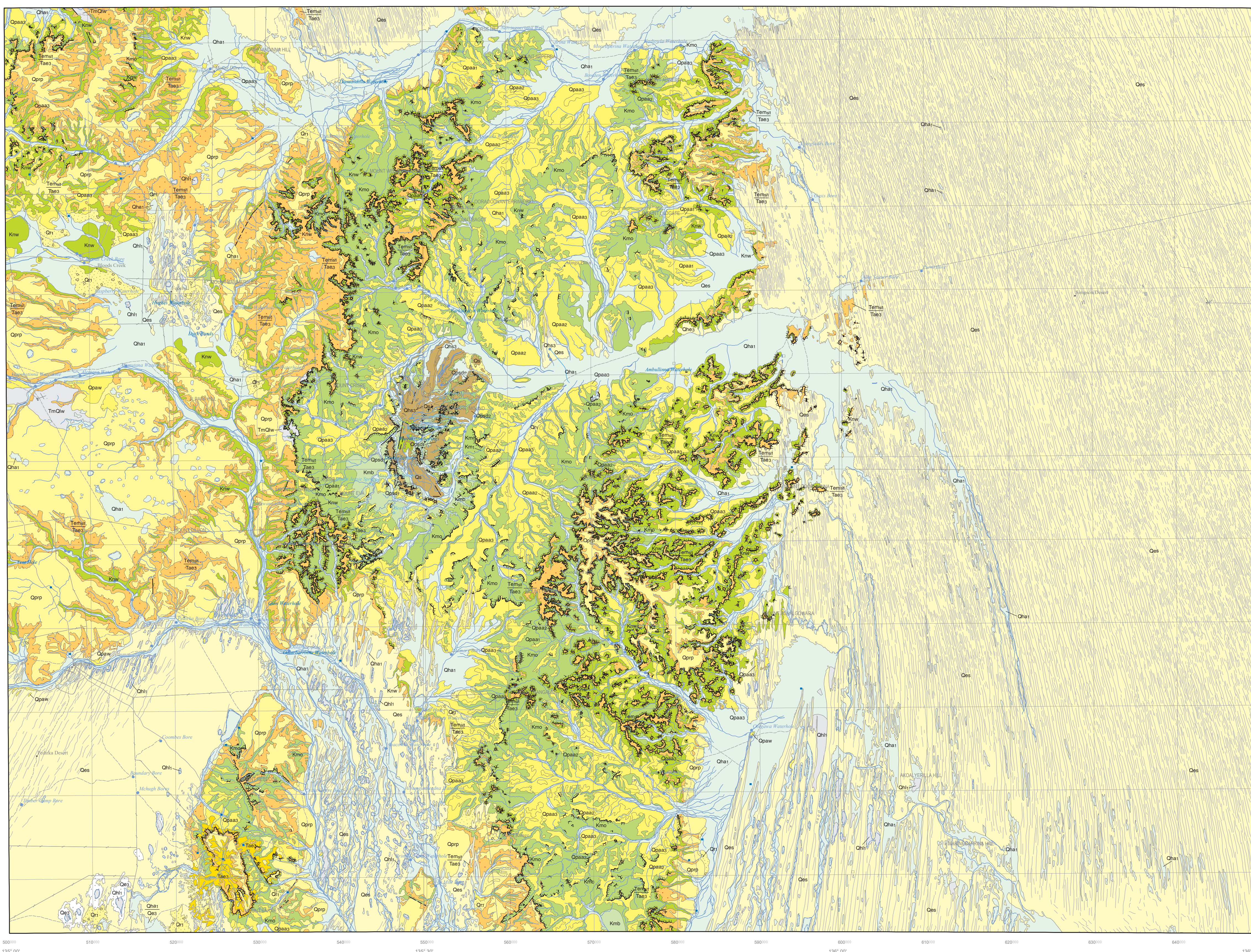


# DALHOUSIE

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA  
DEPARTMENT FOR ENERGY AND MINING

AUSTRALIA 1:250 000

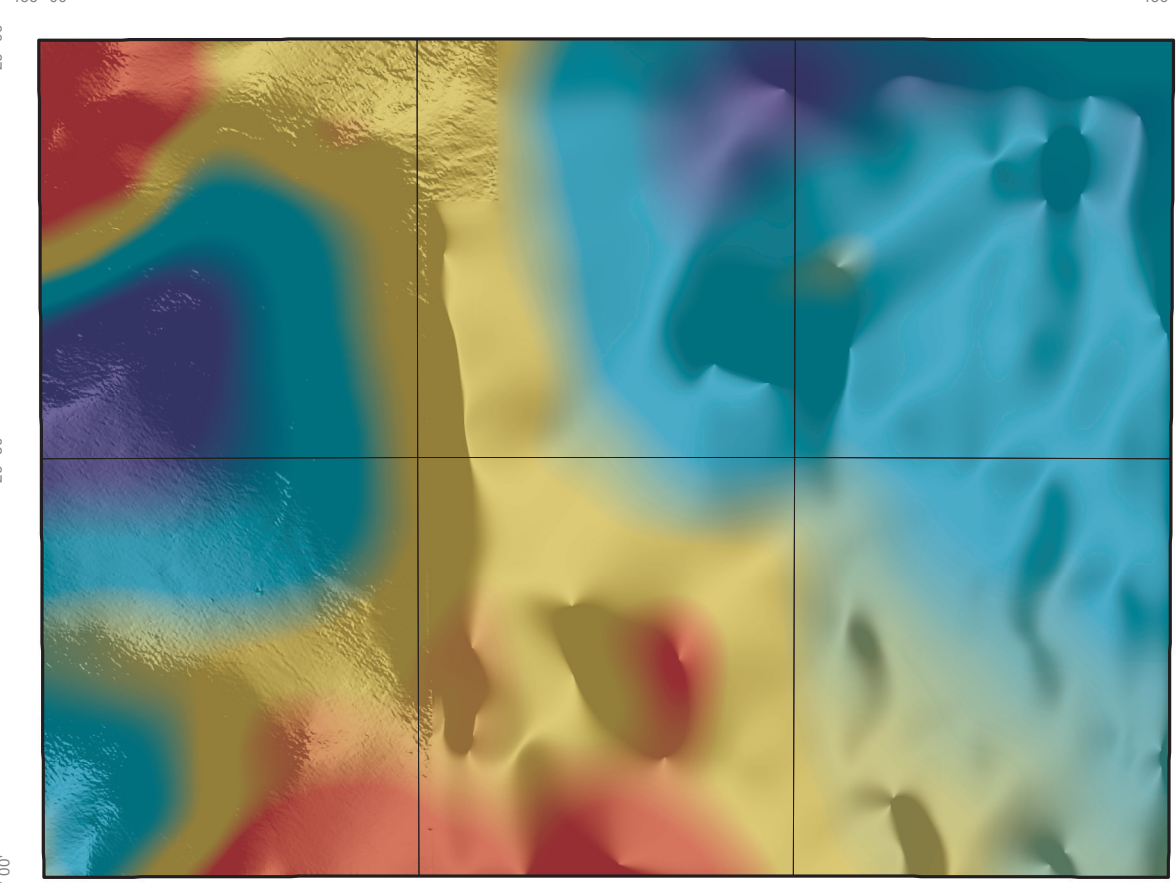
SA GEOLOGICAL ATLAS SERIES SHEET SG5311



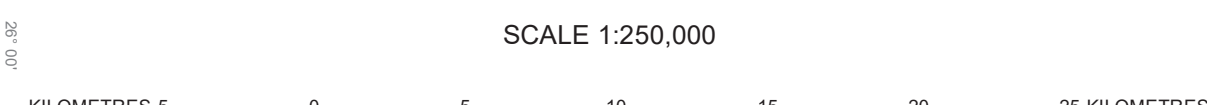
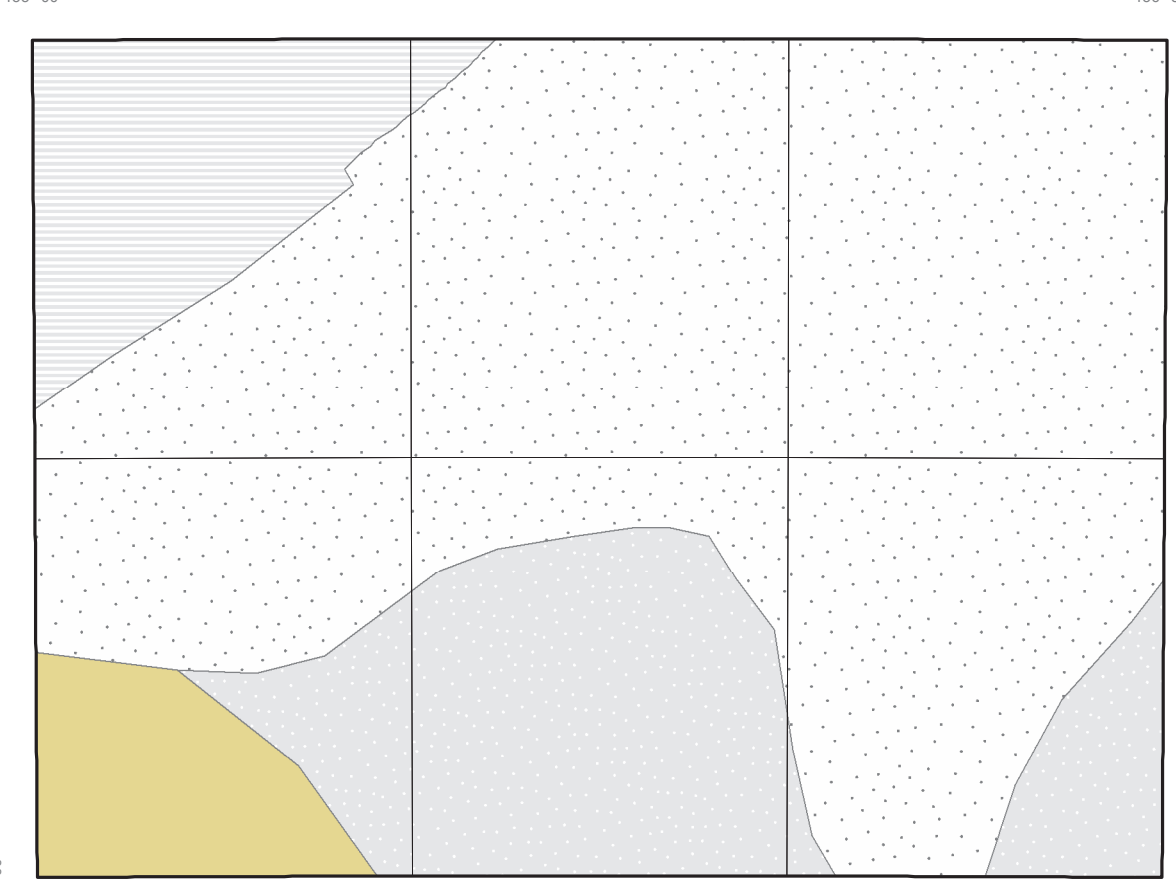
## REFERENCE

- HOLOCENE**
- Qh1 HOLOCENE ALLUVIAL/FLUVIAL UNIT 1: Present day Holocene alluvium; current bedrock.
  - Qh2 HOLOCENE AELIAN UNIT 3: Holocene sand spread.
  - Qh3 HOLOCENE LACUSTRINE/PLA UNIT 1: Holocene playa sediments.
  - Qh4 HOLOCENE SPRING UNIT 3: Holocene saline mudflat of spring-fed marsh. Based on Qh3 (part) on DALHOUSIE.
- PLEISTOCENE-HOLOCENE**
- Qp1 QUATERNARY ALLUVIAL/FLUVIAL UNIT 3: Quaternary low angle alluvial fan and plain sediments (unfossiliferous). Based on Qh on WARRINA, CROOKWELL.
  - Qp2 QUATERNARY AELIAN UNIT 3: Quaternary gypsiferous dunes/flat.
  - Qp3 SIMPSON SAND: Quartz sand, dune sand, scallan, clay pans.
  - Qp4 QUATERNARY REGOLITH/COLLUVIAL UNIT 1: Quaternary gypseous-marlled colluvium. Based on Q on MURDOCCPPE.
  - Qp5 QUATERNARY SPRING SEDIMENTS: Unfossiliferous Quaternary mud and other spring sediments.
- PLEISTOCENE**
- Qp6 WOODGATE GRAVEL: Gravel, sand, light red-brown to brick red, patches of shales, concretions and chert. Local cross bedding and low angle current bedding.
  - Qp7 ALBERTA GRAVEL UNIT 1: Gravel, gypsiferous, polymict, high level dissected surface, undulating surface, more extensive and lower than Qp4. Based on Qp1 on DALHOUSIE.
  - Qp8 ALBERTA GRAVEL UNIT 2: Gravel, gypsiferous, polymict, high level dissected surface, undulating surface, more extensive and lower than Qp4. Based on Qp2 on DALHOUSIE.
  - Qp9 ALBERTA GRAVEL UNIT 3: Gypsiferous gravel of youngest dissected surface. Based on Qp3 on DALHOUSIE.
  - Qp10 ALBERTA GRAVEL UNIT 4: Gravel, cross-bedded channel deposit, with shales of Gulliver Formation. Based on Qp4 on DALHOUSIE.
  - Qp11 DALHOUSIE FORMATION UNIT 2: Younger unit forming lower level mesas. Based on Qp2 on DALHOUSIE.
  - Qp12 DALHOUSIE FORMATION UNIT 1: Older unit forming higher level mesas. Based on Qp1 on DALHOUSIE.
  - Qp13 PEDRKA FORMATION: Clay, red-brown, structured sandy, overlain by a thick mantle of siltstone shales.
- MIOCENE-PLEISTOCENE**
- Tr1 MOUNT WILLOUGHBY Limestones: Limestone, micritic, cream, pale brown and pink, often with chert nodules, partly blocky or nodular lenses. Locally evaporitic. Paraconformable.
- Eocene-Miocene**
- Te1 EOCENE-MIOCENE SILTCLAY UNIT 1: Regionally older siltstone, approx. Late Eocene-Mid Miocene.
- EOCENE-OLIGOCENE**
- Te2 MOUNT SARAH SANDSTONE: Sandstone, cross bedded, siltstone and basal conglomerate, crossbedded. Channel faces.
- PALEOCENE-EOCENE**
- Te3 PALEOCENE-EOCENE UNIT 3: Unfossiliferous Eocene and Mount Sarah Sandstone. Based on Te on DALHOUSIE.
- CRETACEOUS**
- K1 WINTON FORMATION: Shale, siltstone, sandstone. Non-marine, minor coal horizons.
  - K2 COONADATTA FORMATION: Claystone and siltstone, interbedded, with the general calcareous, calcareous and ferruginous concretions, limestone with oolite and barite veins.
  - K3 MAREE SUBGROUP UNIT 1: Coarse sandstone and blocky limestone Member of the Coonadatta Formation. Based on K on DALHOUSIE.
  - K4 BRALDUG SHALE: Mudstone, grey, blocky, fossiliferous and shaly; minor silt to very fine-grained sandstone interbeds.
  - K5 GARDNA-COVE FORMATION: Sandstone, fine-grained, with coarse-grained sandstone beds, and pale grey siltstone, minor conglomerate.

### TOTAL MAGNETIC INTENSITY IMAGE



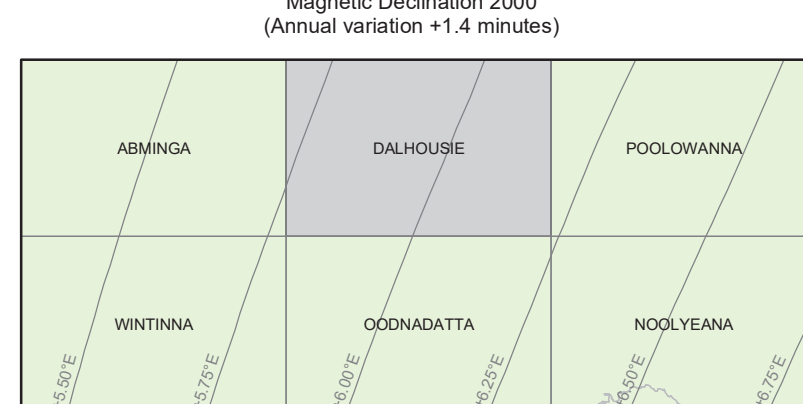
### SOLID GEOLOGY INTERPRETATION



### INDEX TO 1:100 000 SHEETS

Dare 5845	Alherta 6045	Purnie Bore 6145
Pedrika 5844	Yangalee 6044	Pisari 6144

### INDEX TO ADJOINING 1:250 000 SHEETS



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Topographic detail based on TOPO-200K 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).

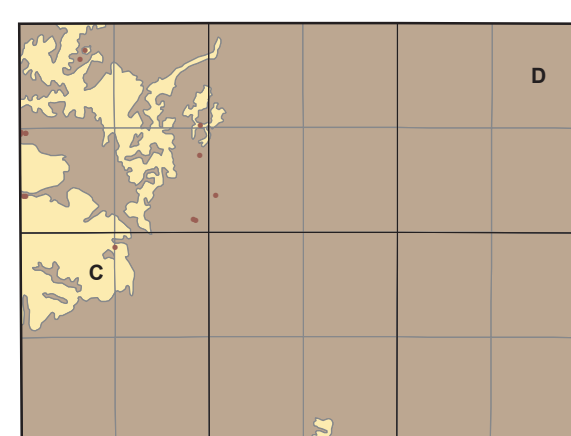
Product of Spatial Information Services. Published by and with the authority of the Department for Energy and Mining SA.

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.

Compiled by G.W. Krieg, B.Sc.(Hons). Mapping by G.W. Krieg, B.Sc.(Hons) with contributions by L.C. Barnes, B.Sc.(Hons), M.C. Benson, B.Sc., P.A. Carter, M.Sc., A.F. Crooks, B.Sc., S.J. Daley, B.Sc.(Hons), J.B. Finnan, M.Sc., B.G. Forbes, Ph.D., G.M. Pih, B.Sc., P.A. Rogers, B.Sc.(Hons), and A.F. Williams, B.Sc.(Hons).

R.C. Cabon, Director, Geological Survey of South Australia. Geological boundaries displayed on this map have been derived from geological interpretation and are not intended for navigational purposes. Copies of this map can be obtained from the Department for Energy and Mining SA, Adelaide, 2020.

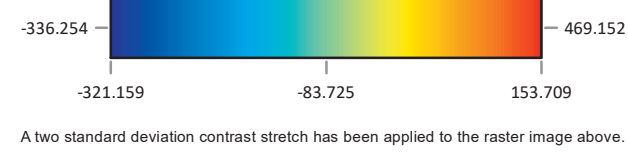
### GEOLOGICAL RELIABILITY DIAGRAM



Dalhousie sheet published 1985  
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

The Total Magnetic Intensity image has been created 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.



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

### Solid Geology

LM12	Palaoproterozoic-Mesoproterozoic unit 12
LM15	Palaoproterozoic-Mesoproterozoic unit 15
LA0	Palaoproterozoic unit 40
AM2	Archaean-Mesoproterozoic unit 2



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