Project Name: Regional

Project Code: REG Site ID: T244 Observation ID: 1

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: Date Desc.: G.G. Murtha Locality: Soil biology litter fall site:

Elevation: 22/10/75 60 metres Sheet No.: 8062 1:100000 Map Ref.: Rainfall: 3050

Northing/Long.: 145.966666666667 Runoff: Moderately rapid Easting/Lat.: Drainage: Well drained -17.55

Geology

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

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10% Pattern Type: Volcano Upper-slope Relief: 20 metres

Morph. Type: Elem. Type: Hillslope **Slope Category:** Moderately inclined 220 degrees Slope: 5 % Aspect:

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Acidic Dystrophic Red Ferrosol **Principal Profile Form:** Gn3.11 **Great Soil Group: ASC Confidence:** Krasnozem

Analytical data are incomplete but reasonable confidence. Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Dark reddish brown (2.5YR3/4-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Cast; Rough-ped fabric; Moist; Weak consistence; Abundant, medium (2-5mm) roots; Diffuse change to -
B1	0.1 - 0.2 m	Dark reddish brown (2.5YR3/4-Moist); ; Clay loam (Heavy); Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; Many, fine (1-2mm) roots;
B1	0.2 - 0.3 m	Dark reddish brown (2.5YR3/4-Moist); ; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
B21	0.3 - 0.6 m	Dusky red (10R3/4-Moist); ; Light medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; Few, fine (1-2mm) roots;
B21	0.6 - 0.9 m	Dusky red (10R3/4-Moist); ; Light medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence;
B22	0.9 - 1.2 m	Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence;
B23	1.2 - 1.5 m	Dark reddish brown (5YR3/4-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Very firm consistence;
B24	1.5 - 1.8 m	Dark reddish grey (5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Very firm consistence;
B24	1.8 - 2.1 m	Dark reddish grey (5YR4/2-Moist);; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Very firm consistence;
ВС	2.1 - 2.4 m	Brown (7.5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Very firm consistence;
	2.4 - 2.7 m	Brown (7.5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Very firm consistence;
	2.7 - 3.3 m	Brown (7.5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Very firm consistence;

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Brown (7.5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Very firm consistence; 3.3 - 3.9 m

Brown (7.5YR4/2-Moist); ; Medium clay (Heavy); Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Very firm consistence; 3.9 - 4.2 m

Morphological Notes

Observation Notes

SOME WEATHERED BASALT FABRIC EVIDENT FROM 60CM:

Site Notes

PIN GIN HILL

Observation ID: 1

Project Name: Project Code: Agency Name: Regional REG Site ID: T244 CSIRO Division of Soils (QLD)

<u>Laboratory Test Results:</u>													
Depth	рН	1:5 EC		changeable			xchangeable	CEC		ECEC	E	SP	
m		dS/m	Ca	Mg	K	Na Cmol (+)	Acidity /kg				%	, 0	
0 - 0.1 5.4A		0.044A	0.34H	0.85	0.24	0.09	0.8F	2.81/	Д	2.3F	3.	20	
0.1 - 0.2	5.5A		0.09H	0.33			0.4F	2.21A		1.1F	2.71		
0.2 - 0.3 5.6A		0.019A	0.06H	0.17 0.09 0.		0.04	0.4F	1.47A		0.8F			
0.3 - 0.6			0.04	0.04	0.3F			0.9F	5.13				
0.6 - 0.9	5.6A		<0.02H			0.03	0.2F	<0.1A		0.3F			
0.9 - 1.2 5.6A			<0.02H	0.18	0.03	0.03	0.2F	<0.1		0.5F			
	1.2 - 1.5 5.4A		<0.02H	0.24	0.04	0.05	0.2F	<0.14		0.6F			
1.5 - 1.8	5.3A		<0.02H	0.19	0.05	0.07	0.5F	<0.14		0.8F			
1.8 - 2.1 2.1 - 2.4	5.4A	0.01A	<0.02H	0.12	0.05	0.12	1.1F	<0.1A	١	1.4F			
2.1 - 2.4 2.4 - 2.7													
2.7 - 3.3	5.4A	0.009A	<0.02H	0.12	0.04	0.17	1.6F	<0.1A	١.	2F			
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Total Bulk		Particle Size		Analysis		
		С	Р	Р	N	K	Density	G۷	CS	FS	Silt C	Clay	
m	%	%	mg/kg	%	%	%	Mg/m3			%			
0 - 0.1		3.43D	24B		0.5			0	2A	11	18	70	
0.1 - 0.2		2.31D	18B		0.3		0	2A	11	17	71		
0.2 - 0.3		1.66D	17B		0.1		0	2A	11	17	71		
0.3 - 0.6		0.93D	24B		0.1			2	2A	13	27	58	
0.6 - 0.9		0.54D 0.36D	27B 37B		0.1 0.1			<2 6	2A 1A	16 21	25 22	58 56	
0.9 - 1.2 1.2 - 1.5		0.300	3/6		0.1	JA		U	IA	21	22	50	
1.5 - 1.8													
1.8 - 2.1													
2.1 - 2.4													
2.4 - 2.7													
2.7 - 3.3													
Depth	h COLE Gravimetric/Volumetric Water C								K s	at	K unsat		
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar 15 l	Bar		//-	/b		
m				g/s	g - m3/m3	3			mm	/n	mm/h		
0 - 0.1													
0.1 - 0.2													
0.2 - 0.3													
0.3 - 0.6													
0.6 - 0.9 0.9 - 1.2													
1.2 - 1.5													
1.2 1.0													

^{1.2 - 1.5} 1.5 - 1.8 1.8 - 2.1 2.1 - 2.4 2.4 - 2.7 2.7 - 3.3

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Laboratory Analyses Completed for this profile

15A2_CEC Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 15E1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

15E1_K 15E1_MG Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_NA 15G_C Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by

titration to pH 8.4

Effective CEC 15J1

3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

6A1_UC Organic carbon (%) - Uncorrected Walkley and Black method

Total nitrogen - semimicro Kjeldahl, automated colour 7A2 9G_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)

P10_CF_C P10_CF_CS

Clay (%) - Coventry and Fett pipette method
Coarse sand (%) - Coventry and Fett pipette method P10_CF_FS Fine sand (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method Gravel (%)

P10_CF_Z P10_GRAV