Department of State Growth
MINERAL RESOURCES TASMANIA

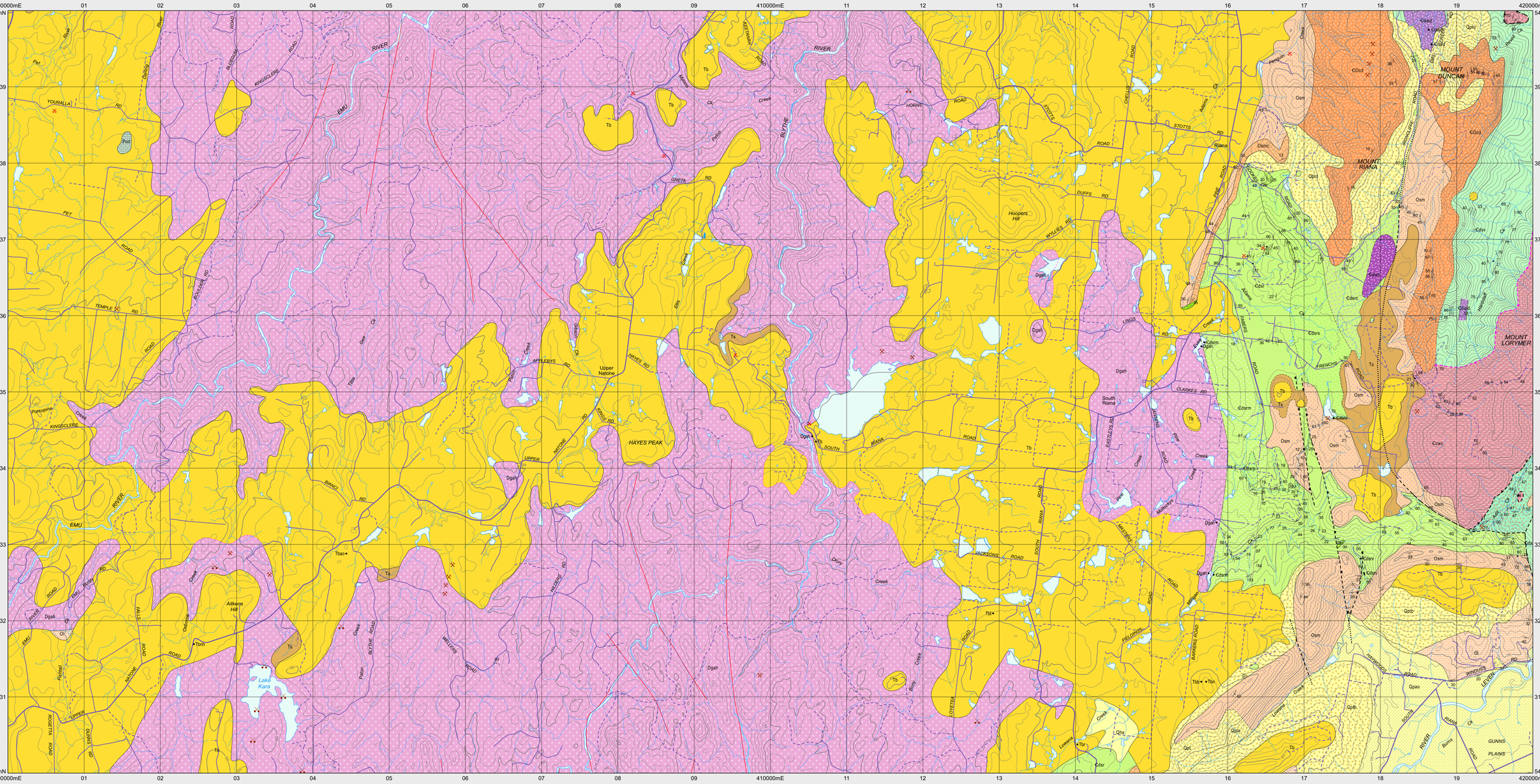
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
RIANA, SHEET 4043

RIANA

Scale 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC

QUATERNARY

HOLOCENE

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

PLEISTOCENE

- **Qpt** (Qptb, Qpto) — *Talus, till and scree of probable Pleistocene age (Qpt). Basalt talus (Qptb).* / *Quartz sandstone and conglomerate talus derived from Owen Group correlates (Qpto).*
- **Qpao** — *Older alluvium (Qpao).*

PALEOGENE - NEOGENE

- **Tb** — *Basalt (Tb), including local occurrences of alkali olivine basalt (Tbao), basanite (Tbb), olivine nepheline (Tbn), nepheline hawaiite (Tbnh), transitional olivine basalt (Tbr) and olivine tholeiite (Tbt).*
- **Ts** — *Terrestrial sand, gravel and minor lacustrine deposits (Ts).*

PALEOZOIC

ORDOVICIAN

- **Ol** — *Massive or thickly bedded, grey, fine-grained limestone, with marine fossils in places (Ol).*
- **Osm** — *Dominantly very fine- to medium-grained, purple, pink or white quartzarenite, locally cross-bedded or bioturbated, and minor granule-pebble conglomerate (Osm).*
- **Osmc** — *Granule to pebble conglomerate, with quartzite and chert clasts (Osmc). (Osmc + Osm = correlate of Moina Sandstone).*
- **€Ocd** — *Conglomerate with chert and quartzite clasts (Duncan Conglomerate) (€Ocd).*

OWEN GROUP; MUDHOLE SUPERGROUP

Angular unconformity.

CAMBRIAN

FURONGIAN

- **€dsrl** — *Undifferentiated mainly sedimentary sequence (near Riana) of shale, siltstone, lithicwacke, sandstone and conglomerate, with minor volcaniclastic units and rare felsic lava (€dsr). Felsic lava (€dsrl).*
- **€dsr** (€dsrp, €dsrm, €dsrv, €dsrsc, €dsrs, €dsrc) — *Polymict conglomerate, with basalt and chert clasts (€dsrp).* *Thin bedded shale and siltstone, with minor fine-grained micaceous sandstone (€dsrm).* *Pebble-granule conglomerate and pebbly sandstone, with andesitic clasts and detritus (€dsrv).* *Chert-pebble conglomerate and minor coarse-grained lithic sandstone (€dsrsc).* *Massive, sparsely pebbly lithicwacke sandstone (€dsrs).* *Pebble-cobble, volcaniclastic conglomerate (€dsrc).*
- **€dsv** (€dsvgb) — *Polymict pebble-granule conglomerate to lithicwacke sandstone, with clasts including chert, black shale, limestone, basalt and/or felsic volcanics; possible correlate of 'Sprent Conglomerate' (€dsvgs).* *Undifferentiated marine volcano-sedimentary sequence, with minor interbedded volcanic units (€dsv).*

RIANA SEQUENCE (IN PART CORRELATE OF TYNDALL GROUP); MOUNT READ VOLCANICS

Faulted contacts of €cwc attributed to major thrusting.

TERRENEUVIAN - CAMBRIAN SERIES 2

- **€cwc** — *Pale to dark grey, faintly bedded to massive or brecciated chert (Barrington Chert) (€cwc).*

CLEVELAND - WESTERN VOLCANO-SEDIMENTARY SEQUENCE ASSOCIATION

Faulted contacts of €cwc attributed to major thrusting.

NEOPROTEROZOIC(?)

- **Pod** — *Metamorphosed impure dolomite-rich sequences of mudstone, siltstone and sandstone (Pod).*

BURNIE FORMATION

INTRUSIVE ROCKS

PALEOZOIC

CAMBRIAN DEVONIAN

- **Dgah** — *Dominantly medium- to coarse-grained, equigranular, biotite ± hornblende-bearing alkali feldspar granite/syenogranite/monzogranite, with minor porphyritic and finer-grained variants (Housetop Granite; I-type) (Dgah).*

CAMBRIAN SERIES 3

- **€dsvd** — *Massive plagioclase - hornblende phyric, andesitic and dacitic intrusives (Lobster Creek intrusives) (€dsvd).*
- **€dad** — *Coarse-grained plagioclase-pyroxene cumulate dolerite ('Riana Dolerite') (€dad).*

MOUNT READ VOLCANICS

ALTERATION

PALEOZOIC

DEVONIAN

- **Dm** — *Magnetite skarn (Dm).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Geological contact - inferred from radiometric data.*
- *Metamorphic contact.*
- *Igneous intrusive contact.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*

FAULTS

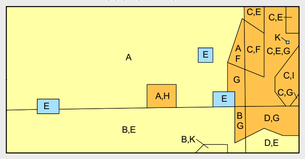
- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*
- *Normal fault (downthrown side indicated) - inferred.*
- *Thrust fault (teeth on upper plate).*
- *Thrust fault (teeth on upper plate) - inferred.*
- *Thrust fault (teeth on upper plate) - inferred from radiometric data.*

LINEARS

- *Lineament - visible in magnetic data.*

- *Strike and dip of bedding, right way up; overturned.*
- *Strike and dip of cleavage of unspecified type and relative age; vertical.*
- *Trend and plunge of minor fold hinge line, unspecified relative age.*
- *Strike and dip of ductile shear-band.*
- *Strike and dip of dyke or vein, rock type or mineral unspecified.*
- *Field station for adjacent readings on the map.*
- *Notable small outcrop with rock unit indicated.*
- *Notable small float or lag occurrence with rock unit indicated.*
- *Macrofossil location.*
- *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.J. Vicary, B.Sc.(Hons), 2004 as part of the Western Tasmanian Regional Minerals Program from the following sources (see source diagram):

A GEE, R.D; GULLINE, A.B. and BRAVO, A.P. 1967. Geological Atlas 1 Mile Series. Sheet 28 (8015N), Burnie. Tasmania Department of Mines.

B BAILLIE, P.W; WILLIAMS, P.R; SEYMOUR, D.B; LENNOX, P.G. and GREEN, G.R. 1986. Geological Atlas 1:50 000 Series. Sheet 36 (8015N), St Valentines. Tasmania Department of Mines.

C BURNS, K.L. 1963. Geological Atlas 1 Mile Series. Zone 7 Sheet 29 (N8115 I and IV), Devonport. Tasmania Department of Mines.

D BURNS, K.L; MAYNE, S.J. and ROBINSON, R.G. 1959. Geological Atlas 1 Mile Series. Zone 7 Sheet 37, Sheffield. Tasmania Department of Mines.

Updated by:

E M.J. Vicary 2005. Additional map compilation and review of existing maps in western Tasmania. Tasmanian Geological Survey Record 2005/05. Mineral Resources Tasmania.

F C.R. Calver, 2007. 1:25 000 scale geological mapping.

G J.L. Everard, 2007. 1:25 000 scale geological mapping.

H J.L. Everard, 2007. Limited traverses.

I D.B. Seymour, 2007. 1:25 000 scale geological mapping.

J Sumpton, J.F.H. & Turley, S.D. 1984. EL 24/1973, follow- up of aeromagnetic survey of the Dial Range Trough. Unpublished Report, Geopeko Ltd. TCR 84-2149.

K Corbett, K.D. 2003. Bedrock geological map of the Que River - Sheffield area. North West Tasmania. Mineral Resources Tasmania.

REFERENCE THIS MAP AS:

CALVER, C.R., EVERARD, J.L. and SEYMOUR, D.B. (compilers) 2008. Digital Geological Atlas 1:25 000 Scale Series. Sheet 4043 Riana. 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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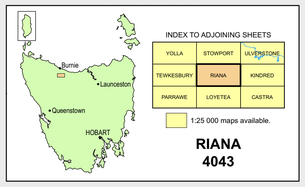
LOCATION DIAGRAM



Map generated: 07-JUN-2024

WARNING: INKS ARE LIGHT SENSITIVE.