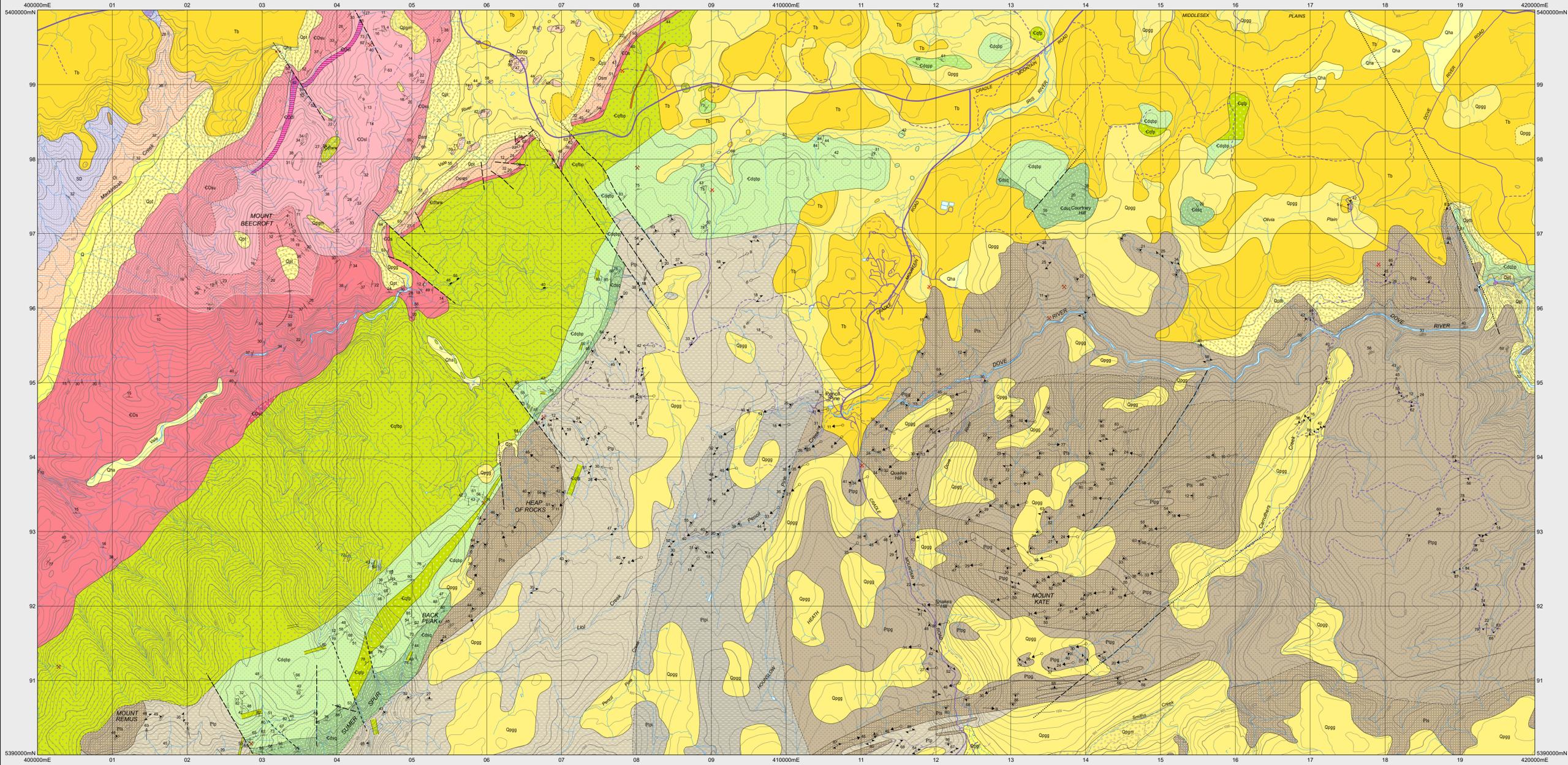


# PENCIL PINE

Scale 1:25 000

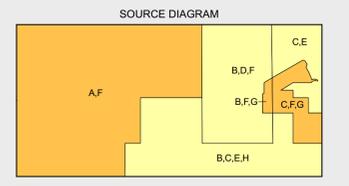


GEOLOGIC PERIOD	SUBPERIOD	GORDON GROUP	
		WILKINSON SUPERGROUP	WILKINSON SUPERGROUP
CENOZOIC	QUATERNARY	Qha	Undifferentiated Quaternary sediments (Q).
		Q	Alluvium, swamp and marsh deposits (Qha).
		Qpt	Talus (Qpt).
		Qph	Basalt talus (Qph).
		Qgg	Glacial deposits (Qgg).
	PALEOGENE-NEOGENE	Tb	Basalt (Tb).
		Tf	Ferricrete (Tf).
		Ts	Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts).
		SD	Shallow marine quartz sandstone, siltstone and shale (SD).
		SDf	Shallow marine quartz sandstone (SDf).
PALEOZOIC	ORDOVICIAN	Oi	Limestone with siltstone in some areas (Oi).
		Osmh	Calcareous siltstone and sandstone. Transitional unit from Mainia Sandstone to Gordon Limestone (Osmh).
		Osm	Pale grey to pink commonly cross-bedded quartz sandstone, coarse and pebbly lower base and with lobular trace fossils in horizons of upper sequences (correlate of Mainia Sandstone) (Osm).
		COsu	Quartz sandstone, pink to grey, typically cross-bedded to thin-bedded, with minor siltstone, conglomerate and calcareous sandstone (COsu). Pink coarse sandstone and granite-pebble conglomerate, locally conglomeratic at base. Clasts of chert common. Cross-bedding common (COsu).
		COst	Dominantly thin-bedded pink to grey sandstone with minor siltstone, calcareous sandstone and pebble conglomerate. Some bioturbated horizons (COst).
	CAMBRIAN	COd	Silt-like bodies of dolomite, usually deeply weathered (COd).
		COvc	Volcaniclastic conglomerate, breccia and sandstone. Correlate of Jukes Conglomerate (COvc).
		Cblw	Probable welded ash-flow tuff and associated flow-foliated rocks in Black Bluff Range window (Cblw).
		Cdtp	Interbedded pale grey vitro mudstone, quartz-phryic volcaniclastic sandstone and dark grey cherty siltstone. Some mass flow deposits (Cdtg).
		Ctlp	Horizon with large pumice clasts (Ctlp).

GEOLOGIC PERIOD	SUBPERIOD	TASMANIAN REGION METASEDIMENTS	
		STRONG BACK PEAK RANGE FORMATION	MI READ VOLCANICS
MESOPROTEROZOIC	CAMBRIAN	Pts	Dominantly quartzite (Pts).
		Ptp	Dominantly phyllite, with minor schist, quartzite and siltstone. Unmetamorphosed to relatively low metamorphic grade (Ptp).
		Ptpi	Dominantly dark grey quartz-mica phyllite and schist, sometimes porphyroblastic and occasionally containing albite-chlorite-biotite-phengite and minor garnet. Intermediate metamorphic grade (Ptpi).
		Ptpg	Fine-to coarse-grained, often thinly banded, pelitic, garnetiferous, quartz-mica schist, commonly containing phengite, almandine, stibite and chlorite. Relatively high metamorphic grade (Ptpg).
		qv	Quartz vein (qv).
PALEOZOIC	CAMBRIAN	Cdtp	Quartz-feldspar porphyry-dominant intrusive (Cdtp).
		Cdtpb	Quartz-feldspar ± biotite ± hornblende porphyry (Cdtpb).
		Cdtpmb	Medium-grained hydromorphic equi-granular biotite ± hornblende-bearing monzo-granite (Cdtpmb).

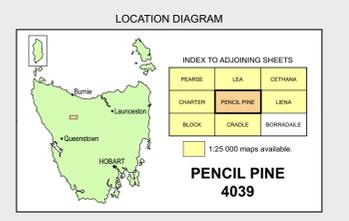
CONTACTS	FAULTS	LINEARS
Geological contact.	Fault.	Axial surface trace of major synform.
Geological contact - inferred.	Fault - inferred.	Moraine ridge crest.
Limit of mapping of sub-unit within undifferentiated rock unit.	Fault - concealed.	Lineament - visible on aerial photographs.

SYMBOL	DESCRIPTION
↗	Strike and dip of bedding - right way up; facing unknown.
↖	Strike of vertical bedding - facing unknown.
↗↖	Strike and dip of compositional layering.
↗↖	Strike and dip of cleavage of unspecified type and relative age; vertical.
↗↖	Strike and dip of metamorphic foliation parallel to compositional layering; vertical. Relative local age S <sub>1</sub> .
↗↖	Strike and dip of cleavage, relative local age S <sub>1</sub> .
↗↖	Strike and dip of metamorphic foliation other than cleavage; relative local age S <sub>1</sub> , S <sub>2</sub> .
↗↖	Trend and plunge of lineation of unspecified type.
↗↖	Trend and plunge of early lineation in quartzite layers and intersection of S <sub>1</sub> , S <sub>2</sub> in pelitic rocks. Relative local age S <sub>2</sub> .
↗↖	Trend and plunge of intersection S <sub>1</sub> , S <sub>2</sub> and S <sub>3</sub> . Relative local age S <sub>3</sub> .
↗↖	Trend and plunge of oronulation lineation on S <sub>2</sub> in pelitic rocks, and strong quartz mineral lineation in quartzite rocks, relative local age F <sub>1</sub> .
↗↖	Trend and plunge of hinge line of minor fold of unspecified relative age; F <sub>2</sub> .
↗↖	Trend and plunge of minor fold hinge line, relative local age F <sub>1</sub> , F <sub>2</sub> .
↗↖	Strike and dip of dominant joint set.
↗↖	Strike and dip of igneous banding or platy alignment.
•	Field station for adjacent readings on the map.
✕	Mineral deposit location - hardrock.
✕	Mineral deposit location - alluvial/tailings.
✕	Construction material/industrial mineral/gemstone location.



Compiled by J. Pemberton, B.Sc.(Hons), and J. McKibben, B.Sc.(Hons), 1986, from the following sources (see source diagram):  
A. PEMBERTON, J. and VICARY, M.J. 1988. Mt Read Volcanics Project Map 7. Department of Mines, Tasmania.  
B. BARTON, C.M. et al. 1966. Geological atlas 1 mile series Mackintosh. Department of Mines, Tasmania. With modifications by K.D. Corbett and J.J. McKibben, 1995.  
C. JENNINGS, I.B. and BURNS, K.L. 1958. Geological Atlas 1 Mile Series, Zone 7 Sheet 45, Middlesex, Tasmania. Department of Mines. With modifications by K.D. Corbett and J.J. McKibben, 1995.  
D. J. J. McKibben, 1:25 000 geological mapping.  
Updated by:  
E. M.J. Vicary using additional data from Mackintosh explanatory report, (Collins et al 1981).  
F. K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program.  
G. D.C. Green, 2007 as part of the TasExplore Project.  
H. M.J. Vicary, 2004, air photograph interpretation.

REFERENCE THIS MAP AS:  
PEMBERTON, J. and MCKIBBEN, J. (compilers) 2004. Digital Geological Atlas 1:25 000 Scale Series, Sheet 4039 Pencil Pine, Mineral Resources Tasmania.  
Base data from the LIST, Copyright State of Tasmania.  
Map produced by Spatial Information Services, Mineral Resources Tasmania.  
Website: www.mrt.tas.gov.au  
GDAS4 - MGA Zone 55. Contour Interval: 20 metres.



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