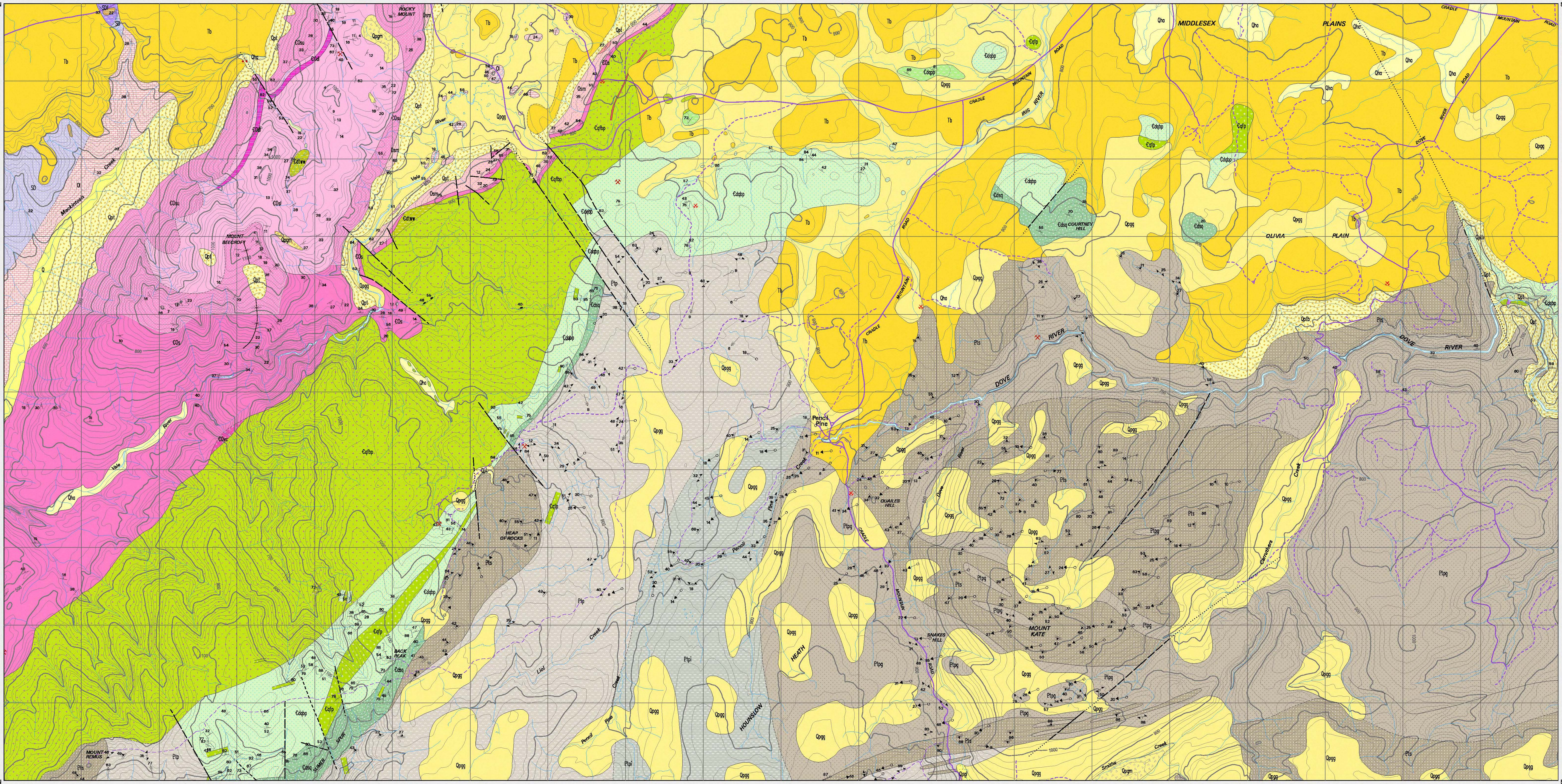
MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
PENCIL PINE, SHEET 4039

PENCIL PINE

Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA
Tasmania
DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CAINOZOIC	QUATERNARY	HOLOCENE	Qha	Alluvium, swamp and marsh deposits (Qha).
			Qpt	Talus (Qpt).
			Qptb	Basalt talus (Qptb).
		PLEISTOCENE	Qpgg	Glacial deposits (Qpgg).
			Qpgl	Fluvioglacial and lacustrine deposits (Qpgl).
			Qpgm	Mostly morainal deposits (Qpgm).
	TERTIARY		Tfgb	Grey-billy and silcrete (Tfgb).
			Tb	Basalt (Tb).
			Tf	Ferricrete (Tf).
			Ts	Dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts).

PALAEOZOIC	SILURIAN-DEVONIAN	SD	Shallow marine quartz sandstone, siltstone and shale (SD).	ELDON GROUP
		SDf	Shallow marine quartz sandstone (SDf).	
	ORDOVICIAN	Ol	Limestone with siltstone in some areas (Ol).	GORDON GROUP
		Osmsh	Calcareous siltstone and sandstone. Transitional unit from Moina Sandstone to Gordon Limestone (Osmsh).	
		Osm	Pale grey to pink commonly cross-bedded quartz sandstone, coarse and pebbly toward base and with tubicular trace fossils in horizons of upper sequences (correlate of Moina Sandstone) (Osm).	OWEN GROUP
	LATE CAMBRIAN	€Osu	Pink coarse sandstone and granule-pebble conglomerate, locally conglomeratic at base. Clasts of chert common. Cross-bedding common (€Osu).	
		€Osl	Dominantly thin-bedded pink to grey sandstone with minor siltstone, calcareous sandstone and pebble conglomerate. Some bioturbated horizons (€Osl).	
		€Odl	Sill-like bodies of dolerite, usually deeply weathered (€Odl).	
		€Ovc	Volcaniclastic conglomerate, breccia and sandstone. Correlate of Jukes Conglomerate (€Ovc).	

WURAWINA SUPERGROUP

PALAEOZOIC	MIDDLE CAMBRIAN	€dtww	Probable welded ash-flow tuff and associated flow-foliated rocks in Black Bluff Range window (€dtww).	CORRELATE OF TYNDALL GROUP
		€dqbp	Interbedded pale grey vitric mudstone, quartz-phyric volcaniclastic sandstone and dark grey cherty siltstone. Some mass flow deposits (€dqbp).	BACK PEAK BEDS
		€dqpp	Horizon with large pumice clasts (€dqpp).	
		€dsq	Siliciclastic conglomerate and sandstone with interbedded micaceous siltstone and minor volcaniclastic rocks. Rare marine fossils (€dsq).	STICHT RANGE FORMATION

MT READ VOLCANICS

PROTEROZOIC	MESOPROTEROZOIC	Pts	Dominantly quartzite (Pts).	TYENNAN REGION METASEDIMENTS
		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 occasionaly 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, albite and chlorite. Relatively high metamorphic grade (Ptpg).	

INTRUSIVE ROCKS

qv — Quartz vein (qv).

PALAEOZOIC	MIDDLE CAMBRIAN	€qfp	Quartz-feldspar porphyry-dominantly intrusive (€qfp).	MT READ VOLCANICS
		€qfbp	Quartz-feldspar +/- biotite +/- hornblende porphyry (€qfbp).	
		€gr	Granite (€gr).	

- Geological boundary — position approximate
- Geological boundary — position inferred
- Moraine Ridge Crests
- Fault — position approximate
- Fault — position inferred
- Fault — position concealed
- Lineament visable on air photos.
- Axial surface trace of major fold, synform

- 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 S2.
- Strike and dip of cleavage, relative local age S3.
- 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 an 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.
- Trend and plunge of minor fold hinge line, relative local age F2.
- Trend and plunge of minor fold hinge line, relative local age F3.
- Trend and plunge of minor fold hinge line, relative local age F5.
- Strike and dip of dominant joint set.
- Strike and dip of igneous banding or platy alignment.
- Mineral deposit location — hardrock; Mineral deposit location — alluvial — Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.
- Construction materials location — Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

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

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

B Mackintosh sheet. Geological atlas 1 mile series (C.M. Barton et al, 1966), with modifications by K.D. Corbett and J.J. McKibben, 1995.

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

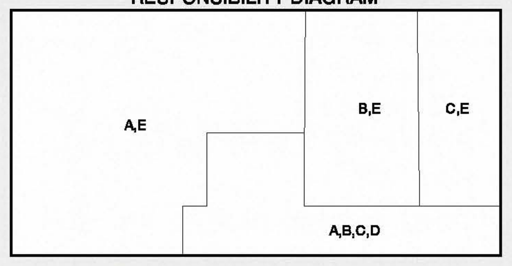
D Updated by M.J. Vicary using additional data from Mackintosh explanatory report, (Collins et al 1981).

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

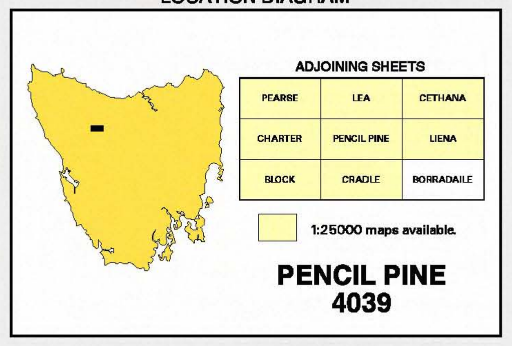
Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software.
AGD66 - AMG Zone 55. Contour Interval: 20 metres.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



Data correct & plotfile generated: 22-MAR-2005

WARNING:INKS ARE LIGHT SENSITIVE