Project Name: Jerramungup soils inventory (=JER LRS)

Project Code: Observation ID: 1 JSI Site ID: 1060

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Tim Overheu Locality:

Date Desc.: 27/09/94 Elevation: 359 metres Map Ref.: Rainfall: 325

Northing/Long.: 6334692 AMG zone: 50 Runoff: No Data Easting/Lat.: 748952 Datum: AGD84 Drainage: Well drained

Geology

ExposureType: Existing vertical exposure Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: No Data **Substrate Material:** No Data

Land Form

Rel/Slope Class: Level plain <9m <1% Pattern Type: Peneplain Morph. Type: Relief. Simple-slope 5 metres Elem. Type: Plain Slope Category: No Data Slope: Aspect: No Data

Surface Soil Condition Firm

Erosion: (wind); (scald) (sheet) (rill) (mass) (gully)

(stbank) (tunnel)

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Principal Profile Form: Gc1.12 ASC Confidence: **Great Soil Group:** N/A

Confidence level not specified

S<u>ite</u> Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse 20-50%, medium gravelly, 6-20mm, subrounded, Limestone; No surface coarse

fragments

Profile

0 - 0.1 m Dark brown (10YR3/3-Moist); , 0-0%; Fine sandy clay loam; Moderate grade of structure,

5-10 mm,

Polyhedral; Rough-ped fabric; Very weak consistence; Few (2 - 10 %), Calcareous,

Medium (2 -6 mm), Nodules; Field pH 9.5 (pH meter); Abrupt change to -

Brown (10YR4/3-Moist); , 0-0%; Sandy clay loam; Single grain grade of structure; Sandy

АЗ 0.1 - 0.17 m

(grains

prominent) fabric; Loose consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Nodules; Water

repellent; Field pH 9.8 (pH meter); Clear change to -

B1 0.17 - 0.3 m

(grains

Brown (10YR5/3-Moist); , 0-0%; Clay loam, sandy; Single grain grade of structure; Sandy

prominent) fabric; Loose consistence; Very many (50 - 100 %), Calcareous, Coarse (6 -

20 mm),

Nodules; Clear change to -

B21tk 0.3 - 1 m

Sandy (grains

Yellowish brown (10YR5/4-Moist); , 20-50%; Light clay; Massive grade of structure;

prominent) fabric; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded,

Limestone, coarse

fragments; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9.8 (pH

meter);

Gradual change to -

Ck 1 - 1.3 m Brown (7.5YR5/4-Moist); Mottles, 2.5Y83, 20-50%, 30-mm, Faint; Light clay; Massive

grade of

structure; Sandy (grains prominent) fabric; Weak consistence; 2-10%, cobbly, 60-200mm,

subrounded,

Limestone, coarse fragments; Many (20 - 50 %), Calcareous, Medium (2 -6 mm),

Nodules; Field pH 9.8

(pH meter);

Morphological Notes

THIS HORIZON IS HYDROPHOBIC **A3** B1 THIS HORIZON IS HYDROPHOBIC

Observation Notes

Site Notes

Gravel pit; shallow gravel - laterite pan at depth.

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Laboratory Test Results:

Depth	рН	1:5 EC	Ex Ca	changeable Mg	Cations K	Exchangeable Na Acidity	CEC	ECEC	ESP
m		dS/m		9		Cmol (+)/kg			%
0 - 0.1	8.3B 8.5H	600B	5.6E	4.6	2.9	3.6	12J	16.7D	30.00
0.1 - 0.17	8.6B 9.8H	120B	1.9E	3.7	2.2	5.5	11J	13.3D	50.00
0.17 - 0.3	8.8B 9.8H	120B	0.9E	3	1.7	6.7	8J	12.3D	83.75
0.3 - 0.5	8.7B 9.6H	150B	0.83E	3	1.7	4.6	8J	10.13D	57.50
0.5 - 1	8.6B 9.4H	160B	0.59E	3	1.8	3.6	7J	8.99D	51.43
1 - 1.3	8.6B 9.4H	180B	0.73E	2.9	1.8	3.9	7J	9.33D	55.71

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 - 0.1 10.2	10C	1.41D		260B	0.13E						13
0.1 - 0.17 24	34C	0.7D		110B	0.072E						20.2
0.17 - 0.3 35.8	54C	0.32D		47B	0.03E						20.3
0.3 - 0.5		0.18D		27B	0.014E						28.2
28.9 0.5 - 1 25.3		0.14D		25B	0.01E						27.9
1 - 1.3 25.6	33C	0.16D		41B	0.01E						27.8

Laboratory Analyses Completed for this profile

12C1 15_NR_BSa 15_NR_CEC 15_NR_CMR 15C1_CA pretreatment for	Calcium chloride extractable boron - manual colour Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available CEC - meq per 100g of soil - Not recorded Exchangeable bases (Ca/Mg ratio) - Not recorded Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, 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 15L1_a Sum of Cations	Sum of Bases Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a 15N1_b 19B_NR 3_NR 4_NR 4B1 6A1_UC	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Calcium Carbonate (CaCO3) - Not recorded Electrical conductivity or soluble salts - Not recorded pH of soil - Not recorded pH of 1:5 soil/0.01M calcium chloride extract - direct 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)

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75 to 106u particle size analysis, (method not recorded) Clay (%) - Not recorded Sand (%) - Not recorded arithmetic difference, auto generated

P10_75_106 P10_NR_C P10_NR_Saa

P10_NR_Z Silt (%) - Not recorded

P10_NR_2 P10106_150 P10150_180 P10180_300 P10300_600 P106001000 106 to 150u particle size analysis, (method not recorded) 150 to 180u particle size analysis, (method not recorded)
150 to 180u particle size analysis, (method not recorded)
180 to 300u particle size analysis, (method not recorded)
300 to 600u particle size analysis, (method not recorded)
600 to 1000u particle size analysis, (method not recorded)