Project Name: Rhynie Soil Survey

Project Code: Rhynie Site ID: A1271 Observation ID: 1

Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By: N.J. McKenzie Locality:

Elevation: Date Desc.: 01/11/88 No Data Sheet No.: 6629-18 1:10000 Map Ref.: Rainfall: No Data 6216760 AMG zone: 54 Runoff: Northing/Long.: No Data 290340 Datum: AGD66 Easting/Lat.: Drainage: No Data

Geology

ExposureType: Undisturbed soil core 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: No Data Relief: No Data Elem. Type: No Data Slope Category: No Data Slope: % Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AN/APrincipal Profile Form:N/AASC Confidence:Great Soil Group:N/A

Confidence level not specified

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1 0 - 0.1 m Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam, fine sandy; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Strong consistence; Field pH 7 (Raupach); Abrupt change to -

Abrupt change to -

B21 0.1 - 0.2 m Dusky red (10R3/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral;

Smooth-ped fabric; Dry; Strong consistence; Many cutans, >50% of ped faces or walls coated,

prominent; Field pH 7 (Raupach); Clear change to -

B22 0.2 - 0.3 m Dark red (2.5YR3/6-Moist); , 2.5YR34, 20-50% , 30-mm, Faint; Medium clay; 10-20 mm, Angular

blocky; Smooth-ped fabric; Dry; Strong consistence; Many cutans, >50% of ped faces or walls

coated, prominent; Field pH 7.5 (Raupach);

B22 0.3 - 0.4 m Dark red (2.5YR3/6-Moist); , 2.5YR34, 20-50% , 30-mm, Faint; Medium clay; 20-50 mm, Angular

blocky; Smooth-ped fabric; Dry; Strong consistence; Many cutans, >50% of ped faces or walls

coated, prominent; Field pH 7.5 (Raupach); Abrupt change to -

B3 0.4 - 0.47 m Dark red (2.5YR3/6-Moist); , 2.5YR34, 20-50% , 30-mm, Faint; Medium clay; 20-50 mm, Angular

blocky; Smooth-ped fabric; Dry; Strong consistence; Many cutans, >50% of ped faces or walls coated, prominent; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Soft segregations;

Field pH 8 (Raupach); Abrupt change to -

C 0.47 - 0.5 m Pink (7.5YR8/4-Moist); ; Dry; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft

segregations;

C 0.5 - 0.7 m; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft segregations;

Morphological Notes

A1 Very nice profile - high sorptivity, red B horizon. Shallow and tough A1 - heavily

cultivated? Neutral to alkaline SRT. The clays are easy to manipulate, swell instantly

and have a marked heat of wetting.

B21 Clay content increases from B21 to B23 (slipperiness increases) although resistance to

shearing stays the same. B mottles are coatings.

C Pale carbonate.

Sharp break to the high carbonate C which develops rock fabric at approximately 70cm.

Observation Notes

Site Notes

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Laboratory Test Results:

Laboratory	rest Re	Suits:								
Depth	pН	1:5 EC		hangeable Mg	Cations K	E: Na	xchangeable Acidity	CEC	ECEC	ESP
m		dS/m	-	9		Cmol (+)/				%
0 - 0.1	5.8C 6.38A	0.11A								
0.1 - 0.2	5.91C 6.53A	0.08A								
0.2 - 0.3	6.17C 6.87A	0.08A								
0.3 - 0.4	6.81C 7.32A	0.1A								
0.4 - 0.47	7.69C 8.08A	0.21A								
0.47 - 0.5	0.007									
0.5 - 0.7										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		icle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	· · · · · · · · · · · · · · · · · · ·
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.47 0.47 - 0.5 0.5 - 0.7										
Depth	COLE		Grav	Gravimetric/Volumetric Water Contents					K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar 15	Bar		
m				g/s	g - m3/m3	3			mm/h	mm/h
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.47 0.47 - 0.5 0.5 - 0.7										

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Laboratory Analyses Completed for this profile

12C2 Calcium chloride extractable boron - ICPAES

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

4B2 pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1

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