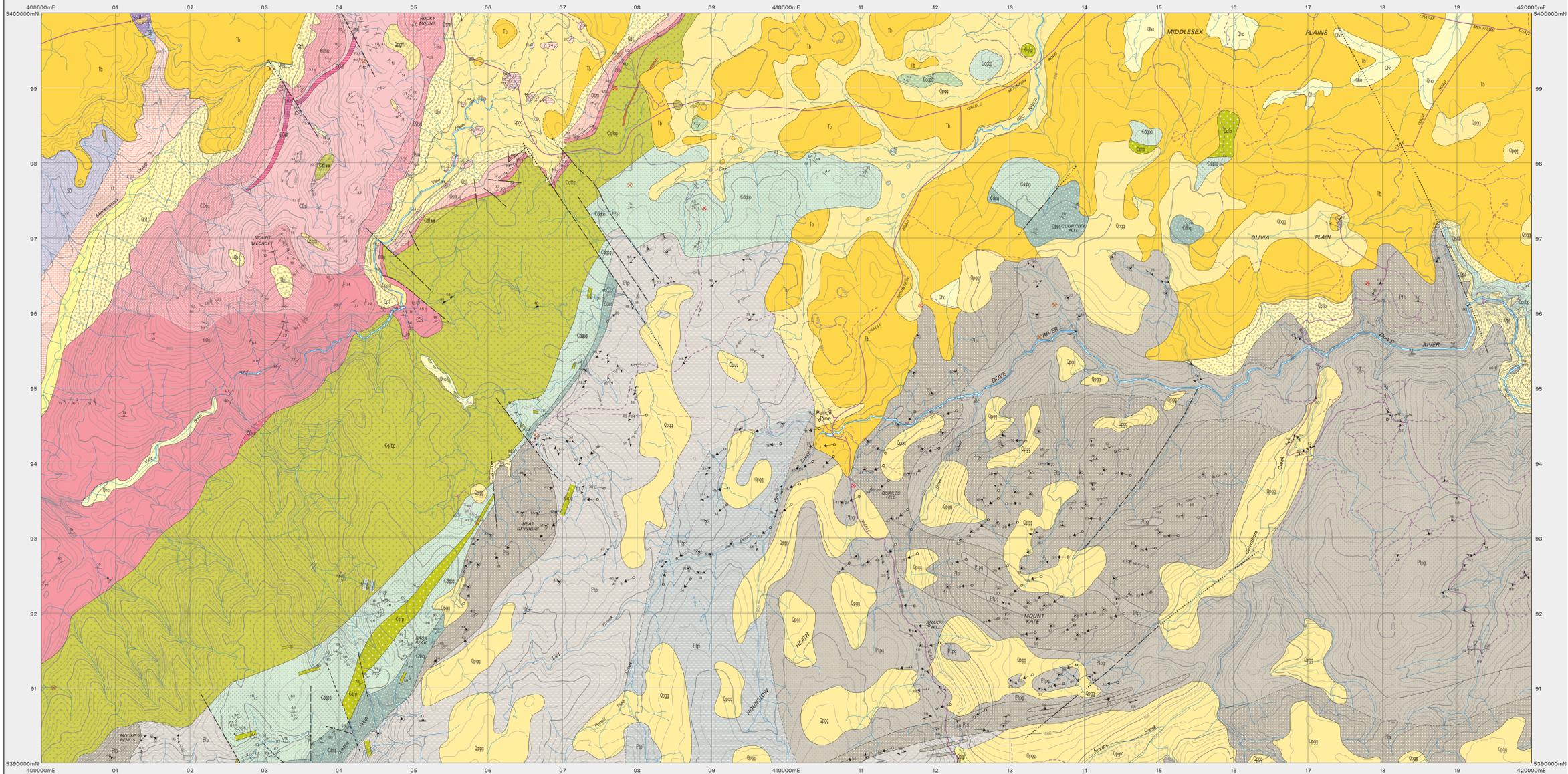
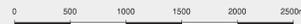


PENCIL PINE

Scale: 1:25 000



CENOZOIC	
QUATERNARY	<p>PLEISTOCENE - HOLOCENE</p> <ul style="list-style-type: none"> Oha Alluvium, swamp and marsh deposits (Oha). Qa1 Taka (Qa1). Qa2 Basalt taka (Qa2). Qag1 Glacial deposits (Qag1). Qag2 Fluvio-glacial and lacustrine deposits (Qag2). Qagm Mostly moraine deposits (Qagm).
TERTIARY	<ul style="list-style-type: none"> Tfgp Grey-billy and siltstone (Tfgp). Tb Basalt (Tb). Tf Ferricrete (Tf). Ta Dominantly near-marine sequences of gravel, sand, silt, clay and pebbles (Ta).
CRETACEOUS	<ul style="list-style-type: none"> SD Shallow marine quartz sandstone, siltstone and shale (SD). SD1 Shallow marine quartz sandstone (SD1).
PALEOZOIC	<p>DEVONIAN</p> <ul style="list-style-type: none"> O1 Limestone with siltstone in some areas (O1). Osmn Calcareous siltstone and sandstone. Transitional unit from Moira Sandstone to Gordon Limestone (Osmn). Oam Fine grey to pink commonly cross-bedded quartz sandstone, coarse and pebbly toward base and with tubular trace fossils in horizons of upper sequences (Oam). OCm Pink coarse sandstone and granite-pebble conglomerate, locally conglomeratic at base. Clasts of chert common. Cross-bedding common (OCm). COd Dominantly thin-bedded pink to grey sandstone with minor siltstone, calcareous sandstone and pebble conglomerate. Some blotched horizons (COd). COd1 Silt-like bodies of dolerite, usually deeply weathered (COd1). COd2 Volcaniclastic conglomerate, breccia and sandstone. Correlate of Lake Conglomerate (COd2).

PALEOZOIC	
MIDDLE CAMBRIAN	<ul style="list-style-type: none"> Calaw Probable welded ash-flow tuff and associated flow-foliated rocks in Black Bluff Ridge window (Calaw). COqpp Interbedded pale grey vitric mudstone, quartz-phyric volcanoclastic sandstone and dark grey cherty siltstone. Some mass flow deposits (COqpp). COqpp Horizon with large pumice clasts (COqpp). COqpp Siliciclastic conglomerate and sandstone with interbedded micaceous siltstone and minor volcanoclastic rocks. Rare marine fossils (COqpp).
PROTEROZOIC	<p>MESOPROTEROZOIC</p> <ul style="list-style-type: none"> Pts Dominantly quartzite (Pts). Etp Dominantly phyllite, with minor schist, quartzite and siltstone. Unmetamorphosed to relatively low metamorphic grade (Etp). Ptpp Dominantly dark grey quartz-mica phyllite and schist, sometimes porphyroblastic and occasionally containing apatite-chlorite-biotite-phenolite and minor garnet. Intermediate metamorphic grade (Etp). Etpq Fine to coarse-grained, often finely banded, pelitic, garnetiferous, quartz-mica schist, commonly containing phenolite, almandine, albite and chlorite. Relatively high metamorphic grade (Etpq).
PALEOZOIC	<p>MIDDLE CAMBRIAN</p> <ul style="list-style-type: none"> Qv Quartz vein (Qv). Caip Quartz-feldspar porphyry-dominantly intrusive (Caip). Caipb Quartz-feldspar +/- biotite +/- hornblende porphyry (Caipb). Caippe Medium-grained hypidiomorphic equi-granular biotite +/- hornblende-bearing meta-granite (Caippe).

Geological boundary - position approximate	—
Geological boundary - position inferred	- - - - -
Moraine Ridge Crests	—•—•—•—•—
Fault - position approximate	- - - - -
Fault - position inferred	- - - - -
Fault - position concealed
Linemant visible on air photos
Axial surface trace of major fold, synform
Limit of mapping of sub-unit, within undifferentiated rock unit	(White line)

↖ ↗	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 type, 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.
↖ ↗	Strike and dip of cleavage, relative local age S2.
↖ ↗	Strike and dip of cleavage, relative local age 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 on plunge of circulation lineation on S2 in pelitic rocks, and strong quartz pegmatite lineation in quartzite rocks, relative local age F4-S5.
↖ ↗	Trend and plunge of hinge line of minor fold of unspecified relative age.
↖ ↗	Trend and plunge of minor fold hinge line, relative local age F2.
↖ ↗	Trend and plunge of minor fold hinge line, relative local age F3.
↖ ↗	Strike and dip of dominant joint set.
↖ ↗	Strike and dip of igneous banding or platy alignment.
⊗	Mineral deposit location - hardrock
⊗	Mineral deposit location - alluvial
⊗	Construction materials location

REFERENCE THIS MAP AS:
PEMBERTON, J. and MCKIBBEN, J. 1996. Digital Geological Atlas 1:25000 series, sheet 4039 Pencil Pine, Mineral Resources Tasmania.

Base data from the LIST. Copyright State of Tasmania.

Map produced by the Data Management Branch of Mineral Resources Tasmania using GIS software.

ADD64 - AMG Zone 55. Contour Interval: 20 metres.

While every care has been taken in the preparation of this data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. No reader should act or fail to act on the basis of any material contained herein. Readers should consult professional advisers. As a result the Crown in Right of the State of Tasmania and its employees, contractors and agents expressly disclaim all and any liability (including all liability from or attributable to any negligent or wrongful act or omission) to any persons whatsoever in respect of anything done or omitted to be done by any such person in reliance whether in whole or in part upon any of the material in this data. Crown copyright reserved.

Compiled by Pemberton, J. and McKibben, J. 1996, from the following sources (see responsibility diagram)

A Mt Read Volcanics Project Map 7 (M.J. Vicky and J. Pemberton, 1988).

B Macintosh sheet, Geological atlas 1 mile series (C.M. Barton et al. 1965), with modifications by K.D. Coburn and J.J. McKibben, 1995.

C Middlesex sheet, Geological atlas 1 mile series (B. Jennings, K.L. Burns 1958), with modifications by K.D. Coburn and J.J. McKibben, 1995.

Updated by:

D M.J. Vicky using additional data from Macintosh explanatory report, (Coburn et al. 1981).

E K.D. Coburn, 2004 as part of the Visium Tasmania Regional Mineral Program.

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

