

PERIOD	UNIT	DESCRIPTION
HOLOCENE	Qhm	Undifferentiated Quaternary sediments (Q).
	Qha	Man-made deposits including mine dumps and disturbed ground (Qhm).
	Qpa	Alluvium, swamp and marsh deposits. May include older alluvial deposits (Qha).
	Qpt	Talus, scree and colluvial deposits (Qpt).
QUATERNARY	Qpda	Talus, scree and associated colluvium - derived from Elobon Group rocks (Qpa).
	Qpdt	Talus, scree and associated colluvium - derived from Precambrian rocks (Qpa).
	Qpdi	Bouldery slope and fan deposits, commonly with leached channels; probably partly of glacial origin (Qpa).
	Qpdi	Undifferentiated Pleistocene glacial deposits (Qpda).
PLEISTOCENE	Qpda	Mainly till deposits - unweathered or slightly weathered (Qpda). Deposits of Margaret Glaciation.
	Qpdi	Undifferentiated products of the Henly Glaciation (Qpdi); weathered till and outwash gravel of Blue River Formation (Henly Glaciation). Deposits of Henly Glaciation.
	Qpdi	Weathered and poorly sorted outwash gravel and till (David Formation) (Qpdi). Deposits of Henly Glaciation.
	Qpdi	Weathered outwash gravel and till (Cableway Formation) (Qpdi). Deposits of Henly Glaciation.

In some areas lake fill is shown by water level line only, with previously mapped peatery indicated. Some previously mapped structures and re-entrainment sites are shown on top of subsequent lake fill.

PERIOD	UNIT	DESCRIPTION
DEVONIAN	SDh	Mudstone, siltstone, minor fine-grained sandstone and rare limestone (correlate of Bell Formation) (SDh).
	SDf	Fine-grained quartz sandstone with minor siltstone and mudstone (correlate of Florence Formation) (SDf).
	SDa	Mainly mudstone and siltstone with minor sandstone and rare limestone (correlate of Amber Formation) (SDa).
	SDc	Siltstone and fine-grained sandstone (upper unit of Crofty Formation) (SDc).
SILURIAN	SDc	Fine to coarse-grained quartz-rich sandstone, calcareous sandstone and minor mudstone (Crofty Formation) (SDc).
	Ola	Dark grey limestone, dolomite, calcareous mudstone, minor quartz sandstone and black clay weathering products, in part fossiliferous (Gordon Group and correlates) (O). Interbedded mudstone and siltstone with some limestone (Oa).
	Oli	Dominantly brown weathering impure (diatomitic, muddy and/or sandy) limestone, frequently massive (Oli).
	Oib	Dominantly grey weathering micritic limestone (Oib).
ORDOVICIAN	Oimp	Grey to pink quartz sandstone with basal pebble-grained conglomerate, trace fossils and chert-like bands in upper part (Pioneer Beds and correlates) (Oimp).
	COu	Thin-bedded quartz sandstone, commonly bioturbated, with interbedded siltstone and minor granule-pebble conglomerate. Chert clasts in places. Bioturbation common (Upper Owen Sandstone and correlates) (COu).
	COm	Mainly pink to light cream coloured, thick-bedded pebble- to cobble-boulder quartzitic conglomerate, with minor quartz sandstone and some partly volcanoclastic sandstone in some areas (Middle Owen Conglomerate and correlates) (COm).
	COm	Mainly thin-bedded pink quartzitic sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone and correlates) (COm).
CAMBRIAN	COm	Lower and Middle Owen Group undifferentiated (COm). Mainly whitish to pale pink pebble-cobble-boulder conglomerate and quartz sandstone, with minor siltstone and volcanoclastic sandstone (Lower Owen Conglomerate and correlates) (COm).
	COm	Thin-bedded grey-green siltstone and micaceous sandstone, grading laterally to pink thin-bedded sandstone (COm).
	COm	Units of thick-bedded to massive cobble-boulder conglomerate. Erosional unconformity at base of some units in some areas (COm).
	COm	Mainly volcanoclastic sandstone with minor conglomerate and siltstone (base unit of Lower Owen Conglomerate at Thureau Hills) (COm).

PERIOD	UNIT	DESCRIPTION
DEVONIAN	Cdl	Interbedded volcanoclastic and volcanic rocks, typically quartz-feldspar-phryic (Cdl).
	Cdco	Mainly volcanoclastic conglomerate and sandstone with minor mudstone. Quartz-rich matrix. Sparse quartzite clasts in some areas (Cdl).
	Cdcb	Mainly volcanoclastic sandstone and breccia (quartz-feldspar + pyroxene-phryic), with minor vitric ash conglomerate, sandstone and siltstone. Lynchford Member or Lower Tyndal Group (Cdl).
	Cdcb	Feldspar-phryic volcanic and volcanoclastic rocks undifferentiated (Cdl).
SILURIAN	Cdcb	Upper sequence of mainly andesitic volcanoclastic and volcanic rocks, including graded mafic flow breccia units, sandstone, siltstone, lava and lava breccia and minor intrusives. Less typically feldspar-phryic + hornblende-phryic (Cdl).
	Cdcb	Andesite to basaltic intrusives bodies with minor extrusive and clastic units. Includes feldspar-hornblende-pyroxene-phryic and feldspar-pyroxene-phryic types and small chlorite-altered dykes (Cdl).
	Cdcb	Mainly felsic volcanoclastic and pyroclastic rocks, dominantly feldspar-phryic, including pumice-bearing units, minor shale and sandstone (Cdl).
	Cdcb	Mainly feldspar + quartz-phryic lavas and possible intrusives, commonly with aphanitic groundmass. Columnar jointing in some areas (Cdl).
ORDOVICIAN	Cdcb	Units of bedded siltstone, sandstone and volcanoclastic breccia (Cdl).
	Cdcb	Dark green, chlorite-rich mafic to intermediate agglomerate with abundant basaltic clasts (Cdl).
	Cdcb	Mixed sequence of bedded volcanoclastic sandstone, siltstone, mudstone and breccia, typically quartz-feldspar-bearing, with some andesitic lavas and intrusives (Cdl).
	Cdcb	Quartz-feldspar + biotite porphyry, mostly intrusive but may be partly extrusive (Cdl).
CAMBRIAN	Cdcb	Mainly feldspar (± quartz) phryic andesite - dacite lava (Cdl).
	Cdcb	Andesite to basaltic lavas, breccias and intrusives, mostly feldspar-pyroxene-phryic, of Lynch Creek area (Lynch Creek 'basalt') (Cdl).
	Cdcb	Andesite to basaltic lavas and intrusives of Lynch Creek area ('basalt') (Cdl).
	Cdcb	Crystalline (quartz-feldspar) luffaceous sandstone (Cdl).

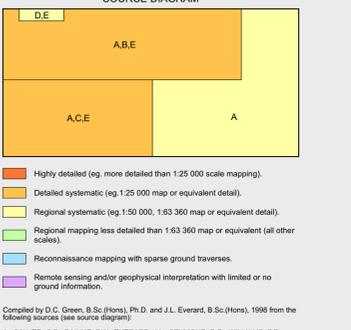
PERIOD	UNIT	DESCRIPTION
DEVONIAN	Ptpg	Lithologically undifferentiated, commonly garnetiferous, rocks of relatively high metamorphic grade, including massive schistose quartzite and fine- to coarse-grained pelitic quartzite schist (Ptpg). Massive and schistose quartzite, fine- to coarse-grained commonly containing phengite, almandine and chlorite. Relatively high metamorphic grade (Ptpg).
	Ptpg	Fine- to coarse-grained, often finely banded, pelitic, garnetiferous quartz-mica and mica-quartz schist, commonly containing phengite, biotite, almandine, albite and chlorite. Relatively high metamorphic grade (Ptpg).
	Ptpg	Fine-grained banded pink and white quartzite with interbedded pelitic quartz-mica phyllite occasionally containing albite porphyroblasts. Intermediate metamorphic grade (Ptpg).
	Ptpg	Dominantly dark grey carbonaceous quartz-mica phyllite, sometimes porphyroblastic and occasionally containing albite, biotite, phengite, chlorite and minor garnet. Fine-grained quartzite frequently present. Intermediate metamorphic grade (Ptpg). Lithologically undifferentiated rocks of intermediate to low metamorphic grade (garnet minor to absent), including phyllite, fine-grained quartzite and dioritic schist (Ptpg).
SILURIAN	Ptpg	Dominantly grey to green carbonaceous pelitic quartz-phengite phyllite. Non-garnetiferous and relatively low metamorphic grade (Ptpg).
	Ptpg	Interbedded fine-grained phengitic quartzite, green phengite-quartz phyllite, and grey to green carbonaceous pelitic quartz-phengite phyllite. Non-garnetiferous and relatively low metamorphic grade (Ptpg).
	Ptpg	Lithologically undifferentiated rocks of low metamorphic grade including non-garnetiferous quartzite and phyllite (Ptpg). Fine-grained, thickly foliate, phengitic quartzite. Non-garnetiferous and relatively low metamorphic grade (Ptpg).
	Ptpg	Lithologically undifferentiated rocks of low metamorphic grade including non-garnetiferous quartzite and phyllite (Ptpg). Fine-grained, thickly foliate, phengitic quartzite. Non-garnetiferous and relatively low metamorphic grade (Ptpg).

PERIOD	UNIT	DESCRIPTION
DEVONIAN	Cdcb	Quartz-feldspar + biotite porphyry, mostly intrusive but may be partly extrusive (Cdl).
	Cdcb	Quartz-feldspar-biotite porphyry - mainly intrusive but may be partly extrusive (Cdl).
	Cdcb	Feldspar-quartz-pyroxene porphyry (Cdl).
	Cdcb	Feldspar-pyroxene-hornblende porphyry (Cdl).
SILURIAN	Cdcb	Mainly feldspar-phryic lavas and intrusives (Cdl).
	Cdcb	Andesite to basaltic lavas and intrusives of Lynch Creek area ('basalt') (Cdl).
	Cdcb	Andesite to basaltic lavas and intrusives of Lynch Creek area ('basalt') (Cdl).
	Cdcb	Basaltic dykes, typically chlorite-altered, including tholeiitic diorites at Dierke Creek (Cdl).
CAMBRIAN	Pta	Amphibolite bodies (Pta).
	Chps	Pyritic schist, typically with sericite + chlorite + quartz (Chps).
PROTEROZOIC	Chss	Sericitic schist, typically developed from felsic volcanic rocks (Chss).

SYMBOL	DESCRIPTION
↘	Dip of geological contact of unspecified type.
↘ ↗	Strike and dip of bedding facing known, right way up; overturned, vertical (facing indicated by single line).
↘ ↗	Strike and dip of bedding, facing unknown - dipping, vertical.
+	Strike and dip of compositional banding.
—	Horizontal bedding.
↘ ↗	Strike and dip of dominant cleavage, relative local age S ₁ , however locally S ₁ (in quartzite units) or S ₂ .
↘ ↗	Strike and dip of igneous banding - dipping, vertical.
↘ ↗	Strike and dip of cleavage, type and relative age unspecified - dipping, vertical.
↘ ↗	Trend and plunge of minor fold hingeline, unspecified relative age; with vertical axis surface.
↘ ↗	Trend and plunge of hinge line of minor antiform, unspecified relative age.
↘ ↗	Trend and plunge of lineation L ₂ , formed by intersection of cleavages or foliations of relative local ages S ₁ and S ₂ .
↘ ↗	Trend and plunge of columnar jointing.
•	Field station for adjacent readings on the map.
▲	Notable erratic boulder with rock unit indicated.
✕	Mineral deposit location - hardrock.
✕	Mineral deposit location - alluvial/wallings.
✕	Construction material/industrial mineral/pegmatite location.

SYMBOL	DESCRIPTION
—	Geological contact.
—	Geological contact - inferred.
—	Transitional geological contact.
—	Limit of mapping of sub-unit within undifferentiated rock unit.
—	Fault.
—	Fault - inferred.
—	Fault - concealed.
—	Thrust fault (teeth on upper plate).
—	Axial surface trace of major antiform.
—	Axial surface trace of major synform.
—	Moraine ridge crest.

REFERENCE THIS MAP AS:
GREEN, D.C. and EVERARD, J.L. (compilers) 2003. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3833 Owen. Mineral Resources Tasmania.
Base data from the LIST. Copyright State of Tasmania.
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Website: www.mrt.tas.gov.au
GD494 - MGA Zone 55. Contour Interval: 20 metres.



Compiled by D.C. Green, B.Sc.(Hons), Ph.D. and J.L. Everard, B.Sc.(Hons), 1998 from the following sources (see source diagram):
A CALVER, C.R., BALLE, P.W., EVERARD, J.L., SEYMOUR, D.B., WILLIAMS, P.R., CROFTON, S.M., TURNER, R.J. and WILLIAMS, E. 1997. Geological Atlas 1:50 000 Series, Sheet 58 (8013N), Lyell, Tasmania. Department of Mines.
B CORBETT, K.D., CALVER, C.R., EVERARD, J.L. and SEYMOUR, D.B. 1989. Geological Atlas 1:25 000 Series, Queensland. Department of Mines Tasmania.
C CORBETT, K.D., CALVERTON, J. and VICARY, M.J. 1993. Geology of the Mt. Jukes - Mt. Darwin area. Map 13. Mt Read Volcanics project, Tasmania. Department of Mines.
D CORBETT, K.D. 2001. The geology of the Mount Lyell area, Tasmania - a reinterpretation based on a new 1:50 000 scale map, North Lyell and the Iron Blow area. M.Sc. Thesis, University of Tasmania.
Updated by:
E CORBETT, K.D. 2004. Updating and revision of the 1:25 000 scale series geological maps covering the Mt Read Volcanics belt in western and northwestern Tasmania. Tasmanian Geological Survey Record 2004/3. Mineral Resources Tasmania.

