Rhynie Soil Survey Project Name:

Project Code: Rhynie Site ID: A1265 Observation ID: 1

Agency Name: CSIRO Division of Soils (SA)

Site Information

N.J. McKenzie

Desc. By: Date Desc.: Locality: Elevation: 01/11/88 No Data Sheet No.: 6629-18 1:10000 Map Ref.: Rainfall: No Data Northing/Long.: 6217000 AMG zone: 54 Runoff: No Data 289940 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 No Data Pattern Type: Morph. Type: Elem. Type: No Data Relief: No Data No Data **Slope Category:** No Data Aspect: No Data Slope: %

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A **Principal Profile Form:** N/A **ASC Confidence: Great Soil Group:** N/A

Confidence level not specified

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

<u>Profile</u>	Morp	<u>ho</u>	<u>logy</u>
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<u> </u>	me worphology	
A11	0 - 0.1 m	Reddish brown (5YR4/4-Moist); ; Sandy clay loam, fine sandy; Weak grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Dry; Firm consistence; Field pH 6 (Raupach);
A12	0.1 - 0.2 m	Reddish brown (5YR4/3-Moist); , 5YR56, 20-50% , 15-30mm, Distinct; Sandy clay loam, fine sandy; Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Field pH 7 (Raupach); Clear change to -
A2	0.2 - 0.3 m	Reddish brown (5YR5/4-Moist); Pink (5YR7/4-Dry); , 5YR43, 20-50% , 15-30mm, Distinct; Fine sandy loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 7 (Raupach);
A2	0.3 - 0.32 m	Reddish brown (5YR5/4-Moist); Pink (5YR7/4-Dry); , 5YR43, 20-50% , 15-30mm, Distinct; Fine sandy loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 7 (Raupach); Abrupt change to -
B21	0.32 - 0.4 m	Reddish brown (2.5YR4/3-Moist); , 2.5YR44, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Field pH 7.5 (Raupach);
B21	0.4 - 0.5 m	Reddish brown (2.5YR4/3-Moist); , 2.5YR44, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Field pH 7.5 (Raupach);
B21	0.5 - 0.65 m	Reddish brown (2.5YR4/3-Moist); , 2.5YR44, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 7.5 (Raupach); Clear change to -
B22	0.65 - 0.8 m	Yellowish red (5YR4/6-Moist); , 2.5YR44, 20-50% , 15-30mm, Distinct; 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, distinct; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (Raupach); Abrupt change to -
2B2	1 0.8 - 1 m	Brown (7.5YR4/4-Moist); , 5YR46, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach);

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2B21 1 - 1.1 m Brown (7.5YR4/4-Moist); , 5YR46, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Very few (0 - 2

%), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach);

2B22 1.1 - 1.25 m Red (2.5YR4/6-Moist); ; Sandy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-

ped fabric; Dry; Strong consistence; 20-50%, cobbly, 60-200mm, angular platy, stratified, Shale, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 9

(Raupach); Clear change to -

3B 1.25 - 1.4 m Pale brown (10YR6/3-Moist); , 7.5YR64, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of

structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; 2-10%, coarse

gravelly, 20-60mm, angular, dispersed, Shale, coarse fragments, Very few (0 - 2 %),

Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach);

3B 1.4 - 1.6 m , 7.5YR64, 20-50% , 15-30mm, Distinct; Sandy clay; Weak grade of structure, 20-50 mm,

Angular blocky; Rough-ped fabric; Dry; Strong consistence; 20-50%, cobbly, 60-200mm, angular platy, undisturbed, Shale, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2

mm), Nodules; Field pH 9 (Raupach); Clear change to -

R 1.6 - m Rock

Morphological Notes

A11 A complex polygenetic profile. The A1 is thick, pale and light textured.

B21 The B has a massive very pedal appearance despite having a fair amount of clay.
B22 The B22 has infilled carbonate rich channels. Drab mottled sandy clays at depth.

3B Minor quartz with red coating in horizon 3B, eventually overlying WFS.

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Excha	angeable (Cations	Ex	changeable	CEC	ECEC	ESP
m	•	dS/m	Ca M		K	Na Cmol (+)/k	Acidity			%
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.32 0.32 - 0.4 0.4 - 0.5 0.5 - 0.65 0.65 - 0.8 0.8 - 1 1 - 1.1 1.1 - 1.25 1.25 - 1.4 1.4 - 1.6 1.6 -										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV CS	Size FS	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.32 0.32 - 0.4 0.4 - 0.5 0.5 - 0.65 0.65 - 0.8 0.8 - 1 1 - 1.1 1.1 - 1.25 1.25 - 1.4 1.4 - 1.6 1.6 -										
Depth	COLE	Sat				ater Conte			sat	K unsat
m		Sat.	0.05 Bar		0.5 Bar - m3/m3	1 Bar	5 Bar 15	Bar m	m/h	mm/h
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.32 0.32 - 0.4 0.4 - 0.5 0.5 - 0.65 0.65 - 0.8 0.8 - 1 1 - 1.1 1.1 - 1.25 1.25 - 1.4 1.6 -										

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Laboratory Analyses Completed for this profile