

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 1379 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Angela Stuart-Street	Locality:	
Date Desc.:	25/05/99	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6229577 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	588279 Datum: AGD84	Drainage:	Well drained

Geology

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

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	2 %	Aspect:	135 degrees

Surface Soil Condition Loose

Erosion (wind); (scald) (sheet) (wave) (rill) (mass)
(gully) (stbank) (tunnel)

Soil Classification

Australian Soil Classification:	Mesotrophic Mottled-Mesonatric Yellow Sodosol	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	N/A
		Great Soil Group:	N/A

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments 2-10%, medium gravelly, 6-20mm, subrounded, Ironstone; No surface coarse fragments

Profile Morphology

A1p	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Fine sand; Moderately moist; Loose consistence; 2-10%, fine
		gravelly, 2-6mm, subrounded, Ironstone, coarse fragments; Water repellent; Clear, Wavy change to -
A21ec	0.1 - 0.4 m	Light yellowish brown (10YR6/4-Moist); ; Fine sand; Moist; Loose consistence; 10-20%, fine gravelly, 2-
		6mm, subrounded, Ironstone, coarse fragments; Abrupt, Smooth change to -
B21	0.4 - 0.6 m	Brownish yellow (10YR6/6-Moist); , 10YR68, 10-20% , 5-15mm, Faint; , 2.5YR36, 10-20%
	5-15mm,	Prominent; Medium clay; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Weak
		consistence; Clear, Wavy change to -
B22	0.6 - 0.8 m	Light yellowish brown (2.5Y6/4-Moist); , 10YR68, 10-20% , 5-15mm, Distinct; , 2.5YR36,
	10-20% , 5-	15mm, Prominent; Medium clay; Weak grade of structure, 2-5 mm, Subangular blocky; Moist; Weak
		consistence; Clear, Smooth change to -
B23	0.8 - 1 m	Light brownish grey (2.5Y6/3-Moist); , 10YR68, 10-20% , 5-15mm, Distinct; Heavy clay;
	Massive grade	of structure; Sandy (grains prominent) fabric; Moist; Firm consistence; Clear, Smooth change to -
B31	1 - 1.4 m	Light yellowish brown (2.5Y6/4-Moist); , 2.5Y66, 10-20% , 5-15mm, Faint; Heavy clay;
	Massive grade of	structure; Sandy (grains prominent) fabric; Moist; Firm consistence; Clear, Wavy change to -
B32	1.4 - 1.8 m	Light grey (2.5Y7/2-Moist); , 2.5Y68, 10-20% , 5-15mm, Distinct; , 5YR34, 10-20% , 5-
	15mm, Distinct;	Heavy clay; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Firm

consistence;

Abrupt, Smooth change to -

B33 1.8 - 1.9 m
30mm,

Pale yellow (2.5Y7/3-Moist); , 2.5Y66, 10-20% , 15-30mm, Distinct; , 5YR34, 10-20% , 15-30mm, Distinct; Heavy clay; Massive grade of structure; Sandy (grains prominent) fabric; Moist;

Firm

consistence;

Morphological Notes

Observation Notes

Site Notes

near to crest of low broad rise - located where site TBO 0849 done.

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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				Cmol (+)/kg				%
0 - 0.1	4.8B 5.6A	7A	1.22H	0.29	0.07	0.06	0.05J		1.64D	
0.1 - 0.4	4.6B 5.5A	2A	0.33H	0.05	0.02	0.04	0.06J		0.44D	
0.4 - 0.6	4.8B 6.1A	11A	1.31H	3.92	0.09	1.23	0.18J		6.55D	
0.6 - 0.8	4.7B 6.2A	11A	0.68H	4.82	0.08	1.74	0.22J		7.32D	
0.8 - 1	5.7B 6.9A	18A	0.66A	7.1	0.22	3.12			11.1D	
1 - 1.4	6.8B 8.2A	21A	0.74A	7.95	0.26	4.64			13.59D	
1.4 - 1.8	7B 8.4A	23A	0.68E	7.59	0.26	6.6		18B	15.13D	36.67
1.8 - 1.9	7.1B 8.4A	36A	0.71E	8.47	0.27	9.61		21B	19.06D	45.76

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	Clay %	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1		0.78A									2
1.5											
0.1 - 0.4		0.13A									1.1
1.5											
0.4 - 0.6		0.25A									1.1
36											
0.6 - 0.8		0.2A									1.2
32.5											
0.8 - 1		0.1A									1.7
39.3											
1 - 1.4		0.08A									2.5
47.5											
1.4 - 1.8		0.06A									4.3
55.4											
1.8 - 1.9		0.05A									9.6
61.9											

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment

for soluble	salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_MG	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_NA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	
15C1_CEC	soluble salts
15C1_K	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts

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15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble salts
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_MN	Exchangeable bases (Mn ²⁺) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15L1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
Sum of Cations	and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B_AL	Aluminium in 1:5 soil/0.01M calcium chloride extract - following Method 4A1
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1	Organic carbon - Walkley and Black
9A_S14	Total element - P(%) method S14 CCWA
9I1	Phosphate sorption index
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75a	20 to 75u particle size analysis, (arithmetic difference)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)