Project Name: Dandaragan land resources survey

Project Code: DAN Site ID: 0856 Observation ID: 1

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Ted (E.A.) Griffin Locality:

 Date Desc.:
 18/05/96
 Elevation:
 No Data

 Map Ref.:
 Rainfall:
 No Data

 No Data
 No Data

Northing/Long.: 6607560 AMG zone: 50 Runoff: No Data
Easting/Lat.: 381036 Datum: AGD84 Drainage: Rapidly drained

<u>Geology</u>

ExposureType:Soil pitConf. Sub. is Parent. Mat.:No DataGeol. Ref.:No DataSubstrate Material:No Data

Land Form

Rel/Slope Class: No Data Pattern Type: Rises Morph. Type: Relief. No Data Crest Elem. Type: Summit surface **Slope Category:** No Data Slope: 1 % Aspect: 180 degrees

Surface Soil Condition Soft

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/ABasic Arenic Brown-Orthic TenosolPrincipal Profile Form:N/AASC Confidence:Great Soil Group:N/A

All necessary analytical data are available.

Site Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation: Surface Coarse

Profile

A1 0 - 0.15 m Brown (10YR4/3-Moist); ; Clayey sand; Single grain grade of structure; Very weak

consistence; Field pH
5.1 (pH meter); Many, very fine (0-1mm) roots; Clear, Smooth change to -

A2 0.15 - 0.5 m Yellowish brown (10YR5/6-Moist); ; Clayey sand; Single grain grade of structure; Very

weak

consistence; Field pH 5.1 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth

change to -

B21w 0.5 - 1.5 m Brownish yellow (10YR6/8-Moist); ; Loamy fine sand; Single grain grade of structure; Very weak

consistence; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots;

B22w 1.5 - 2 m Yellow (2.5Y7/8-Moist); Clayey fine sand; Single grain grade of structure; Very weak

consistence; Field pH 6 (pH meter); Few, very fine (0-1mm) roots;

B23w 4 - 4.2 m Yellow (2.5Y7/8-Moist); ; Fine sandy loam; Single grain grade of structure; Field pH 6.1

(pH meter);

Morphological Notes

B21w pH increases from 5.5 to 5.9 with depth

Observation Notes

Site Notes

clay content increases with depth--inclusions of grey topsoil along root channels to greater than 100 cm

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Laboratory Test Results:

Depth 1:5 EC **Exchangeable Cations** Exchangeable CEC **ECEC ESP** Ca Mg Κ Na Acidity m dS/m Cmol (+)/kg % 0 - 0.154.5B 6B 1.57H 0.16 0.07 0.11 0.21J 1.91D

0 - 0.15	5.2H 4.5B 5.2H	6B	1.57H	0.16	0.07	0.11	0.21J	1.91D
0.01 - 0.05 0.15 - 0.5	4.5B 5.3H	1B	0.41H	0.05	0.02	0.04	0.14J	0.52D
0.15 - 0.5	4.5B 5.3H	1B	0.41H	0.05	0.02	0.04	0.14J	0.52D
0.2 - 0.24 0.5 - 1	5.1B	1B	0.38H	0.05	<0.02	0.02	<0.02J	0.46D
0.5 - 1	6H 5.1B 6H	1B	0.38H	0.05	<0.02	0.02	<0.02J	0.46D
0.77 - 0.81 1 - 1.5 1.34 - 1.38								
1.5 - 2	5.9B 6.5H	1B	0.23H	0.11	<0.02	0.05	<0.02J	0.4D
1.5 - 2	5.9B 6.5H	1B	0.23H	0.11	<0.02	0.05	<0.02J	0.4D
1.7 - 1.74 4 - 4.2	6B 6.3H	6B	0.15H	0.18	<0.02	0.03	<0.02J	0.37D
4 - 4.2	6B 6.3H	6B	0.15H	0.18	<0.02	0.03	<0.02J	0.37D
Depth	CaCO3	Organic	Avail.	Total	l Total	Total	Bulk	Particle Size Analysis
Беріп		C	Р	P	N	K	Density	GV CS FS Silt
т	%							
m 0 - 0.15		C Clay	Р	Р	N %	K %	Density	GV CS FS Silt
m		C Clay %	Р	P %	N % 0.05	K % 52E	Density	GV CS FS Silt
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5		C Clay %	Р	P % 127B	N % 0.05 0.05	K % 52E 52E	Density	GV CS FS Silt %
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05		C Clay % 0.75D 0.75D	Р	P % 127B 127B	N % 0.05 0.05	K % % 52E 52E	Density Mg/m3	GV CS FS Silt % 0.9 0.9
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1		C Clay % 0.75D 0.75D 0.17D	Р	P % 127B 127B 57B	N % 0.05 0.05	K % 52E 52E 2E 12E	Density Mg/m3	GV CS FS Silt % 0.9 0.7
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1 3.7 0.5 - 1		C Clay % 0.75D 0.75D 0.17D 0.17D	Р	P % 127B 127B 57B 57B	N % 0.05 0.05 0.01 0.01	K % % 52E 52E 52E 52E 52E 58E	Density Mg/m3	GV CS FS Silt
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1 3.7 0.5 - 1 3.7 0.77 - 0.81		C Clay % 0.75D 0.75D 0.17D 0.17D 0.17D	Р	9 % 127B 127B 57B 57B 40B	N % 0.05 0.05 0.01 0.01 0.00	K % % 52E 52E 52E 52E 52E 58E	Density Mg/m3	GV CS FS Silt % 0.9 0.7 0.7 0.4
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1 3.7 0.5 - 1 3.7		C Clay % 0.75D 0.75D 0.17D 0.17D 0.17D	Р	9 % 127B 127B 57B 57B 40B	N % 0.05 0.05 0.01 0.01 0.00	K % % 52E 52E 52E 52E 52E 58E 58E	Density Mg/m3 1.61 1.68	GV CS FS Silt % 0.9 0.7 0.7 0.4
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1 3.7 0.5 - 1 3.7 0.77 - 0.81 1 - 1.5 1.34 - 1.38 1.5 - 2 4.2 1.5 - 2		C Clay % 0.75D 0.75D 0.17D 0.17D 0.08D 0.08D	Р	9 % 127B 127B 57B 57B 40B 40B	0.05 0.05 0.01 0.01 0.00	K % % % % % % % % % % % % % % % % % % %	Density Mg/m3 1.61 1.68	GV CS FS Silt % 0.9 0.7 0.7 0.4 0.4
m 0 - 0.15 2.6 0 - 0.15 2.6 0.01 - 0.05 0.15 - 0.5 3.4 0.15 - 0.5 3.4 0.2 - 0.24 0.5 - 1 3.7 0.5 - 1 3.7 0.77 - 0.81 1 - 1.5 1.34 - 1.38 1.5 - 2 4.2		C Clay % 0.75D 0.75D 0.17D 0.17D 0.08D 0.08D 0.05D	Р	9 % 127B 127B 57B 57B 40B 40B	0.05 0.05 0.01 0.00 0.00	K % % % % % % % % % % % % % % % % % % %	Density Mg/m3 1.61 1.68	GV CS FS Silt % 0.9 0.7 0.7 0.4 0.4 0.8

Laboratory Analyses Completed for this profile

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available

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15 NR CMR Exchangeable bases (Ca/Mg ratio) - Not recorded

15E1_AL 15E1_CA Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

salts

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 Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts

15E1_MN 15E1_NA Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

15J_BASES Sum of Bases

15N1_b Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations

18A1_NR Bicarbonate-extractable potassium (not recorded) Electrical conductivity or soluble salts - Not recorded 3 NR

pH of soil - Not recorded 4 NR

Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded 4B_AL_NR

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

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 P10_75_106 20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded) P10_gt2m > 2mm 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

106 to 150u particle size analysis, (method not recorded) P10106_150 150 to 180u particle size analysis, (method not recorded) P10150_180 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)

Bulk density - Not recorded P3A_NR