Project Name: Regional

Project Code: REG Site ID: T376 Observation ID: 1

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: Date Desc.: M.G. Cannon Locality:

Elevation: 23/11/84 15 metres

Map Ref.: Sheet No.: 8061 1:100000 Rainfall: 0

Northing/Long.: 145.9833333333333 Runoff: No Data Easting/Lat.: -18.2388888888889 Drainage: No Data

Geology

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

Geol. Ref.: **Substrate Material:** Unconsolidated material (unidentified) QΑ

Land Form

Rel/Slope Class: Level plain <9m <1% Pattern Type: Alluvial plain Morph. Type: Elem. Type: Flat Relief: 4 metres Plain **Slope Category:** Level 0 % No Data Slope: Aspect:

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Acidic-Mottled Magnesic Yellow Dermosol **Principal Profile Form:** Uf6.31

ASC Confidence: Great Soil Group: No suitable group

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 20.01-35m, Closed or dense. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

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Profil	le N	/lorr	no	loav

	Moi priology	
A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); Mottles, 0-0%; Mottles, 0-0%; Silty medium clay; Strong grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Moderately moist; Weak consistence; Common, fine (1-2mm) roots; Gradual, Wavy change to -
A3	0.1 - 0.2 m	Brown (10YR4/3-Moist); Mottles, 0-0%; Mottles, 0-0%; Light medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common, fine (1-2mm) roots; Diffuse, Wavy change to -
B1	0.2 - 0.3 m	Brown (10YR5/3-Moist); Mottles, 0-0%; Mottles, 0-0%; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Common, fine (1-2mm) roots;
B1	0.3 - 0.45 m	Brown (10YR5/3-Moist); Mottles, 0-0%; Mottles, 0-0%; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few (2 - 10%), Manganiferous, Medium (2 -6 mm), Nodules; Common, fine (1-2mm) roots; Diffuse, Wavy change to -
B2	0.45 - 0.6 m	Brownish yellow (10YR6/6-Moist); Mottles, 10YR74, 10-20%, 5-15mm, Distinct; Mottles, 10-20%, 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common, fine (1-2mm) roots;
B2	0.6 - 0.9 m	Brownish yellow (10YR6/6-Moist); Mottles, 10YR74, 10-20%, 5-15mm, Distinct; Mottles, 10-20%, 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common, fine (1-2mm) roots;
B2	0.9 - 1.1 m	Brownish yellow (10YR6/6-Moist); Mottles, 10YR74, 10-20%, 5-15mm, Distinct; Mottles, 10-20%, 5-15mm, Distinct; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common, fine (1-2mm) roots; Clear, Smooth change to -
D1	1.1 - 1.2 m	Pale yellow (2.5Y7/4-Moist); Mottles, 10YR68, 20-50%, 5-15mm, Distinct; Mottles, 20-50%, 5-15mm, Distinct; Clayey sand; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence;

Project	: Name: : Code: y Name:	Regional REG Site ID: T376 Observation ID: 1 CSIRO Division of Soils (QLD)
D1	1.2 - 1.5 m	Pale yellow (2.5Y7/4-Moist); Mottles, 10YR68, 20-50%, 5-15mm, Distinct; Mottles, 20-50%, 5-15mm, Distinct; Clayey sand; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Clear, Smooth change to -
D2	1.5 - 1.8 m	Light grey (2.5Y7/2-Moist); Mottles, 10YR68, 10-20%, 0-5mm, Faint; Mottles, 10-20%, 0-5mm, Faint; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 50-90%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Clear, Wavy change to -
D3	1.8 - 2 m	Greyish brown (2.5Y5/2-Moist); Mottles, 2.5Y56, 10-20%, 0-5mm, Faint; Mottles, 10-20%, 0-5mm, Faint; Medium heavy clay; Strong grade of structure, 50-100 mm, Columnar; Smooth-ped fabric; Moderately moist; Very firm consistence; Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes
A 3CM COARSE PAN FRAGEMENT AT 40CM:COARSE BLEACHED GRAVELS BELOW CLAY HORIZON:

Site Notes

Regional REG Site ID: T376 CSIRO Division of Soils (QLD) Observation ID: 1

Project Name: Project Code: Agency Name:

Laboratory Test Results:

Depth	рН	1:5 EC			e Cations		Exchangeable	CEC	EC	EC	ES	SP
m		dS/m	Ca I	Mg	K	Na Cmol (-	Acidity ⊦)/kg				%	,
0 - 0.1	5.8A		A 7.4H	3	0.55	0.03	0.16F	10.3A 18.1C		.1F	_	29 17
0.1 - 0.2 0.2 - 0.3	5.6A 5.2A	0.061 <i>A</i> 0.032 <i>A</i>	A 1.36H	1.59	0.09	0.05	2.94F	6.1A 17.8C		F	_	82 28
0.3 - 0.45 0.45 - 0.6	5.3A 5.2A	0.015 <i>A</i> 0.021 <i>A</i>	A 0.07H	1.1	0.09	0.04	3.28F	4.7A 10.7C		6F		85 37
0.6 - 0.9 0.9 - 1.1	5.3A 5.5A	0.017 <i>F</i> 0.017 <i>F</i>	A 0.04H	1.3	0.05	0.13	1.52F	3.1A 4.8C	3	F	4. 2.	19 71
1.1 - 1.2 1.2 - 1.5	5.7A 5.8A	0.017 <i>A</i> 0.015 <i>A</i>	A A <0.02H	0.79	<0.02	0.08	0.88F	2.3A 3.9C	1.	8F	_	48 05
1.5 - 1.8 1.8 - 2	6.2A 5.9A	0.011 <i>A</i> 0.033 <i>A</i>	A A <0.02H	1.24	<0.02	0.45	1.17F	2.8A 4C	2.	9F	16	.07 .25
Depth	CaCO3	Organic	Avail.	Total	l Total	Tota	l Bulk	Par	ticle Siz	ıA əz	nalysis	
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	GV	CS F	S %	Silt C	lay
0 - 0.1 0.1 - 0.2		3.98C	22B	0.055	6A 0.3	7A 2.	3A	0	3A 6A	17 15	38 42	42 37
0.1 - 0.2 0.2 - 0.3 0.3 - 0.45		1.67C	4B	0.03/	A 0.1	2A 2.	2A	0	4A 4A	16 19	40 36	40 41
0.45 - 0.6 0.6 - 0.9		0.47C	2B	0.013	8A	2.	2A	0	7A 5A	20 29	31 29	43 36
0.9 - 1.1 1.1 - 1.2		0.17C	2B	0.004	ι Δ	2	7.0	0	10A 22A	38 52 57	21 14 13	31 12
1.2 - 1.5 1.5 - 1.8 1.8 - 2		0.06C 0.13C	2B 1B	0.004			7A 7A	0 5 1	21A 63A 30A	27 33	6 23	9 5 14
Depth COLE Gravimetric/Volumetric Water Contents K sat K unsat												
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar y/g - m3/m	1 Bar		5 Bar	mm/h		mm/h	

0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.45 0.45 - 0.6 0.6 - 0.9 0.9 - 1.1 1.1 - 1.2 1.2 - 1.5 1.5 - 1.8 1.8 - 2

Project Name: Regional

10A1

Observation ID: 1 **Project Code:** REG Site ID: T376

CSIRO Division of Soils (QLD) Agency Name:

Laboratory Analyses Completed for this profile

Total sulfur - X-ray fluorescence Total element - Cu(mg/kg) - HF/HClO4 Digest 12_HF_CU 12_HF_FE 12_HF_MN Total element - Fe(%) - HF/HClO4 Digest Total element - Mn(mg/kg) - HF/HCIO4 Digest Total element - Zn(mg/kg) - HF/HClO4 Digest 12_HF_ZN

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 15D1_CEC 15E1_CA 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 for soluble 15E1_K Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_MG 15E1_NA 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 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

17A1 Total potassium - X-ray fluorescence

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

5A2 Chloride - 1:5 soil/water extract, automated colour

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

Total nitrogen - semimicro Kjeldahl , automated colour 7A2

Total phosphorus - X-ray fluorescence 9A1

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

Phosphate retention 9H1

Clay (%) - Coventry and Fett pipette method Coarse sand (%) - Coventry and Fett pipette method P10_CF_C P10_CF_CS P10_CF_FS Fine sand (%) - Coventry and Fett pipette method P10_CF_Z Silt (%) - Coventry and Fett pipette method

P10_GRAV Gravel (%)