Project Name: Rhynie Soil Survey

Project Code: Rhynie Site ID: A1241 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.: 6216240 AMG zone: 54 Runoff: No Data 289080 Datum: AGD66 Easting/Lat.: Drainage: No Data

**Geology** 

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

**Land Form** 

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:No DataRelief:No DataElem. Type:No DataSlope Category:No DataSlope:%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** 

A1 0 - 0.1 m Dark reddish brown (5YR3/2-Moist); , 0-0%; Loam; Weak grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Dry; Firm consistence; 10-20%, coarse gravelly, 20-60mm, subrounded tabular, reoriented, Shale, coarse fragments; Field pH 7 (Raupach);

A1 0.1 - 0.15 m Dark reddish brown (5YR3/2-Moist); , 0-0%; Loam; Weak grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Dry; Firm consistence; Field pH 7 (Raupach); Sharp, Smooth change to -

B11 0.15 - 0.2 m Dark reddish brown (5YR2/2-Moist); , 0-0%; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Dry; Very firm consistence; Field pH 7.5 (Raupach);

B11 0.2 - 0.24 m Dark reddish brown (5YR2/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Dry; Very firm consistence; Field pH 7.5 (Raupach); Abrupt, Smooth change to -

B12 0.24 - 0.3 m Dark reddish brown (5YR2/2-Moist); , 5YR43, 10-20% , 15-30mm, Faint; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Dry; Strong consistence; 90-100%, cobbly, 60-200mm, rounded platy, undisturbed, Shale, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7 (Raupach);

B12 0.3 - 0.38 m Dark reddish brown (5YR2/2-Moist); , 5YR43, 10-20% , 15-30mm, Faint; Clay loam; Moderate grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Dry; Strong consistence; 90-100%, cobbly, 60-200mm, rounded platy, undisturbed, Shale, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7 (Raupach); Abrupt, Smooth change to -

B21 0.38 - 0.4 m Dusky red (10R3/4-Moist); , 5YR32, 20-50% , 15-30mm, Distinct; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; Many

cutans, >50% of ped faces or walls coated, prominent; Field pH 7 (Raupach);

0.4 - 0.5 m Dusky red (10R3/4-Moist); , 5YR32, 20-50% , 15-30mm, Distinct; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; Many cutans, >50% of ped faces or walls coated, prominent; Field pH 7 (Raupach); Abrupt, Smooth

change to -

R 0.5 - m Rock

**Morphological Notes** 

B21

A neutral, carbonate free profile. A friable and organic rich A1 horizon (very dark in

colour).

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Project Code: Agency Name: Observation ID: 1 Rhynie Site ID: A1241

CSIRO Division of Soils (SA)

B11 B12 B1/A3(?) is also very dark in colour. The large shale floater over the B2 is virtually unweathered and has a characteristic skin

of very dark red brown clay around it.

B21

A red, again almost subplastic B2. Water is sorbed very easily here and working the bolus to a LMC takes very little time. It eventually reaches MHC-HC after working with

more water.

## **Observation Notes**

## **Site Notes**

Shallow profile from crest next to pit

Project Name: Project Code: Agency Name:

Rhynie Soil Survey Rhynie Site ID: A1241 CSIRO Division of Soils (SA) Observation ID: 1

## **Laboratory Test Results:**

Depth	рН	1:5 EC		hangeable Mg	Cations K	E: Na	changeable Acidity	CEC	ECEC	ESP
m		dS/m		J		Cmol (+)/				%
0 - 0.1	5.32C 5.83A	0.27A								
0.1 - 0.15 0.15 - 0.2	5.76C 6.26A	0.11A								
0.2 - 0.24 0.24 - 0.3 0.3 - 0.38	6.33C	0.12A								
0.38 - 0.5	6.74A 6.46C 6.68A	0.21A								
0.4 - 0.5 0.5 -										
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, 00	%	One Olay
0 - 0.1 0.1 - 0.15 0.15 - 0.2 0.2 - 0.24 0.24 - 0.3 0.3 - 0.38 0.38 - 0.5 0.4 - 0.5										
Depth	COLE	Sat.	Grav 0.05 Bar		lumetric W 0.5 Bar	Water Conte		K Bar	sat	K unsat
m		Out.	0.00 Bui		g - m3/m3		o Dai 10		n/h	mm/h
0 - 0.1 0.1 - 0.15 0.15 - 0.2 0.2 - 0.24 0.24 - 0.3 0.3 - 0.38 0.38 - 0.5 0.4 - 0.5 0.5 -										

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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