Department of State Growth
MINERAL RESOURCES TASMANIA

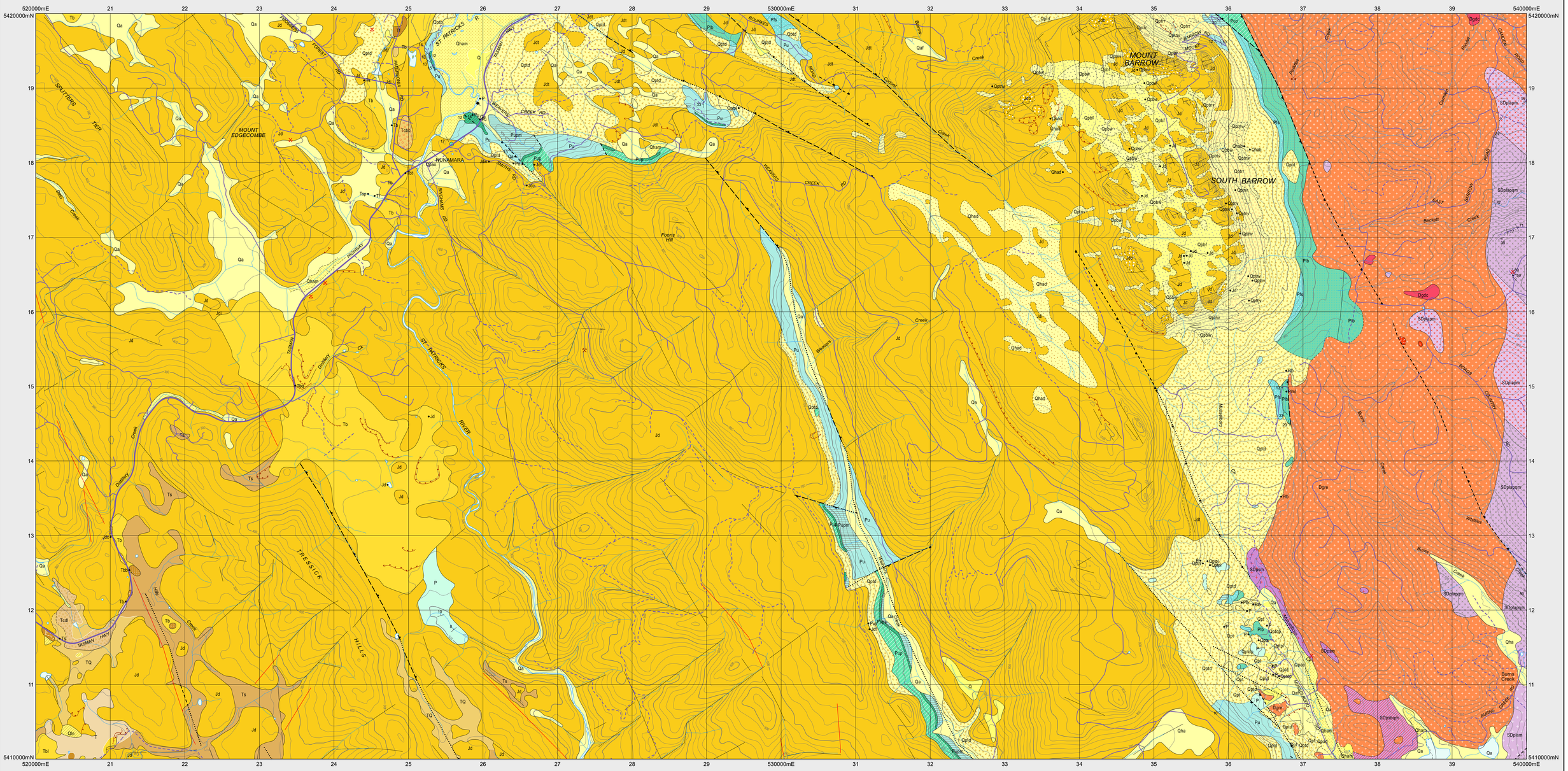
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
NUNAMARA, SHEET 5241

NUNAMARA

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhab** — *Undifferentiated Cenozoic sediments (TQ). Undifferentiated Quaternary sediments (Q). Marsh and swamp deposits (Qhab), highland marsh with peaty clay overlying unsorted dolerite boulders (Qhad).*
- **Qln** — *Lag deposits of ferruginous pisoliths and ferricrete fragments (Qln).*
- **Qha** — *Alluvial gravel sand and clay, generally peaty clay with small weathered dolerite blocks and granules and magnetic pisoliths in dolerite areas, sand and clay with abundant quartzite pebbles elsewhere, with in addition basalt pebbles along the St Patricks River and its tributaries (Qa), alluvial fans (Qaf). Holocene, undifferenciated alluvium, swamp and marsh deposits (Qha). Alluvial and marsh deposits of modern flood plains - gravel, sand, silt and clay (Qham).*
  - **Qham**
  - **Qpad** — *Alluvial terrace deposits of cobbles and boulders of dolerite (Qpad).*
  - **Qpao** — *Older alluvium of river terraces (Qpao).*
- **Qpbf** — *Periglacial, predominantly block stream and block glacis deposits of moderately sorted dolerite boulders and with flow fabric and interstitial fines, vegetated (Qpbf).*

PLEISTOCENE

- **Qpbw** — *Periglacial, predominantly block stream and block glacis deposits of moderately sorted dolerite boulders and with flow fabric, lacks shallow interstitial fines, non-vegetated (Qpbw).*
- **Qptrr** — *Scree deposits of angular unorientated dolerite boulders and rock masses to 30m size (Qptrr).*
- **Qptnv** — *Cliff-fall scree deposits of Qptrr type without surficial fines and non-vegetated, includes some autochthonous block field deposits (Qptnv).*
- **Qpt** — *Talus and remobilised talus deposits (Qpt), basalt talus (Qptb), silty talus breccia derived from Lower Parmeener rocks (Qptpl), sandstone talus derived from Liffey Group (Qpts), talus dominantly of Lower Parmeener rocks and dolerite (Qptdp), and talus dominantly of large dolerite boulders and in places subordinate Parmeener rocks (Qptd).*

PALEOGENE-NEOGENE

- **Jdt** — *In situ Jurassic dolerite or deposits of transported dolerite masses of uncertain Cenozoic age (Jdt).*
- **Tf** — *Undifferentiated Tertiary (T). Ferricrete (Tf).*
- **Tflb** — *Laterite derived from Paleogene-Neogene basalt (Tflb).*
- **Tfld** — *Laterite derived from Jurassic dolerite (Tfld).*
- **Tb** — *Basalt (Tb), quartz tholeiite (Tbq), olivine tholeiite (Tbt), basanite (Tbb), and limburgite (Tbl).*
  - **Tsp** — *Sub basalt deposits (Tsp).*
- **Tcbc** — *Dolerite boulders in clayey-gravel matrix with some quartz pebbles (Tcbc).*
- **Tcdl** — *Moderately-consolidated dolerite conglomerate dominantly of cobble grade with subordinate pebble or boulder grade clasts, some sandstone and rare siltstone (Tcdl).*
- **Ts** — *Sandstone and clay, may include residual clay and Quaternary deposits (Ts).*

Erosional surface.

PALEOZOIC

PERMIAN

- **Pu** — *Undifferentiated Permo-Carboniferous sediments (P). Undifferentiated glacio-marine mudstone, siltstone and poorly-sorted sandstone, uncommon marine fossils (Pu).*
  - **Pupp** — *Predominantly unfossiliferous, poorly-sorted fissile and non-fissile mudstone with few dropstones and rare thin sandstone beds, coarser-grained beds profusely bioturbated above Pupp unit (Pupp).*
  - **Pupp** — *Pebbly sandstone (possible correlate of Palmer Sandstone) (Pupp).*
  - **Pups** — *Pebbly feldspathic sandstone unit (possible correlate of Garcia Sandstone) (Pups).*
  - **Pupm** — *Predominantly grey and brown weathering mudstone with few small lonestones, subordinate micaceous siltstone and poorly sorted pebbly sandstone intervals, fossiliferous beds at places (Pupm).*
- **P** — *Dominantly well?-sorted quartz sandstone, usually cross-bedded and commonly with interbedded and interlaminated carbonaceous shale, minor thin basal conglomerate lenses and rare coal (correlate of Liffey Group and Aberfoyle Formation) (Pts).*
  - **Pts**
  - **Ptb** — *Dominantly mudstone and siltstone, upper interval with basal fossiliferous limestone and alternating mudstone, siltstone and conglomerate beds, lower interval predominantly of grey to black mudstone with some dropstones and subordinate sandstone and conglomerate beds, some fossils (Ptb).*
    - **Plml** — *Clastic limestone indicated in places (Plml).*

CARBONIFEROUS?

MISSISSIPPIAN

- **Ptb** — *Predominantly diamictite with striated and faceted clasts of pebble to cobble size, sorted conglomerate in some areas (Ptb).*

Angular unconformity.

SILURIAN(?) - DEVONIAN

LUDLOW(?) - LOWER DEVONIAN

- **SDpsm** — *Dominantly fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone, contact metamorphosed by granitic intrusion (SDpsm).*
- **SDpsbqm** — *Dominantly micaceous quartz-rich coarse-grained sandstone with minor interbedded siltstone, contact metamorphosed by granitic intrusion (SDpsbqm).*
  (SDpsm, SDpsbqm - possible correlates of Sideling Sandstone).
- **SDplaprt** — *Thin-bedded siltstone, with interbedded fine-grained quartz-rich sandstone increasing towards top, contact metamorphosed by granitic intrusion (SDplam).*
- **SDplam** — *Dominantly thin-bedded siltstone with minor quartz-rich sandstone, contact metamorphosed by granitic intrusion (SDplapm).*
  Interbedded thin-bedded siltstone and fine-grained quartz-rich sandstone, contact metamorphosed by granitic intrusion (SDplapqm).
  (SDplam, SDplapm, SDplapqm - possible correlates of Lone Star Siltstone).
- **SDplapm**
- **SDplapqm**

LOWER PARMEENER SUPERGROUP — PANAMA GROUP — MATHINNA SUPERGROUP

R E K U N I A N S E R I E S

- Lymingtonian Stage
- ?——?
- Bernacchian Stage
- Tamarian Stage

IGNEOUS ROCKS

CENOZOIC — PALEOGENE-NEOGENE

- **Tb** — *Basalt (Tb), quartz tholeiite (Tbq), olivine tholeiite (Tbt), basanite (Tbb) and limburgite (Tbl).*

MESOZOIC — JURASSIC

- **Jdb** — *Dolerite fragmented by periglacial process (Jdb).*
- **Jdw** — *Predominantly deeply-weathered dolerite (Jdw).*
- **Jd** — *Dolerite (Jd), dolerite inferred beneath soil or Cenozoic deposits (Jdi), dolerite of grainsize 0.7-1.5mm (Jdf); >3mm (Jdc) indicated.*

SCOTTSDALE BATHOLITH

PALEOZOIC — DEVONIAN — MIDDLE DEVONIAN

- **Dgdc** — *Coarse-grained diorite (Dgdc).*
- **Dgrp** — *Granodiorite porphyry (Dgrp).*
- **Dgre** — *Medium- to coarse-grained, equigranular, biotite-hornblende granodiorite (Dgre). (Diddleum Granodiorite; I-type).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Unconformable lithological contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*

FAULTS

- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*
- *Normal fault (downthrown side indicated).*
- *Normal fault (downthrown side indicated) - inferred.*
- *Normal fault (downthrown side indicated) - concealed.*

LINEARS

- *Scarp.*
- *Slope break.*
- *Lineament - visible on aerial photographs.*
- *Lineament - visible in magnetic data.*

Strike and dip of bedding - right way up; facing unknown; facing indicated by single tic.

Strike and dip of cleavage of unspecified type and relative age.

Strike of dominant joint set - vertical.

Field station for adjacent readings on the map.

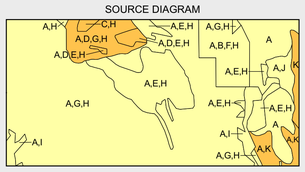
Notable small outcrop with rock unit indicated.

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 S.M. Forsyth, B.Sc. and D.B. Seymour, B.Sc.(Hons), Ph.D., 2007 from the following sources (see source diagram):

A LONGMAN, M.J.; MATTHEWS, W.L. and ROWE, S.M. 1964. Geological Atlas 1:63 360 Series. Sheet 39 (83158), Launceston. Tasmania Department of Mines with additional information from LONGMAN, M.J. 1966. Geological Atlas 1:63 360 Series. Zone 7 Sheet 39 (83158), Launceston. Explanatory Report Geological Survey Tasmania and original 1:36 680 compilation sheets and associated air photos.

B CAINE, T.N. 1983. The Mountains of Northeastern Tasmania. Balkema, Rotterdam.

C MATTHEWS, W.L. 1971. Patersonia dam site. Technical Report, Tasmania Department of Mines, 14: 90-108. Plans 3227 and 3229.

D MATTHEWS, W.L. 1970. Geology around damsite Nunamara. Plan 3336. In MATTHEWS, W.L. 1972. Geology around dam site Nunamara. Technical Report, Tasmania Department of Mines, 15: 69-71.

E S.M. Forsyth 2006. Geological observations along private, limited access undepicted new roads and undrivable roads and vehicular tracks.

F Rock scree polygons derived from Tasmania 1:25,000 Series Sheet 5242 Edition 1 Numamara.

G S.M. Forsyth. Geological observations along public roads 2006.

H S.M. Forsyth. Aerial photo interpretation 2006.

I S.M. Forsyth. Original mapping at 1:25 000 scale 2006.

J M.P. McClenaghan. Revision of granite boundaries.

Updated by:

K D.C. Green, 2011. 1:25 000 scale geological mapping and interpretation of airborne geophysical data as part of the TasExplore Project.

REFERENCE THIS MAP AS:

LONGMAN, M.J., MATTHEWS, W.L., ROWE, S.M., FORSYTH, S.M. (compiler), McCLENEGHAN, M.P. and SEYMOUR, D.E. (compiler) 2011. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5241 Nunamara. 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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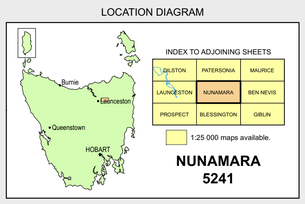
LOCATION DIAGRAM



INDEX TO ADJOINING SHEETS

LILLISTON	PATERSONIA	MAURICE
LAUNCESTON	NUNAMARA	BEN NEVIS
PROSPECT	BLESSINGTON	GIBLIN

1:25 000 maps available.

NUNAMARA
5241

Map generated: 14-NOV-2023

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