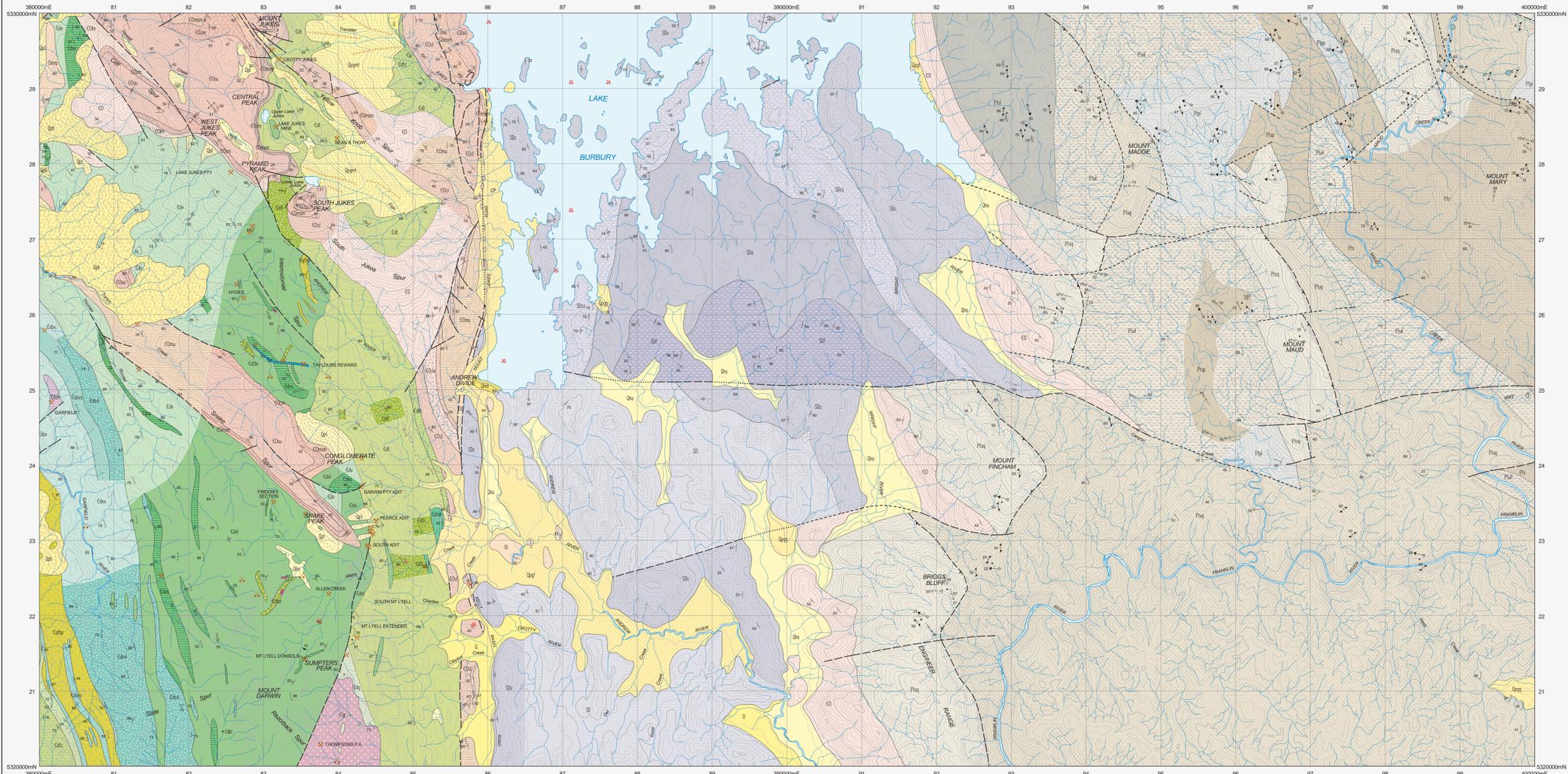


DARWIN

Scale: 1:25 000



CENOZOIC	QUATERNARY	
	HOLOCENE	PLEISTOCENE
	Qm	Mar-made deposits including mine dumps and disturbed ground (Qm).
	Qha	Alluvium, swamp and marsh deposits. May include siltier alluvial deposits (Qha).
	Qp	Talus, scree and colluvial deposits (Qp).
	Qpp	Boulder slope and fan deposits, commonly with leveed channels, probably partly of local origin (Qpp).
	Qppl	Landiferated Pleistocene glacial deposits (Qppl).
	Qpgr	Mainly till deposits - unweathered or slightly weathered (Qpgr). Deposits of Margaret Glaciation.
	Qpdl	Mainly outwash gravels (Qpdl).
	Qpvl	Older glacial deposits including outwash gravels and sands, fine-grained varved deposits and till (Qpvl).
PALEOZOIC	SILURIAN DEVONIAN	
	ELDON GROUP	TUSMANIA SUBGROUP
	SD	Fine-grained quartz sandstone with minor siltstone and mudstone (correlates of Florence Formation) (SD).
	SDa	Mainly mudstone and siltstone with minor sandstone and rare limestone (correlates of Amber Formation) (SDa).
	SDb	Siltstone and fine-grained quartz-rich sandstone with common plane and low-angle cross-lamination (upper member of Crofty Formation) (SDb).
	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).
	SDl	Limestone with some interbedded siltstone in places. Commonly decomposed to block clay 'dog' (SDl).
	SDmp	Grey to pink quartz sandstone with basal pebble-granule conglomerate, trace fossils and chert-rich bands in upper part (Pioneer Beds and correlatives) (SDmp).
	CDm	Thin-bedded quartz sandstone, commonly bioturbated, with interbedded siltstone and minor gravel-pebble conglomerate. Chert clasts in places. Bioturbation common (Lower Owen Sandstone and correlatives) (CDm).
	CDn	Mainly pink to cream coloured, thick-bedded pebble-cobble to cobble-boulder quartz sandstone, with minor siltstone and some partly calcareous sandstone in some areas. (Middle Owen Conglomerate and correlatives) (CDn).
	CDns	Mainly thin-bedded pink quartzitic sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone and correlatives) (CDns).
	CDnsl	Mainly white/grey to pale pink pebble-cobble conglomerate and pebbly sandstone, quartz sandstone, with minor siltstone and volcanoclastic sandstone. (Lower Owen Conglomerate and correlatives) (CDnsl).
	CDncl	Mainly grey-green volcanoclastic sandstone with minor siltstone (CDncl).

PALEOZOIC	CAMBRIAN	
	CAMBRIAN SERIES 3	TYNALL GROUP
	Ccl	Interbedded volcanoclastic and volcanic rocks, typically quartz-feldspar-phyric (Tynall Group and correlatives) (Ccl).
	Cclc	Mainly volcanoclastic conglomerate and sandstone with minor mudstone. Quartzitic matrix. Sparse quartzite clasts in places (Cclc).
	Cclcs	Mainly well-bedded quartz-feldspar crystal-rich volcanoclastic sandstone with minor siltstone and volcanoclastic conglomerate, graded bedding common (Cclcs).
	Cclf	Felsic lava, typically quartz-feldspar-phyric (Cclf).
	Cclst	Interbedded siltstone, mudstone, volcanoclastic sandstone and mass-flow breccia (Cclst).
	Cclv	Breccia bodies usually with quartz-feldspar-rich matrix and abundant clasts of locally derived lava and cherty ash (Cclv).
	Cdq	Quartz-feldspar-phyric volcanic and volcanoclastic rocks (Cdq).
	Cdv	Mainly felsic volcanic, volcanoclastic and pyroclastic rocks, typically feldspar +/- quartz-phyric (Cdv).
	Cdvf	Felsic lava, typically feldspar +/- quartz-phyric, commonly with spherulitic groundmass (Cdvf).
	Cdvs	Mainly felsic volcanic and pyroclastic rocks, dominantly feldspar-phyric, including pumice-bearing units, minor siltstone and sandstone (Cdvs).
	Cdvt	Units of bedded siltstone, sandstone and volcanoclastic breccia (Cdvt).
	Cdvw	Mixed sequence of bedded volcanoclastic sandstone (usually quartz-feldspar-bearing), siltstone, mudstone, quartz-feldspar-phyric lava and lava breccia, minor feldspar-phyric lava and minor andesitic lavas and intrusives (Cdvw).
	Cdwt	Quartz-feldspar +/- biotite porphyry, mainly intrusive but may be partly extrusive (Cdwt).
	Cdwtv	Mainly quartz-feldspar +/- biotite-phyric lava (Cdwtv).
	Cdws	Dominantly sandstone and mudstone with some interbedded tuffaceous units (Cdws).
	Cdb	Feldspar-hornblende-phyric andesite (Cdb).
	EPsp	Lithologically undifferentiated, commonly garnetiferous rocks of relatively high metamorphic grade including massive sillstone quartzite and fine- to coarse-grained pelitic quartz-mica schist (EPsp).
	EPsl	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 (EPsl).
	EPst	Fine-grained, banded, pink and white quartzite with interbedded pelitic quartz-mica phyllite occasionally containing albite porphyroblasts. Intermediate metamorphic grade (EPst).
	EPtp	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 (EPtp).
	EPtr	Lithologically undifferentiated rocks of intermediate to low metamorphic grade (garnet minor to absent), including phyllite, fine-grained quartzite and diamicitic schist (EPtr).
	EPtt	Dominantly grey to green carbonaceous pelitic quartz-phengite phyllite. Non-garnetiferous and relatively low metamorphic grade (EPtt).
	EPts	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 (EPts).
	EPtq	Lithologically undifferentiated rocks of low metamorphic grade, including non-garnetiferous quartzite and phyllite (EPtq). Fine-grained, blocky, tabular, phenitic quartzite and subordinate fine-grained massive quartzite. Non-garnetiferous and relatively low metamorphic grade (EPtq).

MESO- PROTEROZOIC	MOUNT READ VOLCANICS	
	EASTERN QUARTZ-PHYRIC SUBSERIES	TYNALL GROUP
	Colp	Quartz-feldspar +/- biotite porphyry, mostly intrusive (Colp).
	Egr	Granite, coarse-grained equigranular pink to white with minor microgranite (Darwin Granite) (Egr).
	Cdb	Mafic dykes, typically chlorite-altered (Cdb).
	Cdbf	Amphibole-rich basaltic rock occurring as float in "Slate Spur" area (Cdbf).
	Pta	Amphibolite sodes (Pta).
ALTERATION		
	qv	Quartz vein (qv)
	bv	Barite vein (bv)

- Strike and dip of bedding facing known, right way up; overturned, vertical (facing indicated by single f.c.).
- Strike and dip of bedding, facing unknown - dipping vertical.
- Strike and dip of dominant joint set.
- Strike and dip of igneous banding - dipping vertical.
- Strike and dip of compositional layering.
- Strike and dip of cleavage, type and relative age unspecified - dipping vertical.
- Strike and dip of dominant cleavage, relative local age ≥ 2 , however locally ≥ 1 (in quartzite units) or ≥ 3 .
- Strike and dip of crenulation cleavage.
- Trend and plunge of minor fold hinge line, unspecified relative age - vergence unspecified, symmetrical.
- Trend and plunge of lineation of unspecified type.
- Trend and plunge of lineation L2, formed by intersection of cleavages or foliations of relative local ages ≥ 1 and ≥ 2 .
- Trend and plunge of columnar jointing.
- Field station for adjacent readings on the map.
- Notable small outcrop with rock unit indicated.
- Notable small float or log occurrence, with rock type indicated.
- Mineral deposit location - hardrock.
- Mineral deposit location - alluvial.
- Construction material/structural mineral potential location.

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 Series Sheet 38 (BIBLAL LUT). Tasmania Department of Mines.

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

C DUNCAN, D.M.P. 1974. Neoproterozoic geology of the Firecliff 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 102: 107-145.

E HALEY, S., WICARY, M. and BUCH, D. 1995. Exploration License No's 10287, 52619 and 12102 (Queenston, Mt Darwin and Queenstown South). Annual Report April 1994 - March 1995 RDC 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.

In some areas lake fill is shown by water level line only, with previously mapped geology indicated. Some previously mapped structure and mineralisation sites are shown on top of subsequent lake fill.

REFERENCE THIS MAP AS:
GREEN, D.C. and EVERARD, J.L. (compilers) 1998. Digital Geological Atlas 1:25 000 Scale Series, Sheet 3832. Darwin, Mineral Resources Tasmania.

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GDASA - MGA Zone 55. Contour Interval: 20 metres.

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