

PANDIE PANDIE

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA
DEPARTMENT OF MINES, ADELAIDE

S.A. GEOLOGICAL ATLAS SERIES SHEET SG54-9 ZONES 5 & 6

FIRST EDITION 1973



REFERENCE

- QUATERNARY**
- Q₁** Fine, orange to brown, clayey sands and grey silty clays containing halite and gypsum in salinas and claypans.
 - Q₂** Grey, sandy clays and clayey sands of main creeks (Goyder Lagoon—Diamantina River)—may include **TINGANA CLAY**; clays, gravels and sands of the lesser creeks and intertidal flats. Sand also clayey towards base and with organic remains and carbonate infilled root cavities. Possible remains of an ancestral dune system.
 - Q₃** Aeolian sand: Orange-brown, fine to medium-grained quartz sand of sub-parallel longitudinal dunes of the desert and on the Gash Dome and of sand screeds. Clayey sand of intertidal flats. Sand also clayey towards base and with organic remains and carbonate infilled root cavities. Possible remains of an ancestral dune system.
 - Q₄** Pale-brown to red-brown sandy clay containing gypsum (reworked from older deposits) and mantled by a layer of gibbers usually of silcrete provenance; includes low angle slope and lag deposits. Equivalent in part to the **CALLABONIA CLAY**. Overlies predominantly Tertiary deposits.
 - Q₅** Multicoloured channel sands and clays with occasional vertebrate remains. Heavily gypsified in places. Includes **KATFIRI SANDS** and **TIRARI FORMATION**.
- Trace of old infilled channels—surface expression of above fluvial deposits.**

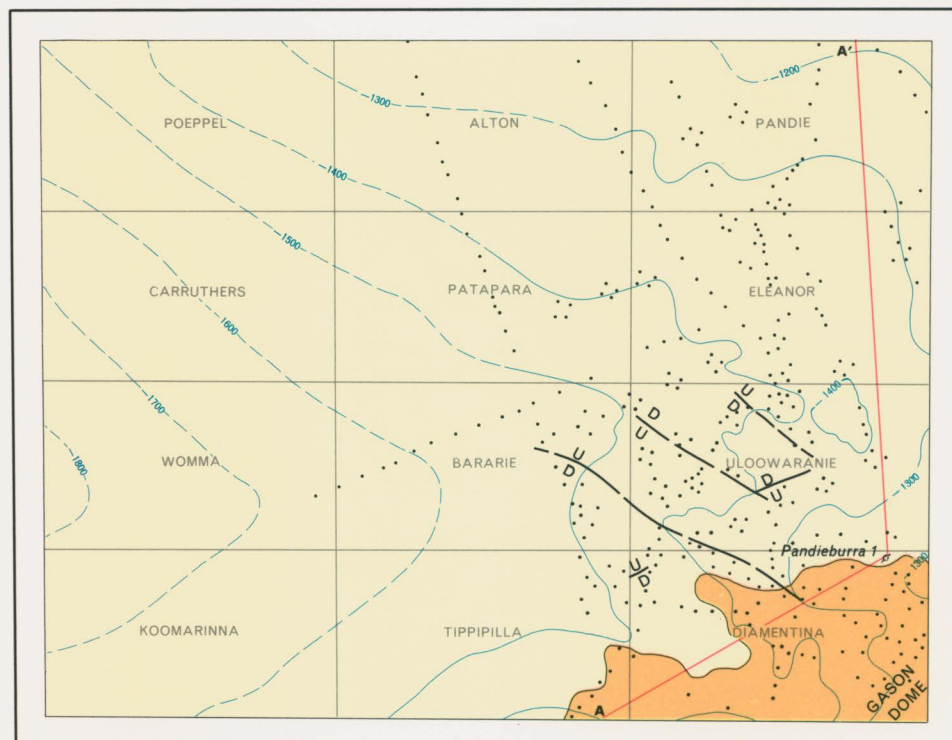
IN SUBSURFACE ONLY

- (from Bureau of Mineral Resources Stratigraphic Holes and Dehi Santos Pandieburra 1.)
- T-Q** Undifferentiated Tertiary and Quaternary sediments most of which are **EYE FORMATION**, a Paleocene-Eocene sequence of partially silicified, white, fine to medium grained quartz sandstones and grey claystones with chalcidonic and opaline cement.
- CRETACEOUS**
- K₁** **WINTON FORMATION**: Interbedded, feldspathic, fine to coarse-grained, angular to sub-angular, poorly sorted carbonaceous and cross-bedded sandstone and lignitic shale. Chemically altered zone at top.
 - K₂** **OODNADATTA FORMATION**: Grey, fossiliferous shales, minor bands of grey to brown microcrystalline limestone and thin feldspathic sandstones near top. Fish scale zone near base.
 - K₃** **BULLDOG SHALE**: Grey micaceous shale, minor interbeds of grey-green, fine to medium-grained, angular to sub-angular sandstone. **Pelecypod** fragments throughout.
 - K₄** **CADNA-OWIE FORMATION**: White to light grey, medium to coarse-grained, sub-rounded quartz sandstone and dark grey shale.
- JURASSIC**
- J₁** Undifferentiated: Light coloured, medium to coarse-grained quartz sandstones and grey to brown micaceous shales, fossiliferous and fossiliferous. Sequence comprises **ALBEBURGA SANDSTONE**, **STONY DESERT SANDSTONE**, **ADORI SANDSTONE** and **HUTTON SANDSTONE**. Older **BIRNHEAD FORMATION** and **HUTTON SANDSTONE** EQUIVALENTS intersected in Dehi Santos Pandieburra 1.

GEOLOGICAL BOUNDARIES

- ACCURATE
- APPROXIMATE
- B.M.R. STRATIGRAPHIC BORE
- OIL WELL (DRY)
- MAIN ROAD
- SECONDARY ROAD
- TRACK
- BOUNDARY FENCE
- EPHEMERAL STREAM
- CLAYPAN OR SALINA
- SWAMP
- FLOOD PLAIN
- DAM
- WELL
- WATER HOLE
- SPOT ELEVATION (IN METRES)
- GEOLOGICAL SECTION

TECTONIC SKETCH

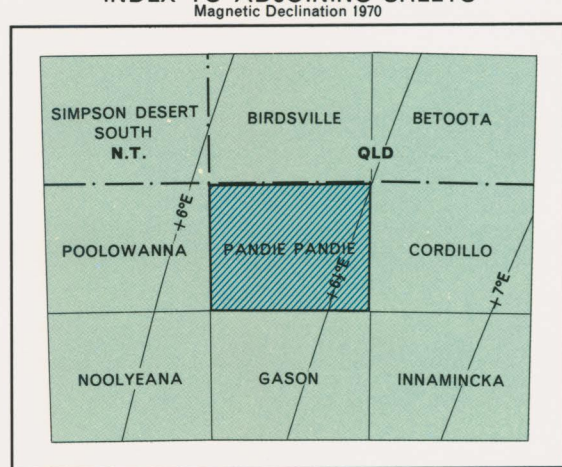


- Quaternary
- Tertiary
- Faults (seismic interpreted)
- Structural contour (in metres) top of Cadina Formation (1" C. Horizon). Datum M.S.L. after Steiner, 1972.
- Seismic and well data
- Inferred
- Seismic shot points (Seismic Geophysics Section, S.A. Dept. of Mines and Private Companies)
- Geological Section

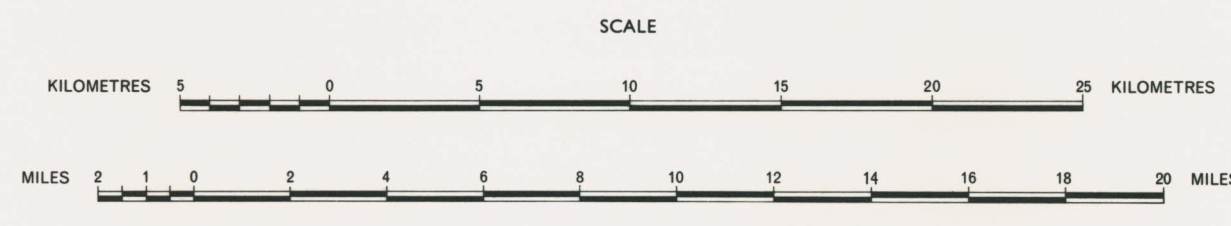
Geological compilation by A. F. Williams, B.Sc.(Hons.), S.A. Dept. of Mines.
Regional stratigraphy by A. Mond, Bureau of Mineral Resources.
B. P. Thomson, M.Sc., Supervising Geologist, Regional Surveys Division.
Map preparation by Cartographic Division, Department of Mines, S.A.
Compiled under the direction of B. P. Webb, M.Sc., Government Geologist, Director of Mines.
Issued under the authority of the Honourable D. A. Dunstan, Q.C., M.P., Minister of Development and Mines.
Published 1973

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INDEX TO ADJOINING SHEETS



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