

Revised + for preparation for publication
(1955)

N.B. field notebook missing

POST - ARCHAEOAN SEDIMENTARY SUCCESSION,

HINDMARSH - INMAN VALLEY REGION

THESIS PRESENTED FOR HONOURS DEGREE B.Sc.

UNIVERSITY OF ADELAIDE

1952.

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Forbes, BG 1952. Honours thesis
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SUMMARY

Between Grey Spur in the Hundred of Encounter Bay and Brown Hill in the Hundred of Goolwa is a faulted and folded sedimentary sequence with a possible stratigraphic thickness of 29,000 feet. The succession overlies an Archaean inlier along a faulted unconformity. To the west of the inlier near Myponga Hill similar sediments are overthrust.

In the main area investigated the succession dips steeply in a direction about 130 degrees east of north. There are distinguished three main formations named merely for convenience quartzite, subgreywacke and arkose formations. These are overlain conformably by greywackes and slates. The quartzite formation is considered to indicate stable shelf conditions, the arkose sharp differential uplift with neighbouring slow subsidence, the greywacke rapid uplift and rapid deposition below wave-base.

The structural position is not clear, but the most simple hypothesis is assumed viz. that there is no major disturbance.