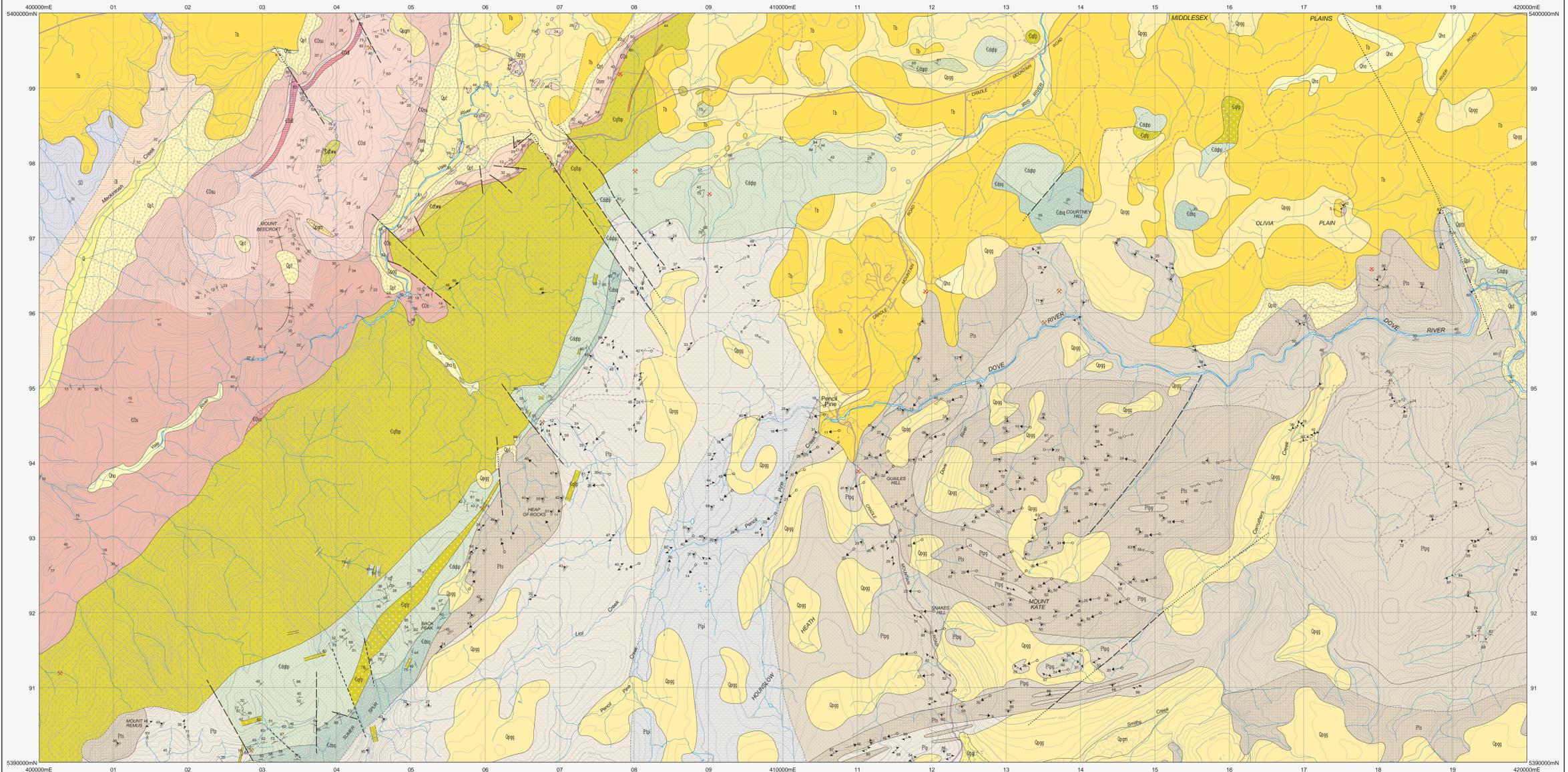


# PENCIL PINE

Scale: 1:25 000



CEANOZOIC	QUATERNARY	HOLOCENE	Qha	Alluvium, swamp and marsh deposits (Qha).
			Qa	Talus (Qa).
			Qat	Basalt tuffs (Qat).
			Qopg	Glacial deposits (Qopg).
			Qop	Fluvioglacial and lacustrine deposits (Qop).
			Qom	Mostly morainal deposits (Qom).
			Tb	Basalt (Tb).
			Tf	Ferricrete (Tf).
			Ts	Dominantly non-marine sequences of gravel, sand, silt, clay and pebbles (Ts).
			SD	Shallow marine quartz sandstone, siltstone and shale (SD).
			SDh	Shallow marine quartz sandstone (SDh).
			Cl	Limestone with siltstone in some areas (Cl).
			Qsmsh	Calcareous siltstone and sandstone. Transitional unit from Moina Sandstone to Gordon Limestone (Qsmsh).
			Qsm	Pale grey to pink commonly cross-bedded quartz sandstone, coarse and pebbly toward base and with taluslike trace fossils in horizons of upper sequences (correlate of Moina Sandstone) (Qsm).
			Qsmh	Pink coarse sandstone and gravel-siltstone conglomerate, locally conglomeratic at base. Clasts of chert common. Cross-bedding common (Qsmh).
			Qsm	Dominantly thin-bedded pink to grey sandstone with minor siltstone, calcareous sandstone and pebble conglomerate. Some bioturbated horizons (Qsm).
			Qsm	SM-like bodies of dolomite, usually deeply weathered (Qsm).
			Qsm	Volcaniclastic conglomerate, breccia and sandstone. Correlate of Jukes Conglomerate (Qsm).

PALEOZOIC	CAMBRIAN	Colw	Probable welded ash-flow tuff and associated flow-falated rocks in Black Bluff Range window (Colw).
		Colpa	Interbedded pale grey vitric mudstone, quartz-phyric volcanoclastic sandstone and dark grey cherty siltstone. Some mass flow deposits (Colpa).
		Colpa	Horizon with large pumice clasts (Colpa).
		Colpa	Siliciclastic conglomerate and sandstone with interbedded micaceous siltstone and minor volcanoclastic rocks. Rare marine fossils (Colpa).
		Pts	Dominantly quartzite (Pts).
		Ptp	Dominantly phyllite, with minor schist, quartzite and siltstone. Unmetamorphosed to relatively low metamorphic grade (Ptp).
		Ptp	Dominantly dark grey quartz-mica phyllite and schist, sometimes porphyroblastic and granular. Contains albita-chlorite-biotite-phenocrysts and minor garnet. Intermediate metamorphic grade (Ptp).
		Ptp	Phyllite coarse-grained, often highly banded, pelitic, gneissiferous, quartz-mica schist, commonly containing phengite, omphacite, white and chlorite. Relatively high metamorphic grade (Ptp).
<b>INTRUSIVE ROCKS</b>			
		Qv	Quartz vein (qv).
		Colp	Quartz-feldspar porphyry-dominant intrusive (Colp).
		Colp	Quartz-feldspar +/- biotite +/- hornblende porphyry (Colp).
		Colp	Medium-grained hypidiomorphic equi-granular biotite +/- hornblende-bearing mass-granite (Colp).

- Geological boundary - position approximate.
- Geological boundary - position inferred.
- Marine Ridge Crests.
- Fault - position approximate.
- Fault - position inferred.
- 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 S1.
- Strike and dip of cleavage, relative local age S1, S2, S3.
- Strike and dip of metamorphic foliation other than cleavage; relative local age S1, S2.
- Trend and plunge of lineation of unspecified type.
- Trend and plunge of early lineation in quartzite layers and intersection of S1, S2 in pelitic rocks. Relative local age S2.
- Trend and plunge of intersection S1 S3 and S2 S3. Relative local age S3.
- Trend and plunge of crenulation lineation on S2 in pelitic rocks, and strong quartz mineral lineation in quartzitic rocks, relative local age F4-5.
- Trend and plunge of hinge line of minor fold of unspecified relative age; F2.
- Trend and plunge of minor fold hinge line, relative local age F3, F5.
- 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/goldings.
- Construction material/industrial mineral/gemstone location.

- 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 S1.
- Strike and dip of cleavage, relative local age S1, S2, S3.
- Strike and dip of metamorphic foliation other than cleavage; relative local age S1, S2.
- Trend and plunge of lineation of unspecified type.
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- Trend and plunge of intersection S1 S3 and S2 S3. Relative local age S3.
- Trend and plunge of crenulation lineation on S2 in pelitic rocks, and strong quartz mineral lineation in quartzitic rocks, relative local age F4-5.
- Trend and plunge of hinge line of minor fold of unspecified relative age; F2.
- Trend and plunge of minor fold hinge line, relative local age F3, F5.
- 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/goldings.
- Construction material/industrial mineral/gemstone location.

Compiled by J. Pemberton, B.Sc.(Hons), and J. McKibben, B.Sc.(Hons), 1996, from the following sources (see responsibility 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. 1984. Geological atlas 1 mile series Mackintosh. Department of Mines, Tasmania. With modifications by K.D. Corbett and J.J. McKibben, 1985.

C. JENNINGS, I.B. and BURNS, K.L. 1956. Geological Atlas 1 Mile Series. Zone 7 Sheet 55, Middlesex. Tasmania Department of Mines. With modifications by K.D. Corbett and J.J. McKibben, 1985.

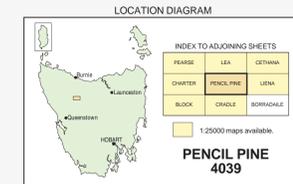
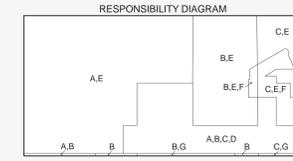
Updated by:

D. M.J. Vicary using additional data from Mackintosh explanatory report, Corbett et al. 1987.

E. K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program.

F. D.C. Green, 2007 as part of the TasTops Project.

G. 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.

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Map produced by the Geoscience Information Branch of Mineral Resources Tasmania using G.I.S. software.  
GDAS4 - MGA Zone 55. Contour Interval: 20 metres.



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CHARTER	PENCIL PINE	LEMA
BLOCK	CRADLE	SERRAVALLE

1:25000 maps available.

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