

**Project Name:** Ravensthorpe land resources survey  
**Project Code:** RAV **Site ID:** 0243 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Brendan Nicholas	<b>Locality:</b>	
<b>Date Desc.:</b>	14/08/95	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6300056 AMG zone: 51	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	314896 Datum: AGD84	<b>Drainage:</b>	Imperfectly drained

#### Geology

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

#### Landform

**Rel/Slope Class:** Gently undulating plains <9m 1-3% **Pattern Type:** Plain

<b>Morph. Type:</b>	Simple-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	1 %	<b>Aspect:</b>	90 degrees

#### Surface Soil Condition Cryptogam surface

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

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Calcic Hypernatric Yellow Sodosol		<b>Principal Profile Form:</b>	Dy4.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
Confidence level not specified			

**Site Disturbance** No effective disturbance other than grazing by hoofed animals

#### Vegetation

**Surface Coarse Fragments** No surface coarse fragments; No surface coarse fragments

#### Profile Morphology

A1	0 - 0.05 m	Yellowish brown (10YR5/4-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent)
Abrupt, Smooth		fabric; Dry; Very few (0 - 2 %), , , ; Strongly water repellent, "Field pH 6.6 (pH meter); change to -
A2e	0.05 - 0.22 m	Brown (10YR4/3-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent)
fabric; Dry;		Strongly water repellent, "Field pH 6.7 (pH meter); Clear, Tongued change to -
B1t	0.15 - 0.28 m	Yellow (10YR7/6-Moist); ; Light medium clay; Strong grade of structure, 200-500 mm,
Columnar;		Moderately moist; Field pH 6.9 (pH meter); Clear, Smooth change to -
B2t	0.28 - 0.4 m	Pale yellow (2.5Y7/4-Moist); ; Weak grade of structure, Polyhedral; Moderately moist;
Common (10 - 20		%), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8.2 (pH meter); Gradual,
Smooth change		to -
B21k	0.4 - 0.7 m	Pale yellow (2.5Y7/3-Moist); ; Light medium clay; Weak grade of structure, Polyhedral;
Moderate grade of		structure, Polyhedral; Moderately moist; , Calcareous, Coarse (6 - 20 mm), Concretions; ,
Calcareous,		Coarse (6 - 20 mm), Concretions; Field pH 9.3 (pH meter); Gradual, Smooth change to -
B23k	1 - 1.3 m	Pale yellow (2.5Y8/3-Moist); ; Light medium clay; , Polyhedral; Field pH 9 (pH meter);
Clear, Smooth		change to -

#### Morphological Notes

A1  
 A2e  
 B1t  
 B2t texture code was C,  
 B21k  
 B23k

**Observation Notes**

**Site Notes**

Slopes gently to cascade creek headwaters.front gate pit.

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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 - 0.05	5.7B 6.6H	11B	4.09A	1.75	0.18	0.41			6.43D	
0.05 - 0.2	5.7B 6.8H	14B	2.26A	1.02	0.12	0.54			3.94D	
0.2 - 0.28	6.2B 7.1H	75B	2.18A	7.35	0.69	6.42			16.64D	
0.28 - 0.4	8.4B 9.1H	130B	1.59E	7.37	0.9	6.63		16B	16.49D	41.44
0.4 - 0.7	8.8B 9.5H	180B	2.2E	8.65	0.98	6.95		16B	18.78D	43.44
0.7 - 1	8.7B 9.5H	160B	0.98E	8.02	0.82	7.81		18B	17.63D	43.39
1 - 1.3	8.6B 9.3H	160B	0.67E	7.72	0.78	7.54		16B	16.71D	47.13

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.05		1.9D		28B	0.054E			
3.6								1.8
0.05 - 0.2		1.35D		17B	0.032E			2.2
2.8								
0.2 - 0.28		0.81D		19B	0.03E			2.6
23.4								
0.28 - 0.4	<2C	0.24D		16B	0.015E			2
29.7								
0.4 - 0.7	16C	0.25D		19B	0.016E			4.2
30.1								
0.7 - 1	4C	0.06D		15B	0.006E			2.6
31.8								
1 - 1.3	<2C	0.06D		14B	0.006E			1.9
30.9								

**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 (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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
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	
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

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15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
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_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)