**Project Name:** Regional

**Project Code:** Observation ID: 1 REG Site ID: T110

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

**Site Information** 

Desc. By: G.G. Murtha Locality: .4KM north along powerlines from Saunders Beach

Road:

Date Desc.: 21/10/69 Elevation: 15 metres Map Ref.: Sheet No.: 8259 1:100000 Rainfall: 1200 Northing/Long.: 146.6 Runoff: Very slow

Easting/Lat.: -19.18333333333333 Drainage: Very poorly drained

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Undisturbed soil core No Data Geol. Ref.: QA **Substrate Material:** 

**Land Form** 

Rel/Slope Class: Level plain <9m <1% Pattern Type: Alluvial plain Morph. Type: Flat Relief: 0 metres Elem. Type: Plain Slope Category: Level 0 % Aspect: No Data Slope:

Surface Soil Condition (dry): Hardsetting

**Erosion:** 

**Soil Classification** 

**Australian Soil Classification: Mapping Unit:** N/A DY2.43 Calcic Mesonatric Grey Sodosol **Principal Profile Form:** Solodic soil **ASC Confidence: Great Soil Group:** 

Analytical data are incomplete but reasonable confidence.

**<u>Site Disturbance:</u>** No effective disturbance other than grazing by hoofed animals

**Vegetation:** Low Strata - Tussock grass, 0.51-1m, Mid-dense. \*Species includes - None recorded

Tall Strata - Tree, 6.01-12m, Sparse. \*Species includes - Eucalyptus tessellaris, Eucalyptus alba, Melaleuca

viridiflora

Surface Coarse Fragments: No surface coarse fragments

<b>Profile</b>	Morphology			
Δ1Δ2	0 - 0 1 m			

	<u> </u>	
A1A2	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Greyish brown (10YR5/2-Dry); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Soft segregations; Abrupt change to -
A2	0.1 - 0.17 m	Greyish brown (10YR5/2-Moist); Light grey (10YR7/2-Dry); ; Sandy loam; Massive grade of structure; Moist; Very weak consistence; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Soft segregations; Abrupt change to -
B21	0.17 - 0.3 m	Dark grey (10YR4/1-Moist); Dark grey (10YR4/1-Dry); ; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Dry; Very strong consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules;
B21	0.3 - 0.45 m	Dark grey (10YR4/1-Moist); Dark grey (10YR4/1-Dry); ; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Dry; Very strong consistence; Few (2 - 10 %), Calcareous, , Soft segregations; Gradual change to -
B22	0.45 - 0.6 m	Greyish brown (2.5Y5/2-Moist); , 5Y53, 10-20% , 0-5mm, Faint; , 10-20% , 0-5mm, Faint; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Dry; Very strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Concretions;
B22	0.6 - 0.9 m	Greyish brown (2.5Y5/2-Moist); , 5Y53, 10-20% , 0-5mm, Faint; , 10-20% , 0-5mm, Faint; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Dry; Very strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Concretions; Diffuse change to -
B22	0.9 - 1.05 m	Greyish brown (2.5Y5/2-Moist); , 5Y53, 10-20% , 0-5mm, Distinct; , 10YR55, 10-20% , 0-5mm, Distinct; Heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Moderately moist; Strong consistence; 0-2%, medium gravelly, 6-20mm, rounded, Gravel, coarse fragments; Diffuse change to -
ВС	1.05 - 1.2 m	Greyish brown (10YR5/2-Moist); , 10YR58, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Sandy medium clay; Massive grade of structure; Moist; Weak consistence; 0-2%,

coarse gravelly, 20-60mm, rounded, Gravel, coarse fragments; Very few (0 - 2 %),

Ferromanganiferous, Medium (2 -6 mm), Soft segregations;

Projec	t Code: R	egional EG Site ID: T110 Observation ID: 1 SIRO Division of Soils (QLD)
ВС	1.2 - 1.5 m	Greyish brown (10YR5/2-Moist); , 10YR58, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Sandy medium clay; Massive grade of structure; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, rounded, Gravel, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Soft segregations; Diffuse change to -
ВС	1.5 - 1.8 m	Greyish brown (2.5Y5/2-Moist); , 10YR58, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Sandy clay loam; Massive grade of structure; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, rounded, Gravel, coarse fragments; Very few (0 - 2%), Ferromanganiferous, Medium (2 -6 mm), Soft segregations; Sharp change to -
D	1.8 - 2.1 m	Light brownish grey (10YR6/2-Moist); , 10YR44, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence;
D	2.1 - 2.25 m	Light brownish grey (10YR6/2-Moist); , 10YR44, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderately moist; Very firm consistence;
	2.25 - 2.75 m	Greyish brown (10YR5/2-Moist); ; Sandy medium clay; Massive grade of structure; Rigid consistence; Few (2 - 10 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules;
D	2.75 - 3.2 m	Light brownish grey (10YR6/2-Moist); , 10YR58, 2-10%; , 2-10%; Sandy medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Rigid consistence; Abrupt change to -
	3.2 - 3.7 m	Greyish brown (10YR5/2-Moist); ; Sand; Single grain grade of structure; Loose consistence; 2-10%, rounded, Gravel, coarse fragments; Gradual change to -
	3.7 - 4.4 m	Greyish brown (10YR5/2-Moist); , 7.5YR44, 10-20% , 15-30mm, Prominent; , 10YR58, 10-20% , 15-30mm, Prominent; Clayey sand; Massive grade of structure; Weak consistence; 2-10%, rounded, Gravel, coarse fragments; Diffuse change to -
	4.4 - 5 m	Light grey (10YR7/1-Moist); , 7.5YR44; Sandy medium clay; Massive grade of structure; Weak consistence;

## **Morphological Notes**

<u>Observation Notes</u>
A1 0-2CM:A2 2-10CM (10YR52M 72D):45-60CM 2MM SAND COATING ON COARSER FACES OR CRACKS:

### Site Notes

SAUNDERS BEACH

Project Name: Regional
Project Code: REG Site ID: T110
Agency Name: CSIRO Division of Soils (QLD) Observation ID: 1

# **Laboratory Test Results:**

<u>Laboratory</u>	Test Re	esults:								
Depth	рН	1:5 EC	Exc Ca	changeable Mg	Cations K	E: Na	xchangeable Acidity	CEC	ECEC	ESP
m		dS/m		9		Cmol (+)/				%
0 - 0.1 0.1 - 0.17	6.4A 6.8A	0.074 <i>A</i> 0.125 <i>A</i>								
0.17 - 0.3	8A	0.33A	7.2B	6.9	0.11	3.19		16.3C		19.57
0.3 - 0.45 0.45 - 0.6	9.3A 9.5A	0.622 <i>P</i> 0.821 <i>P</i>	١							
0.6 - 0.9 0.9 - 1.05	9.6A 9.5A	1.03A 1.06A								
1.05 - 1.2 1.2 - 1.5	9.2A 9.4A	0.839 <i>A</i> 0.58A								
1.5 - 1.8 1.8 - 2.1	9.1A 9.1A	0.419A 0.434A	١	8.4	0.21	7.1		14.9C		47.65
1.0 - 2.1	9. IA	0.434	3.00	0.4	0.21	7.1		14.90		47.03
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		cle Size	Analysis Silt Clay
m	%	%	mg/kg		%	%	Mg/m3	0. (	%	om omy
0 - 0.1 0.1 - 0.17 0.17 - 0.3 0.3 - 0.45 0.45 - 0.6 0.6 - 0.9 0.9 - 1.05 1.05 - 1.2 1.2 - 1.5 1.5 - 1.8 1.8 - 2.1										
Depth	COLE			vimetric/Vo					K sat	K unsat
m		Sat.	0.05 Bar		0.5 Bar g - m3/m3	1 Bar 3	5 Bar 15 I	Bar	mm/h	mm/h
0 - 0.1 0.1 - 0.17 0.17 - 0.3 0.3 - 0.45 0.45 - 0.6 0.6 - 0.9 0.9 - 1.05 1.05 - 1.2 1.2 - 1.5 1.5 - 1.8 1.8 - 2.1										

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#### **Laboratory Analyses Completed for this profile**

15A2\_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for

soluble salts

15A2\_K
15A2\_K
15A2\_MG
15A2\_NA
15A2\_NA
15D1\_CEC

Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach

2A1 Air-dry moisture content
3A1 EC of 1:5 soil/water extract
4A1 pH of 1:5 soil/water suspension