Project Name: Regional

Project Code: T404 Observation ID: 1 **REG** Site ID:

CSIRO Division of Soils (QLD) Agency Name:

Site Information

Locality: M.D. Laffan Near Mt.Quincan quarry:

Desc. By: Date Desc.: 17/10/84 Elevation: No Data Map Ref.: Sheet No.: 8063 1:100000 Rainfall: 1450 145.57222222222 Runoff: No Data Northing/Long.: Poorly drained Easting/Lat.: -17.29333333333333 Drainage:

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Undisturbed soil core No Data

Substrate Material: Geol. Ref.: Unconsolidated material (unidentified) QA

Land Form

Rel/Slope Class: Level plain <9m <1% Pattern Type: No Data Morph. Type: No Data Relief: No Data Elem. Type: Slope Category: No Data Valley flat No Data <1 % Aspect: Slope:

Surface Soil Condition (dry): Cracking

Erosion:

Soil Classification

Australian Soil Classification: N/A **Mapping Unit:** Haplic Epipedal Aquic Vertosol **Principal Profile Form:** Uq5.16 **ASC Confidence: Great Soil Group:** Wiesenboden

All necessary analytical data are available.

<u>Site Disturbance:</u> No effective disturbance other than grazing by hoofed animals

Low Strata - Sod grass, 0.26-0.5m, Closed or dense. *Species includes - None recorded Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

Profile	worphology	
A11	0 - 0.05 m	Black (7.5YR2/0-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Granular; Strong grade of structure, <2 mm, Granular; Smooth-ped fabric; Moderately moist; Strong consistence; Field pH 5.5 (pH meter); Many, fine (1-2mm) roots; Clear, Wavy change to -
A12	0.05 - 0.1 m	Black (7.5YR2/0-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Many, fine (1-2mm) roots;
A12	0.1 - 0.2 m	Black (7.5YR2/0-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Many, fine (1-2mm) roots; Gradual, Smooth change to -
A13	0.2 - 0.3 m	Very dark grey (7.5YR3/0-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Field pH 7 (pH meter); Common, very fine (0-1mm) roots;
A13	0.3 - 0.5 m	Very dark grey (7.5YR3/0-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Field pH 7 (pH meter); Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B1g	0.5 - 0.6 m	Dark grey (10YR4/1-Moist); , 10YR58, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Field pH 7.5 (pH meter); Common, very fine (0-1mm) roots;
B1g	0.6 - 0.9 m	Dark grey (10YR4/1-Moist); , 10YR58, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Field pH 7.5 (pH meter); Common, very fine (0-1mm) roots;
B1g	0.9 - 1.2 m	Dark grey (10YR4/1-Moist); , 10YR58, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Heavy clay;

Dark grey (10YR4/1-Moist); , 10YR58, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Field pH 7.5 (pH meter); Common, very fine (0-1mm) roots; Gradual, Smooth change to -

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Dark grey (2.5Y4/0-Moist); , 10YR56, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, B2g 1.2 - 1.5 m

Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Field pH 7.5 (pH meter); Few,

very fine (0-1mm) roots;

B2g 1.5 - 1.8 m Dark grey (2.5Y4/0-Moist); , 10YR56, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Heavy

clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Field pH 7.5 (pH meter); Few,

very fine (0-1mm) roots;

Morphological Notes

Observation Notes

VEGETATION GRASSLAND WITH SOME EUCALYPTS:PARENT MATERIAL ALLUVIUM FROM BASALT:>20CM SLICKENSIDES PROMINANT:

Site Notes

MT. QUINCAN

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Laboratory	rest Re	esuits:										
Depth	рН	1:5 EC		hangeable Mg	Cations K	Exc Na	changeable Acidity	CEC		ECEC	i	ESP
m		dS/m	, u	···g		Cmol (+)/k						%
0 - 0.05	4.6D 5.4A	0.217A	24.9H	20.3	1.16	0.34	0.28F	14A		47F	2	2.43
0.05 - 0.1	5.8A	0.122A										
0.1 - 0.2	6.5A	0.066A										
0.2 - 0.3	6.8A	0.059A										
0.3 - 0.5	5.5D 7.3A	0.066A	25.8H	27	0.19	0.36	<0.05F	50.3 <i>A</i> 51C	4	53.4F).72).71
0.5 - 0.6	7.4A	0.076A						0.0			·	
0.6 - 0.9	7.4A	0.07A										
0.9 - 1.2	5.5D 7.5A	0.046A	23.2H	28.1	0.34	0.34	<0.05F	50.1 <i>A</i> 63C	4	52F).68).54
1.2 - 1.5	7.6A	0.045A										
1.5 - 1.8	7.6A	0.044A										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Par GV	rticle CS	Size FS	Analysis Silt	
m	%	%	mg/kg	%	%	%	Mg/m3	٠,	00	%	Oiit	Olay
0 - 0.05 0.05 - 0.1		13C	35B	0.17A	0.78	BA 0.22A		0	2A	8	16	74
0.05 - 0.1		6.45C						0	5A	8	21	67
0.1 - 0.2		4.38C	7B					0	8A	3	13	76
0.2 - 0.5		2.6C	70	0.065A		0.15A		0	2A	4	9	85
0.5 - 0.6		2.00		0.00071	•	0.10/1		· ·	211	-	J	00
0.6 - 0.9								0	0A	2	5	93
0.9 - 1.2				0.044A		0.21A		Ö	1A	3	6	91
1.2 - 1.5				0.0117	•	0.217		Ö	1A	3	11	86
1.5 - 1.8								Ü	17.	Ū		00
Depth	COLE		Grav	/imetric/Vol	lumetric W	later Conter	nts		K s	at	K unsa	t
		Sat.	0.05 Bar		0.5 Bar	1 Bar	5 Bar 15	Bar				
m				g/g	g - m3/m3	3			mm	/h	mm/h	
0 - 0.05 0.05 - 0.1												
0.1 - 0.2 0.2 - 0.3												
0.2 - 0.5												
0.5 - 0.6												
0.6 - 0.9												
0.9 - 1.2												
1.2 - 1.5												
1.5 - 1.8												

Project Name: Regional

10A1

Project Code: REG Site ID: T404 Observation ID: 1

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Laboratory Analyses Completed for this profile

12_HF_CU Total element - Cu(mg/kg) - HF/HClO4 Digest
12_HF_FE Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN Total element - Zn(mg/kg) - HF/HClO4 Digest

Total sulfur - X-ray fluorescence

13C1_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon

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

15E1_CA

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble 5E1_K

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

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

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

titration to pH 8.4

15J1 Effective CEC

17A1 Total potassium - X-ray fluorescence

2A1 Air-dry moisture content
3A1 EC of 1:5 soil/water extract
4A1 pH of 1:5 soil/water suspension

4C1 pH of 1:5 soil/1M potassium chloride extract - direct 5A2 Chloride - 1:5 soil/water extract, automated colour

6B3 Total organic carbon - high frequency induction furnace, infrared

7A2 Total nitrogen - semimicro Kjeldahl , automated colour

9A1 Total phosphorus - X-ray fluorescence

9G_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)

P10_CF_C Clay (%) - Coventry and Fett pipette method

P10_CF_CS Coarse sand (%) - Coventry and Fett pipette method F10_CF_S Fine sand (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P10_GRAV Gravel (%)