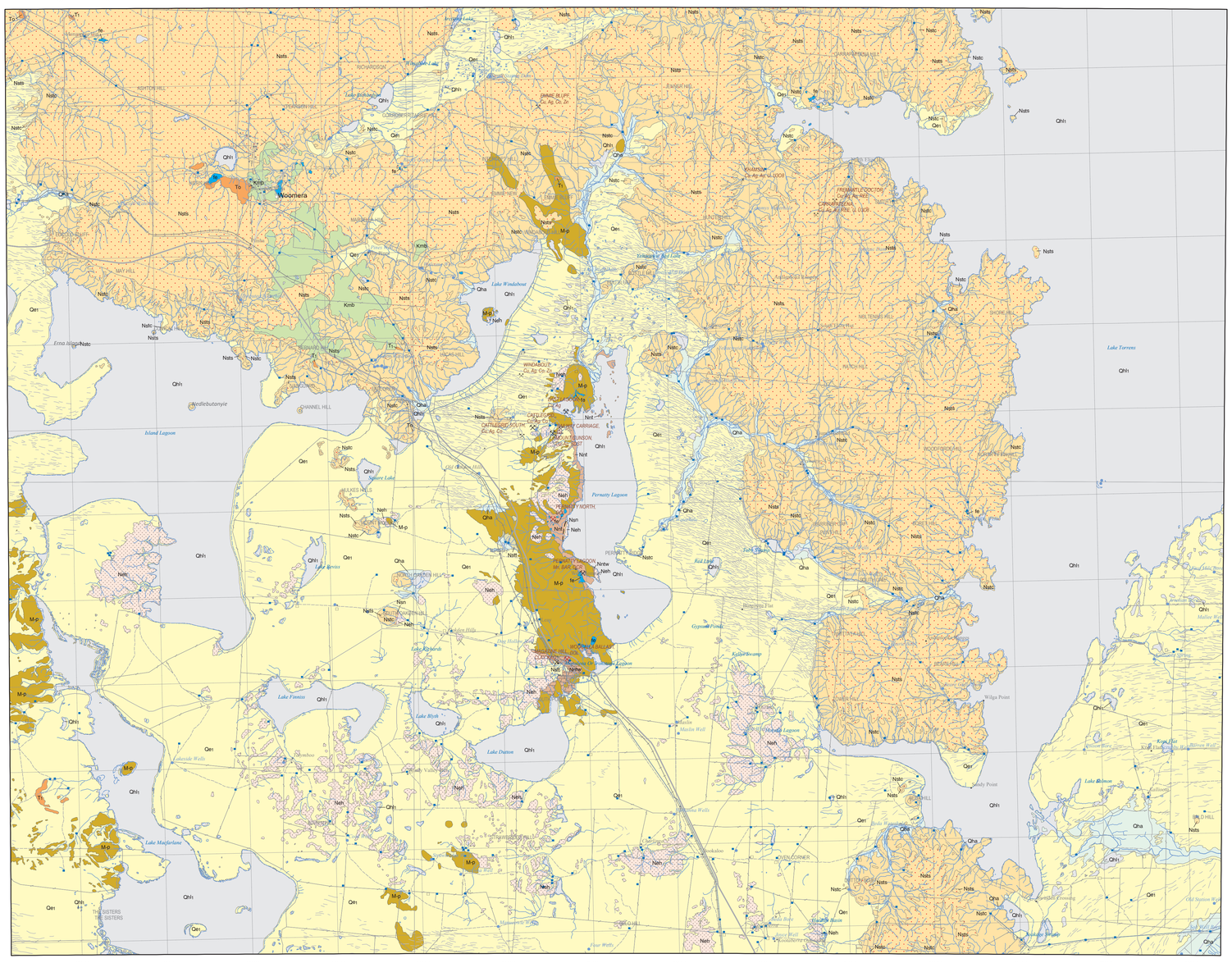
TORRENS

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA
DEPARTMENT FOR ENERGY AND MINING

AUSTRALIA 1:250 000

SA GEOLOGICAL ATLAS SERIES SHEET SH5316



REFERENCE

HOLOCENE

- Qha — HOLOCENE ALLUVIAL/FLUVIAL SEDIMENTS: Undifferentiated Holocene alluvial/fluvial sediments.
- Qh_1 — HOLOCENE LACUSTRINE/PLAYA UNIT 1: Holocene playa sediments.

PLEISTOCENE-HOLOCENE

- Qe_1 — QUATERNARY AEOLIAN UNIT 1: Quaternary dunefield sands.

OLIGOCENE

- To — OLIGOCENE ROCKS: Undifferentiated Oligocene rocks.

TERTIARY

- Tsil — TERTIARY SILCRETE: Undifferentiated Tertiary silcrete.
- T_1 — TERTIARY UNIT 1: Tertiary conglomerate, ferruginous grit, grit, sand. Based on T on TORRENS.

CRETACEOUS

- Kmb — BULLDOG SHALE: Mudstone, grey; bioturbated, fossiliferous and shaly; minor silt to very fine-grained sandstone intervals.

NEOPROTEROZOIC

- Ntss — SIMMENS QUARTZITE MEMBER: Quartzite, blocky; sandstone, cream.
- Nstc — CORRABERRA SANDSTONE MEMBER: Sandstone, red, purple, stumpest, silty. Some shale.
- Nstt — TREGOLANA SHALE MEMBER: Shale, red and green; siltstone.
- Nen — NUCCALEENA FORMATION: Dolomite, thin, laminated, micritic, with interbedded shale near the top.
- Nsh — WHYALLA SANDSTONE: Sandstone, coarse-grained, bimodal, with large-scale crossbedding; sand grains very well rounded, spherical.
- Nnt — TAPLEY HILL FORMATION: Siltstone, grey to black, dolomitic and pyritic grading upwards to calcareous, thinly laminated, locally cross-bedded; dolomite, grey, flaggy to massive; limestone conglomerate, intraformational, greywacke.
- Nww — WOOCALLA DOLOMITE MEMBER: Dolomite, yellow-brown, grey, massive bedding, oolitic, stromatolitic in part.

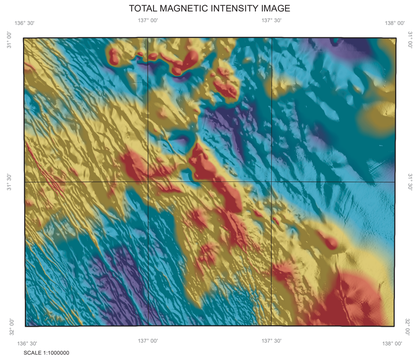
MESOPROTEROZOIC

- M-p — PANDURRA FORMATION: Sandstone, quartz and lithic, m.g.-c.g., poorly sorted; sandstone, well-sorted, v.f.g.-m.g.; conglomerate, granule to pebble; mudstone; siltstone. Red, brown or purple with reduction spotting or mottling. Fluvial, large-scale cross-bedding and lieseganig banding. Maximum deposition 1424±51 Ma (Rb-Sr).

MISCELLANEOUS

- fe — FERRUGINISATION: Ironstone, ferruginisation, undifferentiated.

TOTAL MAGNETIC INTENSITY IMAGE



SCALE 1:1000000

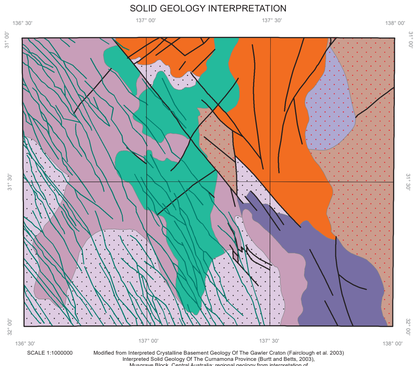
The Total Magnetic Intensity Image has been compiled using aeromagnetic data from the Department for Energy and Mining, South Australia. Aeromagnetic data have been merged, gridded and image processed by the Geological Survey of South Australia.

nTesla

-416.909 — -273.008 — 146.301 — 565.61 — 1797.228

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

SOLID GEOLOGY INTERPRETATION



SCALE 1:1000000

Modified from Interpreted Crystalline Basement Geology Of The Gawler Craton (Fairclough et al. 2003)
Interpreted Solid Geology Of The Curnamona Province (Burt 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

Ma	Gawler Range Volcanics	Lx	Wallaroo Group
Ma10	Gawler Range Volcanics unit 10	Lxs	Weetulta Formation
Ma11	Gawler Range Volcanics unit 11	Ld	Donington Suite
Ma8	Gawler Range Volcanics unit 8	N-g	Gairdner Dolerite

Solid Geology - Linear Structure

Fault position accurate

SCALE 1:250,000

KILOMETRES 5 — 0 — 5 — 10 — 15 — 20 — 25 KILOMETRES

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2020

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

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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 R.K. Johns, M.Sc., M.N. Hiern, B.Sc., L.G. Nixon, B.Sc., and R.P. Coats, B.Sc., Revision by the Regional Geology Section using data from (C.S.R. Ltd)

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

Torrens sheet 2nd Edition published 1981 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

Woomera 6235	Arcoona 6335	Woodforde 6435
Oakden 6234	Woocalla 6334	Yadlamalka 6434

INDEX TO ADJOINING 1: 250 000 SHEETS

Magnetic Declination 2000
(Annual variation +1.4 minutes)

KINGOONYA	ANDAMOOKA	COPLEY
GARDNER	TORRENS	PARACHILNA
YARDEA	PORT AUGUSTA	ORROROO

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
- FENCE
- GAS, OIL PIPELINE
- WATER PIPELINE
- IDENTIFIED POINT
- BUILDING
- YARDS
- LANDING GROUND
- TOWN OR LOCALITY

HYDROGRAPHIC AND GEOMORPHIC FEATURES

- INTERMITTENT LAKE
- MAJOR WATERCOURSE
- MINOR WATERCOURSE
- SWAMP
- WATERHOLE
- 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

- GEOLOGICAL BOUNDARY POSITION ACCURATE
- GEOLOGICAL BOUNDARY POSITION APPROXIMATE

LINEAR STRUCTURES

- FAULT POSITION APPROXIMATE

COMMODITIES

Ag	Silver
Au	Gold
BAR	Barite
CLAY	Clay
Co	Cobalt
Cu	Copper
DOL	Dolomite
KAO	Kaolin
Mn	Manganese
OCR	Ochre
Pb	Lead
REE	Rare Earths
SDST	Sandstone
U	Uranium
U3O8	Uranium Oxide
Zn	Zinc

Government of South Australia
Department for Energy and Mining

GDA2020

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SH5316