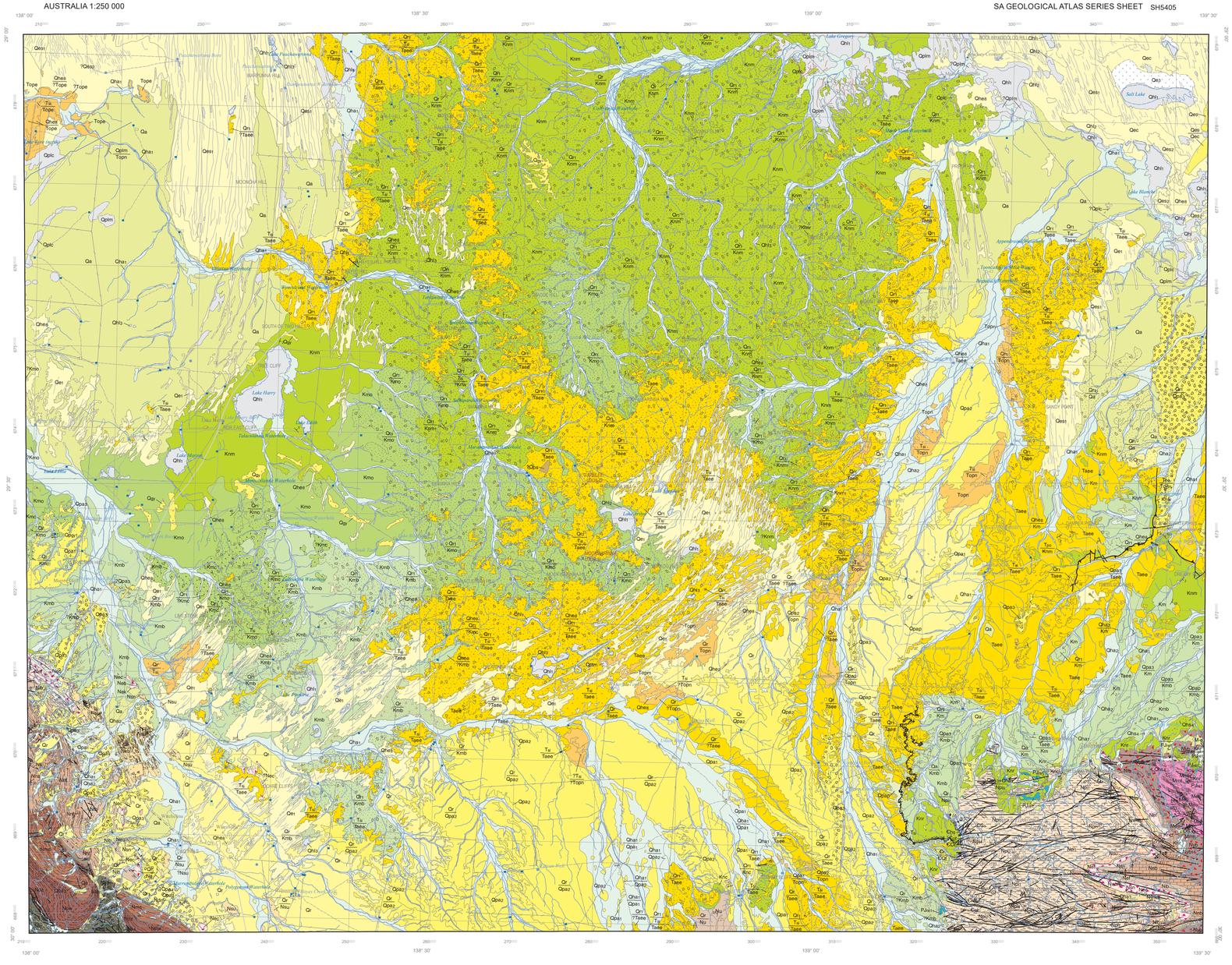
MARREE

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA
DEPARTMENT FOR ENERGY AND MINING

AUSTRALIA 1:250 000

SA GEOLOGICAL ATLAS SERIES SHEET SH5405



REFERENCE

HOLOCENE

- Qha — HOLOCENE ALLUVIAL/FLUVIAL SEDIMENTS: Undifferentiated Holocene alluvial/fluvial sediments.
- Qha_1 — HOLOCENE ALLUVIAL/FLUVIAL UNIT 1: Present day Holocene alluvium; current bedload.
- Qha_2 — HOLOCENE ALLUVIAL/FLUVIAL UNIT 2: Holocene alluvium slightly older than present day alluvium (Qha1); commonly in terraces adjacent to main channel.
- Qha_4 — HOLOCENE ALLUVIAL/FLUVIAL UNIT 4: Holocene proximal alluvial fan sediments with gilgai.
- Qha_5 — HOLOCENE ALLUVIAL/FLUVIAL UNIT 5: Holocene alluvial plain sediments.
- Qha_7 — HOLOCENE ALLUVIAL/FLUVIAL UNIT 7: Holocene talus/scree deposits. High angle colluvial to alluvial sediments.
- Qhe_2 — HOLOCENE AEOLIAN UNIT 2: Holocene sand capping dunes in dunefields.
- Qhe_8 — HOLOCENE AEOLIAN UNIT 8: Holocene quartz sand dunes and spreads; locally derived from Cretaceous to Quaternary sandy rocks and alluvium.
- Qhl — HOLOCENE LACUSTRINE/PLAYA SEDIMENTS: Undifferentiated Holocene lacustrine/playa sediments.
- Qhl_1 — HOLOCENE LACUSTRINE/PLAYA UNIT 1: Holocene playa sediments.
- Qhl_2 — HOLOCENE LACUSTRINE/PLAYA UNIT 2: Holocene playa margin/beach sediments.
- Qhl_3 — HOLOCENE LACUSTRINE/PLAYA UNIT 3: Holocene claypan and lagoonal sediments.
- Qhr — HOLOCENE REGOLITH/COLLUVIAL SEDIMENTS: Undifferentiated Holocene colluvial/regolith sediments.
- Qhr_4 — HOLOCENE SPRING UNIT 4: Holocene calcareous sand, travertine, tufa of modern springs.

PLEISTOCENE-HOLOCENE

- Q — QUATERNARY ROCKS: Undifferentiated Quaternary rocks.
- Qa — QUATERNARY ALLUVIAL/FLUVIAL SEDIMENTS: Undifferentiated Quaternary alluvial/fluvial sediments.
- Qa_1 — QUATERNARY ALLUVIAL/FLUVIAL UNIT 1: Low angle Quaternary alluvial fan sediments.
- Qa_2 — QUATERNARY ALLUVIAL/FLUVIAL UNIT 2: Quaternary high angle alluvial fan/talus sediments.
- Qa_3 — QUATERNARY ALLUVIAL/FLUVIAL UNIT 3: Quaternary low angle alluvial fan and plain sediments (undifferentiated). Based on Qa on WARRINA, CURDIMURKA.
- Qe_2 — QUATERNARY AEOLIAN UNIT 1: Quaternary dunefield sands.
- Qe_3 — QUATERNARY AEOLIAN UNIT 3: Quaternary gypsiferous dunes/lunettes.
- Qe_9 — QUATERNARY AEOLIAN UNIT 9: Quaternary clay-pellet lunettes.
- Qec — COONARBINE FORMATION: Dune sand, red coated, frosted quartz grains, yellow to orange, clay pellets, gypsum flakes. Aeolian.
- Qes_1 — SIMPSON SAND UNIT 1: Longitudinal sand dunes. STRZELECKI sheet.
- Qes_2 — SIMPSON SAND UNIT 2: Hummocky sand dunes. STRZELECKI sheet.
- Qr — QUATERNARY REGOLITH/COLLUVIAL SEDIMENTS: Undifferentiated Quaternary colluvial/regolith sediments.
- Qr_{10} — QUATERNARY REGOLITH/COLLUVIAL UNIT 1: Quaternary gibber-mantled colluvium. Based on Q on MURLOCOCOPPIE.
- Qrgy — QUATERNARY GYPCRETE: Undifferentiated Quaternary gypcrete.

PLEISTOCENE

- Qp — PLEISTOCENE ROCKS: Undifferentiated Pleistocene rocks.
- Qpa_1 — PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 1: Pleistocene fluvial sediments: red-brown clayey sand of terrace deposits. Example: Qc1 on CHOWILLA.
- Qpa_2 — PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 2: Pleistocene gypcrete/carbonate-cemented gravel. Based on Qpt on WARRINA, CURDIMURKA.
- Qpa_3 — PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 3: Pleistocene high-level alluvial fan gravel. Based on Qpa1 on preliminary WARRINA.
- Qpa_4 — PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 4: Pleistocene low-level alluvial fan gravel. Based on Qpa2 on preliminary WARRINA.
- Qpa_{14} — PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 14: Gravel, colluvial to proximal channel origin, gypcreted. Gibber-covered when mapped as overlying other units. Based on Qpg. CURDIMURKA.
- Qpap — POORAKA FORMATION: Clay, sand and carbonate earth, silty, with gravel lenses.
- Qplc — COOMB SPRING FORMATION: Sand, white to yellow, coarse-grained, well sorted. Lacustrine, beach ridges.
- Qplm — MILLYERA FORMATION: Clay, greenish; thin algal limestone; fine-grained white to greenish sand. Lacustrine to floodplain. Age ~145 000 to 60 000-30 000 years BP.
- Qpl — PLEISTOCENE LACUSTRINE/PLAYA SEDIMENTS UNIT 2: Pleistocene playa margin/beach sediments: fine to coarse fossiliferous sand and gravel.
- Qpls — PLEISTOCENE SPRING SEDIMENTS: Undifferentiated Pleistocene mound and other spring sediments.
- Qplgy — PLEISTOCENE GYPCRETE: Undifferentiated Pleistocene gypcrete.
- $Qplgy_1$ — PLEISTOCENE GYPCRETE UNIT 1: Pleistocene high-level gypcrete: WARRINA sheet.

PLIOCENE-PLEISTOCENE

- $TpQa_1$ — PLIOCENE-PLEISTOCENE ALLUVIAL/FLUVIAL UNIT 1: Pliocene to Pleistocene gypcreted and carbonate-cemented polymict gravel. Based on Czg on CURDIMURKA.

OLIGOCENE-PLIOCENE

- Tope — ETADUNNA FORMATION: White dolomite and limestone with green and grey Mg rich claystone and fine-grained sand.
- Topn — NAMBA FORMATION: Sand, fine to medium-grained, poorly sorted, angular, silt, thin dolomite, oolitic dolomite interbeds. Shallow, brackish to fresh water lakes.

EOCENE-MIOCENE

- $Tenlo_2$ — EOCENE-MIOCENE SILCRETE UNIT 1: Regionally older silcrete; approx Late Eocene-Mid Miocene.

PALEOCENE-EOCENE

- Taee — EYRE FORMATION: Pyritic, carbonaceous sand, grain-size ranges from silt to small cobble, with beds of lignite and clay. Clays are montmorillonite, kaolinite and illite. Braided streams.

TERTIARY

- T — TERTIARY ROCKS: Undifferentiated Tertiary rocks.
- Tpo — TERTIARY PORCELLANITE: Undifferentiated Tertiary porcellanite.
- Tsil — TERTIARY SILCRETE: Undifferentiated Tertiary silcrete.

CRETACEOUS-PALEOCENE

- KTafe — CRETACEOUS-PALEOCENE FERRUGINISATION: Undifferentiated ferruginisation. Based on Tfe1 on KINGOONYA.

CRETACEOUS

- Kaw — WINTON FORMATION: Shale; siltstone; sandstone. Non-marine, minor coal horizons.
- Kam — MACKUNDA FORMATION: Sandstone, calcareous; siltstone; shale.
- Kam_1 — MACKUNDA FORMATION UNIT 1: Marginal marine deltaic yellow-brown fine-medium sand interbedded with green-grey silt, silty clay; bimodal cross-bedding. Upper unit.
- Km — MARREE SUBGROUP: Shale, dark grey, bioturbated, fossiliferous; sandstone, fine to very fine grained, calcareous, clayey.
- Kmo — OODNADATTA FORMATION: Claystone and siltstone, interbedded; with fine-grained sandstone, calcareous and ferruginous concretions; limestone with celestite and barite veins.
- Kdc — COORIKIANA SANDSTONE: Sandstone, very fine to fine-grained, calcareous, clayey; sandy siltstone; minor siltstone.
- Kmb — BULLOCG SHALE: Mudstone, grey, bioturbated, fossiliferous and shaly; minor silt to very fine-grained sandstone intervals.
- K-c — CADNA-OWIE FORMATION: Sandstone, fine-grained, with coarse-grained sandstone beds, and pale grey siltstone, minor conglomerate.
- K-r — TRINITY WELL SANDSTONE: Sandstone, pebbly; ferruginous, carbonate cemented; sandstone, medium to coarse-grained, feldspathic with crossbedding.
- K_1b — UVWGSTON TILLITE MEMBER: Tillite with disrupted sandy, silty matrix; locally cemented by carbonate or iron oxide.

JURASSIC-CRETACEOUS

- JK-v — VILLAGE WELL FORMATION: Siltstone, pale grey; sandstone, fine-grained, minorslumps and crossbeds.

PERMIAN-JURASSIC

- PJ_2w_1 — BOPEECHEE REGOLITH: Saprolite overlain by waste mantle or slope debris/colluvium; developed in Mesoproterozoic granite or Adelaidean metasediments.

ORDOVICIAN-SILURIAN

- $\in Ol_1$ — ORDOVICIAN-SILURIAN UNIT 1: Metadolerite, porphyritic, dykes. K-Ar whole-rock age 447.6+-9.3Ma.
- $\in Os\text{-}m_1$ — MUDNAWATANA TONALITE: Tonalite, weakly foliated medium-grained granitoid, of quartz, feldspars, and biotite. Rb/Sr age 431+-17 (IR=0.706) and 427+-133 Ma (IR=0.7056).
- $\in Os\text{-}m_3$ — MUDNAWATANA TONALITE UNIT 1: Pegmatite; related to Mudnawatana Tonalite.

CAMBRIAN

- Ebs — WESTERN SPUR LIMESTONE: Ooid grainstone, light to dark grey, massive, bedded, cross-bedded; dolostone, buff, fine-grained, crystalline, as interbeds in upper part; rare stromatolites. Sharp erosional base.
- Eot — URATANNA FORMATION: Sandstone, mudclast-rich, medium-grained to pebble quartzite; siltstone and shale, green; thin mud-cracked sandstone and limestone. Fossiliferous.
- Eot_1 — URATANNA FORMATION UNIT 1: Basal, sandy, conglomeratic dolomite, upward fining, uncoformable base. Stromatolites, sandstone interbeds, pebble trains, cross-bedding. Blanchewater 1:100 000.

NEOPROTEROZOIC

- Np_4 — BILLY SPRINGS FORMATION UNIT 4: Sandstone, medium-grained, flat and cross-bedded, ripples, mudcracks and mud clast impressions; upper part. Siltstone; sandstone, mature; in 50m paraequences; lower part. MARREE, upper portion of Np1.
- Np_3 — BILLY SPRINGS FORMATION UNIT 3: Grainstone, ooid, cross-bedded; dolomite, stromatolitic, interbedded. Erosional base. MARREE, base to Np4.
- Np_2 — BILLY SPRINGS FORMATION UNIT 2: Grainstone, ooid, cross-bedded; limestone, intraformational and conglomeratic; limestone, stromatolitic; sandstone. Erosional base. MARREE, middle section of Np1.
- Np_1 — BILLY SPRINGS FORMATION UNIT 1: Siltstone, olive-green, finely laminated; sandstone, immature, tempestite; in paraequences. Dolostone, stromatolitic; grainstone, ooid, minor. MARREE, lower portion of Np1.
- Nwe — WONOKA FORMATION: Shale, grey, calcareous; flaggy dolomite, limestone and silt.
- Nwe_1 — WONOKA FORMATION UNIT 1: Sandstone interbeds.
- Nwob — BURR WELL MEMBER: Dolomicrite, white, buff-brown-weathering, massive. Locally laminated, comprising condensed event sequences of shale with dolomicrite hardgrounds on top; no erosive base.
- Nwob — WEARING DOLOMITE MEMBER: Dolomite, green, cupriferous.
- Neb — BUNYEROO FORMATION: Siltstone, shale, grey-red to grey-green, partly calcitic, minor fine grained sandstone; dolomite, grey; limestone, grey, lenses, thin beds.
- Nas — ABC RANGE QUARTZITE: Quartzite, slightly feldspathic, fine to medium grained, pale pinkish grey, clay intraclasts, flaggy to medium bedded, heavy mineral lamination, minor siltstone.
- Nu — ULUPA SILTSTONE: Siltstone; shale, green-grey and purple.
- Non — NUCCALEENA FORMATION: Dolomite, thin, laminated, micritic, with interbedded shale near the top.
- Nas — SEACLIFF SANDSTONE: Quartzite; sandstone; siltstone.
- Nu — UMBERATANA GROUP: Diamictite; sandstone; siltstone; arkose; dolomite; quartzite; conglomerate; shale; greywacke.
- Nuf — YERELINA SUBGROUP: Siltstone; sandstone; diamictite.
- Nak — KETCHOWLA SILTSTONE: Siltstone, grey and grey-green siltstone, calcareous, laminated, scattered quartz granules, isolated dropstones.
- Nap^1 — BALPARANA SANDSTONE: Sandstone, pale grey, medium-grained; siltstone, minor; grit and pebble lenses.
- Nu^2 — MOUNT CURTIS TILLITE: Diamictite, massive, with dolomitic and silty matrix.
- Neu — GUMBOWIE ARKOSE: Sandstone, arkosic.
- Nef — FORTRESS HILL FORMATION: Siltstone, gritty; dolomitic lenses, and cobbles.
- Nib — AMBERONA FORMATION: Shale, green, finely laminated, silty; purple and grey silty shale.
- Nib_1 — AMBERONA FORMATION UNIT 1: Slumped units of regional extent in Amberoona. Based on dots symbol in Amberoona on ANDAMOOKA.
- Niy — YANKANNINA FORMATION: Siltstone, grey-green, thinly bedded, calcareous, with lenses of dolomite.
- Niy_1 — YANKANNINA FORMATION UNIT 1: Dolomite, buff-weathering grey.
- Nwc — BALCANOONA FORMATION: Dolomite, pale grey; limestone, dark grey; algal, oolitic.
- 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.
- Nnt — TAPLEY HILL FORMATION UNIT 2: Lenticular conglomerate, sandy dolomitic matrix; grit to boulder-sized clasts include lower Nft and erratics from Nua. Based on conglomerate lenses on PARACHILNA, COPLEY, Mt Painter and Worumba Anticline maps.
- Nntt — TINDELPINA SHALE MEMBER: Shale, pyritic, carbonaceous; thinly laminated grey dolomite beds and lenses.
- Nns — SERLE CONGLOMERATE: Conglomerate; grit; carbonaceous shale.
- Nyw — WILYERPA FORMATION: Siltstone, green. Lower third is fine grained, includes glacial dropstones; middle unit is medium to coarse sandstone; upper unit is siltstone with minor sandstone. Minor diamictite, sandy and pebbly dolomite.
- Nyb — BOLLA BOLLANA TILLITE: Tillite, massive boulder tillite with high boulder content, gritty sub-greywacke matrix, minor quartzite and laminated siltstone.
- Nyb_1 — BOLLA BOLLANA TILLITE UNIT 1: Siltstone, quartzite, often amphibolitic.
- Nyb_2 — BOLLA BOLLANA TILLITE UNIT 2: M.g.-c.g. shallow-water feldspathic quartzite paraequences, close to basal contact. Blanchewater 1:100 000.
- Nyf — FITTON FORMATION: Conglomerate; arkose, pebbly; quartzite, white, massive, interbedded with silty shale.
- Nyh — HAMILTON CREEK MEMBER: Grey to olive laminated silty mudstone; granule to boulder sandy conglomerate (clasts mainly granite); sandstone, diamictite, locally with abundant granite clasts.
- Nsm — MYRTLE SPRINGS FORMATION: Siltstone, green; minor quartzite and dolomite.
- Nms — SKILLOGALEE DOLOMITE: Dolomite, marble, with magnesite mud-pellet conglomerates.
- Nsw — WITCHELINA QUARTZITE: Quartzite; sandstone; shale.
- Nsz — WILLARALPA FORMATION: Sandstone, pale brown, coarse-grained; siltstone, sandy; dolomite, stromatolitic.
- Nk — TOP MOUNT SANDSTONE BEDS: Quartzite and sandstone, medium to coarse grained, with interbedded finely laminated siltstone and grey dolomite and limestone. Ripple marks, mudcracks, lenticular bedding and wavy lamination.
- Nk — CURDIMURKA SUBGROUP: Siltstone, dark grey, carbonaceous, ilitic, pyritic, laminated, micaceous; sandstone, feldspathic, illitic, cross bedded, halite casts; dolomite, stromatolitic, cryptalgal laminated, brown to yellow weathering; limestone, stromatolitic.
- Nk_1 — CURDIMURKA SUBGROUP UNIT 1: Siltstone rafts in diapirs. Based on red-dashed white unit on COPLEY.
- Nk_2 — CURDIMURKA SUBGROUP UNIT 2: Dolomite rafts in diapirs. Based on red-bricked white unit on COPLEY.
- Nk_4 — CURDIMURKA SUBGROUP UNIT 4: Quartzite/sandstone rafts in diapirs. Based on blue-dotted white unit on COPLEY.
- Nkb — BOORLOO SILTSTONE: Siltstone, laminated, carbonaceous, dark grey, thin planar dolomite bands.
- Nkb_1 — BOORLOO SILTSTONE UNIT 1: Limestone, dolomite, siltstone, well bedded. Based on red symbol in Boorloo Siltstone on CURDIMURKA.
- Nkc — COORANNA FORMATION: Sandstone; siltstone, halite casts, mudcracks, ripples, shortite.
- Nr — RECOVERY FORMATION: Siltstone, grey, thin bedded, micaceous; sandstone, with halite casts.
- Nbc — BLACK KNOB MARBLE: Marble, black, carbonaceous, calcitic. Smoky quartz, potash feldspar, in some beds. Chalcedonic nodules in some bedding planes.

MESO-NEOPROTEROZOIC

- MN_1 — MESOPROTEROZOIC-NEOPROTEROZOIC UNIT 1: Meta-mafic rocks: basalt, dolerite, gabbro, rare andesite, all amphibole to biotite-chlorite-altered. Dykes, sills, pods, plugs. Intrude Mount Babbage Inlier and Mount Painter Inlier.

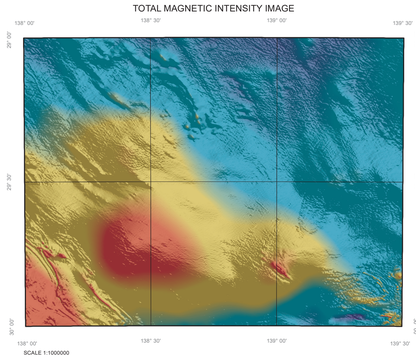
MESOPROTEROZOIC

- Mmr — TERRAPINNA GRANITE: Granite, grey, ovoid K feldspar megacrysts.
- Mmr_1 — TERRAPINNA GRANITE UNIT 1: Sparsely xenocrystic/porphyritic variety of granite.
- Mmw — WATTLEOWIE GRANITE: Granite, grey-white, leucocratic, weakly gneissic.
- Mr — PETERMORRA VOLCANICS: Rhyolite, rhyodacite and dacite, K-feldspar and quartz phenocrysts; tuff; ignimbrite; epiglomerate; epiclastic lithic sandstone, basal sericitic sandstone. Strongly deformed. Age 1580+-13 Ma (U-Pb zircon).
- Mr_2 — RADIUM CREEK GROUP UNIT 7: Gneissic to granoblastic metasedimentary migmatitic gneiss.
- Mr_6 — RADIUM CREEK GROUP UNIT 6: Calcicalcite metasediments: dark, recrystallised, often porphyroblastic, gneissic to massive.
- Mr_5 — RADIUM CREEK GROUP UNIT 5: Orthoquartzite, m.g.-c.g.; schist, psammitic; sandstone, meta-quartzitic; amphibolite, sericitic; minor immature sandstone. Orthogneiss. Rare heavy-mineral banding, isoclinal folding. Metagabbro: age 1991+-0Ma, 1600+-8Ma (U-Pb SHRIMP).
- Mr_4 — RADIUM CREEK GROUP UNIT 4: Mica schist, intermixed psammitic and pelitic.
- Mr_3 — RADIUM CREEK GROUP UNIT 3: Schist, quartz-feldspar-mica.

MISCELLANEOUS

- BRECCIA UNIT 1: Fault breccia.
- BRECCIA UNIT 3: Diapiric breccia, typically with carbonate matrix, clasts mostly of Callanna Group rocks, emplaced or remobilised during Delamerian Orogeny.
- BASALT UNIT 1: Basalt in diapiric breccia. Based on green unit in Cambro-Ordovician tectonic breccia on CURDIMURKA.
- QUARTZ VEIN: Quartz veins/bodies, undifferentiated.
- Qv_3 — QUARTZ VEIN UNIT 3: Quartz vein as fault-fill.
- sh_1 — SHEARED ROCKS UNIT 1: Tectonic schist, mylonite and minor breccia, Paralana Fault-Shear Zone; Moolawatana, Paralana 1:100 000.

TOTAL MAGNETIC INTENSITY IMAGE



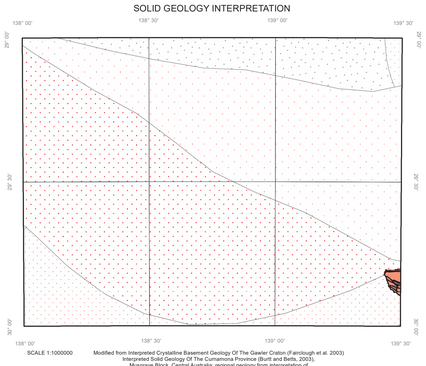
SCALE 1:1000000

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: -293.583 to 1163.971; -304.046 to -64.265 to 175.517

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 (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

M38	Mesoproterozoic unit 38	AM4	Archaean-Mesoproterozoic unit 4
M39	Mesoproterozoic unit 39	AM5	Archaean-Mesoproterozoic unit 5
Lr	Radium Creek Metamorphics	AM6	Archaean-Mesoproterozoic unit 6
LM13	Palaeoproterozoic-Mesoproterozoic unit 13	AM7	Archaean-Mesoproterozoic unit 7
AM2	Archaean-Mesoproterozoic unit 2		

Solid Geology - Linear Structure

- Fault position accurate
- Fault position approximate

SCALE 1:250,000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

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2020

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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.

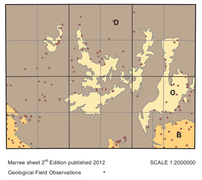
Mapping and Compilation by M.R. White, Ph.D., M.J. Sheard, B.App.Sc., and P.W. Reid, B.Sc.(Hons) with contributions by N.F. Alley, Ph.D., G.W. Krieg, B.Sc.(Hons), P.A. Rogers, B.Sc.(Hons), R.A. Callen, M.Sc., W.V. Preiss, Ph.D., A. I. Rowell, Ph.D., B.G. Forbes, Ph.D., R.P. Coats, B.Sc., B.P. Webb, MSc., R.C. Horwitz, D.Sc., B. Campana, D.Sc., D. Thatcher, B.Sc., and N.H. Ludbrook, Ph.D.

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



Marree sheet 2nd Edition published 2012 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

Clayton 6539	Cooryanna 6639	Tooncatchyin 6739
Marree 6538	Apollinaris 6638	Blanchewater 6738

INDEX TO ADJOINING 1: 250 000 SHEETS
Magnetic Declination 2000
(Annual variation +1.4 minutes)

LAKE EYRE	KOPPERAMANNA	STRZELECKI
CURDIMURKA	MARREE	CALLABONNA
ANDAMOOKA	COPLEY	FROME

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

GEOLOGICAL BOUNDARY

- GEOLOGICAL BOUNDARY POSITION ACCURATE
- GEOLOGICAL BOUNDARY POSITION APPROXIMATE
- TRANSITIONAL GEOLOGICAL BOUNDARY

STRUCTURAL FEATURES

- ORIGINALLY HORIZONTAL SEDIMENTARY BEDDING
- SLATY CLEAVAGE

LINEAR STRUCTURES

- BRECCIA ZONE
- ESCARPMENT
- FAULT NORMAL TICKS ON YOUNGER ROCKS POS APPROX
- FAULT POSITION ACCURATE
- FAULT POSITION APPROXIMATE
- FAULT THRUST TRIANGLES ON UPTHROWN SIDE
- FOLD AXIAL LINES POSITION ACCURATE
- LINEAMENT
- OPEN CUT QUARRY
- PALAEOCHANNEL TRACE
- SHEAR ZONE
- STRANDLINES
- TREND-LINE

CULTURAL FEATURES

- ANTICLINE
- SYNCLINE
- PRINCIPAL ROAD
- SECONDARY ROAD
- MINOR ROADS
- VEHICULAR TRACKS
- ABANDONED RAILWAY
- FENCE
- WATER PIPELINE
- IDENTIFIED POINT
- BUILDING
- YARDS
- LANDING GROUND

HYDROGRAPHIC AND GEOMORPHIC FEATURES

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

MINING

- PROSPECT
- DEPOSIT - NO MINING
- MINE - METALS AND INDUSTRIAL MINERALS

COMMODITIES

Cu	Copper
TALC	Talc
U	Uranium
U3O8	Uranium Oxide

Government of South Australia
Department for Energy and Mining

GDA2020

MARREE
SH5405