; Normal plasticity; Slightly sticky; 0-2%, medium gravelly, 6-20mm, angular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Concretions; Few, very fine (0-1mm) roots; Clear, Wavy change to -

B22t 0.77 - 1.05 m Red (2.5YR4/6-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 50-100 mm, Angular blocky; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Common (1-5 per

100mm2) Fine
(1-2mm) macropores, Moderately moist; Weak consistence; Moderately plastic; Normal plasticity;
Slightly sticky; 0-2%, medium gravelly, 6-20mm, angular, dispersed, Basalt, coarse fragments; Common
cutans, 10-50% of ped faces or walls coated, distinct;

Morphological Notes

A11p	C32A sampled 0-75mm
A12	C32B sampled 90-165mm
B21t	Colour of Clay skins coating ped faces 2.5YR 43. C32C sampled 280-500mm, C32D sampled 500-750mm
B22t	Colour of Clay skins coating ped faces 2.5YR 44. C32E sampled 770-1050 mm

Observation Notes

Paddock to be sown into Lillies In September '06. Substrate known to be Basalt but not reached

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** C32 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Site Notes

Mode of Geomorphic Activity: Eroded, Geomorphic Agent: Sheet Wash, Inundation frequency: None,

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** C32 **Observation** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.075	5.6C 6.5A	0.079A	13.1A	5.13	2.61	0.33	0.01D 0G 0.06A		21.23B	
0.09 - 0.165	5.6C 6.5A	0.065A	12.61A	4.94	1.54	0.37	0.01D 0G 0.07A		19.53B	
0.28 - 0.5	5.8C 6.1A	0.063A	8.35A	2.43	0.15	0.44	0.03D 0G 0.08A		11.45B	
0.5 - 0.75	5.6C 5.8A	0.065A	5.76A	6.28	0.13	0.33	0.03D 0G 0.08A		12.58B	
0.77 - 1.05	4.7C 5A	0.082A	4.19A	4.86	0.15	0.24	0.08D 0.26G 0.3A		9.74B	

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 - 0.075		2.04B	228H 70I		0.28D						
0.09 - 0.165		2.9B	178H 51.2I		0.26D						
0.28 - 0.5		1.09B	8H 1.2I		0.1D						
0.5 - 0.75		0.76B	10H 1.5I		0.09D						
0.77 - 1.05		1.1B	9H 1.3I		0.12D						

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

Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID:** **C32** **Observation** **1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

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