MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES

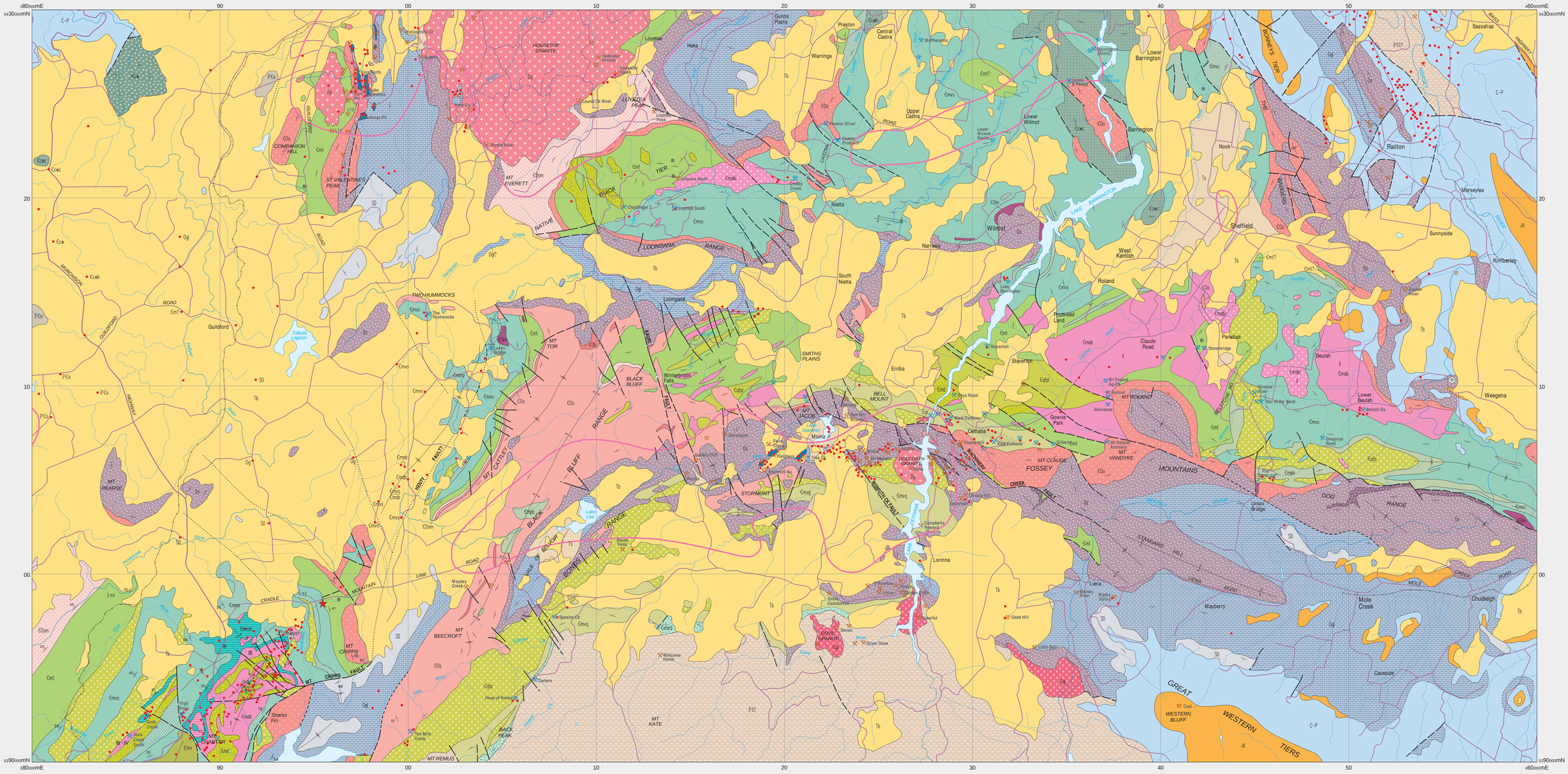
BEDROCK GEOLOGICAL MAP OF THE QUE RIVER – SHEFFIELD AREA NORTH – WEST TASMANIA

Compiled by K.D. Corbett 2003
for Western Tasmanian Regional Minerals Program
Mineral Resources Tasmania

Scale: 1:100000

0 2 4 6 8 10km

AGD66 – AMG Zone 55



TERTIARY

- **Tb** – Basalt.
- **Ts** – Sediments–gravels, sands, clays.

JURASSIC

- **Jd** – Dolerite.

TRIASSIC – PERMIAN – CARBONIFEROUS

- **C–P** – Sedimentary rocks undifferentiated.

DEVONIAN

- **Dg** – Granite.

EARLY DEVONIAN –SILURIAN

- **SD** – Marine sedimentary rocks undifferentiated.

ORDOVICIAN

- **Ꞓm** – Limestone.
- **Ꞓs** – Skarn related to Devonian granite.
- **Ꞓt** – Sandstone and minor conglomerate, usually grey, abundant bioturbation and marine fossils in places (Moina Sandstone and correlates). (GORDON GROUP)
- **Ꞓb** – Basal conglomerate, typically granule–pebble grade. (GORDON GROUP)

LATE CAMBRIAN

- **COs** – Mainly pink sandstone and granule–pebble conglomerate (Correlate of Upper Owen Sandstone). (OWEN GROUP)
- **COb** – Basaltic lava and related volcaniclastic rocks. (OWEN GROUP)
- **COd** – Dolerite, typically sub–ophitic sill–like bodies. (OWEN GROUP)
- **COu** – Interbedded sandstone and pebble to cobble grade conglomerate shallow marine to non–marine (correlates of Lower and Middle Owen Conglomerates, including Roland Conglomerate). (OWEN GROUP)
- **COsm** – Marine sandstone–siltstone–conglomerate sequences. Marine fossils in places. (OWEN GROUP)

MIDDLE CAMBRIAN – MOUNT READ VOLCANICS AND CORRELATES

- **Ꞓmt** – Upper sequences of crystal–rich volcaniclastic sandstone and breccia, typically with clasts of andesite, felsic lava, pumice, quartzite and rare granite. Andesitic to felsic lava flows common; rare welded tuff. Marine fossils in places (Tyndall Group correlates).
- **Ꞓmvs** – Volcano–sedimentary and sedimentary sequences of sandstone, mudstone, conglomerate and breccia, typically turbiditic. Varies from volcanic–derived to polymict to siliciclastic–micaceous. Includes andesitic to felsic lavas and intrusives, and pumiceous rocks. (Western Volcano–Sedimentary Sequence correlates).
- **Ꞓmvq** – Mainly felsic volcanic and volcaniclastic rocks, typically quartz–feldspar–phyric. Includes vitric and pumice–rich rocks. (Eastern Quartz–Phyric Sequence correlates).
- **Ꞓmv** – Felsic volcanic rocks, typically feldspar–phyric. (Central Volcanic Complex).
- **Ꞓmab** – Andesitic to basaltic lavas, breccias and intrusives.
- **Ꞓmabi** – Intrusive bodies related to andesites, including Beulah 'granites'.
- **Ꞓmabd** – Dolerite intrusives related to andesites.
- **Ꞓmd** – Dacitic lavas and intrusives.
- **Ꞓmvc** – Conglomerate–sandstone units, typically siliciclastic, with quartzite and/or chert clasts.
- **Ꞓmms** – Units of siliceous–micaceous sandstone.
- **Ꞓmvsh** – Black shale and siltstone.
- **Ꞓmpb** – Units with abundant pumice clasts and vitric material.
- **Ꞓfp** – Quartz–feldspar +/– biotite porphyry, intrusive to partly extrusive.
- **Ꞓfpl** – Quartz–feldspar–phyric lava.
- **Ꞓgr** – Granitic rocks.
- **Ꞓmrb** – Basal sequences of siliciclastic sandstone, siltstone and conglomerate (Slicht Range Beds).

? EARLY CAMBRIAN – ALLOCHTHONOUS SEQUENCES

- **Ꞓmvc** – Mafic greywacke–mudstone–chert–basalt sequence (Cleveland–Waratah Association and correlates).
- **Ꞓcc** – Chert–rich sequences (Barrington Chert and correlates).
- **Ꞓcb** – Basaltic flows and breccias (Motton Spilite).

? NEOPROTEROZOIC

- **P̄Co** – Quartzwacke turbidite sequence. (Correlate of Oonah and Burnie Formation).

? MESOPROTEROZOIC

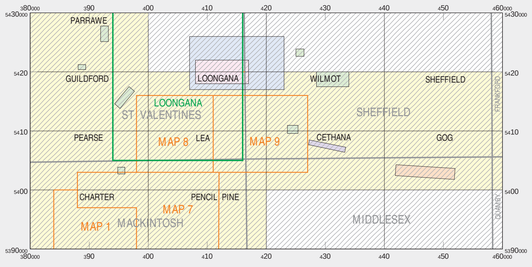
- **P̄Ct** – Quartzite–phyllite–schist sequences of Tyennan Region and Railton Inlier.

CAMBRIAN – ORDOVICIAN INTRUSIVE ROCKS

- **COd** – Sill–like bodies of sub–ophitic dolerite in Owen Group.
- **COm** – Altered mafic tholeiitic rocks of uncertain age and affinities.
- **Ꞓgr** – Granitic rocks.
- **Ꞓfp** – Quartz–feldspar +/– biotite porphyry.
- **Ꞓmabi** – Intrusive rocks related to andesites, including Beulah 'granites'.
- **Ꞓmab** – Andesitic–basaltic volcanic and intrusive rocks.
- **Ꞓmabd** – Dolerite intrusives related to andesites (Mt Charter dolerites).
- **Ꞓmd** – Dacitic lavas and intrusives, typically feldspar–phyric.
- Zones of hydrothermal alteration in Cambrian volcanic rocks.

- Geological boundary – approximate.
- Geological boundary – inferred.
- Geological boundary – concealed.
- Fault – approximate.
- Fault – inferred.
- Fault – concealed.
- Fold axial trace – antiform.
- Fold axial trace – synform.
- 1km Devonian– Carboniferous granite isobath. (Mineral Resources Tasmania TGS Record 2003/11 A Geophysical Model of the Major Tasmanian Granitoids, D. E. Leaman and R. G. Richardson).
- Cambrian fossil locality; in loose boulder.
- Occurence of sulphide clasts in Cambrian unit.
- Operating Mine.
- Prospect or abandoned mine.
- Prospect related to Cambrian rocks.
- Exploration drill hole. Rock type intersected beneath Tertiary basalt shown in some cases.
- I II III IV Geochemical Suite No. for intermediate–mafic rocks (from Crawford et al 1992, Economic Geology, v. 87, pp. 597 – 619).
- General bedding trend, facing not specified.

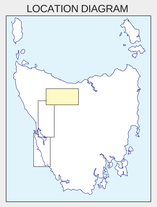
SOURCE DIAGRAM



SOURCES

- 1:250,000 digital series geological map NW Tasmania.
- 1:25,000 digital series geological maps.
- 1:50,000 and 1:63,360 series geological maps.
- 8 – Mt Read Volcanics Project 1:25,000 geological map series.
- Mt Read Volcanics Project Mineral Deposits map series – Loongana.
- Company mapping by M. Vicary for RGC Exploration, TCR 94–3565, 953728.
- Company mapping by T. Callaghan, Auriongold,TCR 02–4766
- Company mapping by W. Herrmann, Noranda, TCR 89–8009, and D. Hicks, Plutonic Operations, TCR 97–4068.
- Reconnaissance mapping for WTRMP – K. Corbett.
- Additions / modifications from WTRMP ground checking by R.A. Pollock, 2002.

LOCATION DIAGRAM



Base information from Land Information Services Division, Department of Primary Industries, Water and Environment. Geological data for this map were compiled at 1:100,000 based on 1:250,000 digital topographic information.
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