

Project Name: Rhynie Soil Survey
Project Code: Rhynie **Site ID:** A1248 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	01/11/88	Elevation:	No Data
Map Ref.:	Sheet No. : 6629-18 1:10000	Rainfall:	No Data
Northing/Long.:	6216890 AMG zone: 54	Runoff:	No Data
Easting/Lat.:	289770 Datum: AGD66	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/A
N/A		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	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; Very firm consistence; Field pH 6 (Raupach); Clear change to -
A12	0.1 - 0.2 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam, fine sandy; Massive grade of structure; Rough-ped fabric; Dry; Very firm consistence; Field pH 6.5 (Raupach);
A12	0.2 - 0.25 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam, fine sandy; Massive grade of structure; Rough-ped fabric; Dry; Very firm consistence; Field pH 6.5 (Raupach); Clear change to -
A2	0.25 - 0.3 m	Reddish brown (2.5YR4/4-Moist); Reddish brown (5YR5/4-Dry); , 5YR33, 10-20% , 15-30mm, Faint; Sandy clay loam, fine sandy; Massive grade of structure; Earthy fabric; Dry; Firm consistence; Field pH 7 (Raupach);
A2	0.3 - 0.36 m	Reddish brown (2.5YR4/4-Moist); Reddish brown (5YR5/4-Dry); , 5YR33, 10-20% , 15-30mm, Faint; Sandy clay loam, fine sandy; Massive grade of structure; Earthy fabric; Dry; Firm consistence; Field pH 7 (Raupach); Abrupt change to -
B21	0.36 - 0.4 m	Red (2.5YR4/6-Moist); , 5YR44, 20-50% , 15-30mm, Faint; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 8.5 (Raupach); Clear change to -
B22	0.4 - 0.5 m	Dark reddish brown (5YR3/4-Moist); ; Medium heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 9 (Raupach);
B22	0.5 - 0.7 m	Dark reddish brown (5YR3/4-Moist); ; Medium heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 9 (Raupach); Gradual change to -
B31	0.7 - 0.9 m	Reddish brown (5YR5/4-Moist); ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 9 (Raupach);
B31	0.9 - 1.2 m	Reddish brown (5YR5/4-Moist); ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 9 (Raupach);

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B31	1.2 - 1.5 m	Light brown (7.5YR6/4-Moist); ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8.5 (Raupach); Gradual change to -
B32	1.5 - 1.8 m	Pale brown (10YR6/3-Moist); , 2.5YR46, 10-20% , 15-30mm, Distinct; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 8.5 (Raupach);
B32	1.8 - 2.1 m	Pale brown (10YR6/3-Moist); , 2.5YR46, 10-20% , 15-30mm, Distinct; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 8.5 (Raupach); Gradual change to -
B4	2.1 - 2.4 m	Light grey (2.5Y7/2-Moist); , 2.5Y72, 20-50% , 15-30mm, Prominent; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 8.5 (Raupach);
B4	2.4 - 2.7 m	Light grey (2.5Y7/2-Moist); , 10R48, 20-50% , 15-30mm, Prominent; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 8.5 (Raupach);
B4	2.7 - 2.9 m	Light grey (2.5Y7/2-Moist); , 10R48, 20-50% , 15-30mm, Prominent; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 8.5 (Raupach);

Morphological Notes

A11	A deep profile with evidence of separate water tables. A1 = fairly heavy.
A12	The A1 to B31 forms a discrete hydrological unit and the A2 may flow laterally.
B22	The carbonate profile begins at 70cm with the change in clay appearance (drab and massive).
B31	The dry core below the B22 was extremely tough to split.
B32	The carbonate stops at the B32 upper boundary where red mottling against a grey clay comes in. This mottling is expressed increasingly with depth.
B4	Some fine iron nodules in the B4?
B4	Bedrock was not encountered although some minor coarse fragments are in the lower few centimetres.

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			

0 - 0.1
0.1 - 0.2
0.2 - 0.25
0.25 - 0.3
0.3 - 0.36
0.36 - 0.4
0.4 - 0.5
0.5 - 0.7
0.7 - 0.9
0.9 - 1.2
1.2 - 1.5
1.5 - 1.8
1.8 - 2.1
2.1 - 2.4
2.4 - 2.7
2.7 - 2.9

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
		C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		

0 - 0.1
0.1 - 0.2
0.2 - 0.25
0.25 - 0.3
0.3 - 0.36
0.36 - 0.4
0.4 - 0.5
0.5 - 0.7
0.7 - 0.9
0.9 - 1.2
1.2 - 1.5
1.5 - 1.8
1.8 - 2.1
2.1 - 2.4
2.4 - 2.7
2.7 - 2.9

[illegible]

0 - 0.1
0.1 - 0.2
0.2 - 0.25
0.25 - 0.3
0.3 - 0.36
0.36 - 0.4
0.4 - 0.5
0.5 - 0.7
0.7 - 0.9
0.9 - 1.2

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1.2 - 1.5
1.5 - 1.8
1.8 - 2.1
2.1 - 2.4
2.4 - 2.7
2.7 - 2.9

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Laboratory Analyses Completed for this profile