

Project Name: Tambellup Borden land resources survey
Project Code: TBO **Site ID:** 0551 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Rohan Marold	Locality:	
Date Desc.:	11/03/97	Elevation:	230 metres
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6229798 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	609910 Datum: AGD84	Drainage:	Moderately 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 plains <9m 1-3% **Pattern Type:** Plain

Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	1 %	Aspect:	No Data

Surface Soil Condition Firm

Erosion

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Ferric Mesonatric Brown Sodosol		Principal Profile Form:	Dy4.22
ASC Confidence:		Great Soil Group:	N/A
No analytical data and little or no knowledge of this soil.			

Site Disturbance Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation

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

Profile Morphology

Ap	0 - 0.1 m	Brown (10YR4/3-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Sandy (grains prominent)
		fabric; Dry; Loose consistence; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm),
		Concretions; Field pH 4.7 (pH meter); Abrupt change to -
A21c	0.1 - 0.21 m	Brown (10YR4/3-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Sandy (grains prominent)
		fabric; Dry; Loose consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm),
		Concretions;
		Field pH 4.7 (pH meter); Clear change to -
A22c	0.21 - 0.37 m	Light olive brown (2.5Y5/4-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy (grains prominent)
		fabric; Dry; Loose consistence; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm),
		Concretions; Field pH 5.7 (pH meter); Abrupt, Wavy change to -
B21c	0.37 - 0.55 m	Yellowish brown (10YR5/8-Moist); , 0-0% ; Clay loam; Weak grade of structure, 2-5 mm, Polyhedral;
		Smooth-ped fabric; Dry; Loose consistence; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm),
		Concretions; Field pH 5.9 (pH meter); Gradual change to -
B22c	0.55 - 0.95 m	Light olive brown (2.5Y5/6-Moist); , 0-0% ; Clay loam; Weak grade of structure, 2-5 mm, Polyhedral;
		Smooth-ped fabric; Dry; Loose consistence; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Soft
		segregations; Field pH 5.9 (pH meter); Gradual change to -
B3	0.95 - 1.3 m	Olive yellow (2.5Y6/6-Moist); , 0-0% ; Clay loam; Weak grade of structure, 2-5 mm, Polyhedral; Smooth-
		ped fabric; Dry; Loose consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Soft
		segregations; Field pH 6.4 (pH meter); Gradual change to -
C	1.3 - 1.7 m	Olive yellow (2.5Y6/8-Moist); , 0-0% ; Clay loam; Dry; Loose consistence; Many (20 - 50 %),

coarse (20 - Ferruginous, Coarse (6 - 20 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Very 60 mm), Concretions; Field pH 6.4 (pH meter);

Morphological Notes

Ap
A21c
A22c
B21c
B22c
B3
C

Observation Notes

Site Notes

Gently undulating plain area high in the landscape with some gravel areas. Sandy gravel/gravelly loam.

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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 - 0.1	4B 4.9H	6B	0.71H	0.22	0.16	0.13	0.4J		1.22D	
0 - 0.1	4B 4.9H	6B	0.71H	0.22	0.16	0.13	0.4J		1.22D	
0.1 - 0.4	4.3B 5.3H	2B	0.58H	0.15	0.06	0.03	0.19J		0.82D	
0.1 - 0.4	4.3B 5.3H	2B	0.58H	0.15	0.06	0.03	0.19J		0.82D	
0.4 - 0.55	6B 6.8H	6B	6.25A	3.61	0.15	0.36			10.37D	
0.4 - 0.55	6B 6.8H	6B	6.25A	3.61	0.15	0.36			10.37D	
0.55 - 0.85	6B 6.7H	6B	6.76A	4	0.16	0.35			11.27D	
0.55 - 0.85	6B 6.7H	6B	6.76A	4	0.16	0.35			11.27D	
0.85 - 1.05	6.1B 6.9H 6.1B 6.9H	6B	8.82A 8.82A	4.34 4.34	0.14 0.14	0.49 0.49			13.79D 13.79D	
0.85 - 1.05	6.1B 6.9H 6.1B 6.9H	6B	8.82A 8.82A	4.34 4.34	0.14 0.14	0.49 0.49			13.79D 13.79D	
0.85 - 1.05	6.1B 6.9H 6.1B 6.9H	6B	8.82A 8.82A	4.34 4.34	0.14 0.14	0.49 0.49			13.79D 13.79D	
0.85 - 1.05	6.1B 6.9H 6.1B 6.9H	6B	8.82A 8.82A	4.34 4.34	0.14 0.14	0.49 0.49			13.79D 13.79D	
1.05 - 1.35	6.8B 7.8H	6B	11.01A	4.2	0.18	0.56			15.95D	
1.05 - 1.35	6.8B 7.8H	6B	11.01A	4.2	0.18	0.56			15.95D	
1.35 - 1.75	7.2B 8.2H	6B	8.63E	2.41	0.19	0.46		16B	11.69D	2.88
1.35 - 1.75	7.2B 8.2H	6B	8.63E	2.41	0.19	0.46		16B	11.69D	2.88

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
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m	%	%	mg/kg	%	%	%	Mg/m3	%
0 - 0.1 3.5		0.88D		130B				2.8
0 - 0.1 3.5		0.88D		130B				2.8
0.1 - 0.4 3.4		0.21D		53B				2.9
0.1 - 0.4 3.4		0.21D		53B				2.9
0.4 - 0.55 49		0.18D		54B				4.7
0.4 - 0.55 49		0.18D		54B				4.7

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0.55 - 0.85 50.1	0.11D	44B	6.1
0.55 - 0.85 50.1	0.11D	44B	6.1
0.85 - 1.05 49.2	0.1D	41B	8.5
	0.1D 49.2	41B	8.5
0.85 - 1.05 49.2	0.1D	41B	8.5
	0.1D 49.2	41B	8.5
0.85 - 1.05 49.2	0.1D	41B	8.5
	0.1D 49.2	41B	8.5
0.85 - 1.05 49.2	0.1D	41B	8.5
	0.1D 49.2	41B	8.5
1.05 - 1.35 44.5	0.11D	39B	7.4
1.05 - 1.35 44.5	0.11D	39B	7.4
1.35 - 1.75 38.4	<2C 0.07D	36B	7.8
1.35 - 1.75 38.4	<2C 0.07D	36B	7.8

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMdR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
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_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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_gt2m	> 2mm particle size analysis, (method not recorded)

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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)