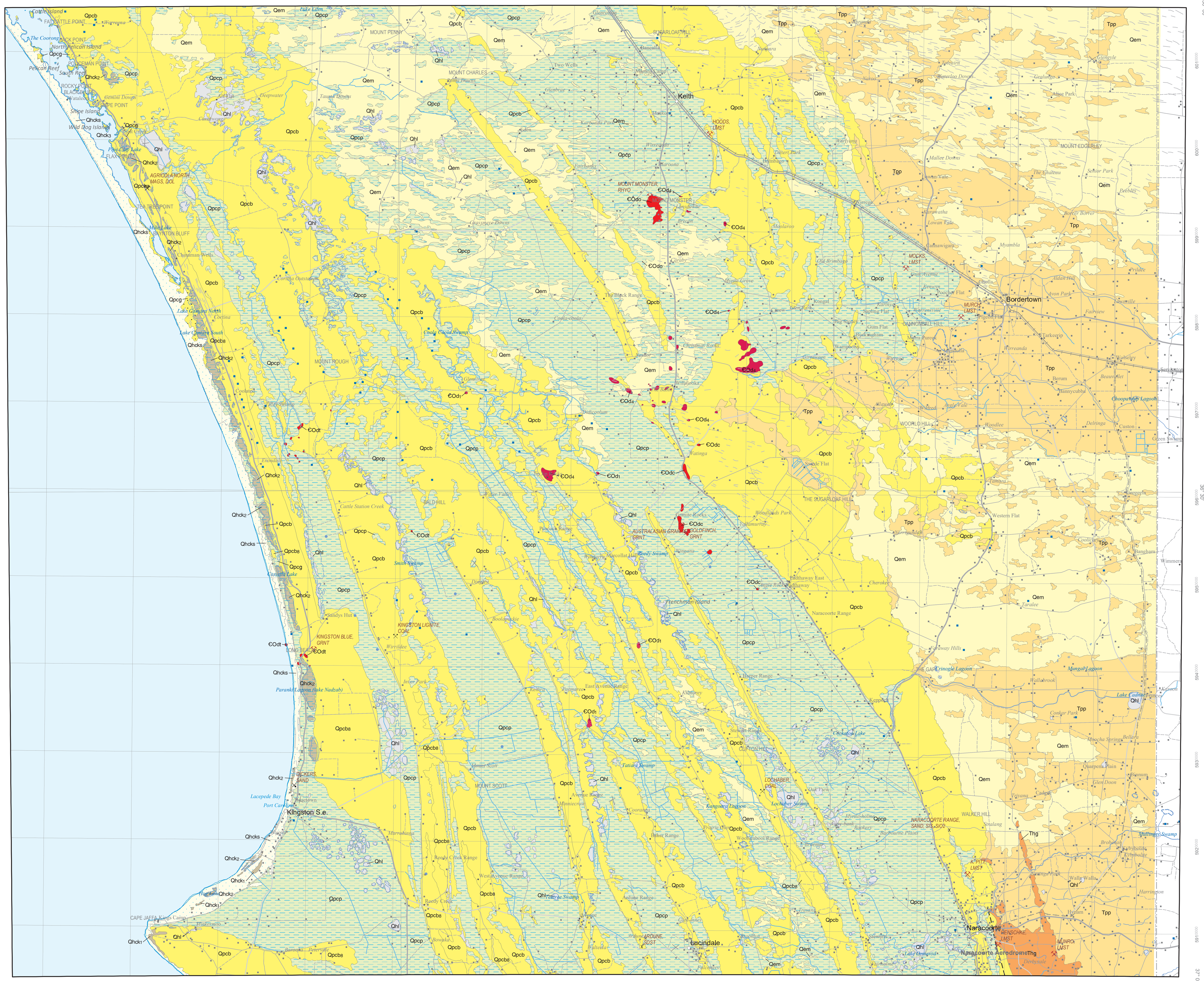
NARACOORTE

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA
DEPARTMENT FOR ENERGY AND MINING

AUSTRALIA 1:250 000

SA GEOLOGICAL ATLAS SERIES SHEET SJ5402



REFERENCE

HOLOCENE

Symbol	Description
$Qhck_1$	SAINT KILDA FORMATION UNIT 1: Lagoonal, lacustrine sediments, shell beds. South-East geology map revision.
$Qhck_2$	SAINT KILDA FORMATION UNIT 2: Carbonate, algal sediments of Coorong, ephemeral lakes. South-East geology map revision.
Qhcks	SEMAPHORE SAND MEMBER: Unconsolidated white bioclastic quartz-carbonate sand of modern beaches and transgressive dune fields.
Qhl	HOLOCENE LACUSTRINE/PLAYA SEDIMENTS: Undifferentiated Holocene lacustrine/playa sediments.

PLEISTOCENE-HOLOCENE

Symbol	Description
Qem	MOLINEAUX SAND: Sand, pale yellow, fine to medium-grained quartzose.

PLEISTOCENE

Symbol	Description
Qpcb	BRIDGEWATER FORMATION: Coastal barrier and shallow sub-tidal sediments: bioclastic and aeolian cross-bedded calcarenite, palaeosol horizons, often capped by calcrete.
$Qpcb_8$	BRIDGEWATER FORMATION UNIT 8: Young subunit with prominent beach ridges still present. As used on NARACOORTE.
Qpcg	GLANVILLE FORMATION: Clay, mottled, shelly; calcarenite, skeletal, coquina. Geochron age 132 000+/-6 000 years Bp on TL.
Qpcp	PADTHAWAY FORMATION: Mudstone, calcitic and dolomitic, white; clay, greenish; quartz sand, clayey. Lacustrine. Fresh-water fossils.

PLIOCENE

Symbol	Description
Tplp	PARILLA SAND MEMBER: Sand, fine to medium-grained, unfossiliferous, non-marine, clayey, quartz rich; sandy clay. Aeolian, lacustrine and fluvial deposits.

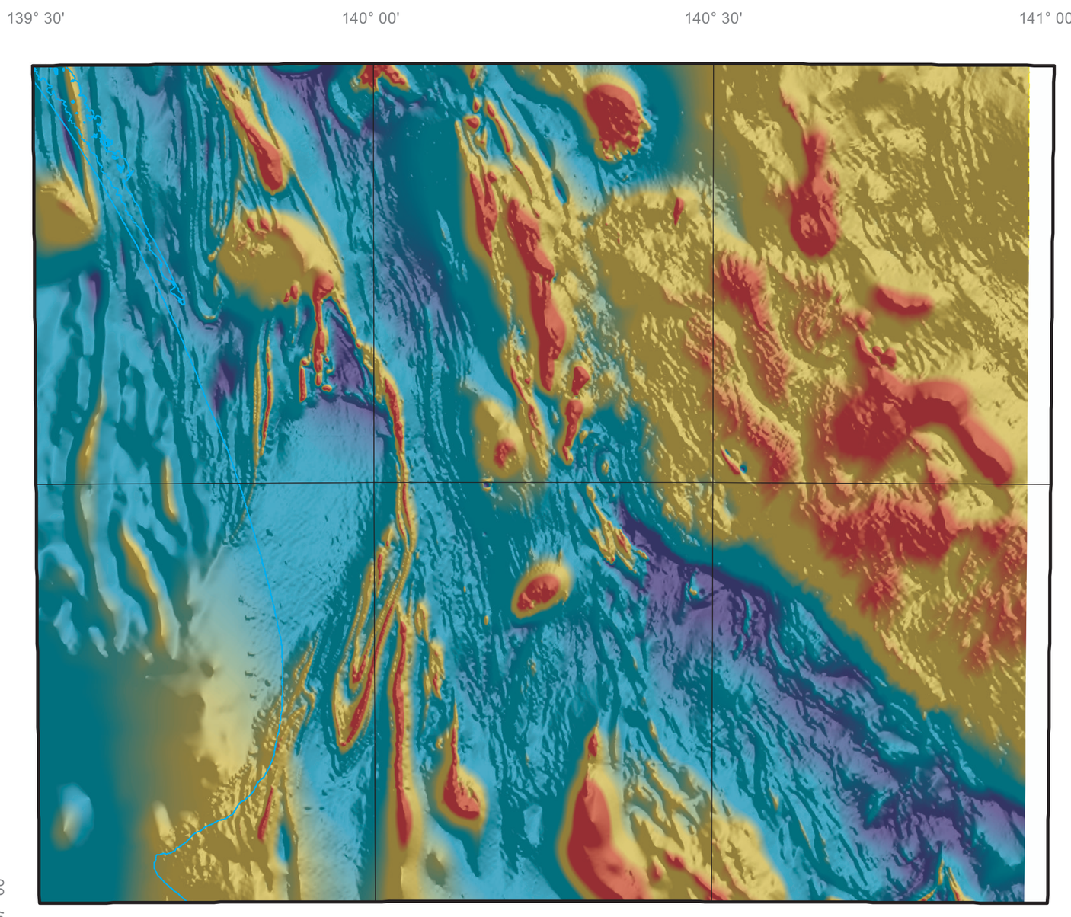
EOCENE-MIOCENE

Symbol	Description
Thg	GAMBIER LIMESTONE: Limestone, fossiliferous. Open marine shelf.

CAMBRIAN-ORDOVICIAN

Symbol	Description
EOd_1	DELAMERIAN IGNEOUS UNIT 1: Felsic volcanic rocks.
EOd_4	DELAMERIAN IGNEOUS UNIT 4: Undifferentiated Delamerian felsic intrusives. Early I- and S-type, late A-type, ~514-480 Ma.
EOdc	MARCOLLAT GRANITE: Granite, green to olive-green, coarse-grained; green feldspars, smoky quartz and amphibole. A-type, post-tectonic.
EOdo	MOUNT MONSTER PORPHYRY: Rhyolite, porphyritic, quartz and tabular feldspar phenocrysts; orange-brown or grey-green groundmass with feldspar phenocrysts; Flow banded, may be welded ash flow in part. A-type, post-tectonic. Age 464+/-7Ma (U-Pb).
EOdt	TARATAP GRANODIORITE: Granodiorite, blue-grey, porphyritic (plagioclase), qtz-plag-microcline-bio-hbl. Comagmatic and metasedimentary enclaves. Biotite and microcline flow lineation. S-type, post-tectonic, 475+/-65 Ma (IR=0.7160).

TOTAL MAGNETIC INTENSITY IMAGE



SCALE 1:1000000

The Total Magnetic Intensity Image has been compiled using aeromagnetic data from the Department for Energy and Mining, South Australia. Aeromagnetic data have been merged, gridded and image processed by the Geological Survey of South Australia.

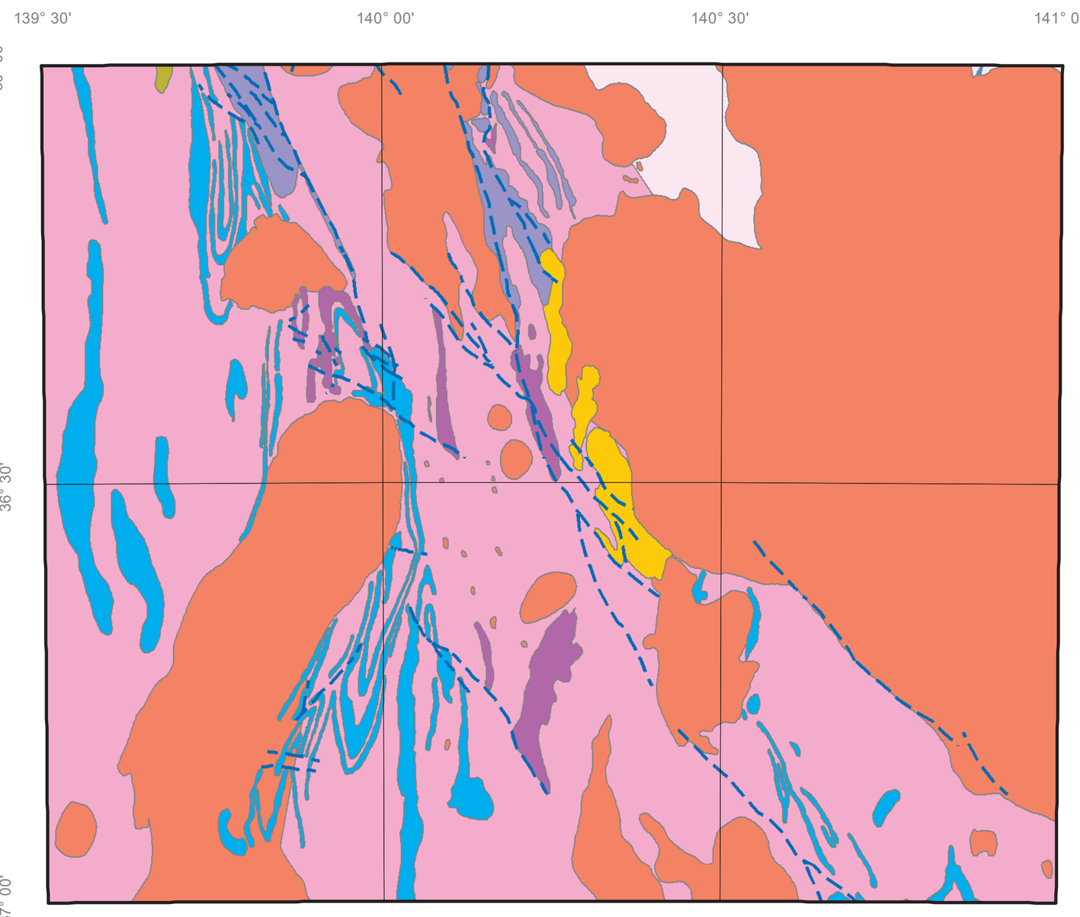
nTesla

-1559.337 — 1998.304

-320.23 21.793 363.815

A two standard deviation contrast stretch has been applied to the raster image above.

SOLID GEOLOGY INTERPRETATION



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Modified from Interpreted Crystalline Basement Geology Of The Gawler Craton (Fairclough et al. 2003)
Interpreted Solid Geology Of The Curnamona Province (Burtt and Betts, 2003),
Musgrave Block, Central Australia: regional geology from interpretation of aeromagnetic data (Rankin and Newton, 2002), Solid Geology South Australia (Cowley, 2006).

Solid Geology

Symbol	Description	Symbol	Description
EOd25	Delamerian igneous unit 25	Ek4	Kanmantoo Group unit 4
EOd23	Delamerian igneous unit 23	Ek3	Kanmantoo Group unit 3
EOd24	Delamerian igneous unit 24	Eo9	Moralana Supergroup unit 9
Ek	Kanmantoo Group	EO	Cambrian-Ordovician rocks

Solid Geology - Linear Structure

Fault position approximate

SCALE 1:250,000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

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Topographic detail based on TOPO-250K GEODATA (source scale 1:250 000) supplied by Geoscience Australia - National Mapping Division, ACT. The relationship between this data and DEM data is not guaranteed.

Computer generated from SA_GEOLOGY database
(Digital data available upon request)
Current version 2018.Digital

Product of Spatial Information Services.
Published by, and with the authority of, the
Department for Energy and Mining SA.

Grey numbered lines indicate the 10000 metre Map Grid
Transverse Mercator Projection, Geocentric Datum Australia, 2020.

The lake boundaries displayed on this map may have been derived from geological interpretation and may not match lakes interpreted by topographic mapping authorities.
Not all structures are represented on this particular map.

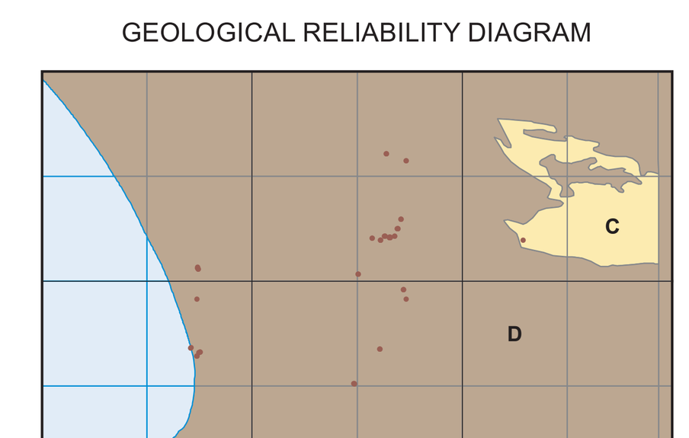
Mapping and Compilation by K.A. Rochow, B.Sc.(Hons), (Petroleum Exploration Division)

R.C. Cobcroft, Director, Geological Survey of South Australia.

Geological boundaries displayed on this map have been Derived from geological interpretation and are not intended to be used for navigational purposes.

Copies of this map can be obtained from the Department for Energy and Mining SA, Adelaide.
2020

GEOLOGICAL RELIABILITY DIAGRAM



Naracoorte sheet published 1969 SCALE 1:2000000

Geological Field Observations

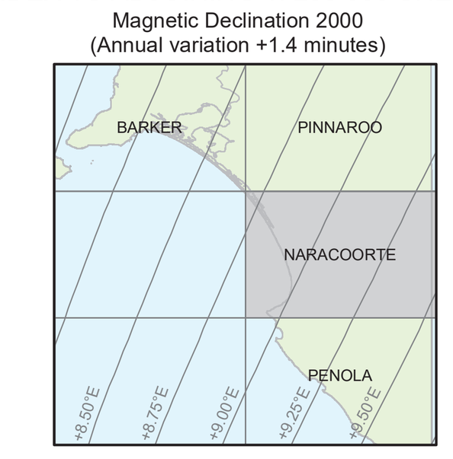
A: Detailed ground traverses
B: Image interpretation with limited ground traverses
C: Image interpretation with potentially some minor ground traverses
D: Image interpretation only

INDEX TO 1:100 000 SHEETS

Santo 6825	Keith 6925	Cannawigara 7025
Kingston 6824	Lucindale 6924	Naracoorte 7024

INDEX TO ADJOINING 1: 250 000 SHEETS

Magnetic Declination 2000
(Annual variation +1.4 minutes)



DIGITAL EDITION
SUBJECT TO AMENDMENT
See published printed map for further information

CULTURAL FEATURES

- PRINCIPAL ROAD
- SECONDARY ROAD
- MINOR ROADS
- VEHICULAR TRACKS
- OPERATIONAL RAILWAY
- ABANDONED RAILWAY
- WATER PIPELINE
- IDENTIFIED POINT
- BUILDING
- LANDING GROUND
- TOWN OR LOCALITY

HYDROGRAPHIC AND GEOMORPHIC FEATURES

- LAKE
- INTERMITTENT LAKE
- MAJOR WATERCOURSE
- MINOR WATERCOURSE
- SWAMP
- BORE
- WATER TANK
- SAND RIDGE

MINING

- PROSPECT
- DEPOSIT - NO MINING
- MINE - METALS AND INDUSTRIAL MINERALS
- QUARRY - CONSTRUCTION MATERIALS (HARD ROCK)
- PIT/CUT - CONSTRUCTION MATERIALS (SAND AND/OR CLAY)

GEOLOGICAL BOUNDARY

- COASTLINE
- GEOLOGICAL BOUNDARY POSITION ACCURATE
- GEOLOGICAL BOUNDARY POSITION APPROXIMATE
- LAKE

LINEAR STRUCTURES

- FAULT POSITION APPROXIMATE

COMMODITIES

Code	Commodity
COAL	Coal
DOL	Dolomite
GRNT	Granite
LMST	Limestone
MAGS	Magnesite
RHYO	Rhyolite
SAND	Sand
SDST	Sandstone
SiO2	Silica
SIS	Silica sand

Government of South Australia
Department for Energy and Mining

GDA2020

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