**Project Name: Rhynie Soil Survey** 

Rhynie **Project Code:** Site ID: Observation ID: 1 A1274

**Agency Name: CSIRO** Division of Soils (SA)

**Site Information** 

Locality: N.J. McKenzie

Desc. By: Date Desc.: Elevation: 01/11/88 No Data Sheet No.: 6629-18 1:10000 Map Ref.: Rainfall: No Data Northing/Long.: 6216290 AMG zone: 54 Runoff: No Data Easting/Lat.: 290450 Datum: AGD66 Drainage: No Data

Geology

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

**Land Form** 

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

(Raupach); Clear change to -

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:** 

2B31

0.85 - 1.2 m

**Surface Coarse Fragments:** 

Profile	e Morphology	
A11	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); ; Loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 6 (Raupach);
A11	0.1 - 0.2 m	Dark reddish brown (5YR3/3-Moist); ; Loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 6 (Raupach);
A11	0.2 - 0.3 m	Dark reddish brown (5YR3/3-Moist); ; Loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 6 (Raupach);
A12	0.3 - 0.4 m	Dark reddish brown (5YR3/4-Moist); ; Loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Field pH 6.5 (Raupach); Clear change to -
2A1	0.4 - 0.45 m	Yellowish red (5YR4/6-Moist); Pink (5YR7/4-Dry); ; Loam; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 7 (Raupach); Clear change to -
2A2	0.45 - 0.5 m	Yellowish red (5YR4/6-Moist); Pink (5YR7/4-Dry); , 5YR43, 10-20% , 30-mm, Distinct; Loam; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 7.5 (Raupach);
2A2	0.5 - 0.55 m	Yellowish red (5YR4/6-Moist); Pink (5YR7/3-Dry); , 5YR56, 20-50% , 30-mm, Distinct; Loam; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7.5 (Raupach); Abrupt change to -
2B21	0.55 - 0.65 m	Red (10R4/6-Moist); , 2.5YR72, 20-50% , 30-mm, Prominent; , 2.5YR54; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very strong consistence; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 8 (Raupach); Clear change to -
2B22	0.65 - 0.85 m	Red (10R4/6-Moist); , 2.5YR31, 20-50% , 30-mm, Prominent; , 2.5YR54; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very strong

consistence; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 8.5

or walls coated, distinct; Field pH 8.5 (Raupach); Gradual change to -

Red (2.5YR4/6-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Angular

blocky; Smooth-ped fabric; Dry; Very strong consistence; Common cutans, 10-50% of ped faces

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2B32 1.2 - 1.4 m Reddish brown (2.5YR4/4-Moist); , 2.5YR46, 20-50% , 15-30mm, Faint; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Common cutans,

10-50% of ped faces or walls coated, distinct; Field pH 9 (Raupach); Gradual change to -

Reddish brown (5YR4/4-Moist); , 5YR66, 20-50% , 30-mm, Faint; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; 10-20%, coarse gravelly, 20-60mm, angular tabular, dispersed, Shale, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules;

Field pH 9 (Raupach); Clear change to -

3B21 1.5 - 1.8 m Reddish yellow (5YR6/6-Moist); , 2.5YR46, 10-20% , 15-30mm, Prominent; Medium heavy clay;

Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, Coarse (6 -

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

3B22 1.8 - 2 m Light red (2.5YR6/6-Moist); , 0-0%; Medium heavy clay; Weak grade of structure, 10-20 mm,

Polyhedral; Rough-ped fabric; Dry; Strong consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2

mm), Soft segregations; Field pH 8.5 (Raupach);

**Morphological Notes** 

1.4 - 1.5 m

A11 Complex layered profile - expected for the location. Carbonate is absent to a depth.

Difficult to separate textures of clay layers. Low sorptivity throughout.

2A2 2A2 colour is clearly mottled but the munsell doesn't reflect this too clearly - sporadic

bleaching of 5yr73. 2A2 appears to be indurated (Si?).

2B21 colour - very dark Mn(?) coatings (1mm thick) along planar voids. Extremely

prominent.

2B22 Deeper layers slake noticeably.

**Observation Notes** 

**Site Notes** 

2B33

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## **Laboratory Test Results:**

Depth Depth	pH	1:5 EC	Ev	changeable	Cations	Ev	changeable	CEC	ECEC	ESP
m	ριι	dS/m	Ca	Mg	K	Na Cmol (+)/k	Acidity	OLO	LOLO	%
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.45 0.5 - 0.5 0.55 - 0.65 0.65 - 0.65 0.85 - 1.2 1.2 - 1.4 1.4 - 1.5 1.5 - 1.8 1.8 - 2										
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3		cle Size	Analysis Silt Clay
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.45 0.45 - 0.5 0.55 - 0.65 0.65 - 0.85 0.85 - 1.2 1.2 - 1.4 1.4 - 1.5 1.5 - 1.8										
Depth m	COLE	Sat.	Gra 0.05 Bar	0.1 Bar	lumetric Wa 0.5 Bar g - m3/m3	ater Contei 1 Bar		5 Bar	K sat	K unsat mm/h
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.45 0.45 - 0.5 0.55 - 0.65 0.65 - 0.85 0.85 - 1.2 1.2 - 1.4 1.4 - 1.5 1.5 - 1.8 1.8 - 2				3.						

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**Laboratory Analyses Completed for this profile**