

BEDROCK GEOLOGICAL MAP OF THE MT READ VOLCANICS BELT AND ADJACENT AREAS SOUTH DARWIN PEAK TO HELLYER

Compiled by K.L. Corbett 2002
for Western Tasmanian Regional Minerals Program



TERTIARY	Tn	Basalt.
	Ts	Sediments-graves, sands, clays.
JURASSIC	Jd	Quartzite.
TRIASSIC-PERMIAN-CARBONIFEROUS	Tr	Sedimentary rocks undifferentiated.
DEVONIAN	Dg	Grenite.
EARLY DEVONIAN-SILURIAN	SD	Marine sedimentary rocks undifferentiated.
ORDOVICIAN	Or	Limestone.
	Op	Sandstone and conglomerate (Pioneer Sandstone and correlates). Household Unconformity.
1 EARLY ORDOVICIAN	ODk	Upper sandstone sequence - usually shallow marine.
LATE CAMBRIAN	OCk	Conglomerate.
	OCs	Interbedded sandstone and pebble to boulder grade conglomerate (OCs), typically siliciclastic, shallow marine to non-marine.
	OCm	Marine sandstone-siltstone-conglomerate sequences (OCm). Gravelly and matrix fossiliferous in places. Varies from polymict to siliciclastic.

MIDDLE CAMBRIAN	Cmb	Upper sequence of quartz-rich (quartz-feldspar) volcaniclastic sandstone, siltstone and conglomerate, with minor lapillitic, local flows of felsic, andesitic and basaltic lava. Lenses of limestone and massive siltstone in lower part in places, also granite clasts (Tyndall Group and correlates).
	Cmv	Volcano-sedimentary and sedimentary sequences of sandstone, mudstone, conglomerate and breccia, typically turbiditic. Varies from volcanically-derived to polymict to siliciclastic (Western Volcano-Sedimentary Sequence).
	Cmfs	Felsic volcanic rocks, mostly feldspar-phyric (Central Volcanic Complex and similar rocks).
	Cmva	Felsic volcanic rocks, mainly quartz-feldspar-phyric (Eastern Quartz-Phyric Sequence and correlates).
	Cmba	Andesitic to basaltic volcanic rocks and intrusives.
	Cmca	Basaltic intrusives related to andesites.
	Cmcau	Units of micaceous-siliciclastic sandstone of Devonian derivation.
	Cmsh	Black shale and siltstone.
	Cmcp	Quartz-feldspar +/- silicite porphyry, locally massive to locally brecciated, with pebbly cortices.
	Cmcpb	Units dominated by pumice breccia, usually submarine cross-flows.
	Cmcr	Grenite rocks.
	Cmcb	Basal sequences of alloclastic sandstone, siltstone and conglomerate (Black Range Basal).

? EARLY CAMBRIAN	ECm	Ultramafic-mafic complexes.
	ECm	Mafic gneiss-mylonite-quartzite +/- chert sequences. (Cleaves-Moran Association and correlates).
? NEOPROTEROZOIC	ECm	Mafic gneiss and mudstone with minor tholeiitic basalt. (Crimson Creek Formation).
	ECm	Shallow marine quartz sandstone and siltstone with carbonate and chert units (Crimson Creek Group).
	ECm	Quartzite turbidite sequences with minor dolomite. (Crimson Formation and correlates).
? MESOPROTEROZOIC	ECm	Quartzite-phyllite-schist sequences of Tynnon Region.

CAMBRIAN INTRUSIVE ROCKS	Cg	Gabbro.
	Cg	Grenite rocks.
	Cg	Quartz-feldspar +/- biotite porphyry.
	Cg	Doleritic intrusives related to andesites.
	Cg	Andesitic-basaltic volcanic rocks and intrusives.
		Ore deposits.
		Forms of hydrothermal alteration in Cambrian volcanic rocks.

- Geological boundary - approximate
- Geological boundary - inferred
- Fault - approximate
- Fault - inferred
- Field axial face - antiform
- Field axial face - synform
- Field axial face - overturned antiform
- Field axial face - overturned synform
- Continued level locality
- Occurrence of sulphide clasts in Cambrian unit
- Operating mine
- Prospect or abandoned mine
- Geological Site No. for intermediate-mafic rocks (from Crowe et al 1992, Economic Geology 87, 1-18)
- Beeding facing known, unknown, overturned.

SOURCE DIAGRAM

PUBLISHED SOURCES

- 1:250,000 digital series geological maps of RW and SW Tasmania.
- 1:25,000 digital series geological maps.
- 1:50,000 series geological maps.
- MT Read Volcanics Project 1:25,000 map series

UNPUBLISHED SOURCES

- Mapping by R. Pickett or Pasmico East - TCR 94 - 3567, 3568.
- B. Sc. Honours thesis of J. Hinchey (1993).
- B. Sc. Honours thesis of P. Buxton (1997).
- Mapping by Aberley Resources - TCR 91 - 8537.
- Work by Mt. Pictou - TCR 94-3567.
- Mapping by A. McNeill or Pasmico East - TCR 02 - 4567.
- B. Sc. Honours thesis of R. O. Reid (1980).
- MT Read Volcanics Project 1:25,000 map series.
- Mapping by G. Goddard - TCR 94-3567.
- Mapping by K.L. Corbett (2001).
- B. Sc. Honours thesis by P. Greenhill (1995).
- Mapping by Pasmico East, by L. V. V. - 1995.
- Mapping by WTRMP for K.L. Morrison (2002) & K.L. Corbett.
- Significant changes to boundaries and/or designations for WTRMP Report by Corbett (2002).

Stratigraphic subdivisions of the Middle and Late Cambrian rocks (ages) (lower part of Corbett, Berry and Selwyn AMRA Project PART 1: The Volcanics and Associated Rocks of Western Tasmania, Final Report, March 1997, CODEC/University of Tasmania).

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 scale on 250,000 digital topographic information. The map is available only as text copy or image products. Map produced by the Data Management Branch, Mineral Resources Tasmania using G.I.S. software.



While every care has been taken in the preparation of this map, the Department does not accept any liability for errors or omissions. No warranty should be taken as to the accuracy of the information contained in this map. The map is available only as text copy or image products. Copyright reserved.

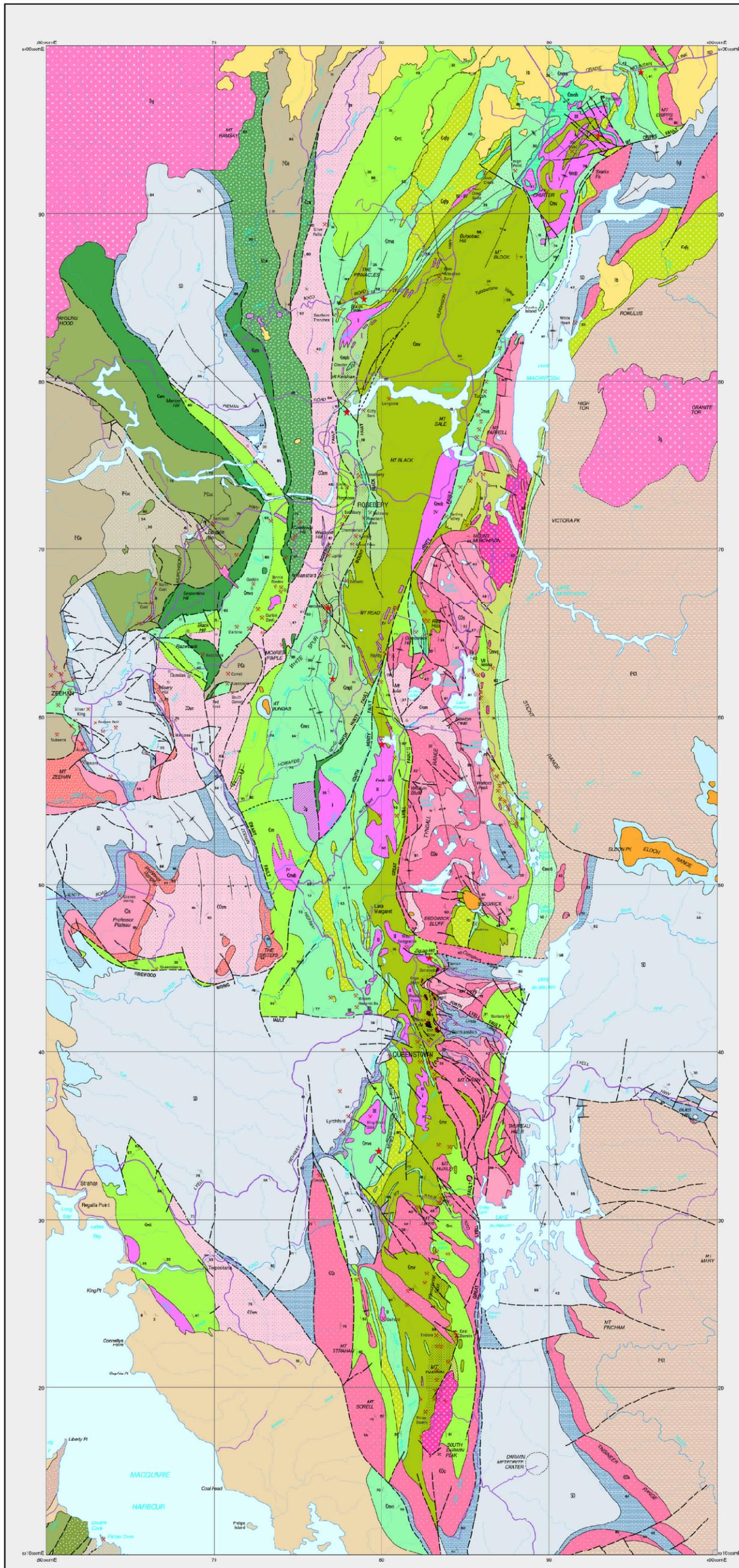


Figure 2: Geological Map of the Mt Read Volcanics Belt and adjacent areas South Darwin Peak to Hellyer