

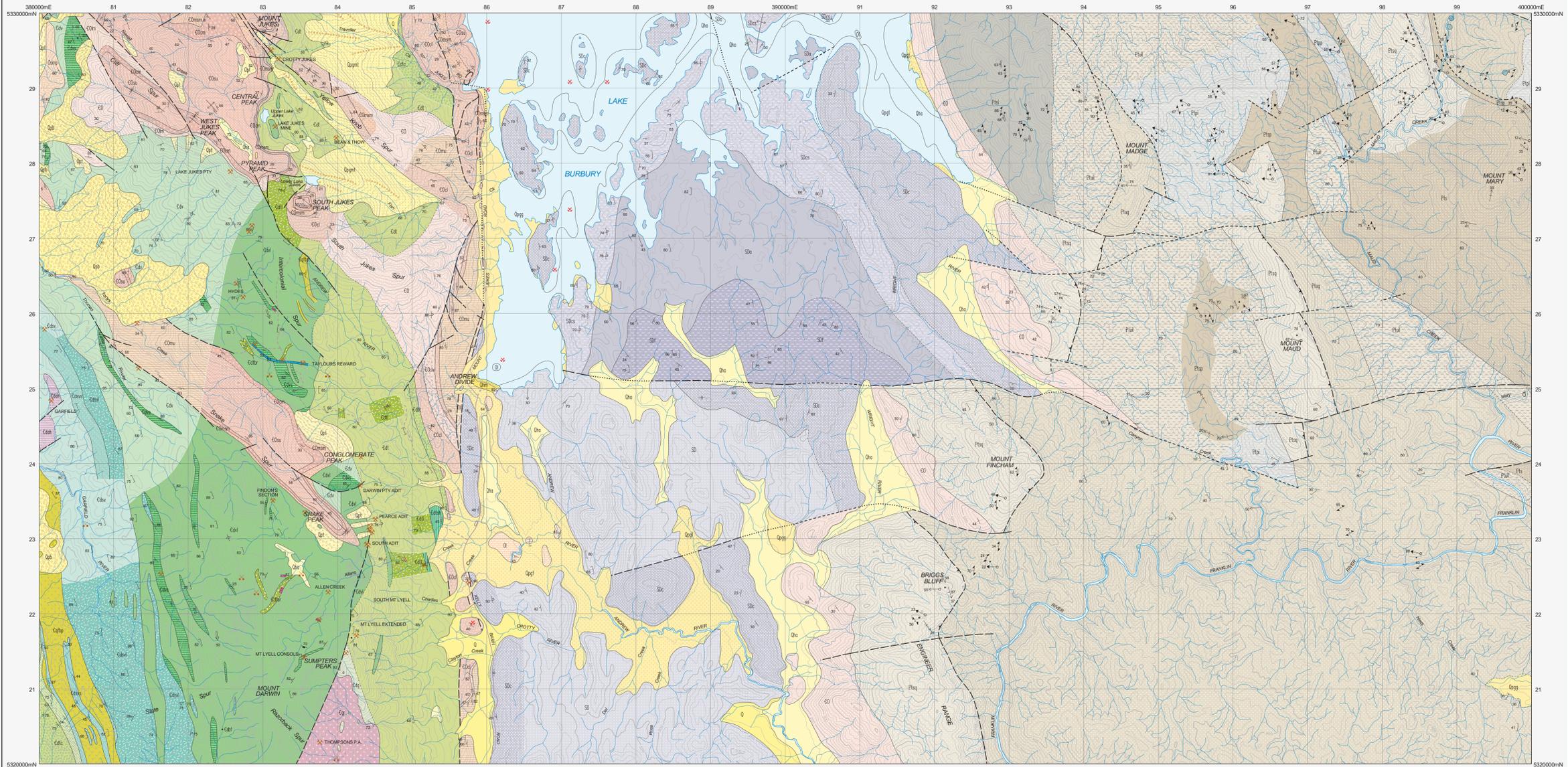
# DARWIN

Scale: 1:25 000



Department of State Growth  
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES  
DARWIN, SHEET 3832



PERIOD	GROUP	UNIT	DESCRIPTION		
CENOZOIC	QUATERNARY	Qm	Man-made deposits including mine dumps and disturbed ground (Qm).		
		Qha	Alluvium, swamp and marsh deposits. May include older alluvial deposits (Qha).		
		Qp	Talus, scree and colluvial deposits (Qp).		
	PLEISTOCENE	Qpp	Boulder slope and fan deposits, commonly with leveed channels, probably partly of local origin (Qpp).		
		Qpgg	Undifferentiated Pleistocene glacial deposits (Qpgg).		
		Qpgrt	Mainly till deposits - unweathered or slightly weathered (Qpgrt). Deposits of Margaret Glaciation.		
		Qpgr	Mainly outwash gravels (Qpgr).		
		Qp1	Older glacial deposits including outwash gravels and sands, fine-grained varved deposits and till (Qp1).		
		PALEOZOIC	SILURIAN DEVONIAN	SDf	Fine-grained quartz sandstone with minor siltstone and mudstone (correlates of Florence Formation) (SDf).
				SDa	Mainly mudstone and siltstone with minor sandstone and rare limestone (correlates of Amber Formation) (SDa).
SDs	Siltstone and fine-grained quartz-rich sandstone with common plane and low-angle cross-lamination (upper member of Crofty Formation) (SDs).				
ORDOVICIAN	SDc		Mainly coarse- to fine-grained sandstone (commonly decomposed to a friable sand) with an upper sequence of siltstone and fine-grained sandstone in some areas (Crofty Formation and correlatives) (SDc).		
	Di		Limestone with some interbedded siltstone in places. Commonly decomposed to block 'dog' (Di).		
	Camp		Grey to pink quartz sandstone with basal pebble-gravel conglomerate, trace fossils and chert-rich bands in upper part (Pioneer Beds and correlatives) (Camp).		
	COu		Thin-bedded quartz sandstone, commonly bioturbated, with interbedded siltstone and minor gravel-pebble conglomerate. Chert clasts in places. Bioturbation common (Upper Owen Sandstone and correlatives) (COu).		
CAMBRIAN	FURZBERG	COm	Mainly fine-grained pink quartz sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone and correlatives) (COm).		
		COd	Mainly white/grey to pale pink pebble-cobble conglomerate and pebbly sandstone, quartz sandstone, with minor siltstone and volcaniclastic sandstone. (Lower Owen Conglomerate and correlatives) (COd).		
		COc	Mainly grey-green volcaniclastic sandstone with minor siltstone (COc).		
	OWEN GROUP	COins	Mainly thin-bedded pink quartzitic sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone and correlatives) (COins).		
		COdms	Mainly white/grey to pale pink pebble-cobble conglomerate and pebbly sandstone, quartz sandstone, with minor siltstone and volcaniclastic sandstone. (Lower Owen Conglomerate and correlatives) (COdms).		
		COdm	Mainly grey-green volcaniclastic sandstone with minor siltstone (COdm).		

PERIOD	GROUP	UNIT	DESCRIPTION
PALEOZOIC	CAMBRIAN	Ca1	Interbedded volcaniclastic and volcanic rocks, typically quartz-feldspar-phyrlic (Tynall Group and correlatives) (Ca1).
		Ca2c	Mainly volcaniclastic conglomerate and sandstone with minor mudstone. Quartzitic matrix. Sparse quartzite clasts in places (Ca2c).
		Ca2ca	Mainly well-bedded quartz-feldspar crystal-rich volcaniclastic sandstone with minor siltstone and volcaniclastic conglomerate, graded bedding common (Ca2ca).
		Ca2cb	Felsic lava, typically quartz-feldspar-phyrlic (Ca2cb).
		Ca2d	Interbedded siltstone, mudstone, volcaniclastic sandstone and mass-flow breccia (Ca2d).
		Ca2e	Breccia bodies usually with quartz-feldspar-rich matrix and abundant clasts of locally derived lava and cherty ash (Ca2e).
		Ca2f	Quartz-feldspar-phyrlic volcanic and volcaniclastic rocks (Ca2f).
		Ca2g	Mainly felsic volcanic, volcaniclastic and pyroclastic rocks, typically feldspar +/- quartz-phyrlic (Ca2g).
		Ca2h	Felsic lava, typically feldspar +/- quartz-phyrlic, commonly with spherulitic groundmass (Ca2h).
		Ca2i	Mainly felsic volcaniclastic and pyroclastic rocks, dominantly feldspar-phyrlic, including pumice-bearing units, minor siltstone and sandstone (Ca2i).
MESO-PROTEROZOIC	CAMBRIAN	Ca3a	Units of bedded siltstone, sandstone and volcaniclastic breccia (Ca3a).
		Ca3b	Mixed sequence of bedded volcaniclastic sandstone (usually quartz-feldspar-bearing), siltstone, mudstone, quartz-feldspar-phyrlic lava and lava breccia, minor feldspar-phyrlic lava and minor andesitic lavas and intrusives (Ca3b).
		Ca3c	Quartz-feldspar +/- biotite porphyry, mainly intrusive but may be partly extrusive (Ca3c).
		Ca3d	Mainly quartz-feldspar +/- biotite-phyrlic lava (Ca3d).
		Ca3e	Dominantly sandstone and mudstone with some interbedded tuffaceous units (Ca3e).
		Ca3f	Feldspar-hornblende-phyrlic andesite (Ca3f).
		Ca3g	Lithologically undifferentiated, commonly garnetiferous rocks of relatively high metamorphic grade, including massive schistose quartzite and fine- to coarse-grained pelitic quartz-mica schist (Elog).
		Ca3h	Fine- to coarse-grained, often thinly bedded pelitic, garnetiferous quartz-mica and mica-quartz schist, commonly containing phengite, biotite, amonite, albite and chlorite, relatively high metamorphic grade (Elog).
		Ca3i	Fine-grained, banded, pink and white quartzite with interbedded pelitic quartz-mica phyllite, occasionally containing albite porphyroblasts.
		Ca3j	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 (Elog).
MESO-PROTEROZOIC	CAMBRIAN	Ca4a	Lithologically undifferentiated rocks of intermediate to low metamorphic grade (general minor to absent), including phyllite, fine-grained quartzite and diamic schist (Elog).
		Ca4b	Dominantly grey to green carbonaceous pelitic quartz-phengite phyllite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4c	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 (Elog).
		Ca4d	Dominantly quartzite (Elog).
		Ca4e	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4f	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4g	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4h	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4i	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).
		Ca4j	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (Elog). Fine-grained, biotite, phengite, chlorite and albite. Relatively massive quartzite. Non-garnetiferous and relatively low metamorphic grade (Elog).

PERIOD	GROUP	UNIT	DESCRIPTION		
MESO-PROTEROZOIC	CAMBRIAN	Ca5a	Quartz-feldspar +/- biotite porphyry, mostly intrusive (Ca5a).		
		Ca5b	Granite, coarse-grained equigranular pink to white with minor microgranite (Darwin Granite) (Ca5b).		
		Ca5c	Mafic dykes, typically chlorite-altered (Ca5c).		
		Ca5d	Amphibole-rich basaltic rock occurring as float in "Slate Spur" area (Ca5d).		
		Ca5e	Amphibole sodes (Ca5e).		
		MESO-PROTEROZOIC	CAMBRIAN	Ca6a	Quartz vein (qv)
				Ca6b	Barite vein (bv)
				Ca6c	Geological boundary - position accurate or approximate.
				Ca6d	Geological boundary - inferred.
				Ca6e	Moraine Ridge Crests.
Ca6f	Fault - unspecified type, position accurate or approximate.				
Ca6g	Fault - unspecified type, inferred.				
Ca6h	Fault - unspecified type, concealed.				
Ca6i	Fault - position accurate or approximate, downthrown side indicated where known.				
Ca6j	Thrust fault - position accurate or approximate.				

PERIOD	GROUP	UNIT	DESCRIPTION
MESO-PROTEROZOIC	CAMBRIAN	Ca7a	Strike and dip of bedding facing known, right way up; overturned, vertical (facing indicated by single f.c.).
		Ca7b	Strike and dip of bedding, facing unknown - dipping vertical.
		Ca7c	Strike and dip of dominant joint set.
		Ca7d	Strike and dip of igneous banding - dipping vertical.
		Ca7e	Strike and dip of compositional layering.
		Ca7f	Strike and dip of cleavage, type and relative age unspecified - dipping vertical.
		Ca7g	Strike and dip of dominant cleavage, relative local age $\geq 2$ , however locally $\geq 1$ (in quartzite units) or $\geq 3$ .
		Ca7h	Strike and dip of crenulation cleavage.
		Ca7i	Trend and plunge of minor fold hinge line, unspecified relative age - vergence unspecified, symmetrical.
		Ca7j	Trend and plunge of lineation of unspecified type.

Compiled by D.C. Green, B.Sc.(Hons), Ph.D. and J.L. Everard, B.Sc.(Hons), 1998 from the following sources (see responsibility diagram):

A CALVER, C.R., BALLE, P.W., EVERARD, J.L., SEMOUR, D.B., WILLIAMS, P.R., FORBETH, S.M., TURNER, N.J. and WILLIAMS, E. 1987. Geological Atlas 1:25 000 Scale Series. Sheet 3832 Darwin, Tasmania. Department of Mines.

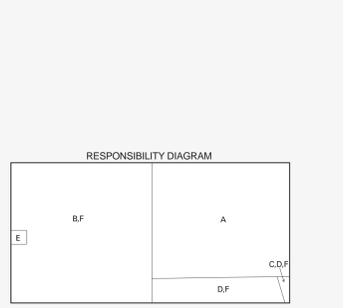
B CORBETT, A.H. 1993. M. Res. Volcanics Project. Map 13 Geology of the Mt Jukes - Mt Darwin Area. Tasmania Department of Mines.

C DUNCAN, D.M.P. 1974. Neoproterozoic geology of the Finlayson Cap National Park. Papers & Proceedings of the Royal Society of Tasmania 107: 191-195.

D SPRY, A.H. 1982. The Proterozoic Rocks, In SPRY, A.H. & BANKS, M.R. (eds.), The Geology of Tasmania. Journal of the Geological Society of Australia 32: 107-145.

E HALEY, S., WICARY, M. and BUCH, D. 1995. Exploration License No 10287, 52689 and 12102 (Queenston, Mt Darwin and Queenstown South). Annual Report April 1994 - March 1995. RSC Exploration Pty Ltd. TCR 95-3721.

Updated by:  
F CORBETT, J.D., 2000. Bathymetric geological map of the Ellet Bay-Macquarie Harbour Area, South-West Tasmania. Western Tasmania Regional Minerals Program. Mineral Resources Tasmania.



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