Project Name: Ravensthorpe land resources survey

Observation ID: 1 **Project Code: RAV** Site ID: 0244

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Brendan Nicholas Locality:

Date Desc.: No Data 14/08/95 Elevation: Map Ref.: Rainfall: No Data

Northing/Long.: 6300108 AMG zone: 51 Runoff: No Data Easting/Lat.: 314931 Datum: AGD84 Drainage: Imperfectly drained

Geology

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

Landform

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

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

Surface Soil Condition Hardsetting, Hardsetting (wind); (scald) (sheet) (wave) (rill) (mass) **Erosion**

(gully) (stbank) (tunnel)

Soil Classification

Australian Soil Classification: N/A Mapping Unit: Calcic Hypernatric Yellow Sodosol **Principal Profile Form:** Dy4.43 ASC Confidence: **Great Soil Group:** N/A

Confidence level not specified

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

Profile Morphology

Brown (10YR4/3-Moist); ; Loamy sand; Massive grade of structure; Sandy (grains 0 - 0.15 m

prominent) fabric; Field pH 7 (pH meter);

0.15 - 0.24 m Very pale brown (10YR7/3-Moist); ; Light medium clay; Massive grade of structure; Field

pH 8.3 (pH meter);

B2t 0.24 - 0.4 m Very pale brown (10YR7/4-Moist); ; Light medium clay; Massive grade of structure; Field pH 9.3 (pH

meter):

B21k 0.4 - 0.7 m Very pale brown (10YR7/3-Moist); ; Light clay; Weak grade of structure, 100-200 mm,

Polyhedral; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Soft segregations; Field pH 9.5 (pH meter);

B22 0.7 - 1 m Pale brown (10YR6/3-Moist); ; Light medium clay; Weak grade of structure, 100-200 mm,

Polyhedral;

Common cutans, 10-50% of ped faces or walls coated, distinct; Common (10 - 20 %), Calcareous,

Coarse (6 - 20 mm), Soft segregations; Soil matrix is Moderately calcareous; Field pH 9.4

(pH meter);

1 - 1.3 m

Light grey (10YR7/2-Moist); Light medium clay; Many (20 - 50 %), , , Soft segregations; Field pH 9.3

(pH meter);

Light grey (2.5Y7/2-Moist); ; Light medium clay; , , Medium (2 -6 mm), Concretions; Field 1.3 - 1.4 m pH 9.2 (pH

meter);

Morphological Notes

B1

B2t

B21k

B22

Observation Notes

Site Notes

Roots in old root channels.coarse sand.above gradebank? Pby cultivation.res1275.

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Laboratory Test Results:

Depth	pН	1:5 EC	Exchangeable Cati			ns Exchangeable Na Acidity		CEC	ECEC	ESP
m		dS/m		J		Cmol	(+)/kg			%
0 - 0.15	6.4B 7.5H	14B	3.15A	3.69	0.45	1.04			8.33D	
0.15 - 0.24	8.1B 9.2H	50B	2.2E	5.41	0.7	5.43		14B	13.74D	38.79
0.24 - 0.4	8.7B 9.5H	110B	1.79E	5.97	0.76	6.45		13B	14.97D	49.62
0.4 - 0.7	8.9B 9.6H	160B	1.18E	7.02	0.87	7.95		16B	17.02D	49.69
0.7 - 1	8.7B 9.5H	190B	1.28E	6.19	0.82	7.88		14B	16.17D	56.29
1 - 1.3	8.6B 9.4H	200B	0.86E	8.14	1	9.58		18B	19.58D	53.22
1.3 - 1.4	8.6B 9.3H	180B	0.36E	7.19	0.91	7.92		13B	16.38D	60.92

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle CS	Size FS	Analysis Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.15 10.6		0.95D		80B	0.048E						2.4
0.15 - 0.24	<2C	0.18D		21B	0.015E						2.2
25.6 0.24 - 0.4 27.9	<2C	0.1D		19B	0.009E						1.9
0.4 - 0.7	2C	0.07D		16B	0.006E						2.4
30.2 0.7 - 1 32	39C	0.17D		16B	0.011E						11
1 - 1.3	20C	0.12D		17B	0.01E						7.3
38.4 1.3 - 1.4 30	<2C	0.07D		14B	0.008E						4.4

Laboratory Analyses Completed for this profile

15_NR_BSa 15_NR_CMR	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available 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 15A1 K	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	3, 4, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
	salts
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	
	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 15C1_K soluble salts	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for 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 15L1_a Sum of Cations	Sum of Bases 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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Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Calcium Carbonate (CaCO3) - Not recorded Electrical conductivity or soluble salts - Not recorded

15N1_b 19B_NR 3_NR

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 Total nitrogen - semimicro Kjeldahl, steam distillation 7A1

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

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 P10_NR_C P10_NR_Saa 75 to 106u particle size analysis, (method not recorded)

Clay (%) - Not recorded

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 P10180_300 150 to 180u particle size analysis, (method not recorded) 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)