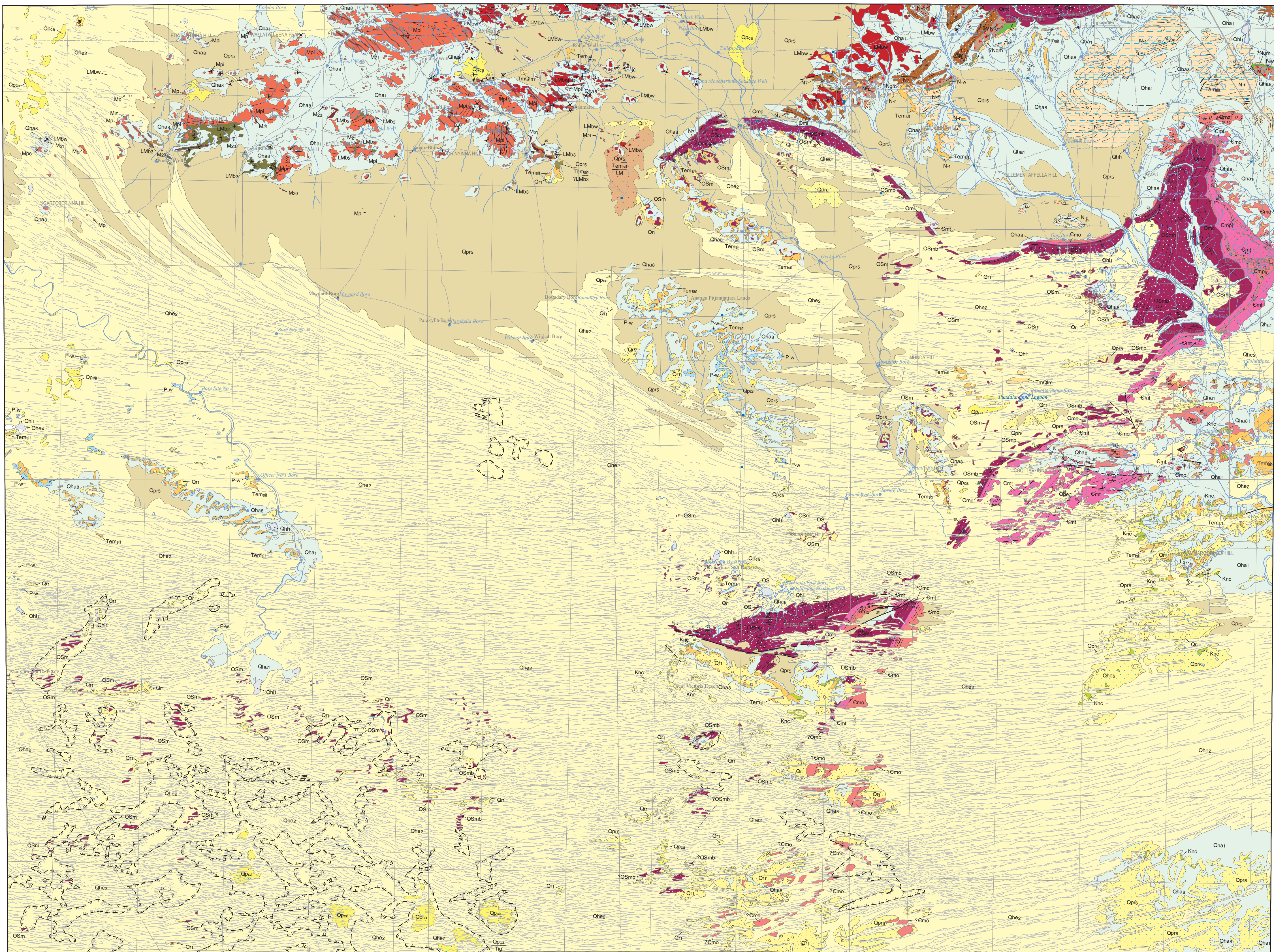


EVERARD

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA
DEPARTMENT FOR ENERGY AND MINING

SA GEOLOGICAL ATLAS SERIES SHEET SG5313

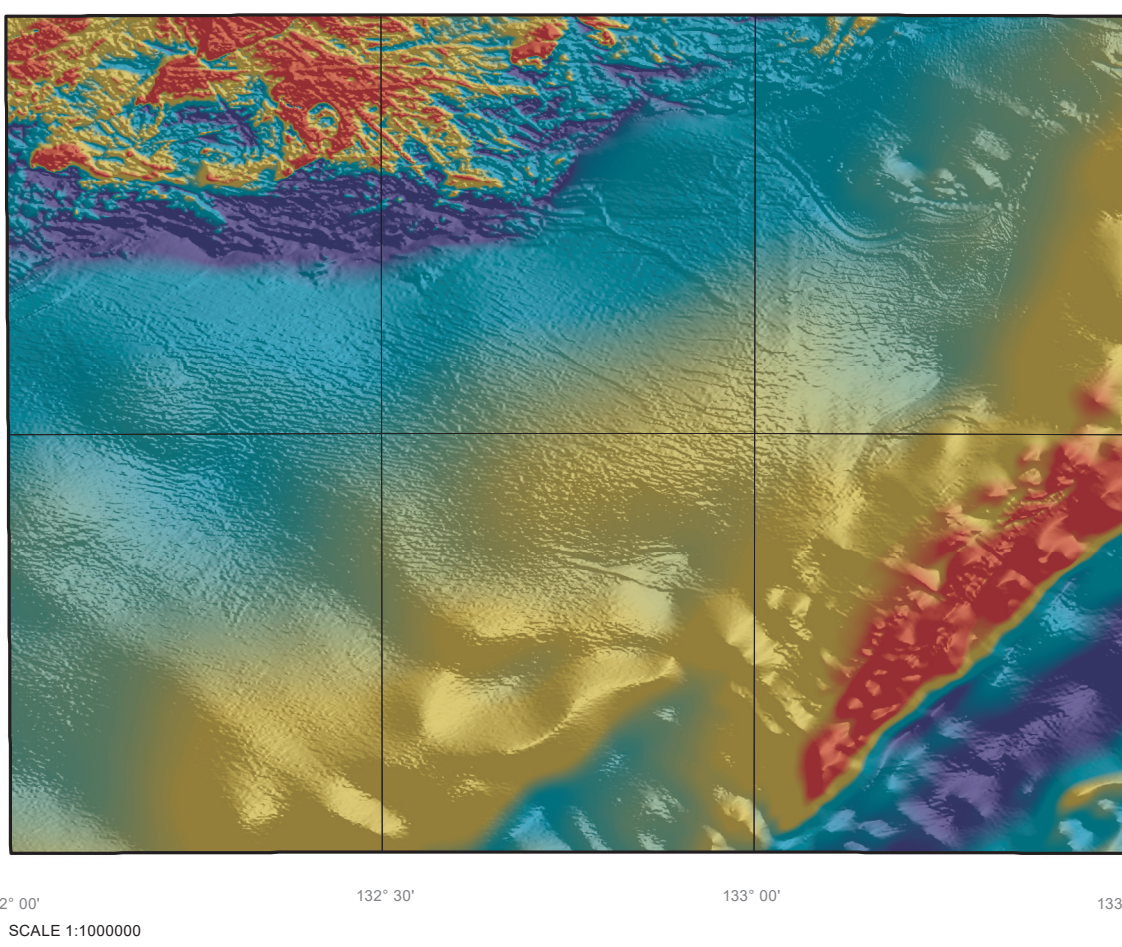
AUSTRALIA 1:250 000



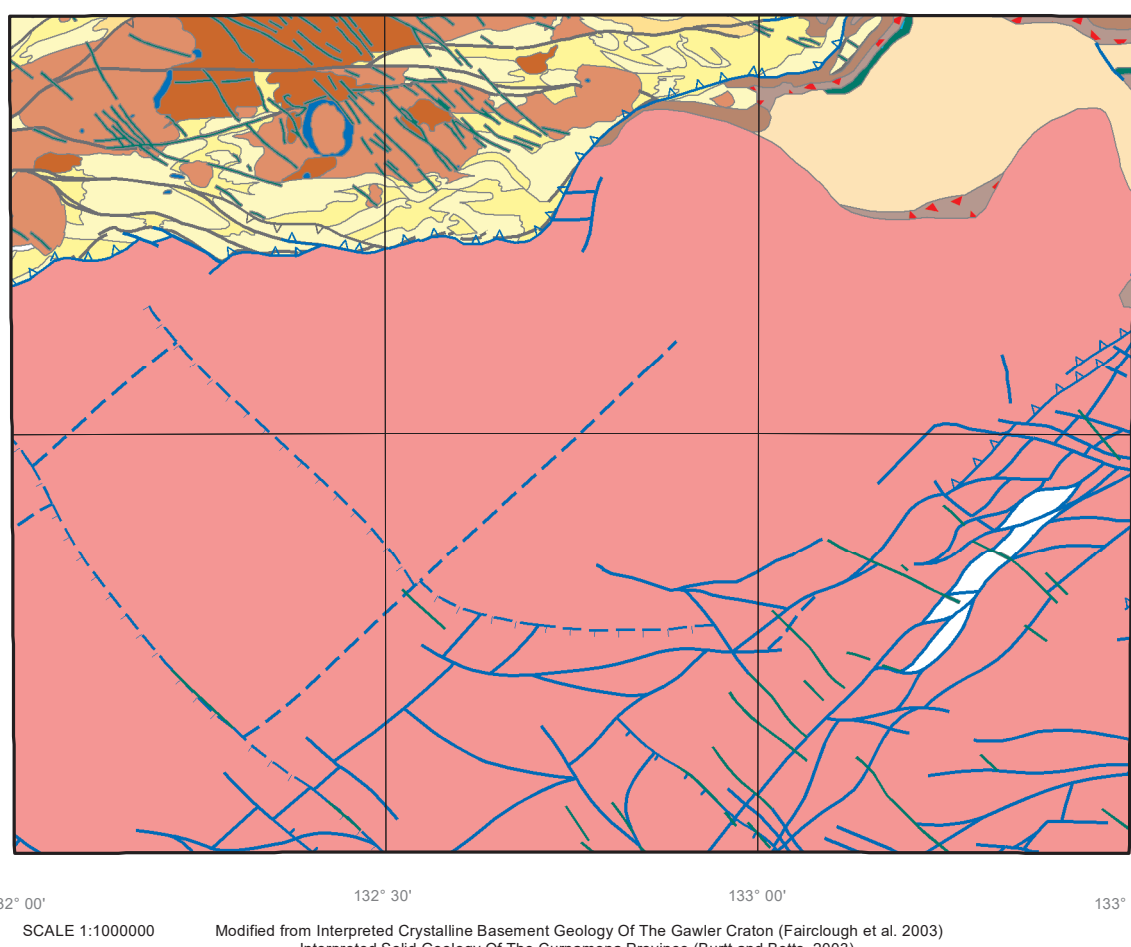
REFERENCE

HOLOCENE	CHAMBERS BLUFF TILLITE UNIT 2: Quartzite, felsophic quartzite.
Qh1	HOLOCENE ALLUVIAL/FLUVIAL UNIT 1: Present day Holocene alluvium, current bedload.
Qh2	HOLOCENE ALLUVIAL/FLUVIAL UNIT 7: Holocene talus/cone deposits.
Qh3	HOLOCENE ALLUVIAL/FLUVIAL UNIT 8: Holocene low angle slope deposits, glacial outwash.
Qh4	HOLOCENE AECIAN UNIT 2: Holocene sand capping dunes in dunefields.
Qh5	HOLOCENE AECIAN UNIT 4: Holocene gyttaceous dunes/tundras.
Qh6	HOLOCENE LACUSTRINE/PLAYA UNIT 1: Holocene playa sediments.
PLEISTOCENE-HOLOCENE	NEOPROTEROZOIC
Qa	QUATERNARY ALLUVIAL/FLUVIAL SEDIMENTS: Undifferentiated Quaternary alluvial/fluviol sediments.
Qb	QUATERNARY AECIAN SEDIMENTS: Undifferentiated Quaternary aecian sediments.
Qc	QUATERNARY AECIAN UNIT 1: Quaternary dunefield sands.
Qd	QUATERNARY REGOLITH/COLLUVIAL SEDIMENTS: Undifferentiated Quaternary regolith/colluvial sediments.
Qe	QUATERNARY REGOLITH/COLLUVIAL UNIT 1: Quaternary glacio-marine colluvium. Based on Qa-MURDOCHPPE.
PLEISTOCENE	NEOPROTEROZOIC UNIT 20: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Qp1	PLEISTOCENE REGOLITH/COLLUVIAL UNIT 5: Pleistocene red sand with medium-grained gravel. Locally ripple-crested.
Qp2	PLEISTOCENE REGOLITH/COLLUVIAL UNIT 6: Pleistocene sandstone gravel derived on alluvium and colluvium. Based on blue dot covered with Qa on CUNDOLMRA, Q2 on KINGDONIA.
Qp3	PLEISTOCENE CALCRETE: Undifferentiated Pleistocene calcrete.
MIOCENE-PLEISTOCENE	NEOPROTEROZOIC UNIT 22: Diabase dykes. Based on greenish unit on EVERARD.
TrmQm	MANGATTA FORMATION: Limestone to dolomite, micritic, cream, fossiliferous, often with chalcidolite cap. Locustine. Sandy clay to sandstone, well-sorted, calcareous, grey, greenish conglomerate, karstic, arkose, clay, mottled red and green, argill. Palaeozoic unit 15.
Eocene-Pleistocene	NEOPROTEROZOIC UNIT 21: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Tg	GARFORD FORMATION: Mudstone, calcareous, iron-stained, oolitic and sandy, greenish, minor sandstone and grit facies. Upward change from argillaceous to carbonate mudstone. Locustine to flood plain.
Eocene-Miocene	NEOPROTEROZOIC UNIT 23: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Tm	Eocene-Miocene SILICRETE UNIT 1: Regionally older silcrete, approx Late Eocene-Mid Miocene.
TERTIARY	NEOPROTEROZOIC UNIT 24: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Tn	TERTIARY FERRICRETE UNIT 3: Tertiary ferricrete duricrust of the Carnarvon Duricrust, developed on Mesozoic and Palaeozoic units.
CRETACEOUS	NEOPROTEROZOIC UNIT 25: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Cs	COALS-OWIE FORMATION: Sandstone, fine-grained, with coarse-grained sandstone beds, and pure grey siltstone, minor conglomerate.
PERMIAN	NEOPROTEROZOIC UNIT 26: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
W	WAITOONA BEDS: Sandstone, conglomerate. Alluvial fan.
ORDOVICIAN-DEVONIAN	NEOPROTEROZOIC UNIT 27: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Od	ORDOVICIAN DEVONIAN UNIT 1: Waitoona Beds, Mistake Beds. Based on CO. Scale 1:250 000 (geology map 1991).
ORDOVICIAN-SILURIAN	NEOPROTEROZOIC UNIT 28: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Os	ORDOVICIAN-SILURIAN ROCKS: Undifferentiated Ordovician-Silurian rocks.
Os1	MURDO GROUP: Sandstone, quartzite, felsophic, calcareous, micaceous, minor siltstone, mafic and green, rare conglomerate. Felsophic to silt.
Os2	BLUE HILLS SANDSTONE: Sandstone, red-brown, fine to medium-grained, fossiliferous or porous, with pebbles beds, sandstone, felsophic, micaceous. Thin beds, cross bedded.
Os3	WILLIAMS SHALE: Shale, maroon, minor green, calcareous, this white flaggy siliceous sandstone interbeds, rare limestone and micaceous silty sandstone lenses. Fossils, decalcified, silicified. R/S of age 400-12 Ma or 430-10 Ma.
Os4	MOUNT CHAMBERS SANDSTONE: Quartz sandstone, well-sorted, fine to medium-grained, white, coarsens with heavy mineral lenses, calcareous, fossiliferous, browned, change to reddish, minor layers of polished quartz pebbles.
CAMBRIAN	NEOPROTEROZOIC UNIT 29: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Cs1	TRANDOR HILL SANDSTONE: Sandstone, well-sorted, calcareous, felsophic, calcareous, white, grey, red-brown, siltstone and claystone, micaceous, red-brown pebbly horizons.
Cs2	MOUNT JOHN CONGLOMERATE MEMBER: Conglomerate, poorly sorted, red-brown, cross-bedded felsophic sandstone.
Cs3	OBSERVATORY HILL FORMATION: Siltstone and claystone, micaceous, calcareous and dolomite in part, minor sandstone, limestone and dolomite. Minor chert.
NEOPROTEROZOIC	NEOPROTEROZOIC UNIT 30: Olivine melanocrystic dykes. Based on green unit with black dots on EVERARD.
Np1	ROCKA BEES: Siltstone, grey-green, shaly, calcareous and dolomitic, sandstone and dolomite, grey, fine-grained, as dumpled blocks, sandstone and grit, felsophic or calcareous.
Np2	MURKARD FORMATION: Sandstone, pale grey-green to green with brownish staining, fine to medium-grained, minor siltstone interbeds.
Np3	WANTPELLA VOLCANICS: Basalt, altered, amygdaloidal, tholeiitic, with minor silt and grey sandstone interbeds.
Np4	CHAMBERS BLUFF TILLITE: Diabase, gritty siltstone, pale brown and green sandstone and quartzite, white, felsophic, metachert.

TOTAL MAGNETIC INTENSITY IMAGE



SOLID GEOLOGY INTERPRETATION



SCALE 1:250,000

KILOMETRES 0 5 10 15 20 25 KILOMETRES

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2020

Topographic detail based on TOPO-250K GEOGRAPHIC (source scale 1:250 000) supplied by Geoscience Australia - National Mapping Division, ACT. The relationship between this data and GSD 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.

Compiled by G.W. King, B.Sc. (Hons). Mapping by G.W. King, B.Sc. (Hons), and R.B. Major, B.Sc. (Hons).

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.

INDEX TO 1:100 000 SHEETS

Carnegie 5343	Elitina 5443	Wantapella 5543
Narana 5342	Oclarina 5442	Ammanoodina 5542

INDEX TO ADJOINING 1:250 000 SHEETS

WOODROFFE	ALBERGA	ABINGA
LINDSAY	EVERARD	WIKITINA
WELLS	GLIES	MURDOCHPPE



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

GEOLOGICAL BOUNDARY

CLAYPAN
GEOLOGICAL BOUNDARY INFERRED
GEOLOGICAL BOUNDARY POSITION ACCURATE
GEOLOGICAL BOUNDARY POSITION APPROXIMATE

COMMODITIES

OPAL
Opal

MINING

PROSPECT
X

LINEAR STRUCTURES

ESCARPMENT APPROXIMATE, TOPOGRAPHIC
FAULT INFERRED
FAULT POSITION ACCURATE
FAULT POSITION APPROXIMATE
FOLiation TREND METAMORPHIC
GILGAI
JOINT PATTERN
PALAEOCHANNEL TRACE
SILICRETE RIDGES
TRENCH-LINE

CULTURAL FEATURES

PRINCIPAL ROAD
MAJOR ROADS
VEHICULAR TRACKS
OPERATIONAL RAILWAY
FENCE
IDENTIFIED POINT
BUILDING
YARDS
LANDING GROUND
TOWN OR LOCALITY

HYDROGRAPHIC AND GEOMORPHIC FEATURES

INTERMITTENT LAKE
MAJOR WATERCOURSE
MINOR WATERCOURSE
FLOODPLAIN
SWAMP
WATERHOLE
SPRING
BORE
WATER TANK
SAND RIDGE

STRUCTURAL FEATURES

ORIGINALLY HORIZONTAL SEDIMENTARY BEDDING
ORIGINALLY VERTICAL SEDIMENTARY BEDDING - VERTICAL
JOINT - HORIZONTAL
JOINT - VERTICAL
JOINT
LINEAR STRUCTURAL ELEMENT
TECTONIC FOLiation - HORIZONTAL
TECTONIC FOLiation - VERTICAL
TECTONIC FOLiation