**Project Name: Rhynie Soil Survey** 

Observation ID: 1 **Project Code:** Rhvnie Site ID: A1243

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

**Site Information** 

Locality: Desc. By: N.J. McKenzie

Date Desc.: Elevation: 01/11/88 No Data Sheet No.: 6629-18 1:10000 Map Ref.: Rainfall: No Data 6216730 AMG zone: 54 Northing/Long.: Runoff: No Data 289590 Datum: AGD66 Easting/Lat.: Drainage: No Data

Geology

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

**Land Form** 

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

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

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

Confidence level not specified

**Site Disturbance:** 

**Vegetation:** 

B23

C

**Surface Coarse Fragments:** 

**Profile Morphology** 

Dark reddish brown (5YR3/3-Moist); , 0-0%; Sandy clay loam, fine sandy; Weak grade of  $0 - 0.1 \, \text{m}$ structure, 5-10 mm, Subangular blocky; Earthy fabric; Dry; Firm consistence; 0-2%, medium gravelly, 6-20mm, rounded platy, undisturbed, Shale, coarse fragments; Field pH 6.5 (Raupach); Clear, Smooth change to -

0.1 - 0.14 m Reddish brown (5YR4/4-Moist); Brown (7.5YR5/4-Dry); , 0-0%; Sandy clay loam, fine sandy; A12 Weak grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Dry; Very firm consistence; Field pH 6.5 (Raupach); Abrupt, Smooth change to -

B21 0.14 - 0.2 m Reddish brown (2.5YR4/4-Moist); , 0-0%; Medium heavy 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; Field pH 7 (Raupach);

B21 0.2 - 0.3 m Reddish brown (2.5YR4/4-Moist); , 0-0%; Medium heavy 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; Field pH 7 (Raupach); Clear, Smooth change to -

Reddish brown (2.5YR5/4-Moist); , 0-0%; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped B22 0.3 - 0.4 m

faces or walls coated, prominent; Field pH 8 (Raupach); Gradual, Smooth change to -

Reddish brown (2.5YR5/4-Moist); , 0-0%; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Dry; Strong consistence; 2-10%, medium gravelly, 6-20mm, rounded platy, undisturbed, Shale, coarse fragments; Common cutans, 10-50% of ped faces or

walls coated, prominent; Field pH 8 (Raupach); Clear, Smooth change to -

Reddish brown (2.5YR4/4-Moist); , 0-0%; Heavy clay; Moderate grade of structure, 20-50 mm, **B**3 0.5 - 0.65 m Angular blocky; Rough-ped fabric; Dry; Strong consistence; 50-90%, coarse gravelly, 20-60mm,

rounded platy, undisturbed, Shale, coarse fragments; Common cutans, 10-50% of ped faces or

walls coated, distinct; Field pH 8.5 (Raupach); Abrupt, Smooth change to -

0-0%; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric: 0.65 - 1 m Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Many

(20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Clear, Smooth change to

1 - m Rock

0.4 - 0.5 m

**Morphological Notes** 

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Project Code: Agency Name: Rhynie Site ID: A CSIRO Division of Soils (SA) Observation ID: 1 A1243

A11 B23

Profile: Carbonate profile is unusual, no carbonate in the solum.

Mottle: faint dark infills from cracking.

The interlayered carbonate bands in the shale are highly effervescent. The horizontal bedding probably precludes leaching of the C, either vertically or laterally. С

## **Observation Notes**

**Site Notes** 

Rhynie Soil Survey
Rhynie Site ID: A1243
CSIRO Division of Soils (SA) Observation ID: 1

Project Name: Project Code: Agency Name:

## **Laboratory Test Results:**

1 -

Depth	pН	1:5 EC		hangeable Mg	Cations K	Na	Exchangeab Acidity	le CEC	ECEC	ESP
m		dS/m	Ca	wig	K	Cmol (+				%
0 - 0.1	5.76C 6.18A	0.09A								
0.1 - 0.14	5.86C 6.49A	0.06A								
0.14 - 0.2	00									
0.2 - 0.3	7.44C 7.87A	0.24A								
0.3 - 0.4										
0.4 - 0.5	7.63C 8.17A	0.17A								
0.5 - 0.65	8.15C 8.69A	0.23A								
0.65 - 1 1 -										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Tota K	l Bulk Densit		rticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	J J,
0 - 0.1 0.1 - 0.14 0.14 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.5 0.5 - 0.65 0.65 - 1										
Depth	COLE		Grav	/imetric/V	olumetric W	later Cor	itents		K sat	K unsat
- op	00	Sat.	0.05 Bar		0.5 Bar	1 Bar	5 Bar	15 Bar		
m				g/	g - m3/m3	3			mm/h	mm/h
0 - 0.1 0.1 - 0.14 0.14 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.5 0.5 - 0.65										
0.65 - 1										

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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