

**Project Name:** Tambellup Borden land resources survey  
**Project Code:** TBO **Site ID:** 0431 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Rohan Marold  
**Date Desc.:** 11/03/97  
**Map Ref.:**  
**Northing/Long.:** 6224658 AMG zone: 50  
**Easting/Lat.:** 610898 Datum: AGD84  
**Locality:**  
**Elevation:** 309 metres  
**Rainfall:** No Data  
**Runoff:** No Data  
**Drainage:** Well drained

#### Geology

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

#### Landform

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

**Morph. Type:** Upper-slope  
**Elem. Type:** Duneslope  
**Slope:** 2 %  
**Relief:** No Data  
**Slope Category:** No Data  
**Aspect:** No Data

#### Surface Soil Condition Loose

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

#### Soil Classification

**Australian Soil Classification:** Mesotrophic Mottled-Subnatric Grey Sodosol  
**ASC Confidence:** No analytical data and little or no knowledge of this soil.  
**Mapping Unit:** N/A  
**Principal Profile Form:** Uc1.21  
**Great Soil Group:** N/A

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

#### Vegetation

**Surface Coarse Fragments** No surface coarse fragments

#### Profile Morphology

Ap	0 - 0.15 m	Very dark greyish brown (2.5Y3/2-Moist); , 0-0% ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; Water repellent; Field pH 6.2 (pH meter); Clear change to -
A21ec	0.15 - 1.4 m (grains)	Light brownish grey (2.5Y6/2-Moist); , 0-0% ; Sand; Single grain grade of structure; Sandy prominent) fabric; Moderately moist; Loose consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Water repellent; Field pH 6.4 (pH meter); Clear change to -
B21	1.4 - 1.7 m grain grade of	Grey (2.5Y6/1-Moist); , 2.5Y68, 10-20% , 5-15mm, Prominent; Sandy clay loam; Single structure; Sandy (grains prominent) fabric; Moist; Firm consistence; Field pH 7.4 (pH meter);

#### Morphological Notes

#### Observation Notes

#### Site Notes

Large area of sand deposited at the top of the landscape. Pale deep sand--deep bleached sand/grey sandy clay--clay layer has greatly impeded the downward flow of the previous rainfall

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#### Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Cations	Na	Exchangeable	CEC	ECEC	ESP
m		dS/m		Mg K	Cmol (+)/kg	Acidity			%

0 - 0.15	5B 6H	2B	1.13H	0.15	0.03	0.06	0.04J	1.37D
0 - 0.15	5B 6H	2B	1.13H	0.15	0.03	0.06	0.04J	1.37D
0.15 - 0.45	4.8B 5.7H	1B	0.21H	0.05	0.02	0.03	0.05J	0.31D
0.15 - 0.45	4.8B 5.7H	1B	0.21H	0.05	0.02	0.03	0.05J	0.31D
0.45 - 0.75	5B 6H	1B	0.18H	0.07	0.03	0.04	0.03J	0.32D
0.45 - 0.75	5B 6H	1B	0.18H	0.07	0.03	0.04	0.03J	0.32D
0.75 - 1.05	5.2B 6.2H	1B	0.19H	0.03	0.02	0.03		0.27D
0.75 - 1.05	5.2B 6.2H	1B	0.19H	0.03	0.02	0.03		0.27D
1.05 - 1.4	6B 6.7H	1B	0.2A	0.04	0.02	0.03		0.29D
1.05 - 1.4	6B 6.7H	1B	0.2A	0.04	0.02	0.03		0.29D
1.4 - 1.8	6B 7.6H	5B	0.88A	3.82	0.08	1.38		6.16D
1.4 - 1.8	6B 7.6H	5B	0.88A	3.82	0.08	1.38		6.16D

Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>			%	
0 - 0.15 1.6		0.27D		42B							1.5
0 - 0.15 1.6		0.27D		42B							1.5
0.15 - 0.45 1		0.07D		21B							0.8
0.15 - 0.45 1		0.07D		21B							0.8
0.45 - 0.75 0.9		0.04D		19B							0.9
0.45 - 0.75 0.9		0.04D		19B							0.9
0.75 - 1.05 0.8		0.04D		19B							0.9
0.75 - 1.05 0.8		0.04D		19B							0.9
1.05 - 1.4 0.9		0.04D		20B							0.9
1.05 - 1.4 0.9		0.04D		20B							0.9
1.4 - 1.8 28.4		0.09D		25B							2.3
1.4 - 1.8 28.4		0.09D		25B							2.3

#### Laboratory Analyses Completed for this profile

15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	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 (Ca <sup>2+</sup> , Mg <sup>2+</sup> , Na <sup>+</sup> , K <sup>+</sup> ) - 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

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15A1_K for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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 <sup>2+</sup> ) 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 Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using 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
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)
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)