Project Name: **Rhynie Soil Survey**
Project Code: **Rhynie** **Site ID:** **A1284** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (SA)**

Site Information

Desc. By: N.J. McKenzie
Date Desc.: 01/06/89
Map Ref.: Sheet No. : 6629-18 1:10000
Northing/Long.: 6216730 AMG zone: 54
Easting/Lat.: 289900 Datum: AGD66
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: No Data

Land Form

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

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: N/A
Great Soil Group: N/A

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); Reddish brown (5YR5/4-Dry); ; Sandy clay loam, fine sandy; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Dry; Field pH 6.5 (Raupach); Gradual change to -
A12	0.1 - 0.2 m	Dark reddish brown (5YR3/3-Moist); Light reddish brown (5YR6/4-Dry); ; Sandy clay loam, fine sandy; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Dry; Field pH 7 (Raupach); Gradual change to -
A3	0.2 - 0.3 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam, fine sandy; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Dry; Field pH 6.5 (Raupach); Clear change to -
B1	0.3 - 0.4 m	Dark reddish brown (5YR3/4-Moist); , 5YR32; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Dry; Field pH 6.5 (Raupach); Clear change to -
B21	0.4 - 0.5 m	Dusky red (2.5YR3/2-Moist); , 2.5YR34, 20-50% , 30-mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 6.5 (Raupach);
B21	0.5 - 0.6 m	Dusky red (2.5YR3/2-Moist); , 2.5YR32, 20-50% , 30-mm, Distinct; Medium heavy clay; Moderate grade of structure, Angular blocky; Rough-ped fabric; Dry; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 6.5 (Raupach); Gradual change to -
B22	0.6 - 0.87 m	Dark reddish brown (5YR3/2-Moist); , 5YR33, 20-50% , 30-mm, Prominent; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Dry; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 7.5 (Raupach); Abrupt change to -
B31	0.87 - 1.1 m	Reddish yellow (7.5YR6/6-Moist); , 7.5YR76, 20-50% , 30-mm, Distinct; Medium heavy clay; Rough-ped fabric; Dry; Few cutans, <10% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, , ; Field pH 9 (Raupach); Gradual change to -
B32	1.1 - 1.4 m	Pale brown (10YR6/3-Moist); , 7.5YR54, 20-50% , 30-mm, Distinct; Medium heavy clay; Rough-ped fabric; Dry; Common cutans, 10-50% of ped faces or walls coated, distinct; Common (10 - 20 %), Calcareous, , ; Field pH 9 (Raupach); Diffuse change to -
B33	1.4 - 1.8 m	Brown (7.5YR5/4-Moist); ; Rough-ped fabric; Dry; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, , ; Field pH 9 (Raupach); Diffuse change to -

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B34	1.8 - 2.25 m	Reddish brown (5YR5/4-Moist); , 7.5YR52, 20-50% , 30-mm, Distinct; Medium heavy clay; Rough-ped fabric; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, , ; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 8 (Raupach); Gradual change to -
B41	2.25 - 2.6 m	Reddish brown (5YR5/4-Moist); , 7.5YR64, 20-50% , 30-mm, Faint; Sandy clay; Earthy fabric; 2-10%, medium gravelly, 6-20mm, subangular tabular, dispersed, Shells, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 8 (Raupach); Diffuse change to -
B42	2.6 - 3 m	Brown (7.5YR5/4-Moist); ; Sandy clay; Earthy fabric; 2-10%, medium gravelly, 6-20mm, subangular tabular, dispersed, Shells, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 8 (Raupach);

Morphological Notes

A11	A dark red-brown earth overlying several(?) distinct layers.
B1	The B1 and B21 have a modrately high sorptivity and the B22 has very clear dark red-brown cutans. Mottles are due to mixing. It is uncertain as to whether this is a B1
B21	B21 mottles = coatings
B31	Carbonate profile peaks in the B31 and then drops off. The B4 is free of carbonate and has an earthy appearance - probably an aquifer.
B34	Sandstone/shale (siliceous in appearance).
B41	There is a diffreence in sand size in the B4 compared with the above and some siliceous CFS. (what source?)

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.1										
0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.4										
0.4 - 0.5										
0.5 - 0.6										
0.6 - 0.87										
0.87 - 1.1										
1.1 - 1.4										
1.4 - 1.8										
1.8 - 2.25										
2.25 - 2.6										
2.6 - 3										

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1												
0.1 - 0.2												
0.2 - 0.3												
0.3 - 0.4												
0.4 - 0.5												
0.5 - 0.6												
0.6 - 0.87												
0.87 - 1.1												
1.1 - 1.4												
1.4 - 1.8												
1.8 - 2.25												
2.25 - 2.6												
2.6 - 3												

Depth	COLE	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/g - m3/m3						mm/h	mm/h
0 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.4									
0.4 - 0.5									
0.5 - 0.6									
0.6 - 0.87									
0.87 - 1.1									
1.1 - 1.4									
1.4 - 1.8									
1.8 - 2.25									
2.25 - 2.6									
2.6 - 3									

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Laboratory Analyses Completed for this profile