

Project Name: Ravensthorpe land resources survey
Project Code: RAV **Site ID:** 0241 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Brendan Nicholas	Locality:	
Date Desc.:	08/08/95	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6342515 AMG zone: 51	Runoff:	No Data
Easting/Lat.:	375633 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 plains <9m 1-3% **Pattern Type:** Plain

Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	1.5 %	Aspect:	No Data

Surface Soil Condition Firm

Erosion

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Sodic Calcareous Brown Chromosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance Cultivation. Rainfed

Vegetation

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

Profile Morphology

A11	0 - 0.05 m	Brown (7.5YR4/3-Moist); ; Loamy fine sand; Single grain grade of structure; Sandy (grains prominent)
		fabric; Dry; Firm consistence; Field pH 7.5 (pH meter);
A12	0.05 - 0.12 m	Brown (7.5YR4/4-Moist); ; Fine sandy loam; Massive grade of structure; Sandy (grains prominent)
		fabric; Dry; Firm consistence; Field pH 7.4 (pH meter);
B11	0.12 - 0.3 m	Brown (7.5YR4/3-Moist); ; Sandy clay loam; Weak grade of structure; Sandy (grains prominent) fabric;
		Dry; Firm consistence; Field pH 7.3 (pH meter);
B21	0.3 - 0.4 m	Strong brown (7.5YR4/6-Moist); ; Light clay; Moderate grade of structure; Dry; Strong consistence;
		Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Concretions; Soil matrix is Slightly
		calcareous; Field pH 7.4 (pH meter);
B31	0.4 - 0.7 m	Light yellowish brown (10YR6/4-Moist); ; Light clay; Moderate grade of structure; Dry; Strong
		consistence; Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Concretions; Soil matrix is
		Slightly calcareous; Field pH 8.2 (pH meter);
B32	0.7 - 1 m	Pale brown (10YR6/3-Moist); ; Light clay; Weak grade of structure; Dry; Very strong consistence;
		Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Concretions; Soil matrix is Moderately
		calcareous; Field pH 9.3 (pH meter);
B33	1 - 1.3 m	Very pale brown (10YR7/4-Moist); , 5YR56, 10-20% , Distinct; Light clay; Massive grade of structure;
		Very strong consistence; Field pH 9.4 (pH meter);

Morphological Notes

A11
 A12
 B11
 B21

B31
B32
B33

Observation Notes

Site Notes

Cec and topsoil textures little odd may reflect landscape position

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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	6B 7.1H	9B	4.12A	1.94	1.45	0.36			7.87D	
0.05 - 0.12	6B 6.9H	20B	7.58A	2.51	1.52	0.89			12.5D	
0.12 - 0.3	6.7B 7.2H	32B	6.94A	3.2	0.82	0.44			11.4D	
0.3 - 0.4	7.5B 7.9H	64B	13.31A	5.85	1.06	0.64			20.86D	
0.4 - 0.7	8.2B 8.6H	130B	7.3E	8.34	0.02	2.46		18B	18.12D	13.67
0.7 - 1	8.6B 9.4H	150B	2.01E	8.49	3.07	8.12		21B	21.69D	38.67
1 - 1.3	8.6B 9.3H	190B	0.67E	7.23	3.08	10.79		21B	21.77D	51.38

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		1.36D		110B	0.086E			4.4
7.6								
0.05 - 0.12		1.37D		58B	0.068E			9.4
13.4								
0.12 - 0.3		0.87D		36B	0.041E			7.5
14.9								
0.3 - 0.4		0.76D		34B	0.046E			7.1
25.5								
0.4 - 0.7	17C	0.34D		33B	0.035E			11.4
34.9								
0.7 - 1	9C	0.11D		27B	0.017E			11
37.2								
1 - 1.3	<2C	0.08D		28B	0.012E			7.9
38.4								

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 pretreatment for	salts Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC	soluble salts 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
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

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15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
19B_NR	Calcium Carbonate (CaCO ₃) - 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)