

Project Name: Moora Wongan Hills land resources survey
Project Code: MRA **Site ID:** 1186 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Mir Frahmmand	Locality:	
Date Desc.:	18/03/96	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6560902 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	447466 Datum: AGD84	Drainage:	Imperfectly 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:** Rises

Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	1 %	Aspect:	No Data

Surface Soil Condition Hardsetting, Hardsetting

Erosion

Soil Classification

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

Site Disturbance

Vegetation

Surface Coarse Fragments

Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Sandy loam; Massive grade of structure; Field pH 5.6 (pH meter); Clear change to -
B1t	0.1 - 0.3 m	Yellowish brown (10YR5/6-Moist); ; Light medium clay; Weak grade of structure, Angular blocky; Field pH 6.1 (pH meter); Gradual change to -
B12t	0.3 - 0.65 m	Brownish yellow (10YR6/6-Moist); ; Heavy clay; Weak grade of structure, Angular blocky; Field pH 6.4 (pH meter); Diffuse change to -
B2t	0.65 - 1 m	Yellowish brown (10YR5/6-Moist); ; Heavy clay; Strong grade of structure, Angular blocky; Field pH 7.1 (pH meter); Diffuse change to -
B21t	1 - 1.4 m	Light yellowish brown (10YR6/4-Moist); ; Heavy clay; Strong grade of structure, Angular blocky; Field pH 6.6 (pH meter); Diffuse change to -
B22t	1.4 - 1.6 m	Brownish yellow (10YR6/6-Moist); , 10YR72, 10-20% , Distinct; , 5YR46, 10-20% , Distinct; Heavy clay; Massive grade of structure; Field pH 7.6 (pH meter); Diffuse change to -
B3t	1.6 - 2 m	; Medium heavy clay; Massive grade of structure; Field pH 8.1 (pH meter);

Morphological Notes

B3t gritty

Observation Notes

Site Notes

140-160cm slickenside cracking side of pit

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Cations Mg	K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	5.1B 5.8H	8B	3.64H	0.44	0.1	0.07	0.12J		4.25D	
0.1 - 0.3	5.2B 6.1H	4B	3.62H	1	0.03	0.06	0.03J		4.71D	
0.3 - 0.6	6.4B 7.1H 6.3B 7H	8B	3.14A 3.48H	2.4 2.36	0.25 0.02	0.04 0.19			5.83D 6.05D	
0.3 - 0.6	6.4B 7.1H 6.3B 7H	8B	3.14A 3.48H	2.4 2.36	0.25 0.02	0.04 0.19			5.83D 6.05D	
0.6 - 1	6.6B 7.6H	9B	2.76H	3.46	0.03	0.68			6.93D	
1 - 1.4	7.1B 8.3H	9B	2.78E	3.4	0.05	1.01		9B	7.24D	11.22
1.4 - 1.6	8B 8.9H	21B	3.71E	5.17	0.07	1.46		12B	10.41D	12.17
1.6 - 2	8.3B 9.2H	14B	3.52E	3.17	0.22	0.94		8B	7.85D	11.75

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt
0 - 0.1 11		1.7D		290B	0.12E					7.9
0.1 - 0.3 44.3		0.54D								5.5
0.3 - 0.6 64.2		0.21D								7.7
		0.27D 66								6.1
0.3 - 0.6 64.2		0.21D								7.7
		0.27D 66								6.1
0.6 - 1 58.3		0.08D								6.6
1 - 1.4 58.7		0.08D								7.1
1.4 - 1.6 50.6		0.05D								28
1.6 - 2 6.5	6C	0.05D								4.6

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 (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

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15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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 (Ca ²⁺ ,Mg ²⁺ ,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_MN	Exchangeable bases (Mn ²⁺) 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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
19B_NR	Calcium Carbonate (CaCO ₃) - 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
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
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)