Department of State Growth
MINERAL RESOURCES TASMANIA

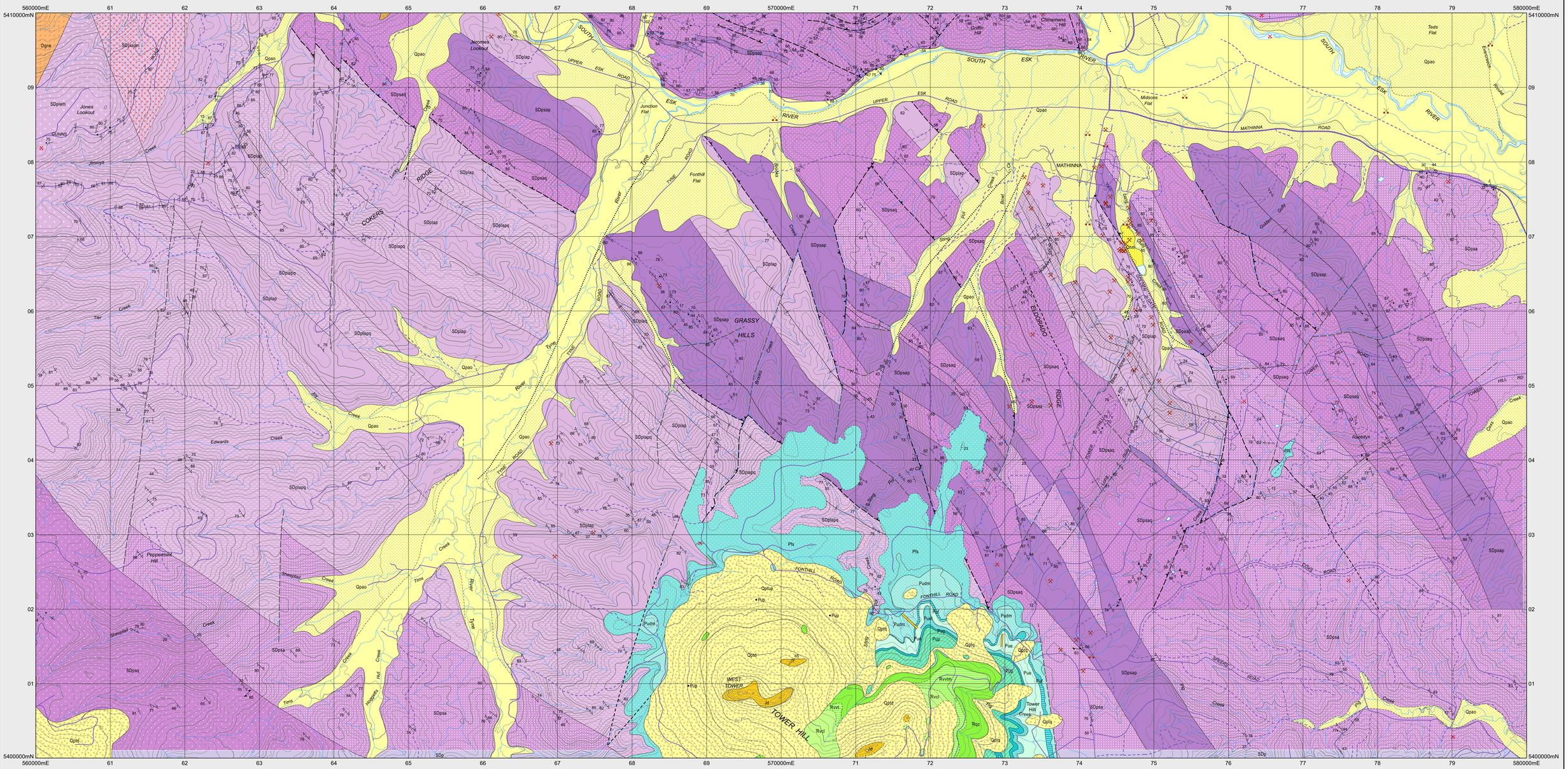
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
MATHINNA, SHEET 5640

MATHINNA

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhm** — *Mine tailings and disturbed ground (Qhm).*
- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*

PLEISTOCENE

- **Qpao** — *Older alluvium of river terraces (Qpao).*
- **Qpt** — *Talus consisting dominantly of dolerite boulders (Qptd). Talus consisting of dolerite and subordinate Upper Parmeener rocks (Qptup); of dominantly Upper Parmeener quartz sandstone (Qptq).*

PALEOGENE - NEOGENE

- **Tcm** — *Conglomerate with rounded clasts of Mathinna Supergroup and very rare weathered dolerite, often patially cemented by iron oxides (Tcm).*

Unconformity.

MESOZOIC

TRIASSIC

UPPER PARMEENER SUPERGROUP

- **Rvcl** — *Dominantly lithic sandstone with minor mudstone and coal (Rvcl).*
- **Rvvt** — *Quartz-rich lithic sandstone and minor quartz sandstone (Rvvt), with mudstone and carbonaceous mudstone (Rvvtm).*
- **Rqc** — *Cross-bedded quartz sandstone (Rqc).*
- **Rcj** — *Fine-grained, slightly feldspathic quartz sandstone, micaceous shale and minor carbonaceous mudstone (Rcj).*

PALEOZOIC

PERMIAN

LOWER PARMEENER SUPERGROUP

- **Pup** — *Poorly-sorted grey mudstone, siltstone and rare sandstone, unfossiliferous except for rare forams (Pup). (Pup: Prospect Creek Mudstone).*
- **Pug** — *Thick-bedded, usually poorly sorted pebbly sandstone passing up into interbedded sandstone, siltstone and mudstone with marine fossils abundant in places (Pug). (Pug: Mistletoe Sandstone).*
- **Puel** — *Dominantly bioclastic limestone (Puel). (Puel: Burnt Gully Limestone).*
- **Pue** — *Marine fossiliferous mudstone, siltstone and minor sandstone and bioclastic limestone (Pue).*
- **Puf** — *Fine-grained pebbly sandstone with phosphatic nodules. Marine fossils present in some areas (Puf). (Puf: Fonthill Sandstone Member).*
- **Pudm** — *Mudstone, siltstone and minor poorly sorted sandstone. Uncommon marine fossils (Pudm). (Pue, Puf, Pudm: Castle Carey Mudstone).*
- **Pfs** — *Dominantly well-sorted quartz sandstone usually cross-bedded or laminated and commonly with interbedded and laminated carbonaceous shale, lesser conglomerate and rare coal (Pfs). (Pfs: Aberfoyle Formation).*
- **Pfb** — *Poorly sorted pebbly mudstone, sandstone and minor conglomerate, marine fossils present in places (Pfb). (Pfb: Strickland Gorge Formation).*

Unconformity.

ALBERTON - MATHINNA AREA

PALEOZOIC — SILURIAN(?) - DEVONIAN — LUDLOW(?) - LOWER DEVONIAN — MATHINNA SUPERGROUP — PANAMA GROUP

- **SDpsap** — *Dominantly medium- to fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (SDpsa).*
- **SDpsa** — *Dominantly interbedded medium- to fine-grained turbiditic quartz-rich sandstone and siltstone (SDpsaq).*
- **SDpsaq** — *Mappable siltstone horizon within SDpsaq (SDpsap), (SDpsa, SDpsaq, SDpsap - possible correlates of Sideling Sandstone).*
- **SDpsap** — *Thin-bedded siltstone, with interbedded quartz-rich sandstone, contact metamorphosed by granitic intrusion (SDplam).*
- **SDplap** — *Dominantly thin-bedded siltstone with minor quartz-rich sandstone (SDplap), contact metamorphosed by granitic intrusion (SDplapm).*
- **SDplaq** — *Fine- to medium-grained quartz-rich sandstone unit within SDplap (SDplaq).*
- **SDplapq** — *Interbedded thin-bedded siltstone and fine-grained quartz-rich sandstone unit within SDplap (SDplapq). (SDplam, SDplap, SDplapq, SDplaq, SDplapm - possible correlates of Lone Star Siltstone).*

BURNS CREEK - BLESSINGTON AREA

PALEOZOIC — SILURIAN (?) - DEVONIAN — LUDLOW (?) - LOWER DEVONIAN — PANAMA GROUP — MATHINNA SUPERGROUP

- **SDpsq** — *Quartzite turbidite sequence of interbedded sandstone, siltstone and mudstone with sandstone dominant (SDp). Medium- to fine-grained turbiditic, quartz-rich sandstone with interbedded laminated siltstone (SDpsq - possible correlates of Sideling Sandstone).*

IGNEOUS ROCKS

MESOZOIC — JURASSIC

- **Jd** — *Dolerite (Jd).*

SCOTTSDALE BATHOLITH

PALEOZOIC — DEVONIAN — MIDDLE DEVONIAN

- **Dgne** — *Coarse to very coarse-grained, equigranular biotite shornblende monzogranite/granodiorite with pale pink to white feldspar (Dgne - Russells Road pluton; I-type).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Transitional geological contact.*
- *Metamorphic contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*

FAULTS

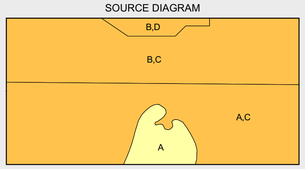
- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*
- *Fault - based on interpretation of aerial photographs.*
- *Normal fault (downthrown side indicated).*
- *Thrust fault (teeth on upper plate).*

LINEARS

- *Axial surface trace of major antiform.*
- *Axial surface trace of major synform.*

- *Strike and dip of bedding - right way up; facing unknown; overturned.*
- *Strike of vertical bedding, facing unknown.*
- *Strike and dip of cleavage of unspecified type and relative age; vertical.*
- *Strike of dyke or vein, vertical. Quartz vein (qv).*
- *Strike and dip of cleavage - relative local age S_2; vertical.*
- *Strike and dip of cleavage - relative local age S_3; vertical.*
- *Trend and plunge of bedding/primary cleavage intersection lineation (L_1).*
- *Trend and plunge of chevron-fold hinge line, unspecified relative age, with vertical axial surface.*
- *Trend and plunge of columnar jointing.*
- *Strike and dip of kink band with sense of displacement viewed down plunge of associated kink-folds - dextral; sinistral*
- *Strike of vertical kink band - dextral; sinistral.*
- *Trend and plunge of minor fold hinge line, unspecified relative age.*
- *Trend and plunge of minor fold hinge line, unspecified relative age, with dip and dip direction of axial surface; with vertical axial surface.*
- *Trend and plunge of kink-fold hinge line, with dip and dip irection of axial surface, and sense of displacement viewed down-plunge: sinistral.*
- *Field station for adjacent readings on the map.*
- *Notable small outcrop with rock unit indicated.*
- *Mineral deposit location - hardrock.*
- *Mineral deposit location - alluvial/tailings.*
- *Construction material/industrial mineral/gemstone location.*

SOURCE DIAGRAM



- Highly detailed (eg. more detailed than 1:25 000 scale mapping).
- Detailed systematic (eg.1:25 000 map or equivalent detail).
- Regional systematic (eg.1:50 000, 1:63 360 map or equivalent detail).
- Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).
- Reconnaissance mapping with sparse ground traverses.
- Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by M.P. McClenaghan, B.Sc.(Hons), Ph.D., 1994 from the following sources (see source diagram):

A CALVER, C.R.; EVERARD, J.L.; FINDLAY, R.H.; LENNOX, P.G.; CALVER, C.R. 1993. Geological Atlas 1:50 000 Series. Sheet 48 (8414N), Ben Lomond. Department of Mines, Tasmania.

B McCLENAGHAN, M.P.; EVERARD, J.L.; GOSCOMB, B.D.; FINDLAY, R.H.; CALVER, C.R. 1993. Geological Atlas 1:50 000 Series. Sheet 40 (8415S), Alberton. Department of Mines, Tasmania.

Updated by:

C D.C. Green, 2011. 1:25 000 scale geological mapping and interpretation of airborne geophysical and Lidar data as part of the TasExplore Project, with additional information from Cracknell, M.J. 2009 B.Sc.(Hons) thesis, University of Tasmania.

D M.J. Vicary, 2010. 1:25 000 scale geological mapping and interpretation of airborne geophysical data as part of the TasExplore Project.

REFERENCE THIS MAP AS:

GREEN, D.C. and VICARY, M.J. 2011. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5640 Mathinna. Mineral Resources Tasmania.

Base data from the LIST, Copyright State of Tasmania.

Map produced by Spatial Information Services, Mineral Resources Tasmania.

Website: www.mrt.tas.gov.au

GDA94 - MGA Zone 55. Contour Interval: 20 metres.

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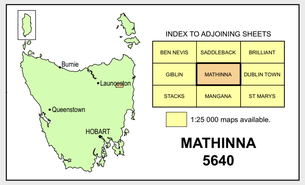
LOCATION DIAGRAM



Map generated: 17-JUN-2024

WARNING: INKS ARE LIGHT SENSITIVE.