NARACOORTE

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA

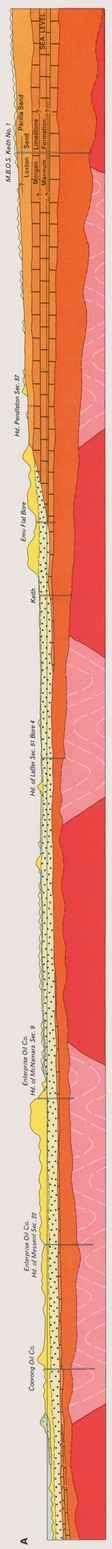
DEPARTMENT OF MINES ADELAIDE

AUSTRALIA 1:250,000 — S.A. GEOLOGICAL ATLAS SERIES SHEET SJ 54-2 ZONE 6

FIRST EDITION 1969

SECTION A-A'

Vertical Scale 1000 Feet to 1 Inch



REFERENCE

QUATERNARY — CAINOZOIC

PLEISTOCENE—RECENT

- Qrs, Qrd — Modern Coastal Dune; Beach Ridges. Unconsolidated calcareous sand of the coastal dune, beach ridge, and beach deposits. Foraminifera present throughout, but shells of larger marine animals are common only in lower levels.
- Qrm — MOLINEAUX SAND: Pale yellow unconsolidated quartz sand of the sand sheets and E-S-E trending dunes.
- Qr — Interdunal swamp, marsh, lunette, and lake deposits of clay, marl, silt and local peat. Locally, thinly veneered by grey quartz sand. Also fresh and brackish water limestones (dolomite in the Coorong) including some undifferentiated, non-fossiliferous limestones west of Bordertown and Keith. Some outwash deposits of clay and sandy clay adjacent to the southern extension of the Pinnaroo Block. Also included are thin undifferentiated marine deposits of the "Anadara" and Osborne high sea levels in the Kingston area.

PLEISTOCENE

- Qpb — BRIDGEWATER FORMATION: Stranded coastal dunes, beach ridges, and beach deposits. Mostly medium to coarse grained calcarenites with varying proportions of quartz. Marine fossils (molluscs, gastropods and foraminifera) are common in the beach deposits, but only rounded shell fragments and eroded foraminifera are found in the aeolianite.
- Qpc — ?COOMANDOOK FORMATION: Medium grained grey to cream quartz sand and calcarenite with clay cement. Becomes less clayey and carries marine fossils in subsurface. In some areas a thin limestone capping grades downward to lime cemented sand, and then sand as above. Commonly thinly veneered by MOLINEAUX SAND.

TERTIARY — UPPER PLIOCENE

- Tpp — PARILLA SAND: Predominantly a red-brown medium grained quartz sand with some clay cement, some coarse sand and grit. A ferruginous capping (ferricrete) sometimes with ferruginous pisolites, is preserved in many areas. Generally undifferentiated from the underlying fine to coarse, micaceous, and often calcareous LOXTON SANDS in the Cross Section, Rock Relation and Block Diagrams.

MIOCENE

- Tmg — GAMBIER LIMESTONE: White to cream yellow coquinitic bryozoal limestone sometimes recrystallised to a dense limestone. Glauconitic calcarenitic marls of the ETTRICK FORMATION are included in this unit in the Cross Section, Rock Relation and Block Diagrams.

PALAEOCENE — EOCENE

- Tlk — Undifferentiated "KNIGHT GROUP": Sandstone, commonly coarse grained, and siltstone and claystone, commonly lignitic. Includes all Tertiary sediments below the GAMBIER LIMESTONE (Cross Section, Rock Relation and Block Diagrams).

UPPER — MESOZOIC

CRETACEOUS — ALBIAN

- Klo — OTWAY GROUP: Grey to green greywacke and shale, commonly carbonaceous with some coal (Rock Relation and Block Diagrams).

PERMIAN — PALAEOZOIC

- P — Grey clay with gravel and pebbles (?glacial boulder clay) (Rock Relation Diagram only).
- Pzl — Mainly phyllite and slate, some quartzite and marble (Cross Section, Rock Relation and Block Diagrams).

IGNEOUS ROCKS

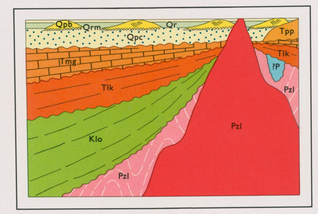
- Granite, microgranite, and quartz porphyry or rhyolite. Genetically related series of granitic rocks intruded into lower palaeozoic sediments.
- Pzl — Adamellite: Grey with large feldspar phenocrysts.
- Quartz keratophyre or soda rhyolite—phenocrysts of albite in green-grey matrix of chlorite, quartz, feldspar and sphene.

LOWER PALAEOZOIC

GEOLOGICAL BOUNDARIES

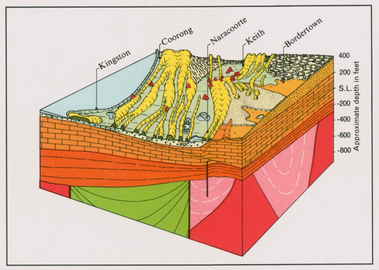
- OBSERVED
- APPROXIMATE
- INFERRED
- FAULTS
- MAIN ROAD
- SECONDARY ROAD
- TRACK
- NATIONAL ROUTE NUMBER
- RAILWAY
- TRIANGULATION STATION
- HOMESTEAD
- LAKE
- EPHEMERAL STREAM
- DRAIN
- SWAMP
- ARTESIAN BORE
- SPRING
- WELL
- EARTH TANK OR DAM
- WATER HOLE
- QUARRY

ROCK RELATION DIAGRAM



Aeolianites of the Stranded Coastal Dunes
Beach and Beach Ridge Deposits

BLOCK DIAGRAM



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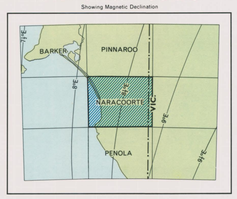
Showing Magnetic Declination



SCALE

MILES 2 1 0 2 4 6 8 10 12 14 16 18 20 MILES

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

H. J. WALL, GOVERNMENT PHOTOLITHOGRAPHER, ADELAIDE

TECTONIC SKETCH

Pleistocene
Upper Pliocene
Oligocene—Miocene
Lower Palaeozoic
Major Lineament—Maybe Faulted in Part
Trend of Stranded Shoreline
Generalised Basement Contours (Depth Below Sea Level)
Geological Section

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