

Project Name: Geraldton land resources survey
Project Code: GTN **Site ID:** 1417 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By: Rogers, Gary	Locality:
Date Desc.: 21/02/91	Elevation: No Data
Map Ref.:	Rainfall: No Data
Northing/Long.: 6749580 AMG zone: 50	Runoff: No Data
Easting/Lat.: 413003 Datum: AGD84	Drainage: Imperfectly drained

Geology

ExposureType: Auger boring	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data	Substrate Material: No Data

Land Form

Rel/Slope Class: No Data	Pattern Type: No Data
Morph. Type: Lower-slope	Relief: No Data
Elem. Type: No Data	Slope Category: No Data
Slope: 1 %	Aspect: No Data

Surface Soil Condition Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Epicalcareous-Epihypersodic Self-Mulching Brown Vertosol	Principal Profile Form: Ug5.34
ASC Confidence:	Great Soil Group: N/A
Confidence level not specified	

Site Cultivation. Rainfed

Vegetation:

Surface Coarse

Profile

A11	0 - 0.14 m	Strong brown (7.5YR4/6-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Granular; Rough-
		change to - ped fabric; Dry; Soil matrix is Very highly calcareous; Field pH 8.5 (pH meter); Clear
A12	0.14 - 0.3 m	Strong brown (7.5YR4/6-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky;
		Rough-ped fabric; Dry; Soil matrix is Very highly calcareous; Field pH 9 (pH meter);
		Gradual change to -
B11	0.3 - 0.55 m	Strong brown (7.5YR4/6-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, mm,
		Subangular blocky; Rough-ped fabric; Dry; Soil matrix is Very highly calcareous; Field pH 9 (pH meter);
		Clear change to -
B21	0.55 - 0.85 m	Strong brown (7.5YR4/6-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky;
		, Platy; Smooth-ped fabric; Dry; Soil matrix is Very highly calcareous; Field pH 9 (pH meter); Gradual
		change to -
B22	0.85 - 1.25 m	Strong brown (7.5YR4/6-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky;
		Smooth-ped fabric; Dry; Soil matrix is Very highly calcareous; Field pH 9.5 (pH meter);
		Gradual change to -
B23	1.25 - 1.55 m	Strong brown (7.5YR4/6-Moist); ; Medium heavy clay; Wet; Soil matrix is Very highly calcareous; Field
		pH 9.5 (pH meter);

Morphological Notes

A11	slightly greasy, peds 2-10mm
B22	rough and smooth peds , plastic LC+;stronger peds with depth

Observation Notes

Site Notes

Brown clay lower simple slope, PPF Ug5.34/Ug6.3 self mulching surface approx. 7 feet to granite

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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 - 0.14	7.8B 8.3H	20B	22.9E	5.15	2.65	0.6		34B	31.3D	1.76
0 - 0.1	7.9B 8.5H	15B	22.4E	5.11	2.3	0.38		30B	30.19D	1.27
0.14 - 0.3	8.1B 9H	16B	21.7E	8.42	1.18	1.94		32B	33.24D	6.06
0.3 - 0.55	8.3B 9.4H	44B	14.98E	10.8	0.98	6.9		33B	33.66D	20.91
0.55 - 0.85	8.6B 9.2H	180B	10.3E	11	1.01	11.35		36B	33.66D	31.53
0.85 - 1.25	8.6B 9.3H	170B	9.64E	10.65	0.98	14.1		36B	35.37D	39.17
1.25 - 1.55	8.7B 9.5H	140B	9.55E	10.25	0.98	15.4		38B	36.18D	40.53

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 - 0.14	5C	1.59D						17.7
33.2								
0 - 0.1	5C	0.8D						14.2
35.6								
0.14 - 0.3	8C	0.59D						13.7
42.3								
0.3 - 0.55	10C	0.31D						11.3
48.3								
0.55 - 0.85	7C	0.23D						12.9
49.4								
0.85 - 1.25	7C	0.16D						12.3
51.4								
1.25 - 1.55	7C	0.14D						11.6
52.3								

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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15J_BASeS	Sum of Bases
15L1_a	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
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 (CaCO3) - 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
9B_NR	Bicarbonate-extractable phosphorus (not recorded)

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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)