Department of State Growth
MINERAL RESOURCES TASMANIA

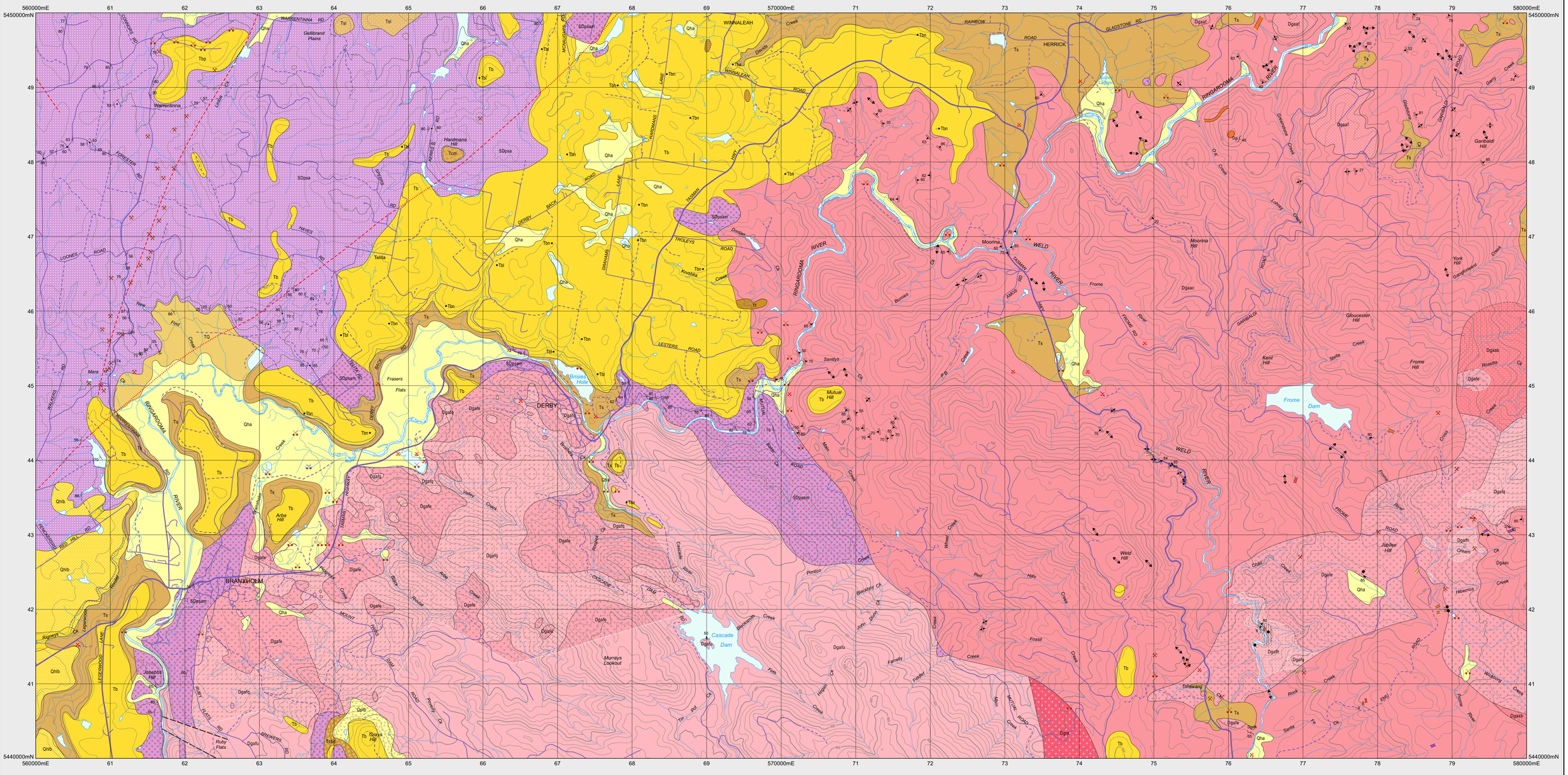
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
DERBY, SHEET 5644

DERBY

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



IGNEOUS ROCKS

MESOZOIC — PALEOGENE - NEOGENE

Tb — *Basalt (Tb); including local occurances of: alkali basalt (Tba); olivine nephelinite (Tbn); limburgite (Tbl); hawaiite (Tbh); nodular basalt (Tbx); porphyritic (pyroxene rosettes) basalt (Tbp).*

DEVONIAN (?)

Dd — *Dolerite dyke (Dd).*

MINOR GRANITIC INTRUSIONS

Dgi — *Fine-grained equigranular granite (Dgi).*

Dgh — *Aplite (Dgh).*

Dgf — *Quartz-feldspar porphyry (Dgf).*

BLUE TIER BATHOLITH

PALEOZOIC — DEVONIAN — UPPER DEVONIAN (?) — Dgafu

Dgafe — *Dominantly fine- to medium-grained, equigranular to porphyritic (feldspar ± quartz) biotite-muscovite alkali feldspar granite (Dgafu) (Mt Paris Granite; S-type).*

Dgafq — *Fine- to coarse-grained, equigranular biotite-muscovite alkali-feldspar granite/syenogranite (Dgafe). Fine- to medium-grained porphyritic (feldspar and rounded quartz) biotite-muscovite alkali feldspar granite/syenogranite (Dgafq).*

Dgafh — *Fine- to medium-grained porphyritic (feldspar) biotite-muscovite alkali feldspar granite (Dgafh) (includes parts of Mt Paris Granite and Lottah Granite).*

Dgaal — *Coarse-grained, porphyritic (feldspar) biotite-muscovite granite (Dgaal).*

MIDDLE DEVONIAN

Dgaab — *Medium-grained (K-feldspar-plagioclase-quartz) biotite-minor muscovite granite (Dgaab).*

Dgaaf — *Fine- to medium-grained, porphyritic (feldspar) biotite-muscovite monzogranite (Dgaaf).*

Dgaac — *Coarse-grained porphyritic (K-feldspar) to equigranular biotite-minor muscovite monzogranite (Dgaac).*
(Dgaab, Dgaaf, Dgaac - Poimena Granite; I-type).

LOWER DEVONIAN

Dgrs — *Medium-grained, equigranular to rarely porphyritic (K-feldspar), hornblende-biotite granodiorite and subordinate biotite granodiorite. Locally with a strong grain foliation. Variably but usually strongly magnetic (susceptibility typically 0.002 to 0.008 SI) (Dgrs)*
(Pyengana Granodiorite; I-type).

CENOZOIC — QUATERNARY

Qha — *Stream alluvium, swamp and marsh deposits (Qha).*

Qhlb — *Basalt derived lag deposit (Qhlb).*

Qpt / Qptb — *Undifferentiated talus (Qpt); basalt derived talus (Qptb).*

TQ — *Undifferentiated Cenozoic sediments (TQ).*

PALEOGENE - NEOGENE — Ts

Tb — *Basalt (Tb); including local occurances of: alkali basalt (Tba); olivine nephelinite (Tbn); limburgite (Tbl); hawaiite (Tbh); nodular basalt (Tbx); porphyritic (pyroxene rosettes) basalt (Tbp).*

Conglomerate, gravel, sand, silt, mud and clay (Ts).

Tsl — *Gravel lag (Tsl).*

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

Tfl — *Ferricrete lag (Tfl).*

Tf — *Ferricrete (Tf).*

Tsbd — *Subbasaltic boulder deposit with abundant dolerite clasts (Tsbd).*

Unconformity.

PALEOZOIC — SILURIAN - DEVONIAN (?) — LUDLOW (?) - LOWER DEVONIAN — SDpsa / SDpsam

Dominantly medium- to fine-grained turbiditic quartz-rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (SDpsa). Contact metamorphosed by granitic intrusion (SDpsam).
(SDpsa, SDpsam: possible correlates of Sideling Sandstone).

PANAMA GROUP — MATHINNA SUPERGROUP

CONTACTS

Geological contact.

Geological contact - inferred.

Transitional geological contact.

Limit of mapping of sub-unit within undifferentiated rock unit.

FAULTS

Fault.

Fault - concealed.

Fault - inferred from magnetic data.

Fault - concealed, inferred from magnetic data.

LINEARS

Scarp.

Strike and dip of bedding - right way up; overturned; facing unknown.

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

Trend and plunge of minor fold hinge line, unspecified relative age, vergence dextral.

Trend and plunge of minor fold hinge line, unspecified relative age.

Strike and dip of dominant joint set; vertical.

Strike and dip of foliation due to alignment of K-feldspar phenocrysts in granitic rock; vertical.

Trend of preferred orientation of K-feldspar phenocrysts in granitic rock.

Strike of vertical metamorphic foliation other than cleavage.

Strike and dip of dyke or vein.

Field station for adjacent readings on the map.

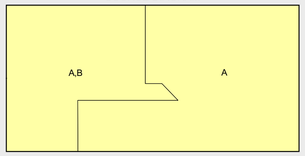
Notable small outcrop with rock unit indicated.

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 BROWN, A.V., McCLENAGHAN, M.P., MOORE, W.R., TURNER, N.J., McCLENAGHAN, J., WILLIAMS, P.R., BAILLIE, P.W., CORBETT, K.D., CORBETT, E.B., COX, S.F., GROVES, D.I. and PIKE, G.P. 1977. Geological Atlas 1:50 000 Series. Sheet 32 (8415N), Ringarooma. Department of Mines, Tasmania.

Updated by:

B M.J. Vicary, 2008-2010. Limited geological traverses and interpretation of airborne geophysical data as part of the TasExplore Project.

REFERENCE THIS MAP AS:

McCLENAGHAN, M.P. and VICARY, M.J. 2010. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5644 Derby. 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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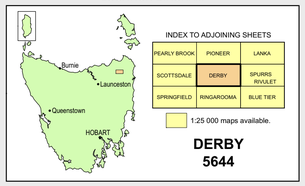
LOCATION DIAGRAM



INDEX TO ADJOINING SHEETS

PEARLY BROOK	PIONEER	LANKA
SCOTTSDALE	DERBY	SPURRS RIVULET
SPRINGFIELD	RINGAROOMA	BLUE TIER

1:25 000 maps available.

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5644

Map generated: 20-DEC-2023

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