

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

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



TERTIARY	Tn	Basalt.
	Ts	Sediments-gravel, sands, clays.
JURASSIC	Ju	Dolerites.
TRIASSIC-PERMIAN-CARBONIFEROUS	Pa	Sedimentary rocks undifferentiated.
DEVONIAN	Ds	Granite.
EARLY DEVONIAN-SILURIAN	SD	Marine sedimentary rocks undifferentiated.
ORDOVICIAN	Op	Limestone.
	Osp	Sandstone and conglomerate (Pioneer Sandstone and correlates) Mosaic Utiariformity.
	OD	Upper sandstone sequence - usually shallow marine.
EARLY ORDOVICIAN	OD	Conglomerate.
LATE CAMBRIAN	OC	Interposed sandstone and pebbles to boulder grade conglomerate (CCs), typically siliclastic, shallow marine to non-marine.
	OS	Marine sandstone-siltstone-conglomerate sequences (CSm). Group beds and marine fossils in places. Varies from paleomarine to siliclastic.

MIDDLE CAMBRIAN	CM	CM1: Upper members of quartz-feldspar volcaniclastic sandstone, siltstone and conglomerate, with minor laminar, low-angle, undulating and basaltic dykes. Lenses of limestone and massive siltstone in lower part or base. One granite dyke (Yieldy Group one corridor).
	CM2	CM2a: Volcano-sedimentary and sedimentary sequence of sandstone, mudstone, conglomerate and siltstone, typically bedded. Varies from volcanoclastic to granitic to siliclastic (Western Volcano-Sedimentary Sequence).
	CM2b	CM2b: Volcanic rocks, mostly quartz-feldspar-phyric (Eastern Quartz-Phyric Sequence and correlates).
	CM2c	CM2c: Andesitic to basaltic volcanic rocks and intrusives, some with associated intrusions related to andesites.
	CM2d	CM2d: Units of micaceous-siliclastic sandstone of Precambrian derivation.
	CM2e	CM2e: Black shale and siltstone.
	CM2f	CM2f: Quartz-feldspar +/- biotite porphyry, may occur to partly extensive, with psammite contacts.
	CM2g	CM2g: Units dominated by purple breccia, usually submarine mass-flows.
	CM2h	CM2h: Granite rocks.
	CM2i	CM2i: Basal sequence of siliclastic sandstone, siltstone and conglomerate (Slick Horny Beds).

EARLY CAMBRIAN	EC	Ultramafic-mafic complexes.
	EC2	Mafic gabbro-mylonite-basalt +/- chert sequences. (Crescent-Korion Association and correlates).
MESOPROTEROZOIC	MC	Mafic gabbro and mylonite with minor tholeiitic basalt. (Ormside Creek Formation).
	MC2	Quartzite, mafic gabbro, sandstone and siltstone with carbonate and chert units (Dundas Group and/or).
	MC3	Quartzite and siltstone sequences with minor granites. (Dundas Formation on carbonate).
MESOPROTEROZOIC	PC	Quartzite phyllite-schist sequences of Tynanin Region.

CAMBRIAN INTUSIVE ROCKS	
IC	Diorite.
IG	Granitic rocks.
IC2	Quartz-feldspar +/- biotite porphyry.
IC3	Doleritic intrusives related to andesites.
IC4	Andesitic-basaltic volcanic rocks and intrusives.
OD	Ore deposits.
HA	Areas of hydrothermal alteration in Cambrian volcanic rocks.

—	Geological boundary - approximate.
---	Geological boundary - inferred.
- - - -	Fault - approximate.
- - - -	Fault - inferred.
—	Fold axial trace - uniform.
—	Fold axial trace - synform.
—	Fold axial trace - overturned uniform.
—	Fold axial trace - overturned synform.
*	Cambrian localities.
*	Occurrence of sulphide clasts in Cambrian units.
*	Operating mine.
*	Prospect or abandoned mine.
1:100,000	Geological Scale No. for Interpretation of Rocks from Corbett et al. (1994). Economic Potential = 10, 20, 30, 40.
—	Bedding, facing known; unknown; overturned.

SOURCE DIAGRAM	
PUBLISHED SOURCES	
1	1:250,000 digital series geological maps of Mt Read Volcanics.
2	1:250,000 digital series geological maps.
3	1:250,000 series geological maps.
4	Mt Read Volcanics Project 1:250,000 map series.
UNPUBLISHED SOURCES	
1a	Mapping by R. Pickett or P. Buxton - TCR 94 - 3567, 3568.
1b	B. Sc. Honours thesis by J. Munnell (1994).
2	B. Sc. Honours thesis by P. Buxton (1997).
3	Mapping by Aberley Resources - TCR 91 - 3527.
4	Work by Mt Read Exploration - TCR 94 - 3567.
5	Mapping by A. McNeil or P. Buxton - TCR 92 - 4967.
6	B. Sc. Honours thesis by H. O. Read (1980).
7	Ph.D. thesis by C. Corbett (1997).
7b	Mapping by R. Allen for P. Buxton.
8	Mapping by Goldfields (opt.) - M. Vicary, T. Callaghan.
9	Mapping by M. Pickett or P. Buxton - TCR 94 - 3567.
10	M.S. mapping by K.D. Corbett (2002).
11	B. Sc. Honours thesis by P. Greenhill (1995).
12	Mapping by P. Buxton - TCR 94 - 3567.
13	Mapping for WTRMP by K.L. Morrison (2002) & K.D. Corbett.
14	Significant changes to boundaries and/or designations for WTRMP by K.D. Corbett (2002).
Stratigraphic subdivision of the Middle-Late Cambrian rocks largely follows that of Corbett, Berry and Searcy in AEMRA Project PC1A: Structure and Geology of Western Tasmania, Final Report, March 1997. OCEDES/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 1:50,000 scale on 250,000 digital topographic information. This map is available only as hard copy or image products. Map produced by the Data Management Services, Mineral Resources Tasmania using G.I.S. software.	

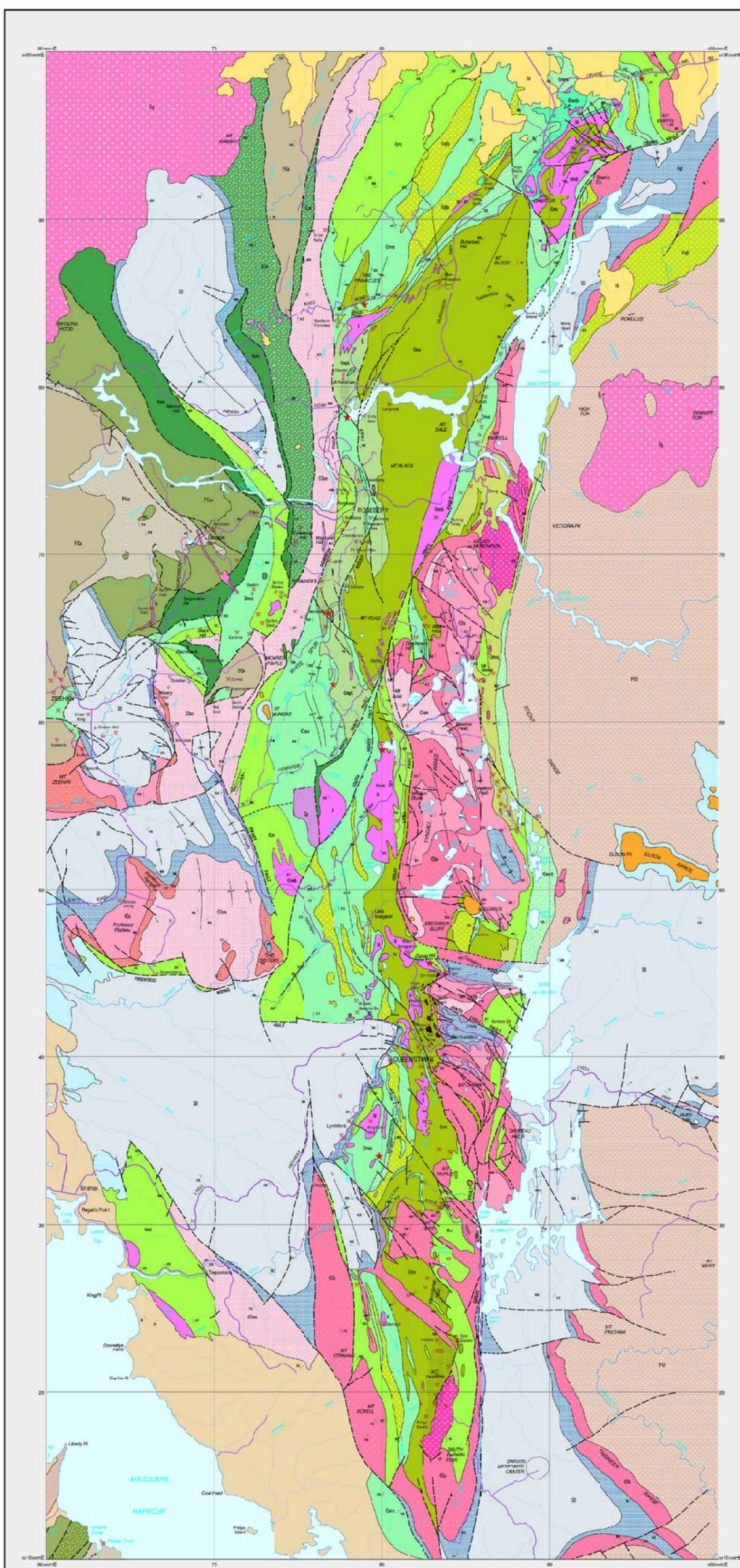


Figure 4

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