Department of State Growth
MINERAL RESOURCES TASMANIA

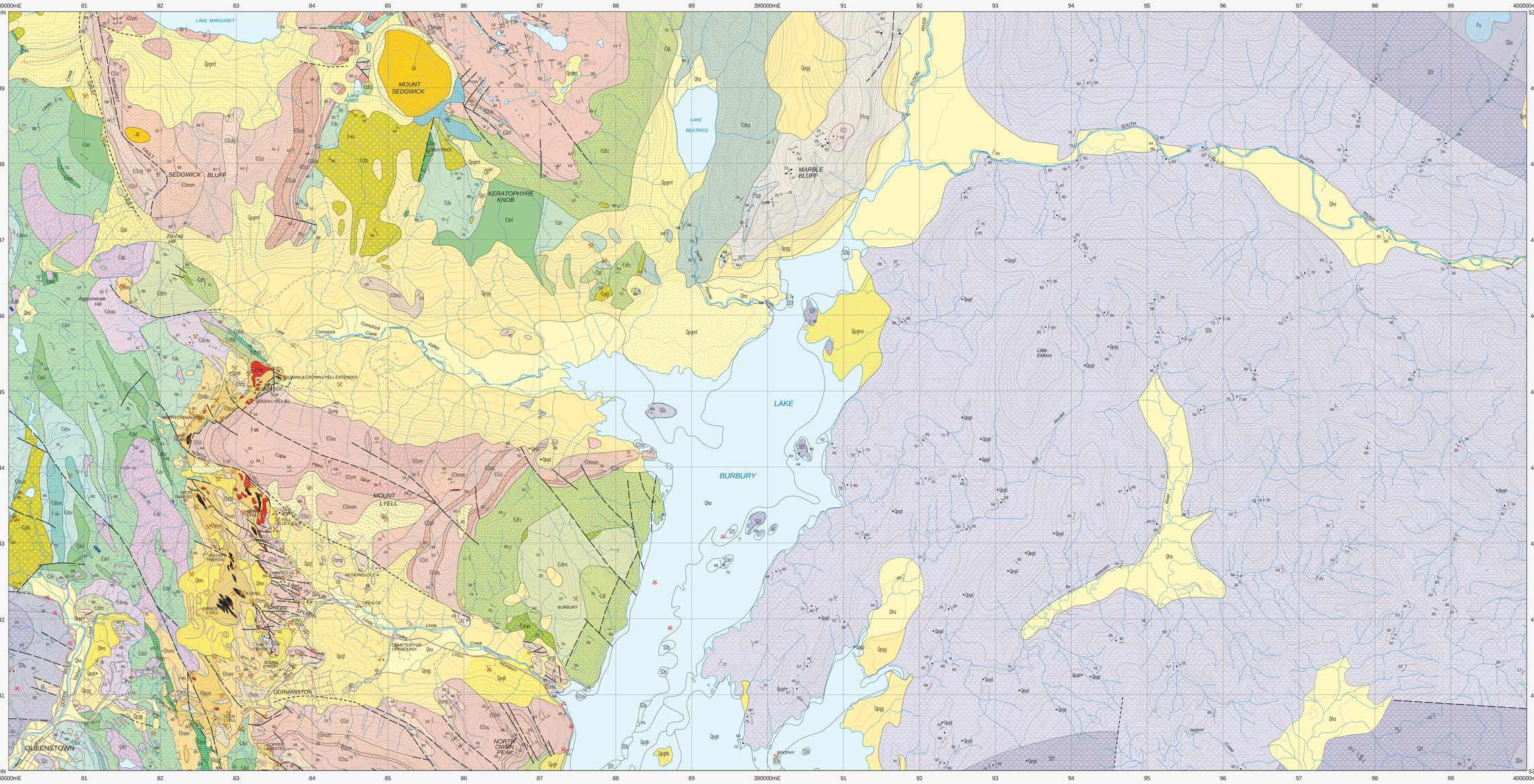
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
GORMANSTON, SHEET 3834

GORMANSTON

Scale: 1:25 000

0 500 1000 1500 2000 2500m

Tasmanian Government



CENOZOIC — QUATERNARY — HOLOCENE

Symbol	Description
Qhm	Man-made deposits including mine dumps and disturbed ground (Qhm).
Qha	Alluvium, swamp and marsh deposits. May include older alluvial deposits (Qha).
Qpt	Talus, scree and colluvial deposits (Qpt).
Qptd	Talus, scree and associated colluvium, derived from Jurassic dolerite (Qptd).
Qpb	Bouldery slope and fan deposits, commonly with leveed channels; probably partly of glacial origin (Qpb).

CENOZOIC — QUATERNARY — PLEISTOCENE

Symbol	Description
Qpg	Undifferentiated Pleistocene glacial deposits (Qpg). Isolated occurrences of dolerite and Precambrian derived erratics (Qpgd and Qpgq).
Qpgmt	Mainly till deposits – unweathered or slightly weathered (Qpgmt). Deposits of Margaret Glaciation (15000 – 100000 ybp).
Qpgmt	Outwash deposits of Dante Rivulet fan (Qpgmt). Deposits of Margaret Glaciation (15000 – 100000 ybp).
Qpgmo	Outwash gravel with rare tills of 'Chamouni terrace' (Qpgmo). Deposits of Margaret Glaciation (15000 – 100000 ybp).
Qpgh Qpghb	Weathered till and outwash gravel of Henty Glaciation (Qpgh), including Bull Rivulet Formation (Qpghb). Deposits of Henty Glaciation (> 130000 ybp).
Qpgt	Deeply weathered till, outwash gravel and lacustrine sediments. Reversed magnetic polarity indicate age > 730000 ybp (Qpgt). Deposits of Linda Glaciation (> 730000 ybp).

CENOZOIC — PALEOGENE – NEOGENE

Symbol	Description
Ts	Pre-glacial alluvial deposits with preserved tree trunks at 383863mE, 5342230mN (Ts).

PALEOZOIC — PERMIAN

Symbol	Description
Pu	Undifferentiated Permian sequences (Pu).
Plb	Undifferentiated lower glacio-marine siltstone and sandstone (correlates of Golden Valley Group, Quamby Mudstone and basal tillite) (Plb).

PALEOZOIC — DEVONIAN — ELDON GROUP

Symbol	Description
SDb	Mudstone, siltstone, minor fine-grained sandstone and rare limestone (correlate of Bell Formation) (SDb).
SDf	Fine-grained quartz sandstone with minor siltstone and mudstone (correlate of Florence Formation) (SDf).

PALEOZOIC — SILURIAN — ELDON GROUP

Symbol	Description
SDu	Undifferentiated sandstone–mudstone–minor limestone sequence (correlates of Cratty and Amber Formations) (SDu). Mainly mudstone and siltstone with minor sandstone and rare limestone (correlates of Amber Formation) (SDu).
SDa	Fine-to coarse-grained quartz-rich sandstone, calcareous sandstone and minor mudstone (correlate of Crotty Formation) (SDc).
SDc	

PALEOZOIC — ORDOVICIAN — GORDON GROUP

Symbol	Description
Ol	Mainly siltstone and fine-grained sandstone (Ola).
Ola	Mainly limestone, commonly decomposed to black clay "pug" (Ol).

PALEOZOIC — CAMBRIAN — FURONGIAN — GORDON GROUP

Symbol	Description
€smp	Grey to pink quartz sandstone with basal pebble–granule conglomerate; trace fossils and chromite–rich bands in upper part (Pioneer Beds and correlates) (€smp).

PALEOZOIC — CAMBRIAN — FURONGIAN — WILKINNA SUPERGROUP — OWEN GROUP

Symbol	Description
€Osu	Thin–bedded quartz sandstone, commonly bioturbated, with interbedded siltstone and minor granule–pebble conglomerate. Chert clasts common in conglomerate beds in Mt Lyell mines area (Upper Owen Sandstone and correlates) (€Osu).
€Ocm	Mainly pale pink to cream coloured, thick–bedded pebble–cobble to cobble–boulder quartzite conglomerate, with minor quartz sandstone and some partly volcaniclastic sandstone in some areas (Middle Owen Conglomerate and correlates) (€Ocm).
€Omsm	Mainly thin–bedded pink quartzitic sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone) (€Omsm).
€Omsm	Mainly grey thin–bedded sandstone and siltstone with minor pebble conglomerate. Marine fossils in places (Newton Creek Sandstone and correlates) (€Omsm).
€Ohe	Hematite body, commonly developed at schist–Owen contact (€Ohe).
€Ocl	Mainly white/grey to pale pink pebble–cobble to cobble–boulder conglomerate with pebbly sandstone, minor siltstone and volcaniclastic (Lower Owen Conglomerate and correlates) (€Ocl).
€Oclg	Grey pebble–cobble conglomerate and sandstone (€Oclg).
€Oclc	Thick–bedded to massive cobble–boulder conglomerate units. Erosional unconformity at base in some areas (€Oclc).
€Ocls	Thin–bedded grey–green siltstone and micaceous sandstone, grading laterally to pink thin–bedded sandstone (€Ocls).
€Ovc	Volcaniclastic conglomerate and breccia and minor sandstone, usually locally developed at contact with volcanic rocks. (Correlate of Jukes Conglomerate) (€Ovc).

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN — TYNDALL GROUP

Symbol	Description
€dt	Interbedded volcaniclastic and volcanic rocks, typically quartz–feldspar–phyric (€dt).
€dtc	Mainly volcaniclastic conglomerate and sandstone with minor mudstone. Quartz–rich matrix. Sparse quartzite in places (€dtcc).
€dtwt	Welded tuff, typically quartz–feldspar–phyric (€dtwt).
€dtm	Mainly crystal–rich volcaniclastic sandstone (quartz–feldspar +/– pyroxene–phyric) and breccia, typically banded pink and green, with minor siltstone and conglomerate (Mt Julia Member or Middle Tyndall Group) (€dtm).
€dtsh	Bedded sandstone–siltstone units (€dtsh).
€da	Andesite lava and breccia (€da).
€dtbl	Mainly volcaniclastic breccia and sandstone with local lenses of limestone and massive sulphide (Lynchford Member or Lower Tyndall Group) (€dtbl).

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN — MOUNT READ VOLCANICS — CENTRAL VOLCANIC COMPLEX

Symbol	Description
€dv	Feldspar–phyric volcanic and volcaniclastic rocks undifferentiated (€dv).
€dvou	Upper sequence of mainly andesitic volcaniclastic and volcanic rocks, including mass–flow breccia units, sandstone, siltstone, lava and lava breccia, and minor intrusive rocks (€dvou).
€da	Andesitic to basaltic volcanic and intrusive rocks (€da).
€dvt	Mainly felsic volcaniclastic and pyroclastic rocks, dominantly feldspar–phyric, including pumice–bearing units, minor shale and sandstone (€dvt).
€dvl	Mainly feldspar +/– quartz–phyric lavas and possible intrusives, massive to flow–banded or autobrecciated, with rare columnar jointing (€dvl).
€dvs	Bedded siltstone–sandstone units (€dvs).
€dvog	Dark green chlorite–rich mafic to intermediate agglomerate with abundant basaltic clasts (€dvog).

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN — EASTERN QUARTZ–PHYRIC SEQUENCE

Symbol	Description
€dsq	Well–bedded grey siliciclastic sandstone with interbedded siltstone and granule–pebble conglomerate. Trace fossils in some beds (Slicht Range Beds) (€dsq).

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN — YOLANDE RIVER SEQUENCE

Symbol	Description
€dsv	Mixed sequence of bedded volcaniclastic sandstone, siltstone, mudstone and breccia, typically quartz–feldspar–bearing, with some andesitic lavas and intrusives (€dsv).
€dfp	Quartz–feldspar +/– biotite porphyry, mainly intrusive but may be partly extrusive (€dfp).
€da	Andesitic to basaltic volcanic and intrusive rocks (€da).
€dsvx	Crystal–rich (quartz–feldspar) tuffaceous sandstone (€dsvx).
€dsvs	Units of bedded siltstone–sandstone +/– slate (€dsvs).

MESO – PROTEROZOIC — TYENNAN REGION METASEDIMENTS

Symbol	Description
Ptpp	Dominantly grey to green carbonaceous pelitic quartz–phengite phyllite. Non–garnetiferous and relatively low metamorphic grade (Ptpp).
Ptsq	Fine–grained, thickly foliate, phengitic quartzite and subordinate fine–grained massive quartzite. Non–garnetiferous and relatively low metamorphic grade (Ptsq).

INTRUSIVE ROCKS

MESOZOIC — DEVONIAN JURASSIC

Symbol	Description
Jd	Dolerite (Jd).
Dl	Lamprophyre dyke with trend indicated (Dl).

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN

Symbol	Description
€dvl	Mainly feldspar–phyric lavas and intrusives of dacitic to rhyolitic composition (€dvl).
€da	Andesitic to basaltic volcanic and intrusive rocks (€da).
€dfp	Quartz–feldspar +/– biotite porphyry, mainly intrusive but may be partly extrusive (€dfp).

ALTERATION AND MINERALISATION

PALEOZOIC — CAMBRIAN — SERIES 3 CAMBRIAN

Symbol	Description
€hch	Chert–silica bodies, typically formed by hydro–thermal replacement of volcanic rocks (€hch).
€hpys	Pyritic schist, typically with sericite +/– chlorite +/– quartz (€hpys).
€hses	Sericitic schist (€hses).
€hchls	Chloritic schist, commonly after andesitic rocks (€hchls).
€Ohe	Hematite body, commonly with barite (€Ohe).
€xmo	Metallic ore body, projected to surface in some cases, mined out in some cases (€xmo).

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.

Dip of geological contact of unspecified type.
Strike and dip of bedding, right way up; overturned.
Strike and dip of bedding, facing unknown – dipping; vertical.
Strike and dip of metamorphic foliation.
Strike and dip of igneous banding – dipping; vertical.
Strike and dip of cleavage, type and relative age unspecified – dipping; vertical.
Strike and dip of cleavage, relative local age S1 – dipping; vertical; S2 dipping; vertical.
Trend and plunge of hingeline of minor fold; with dip and dip direction of axial surface indicated; vertical axial surface.
Trend and plunge of lineation of unspecified type.
Trend and plunge of columnar jointing.
Field station for adjacent readings on the map.
Notable small outcrop or erratic boulder with rock unit indicated.
Mineral deposit location – hardrock
Mineral deposit location – alluvial/tailings
Construction material/industrial mineral/gemstone location
Data derived from Mineral Resources Tasmania DEPOSITS database. Data point position has not been verified in every case.

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
(white line) Limit of mapping of sub–unit within undifferentiated rock unit.
Moraine Ridge Crests.
Fault – unspecified type, position accurate or approximate.
Fault – unspecified type, inferred.
Axial surface trace of major antiform.
Axial surface trace of major synform.

Compiled by D.C. Green, B.Sc.(Hons), Ph.D. and J.L. Everard,B.Sc.(Hons), 1997 from the following sources (see responsibility diagram):

A CALVER, C.R. et al 1987. Geological Atlas 1:50 000 Series. Sheet 58 (8013N), Lyell. Tasmania Department of Mines.

B CORBETT, K.D., CALVER, C.R., EVERARD, J.L. and SEYMOUR, D.B. 1989. Geological Atlas 1:25 000 Series. Queenstown. Department of Mines. Tasmania.

C K.O. Reid, B.Sc. Hons. thesis. University of Tasmania. Geology of the Princess River area.

D M.Sc mapping by K.D. Corbett, 2001.

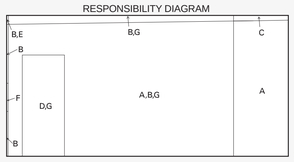
E CORBETT, K.D., 1986. Geology of the Henty River-Mt Read area. Map 3. Mt Read Volcanics project. Department of Mines, Tasmania.

F Halley, S., Vicary, M., and Boyd, D. 1995 Exploration licences N: 102/87, 55/89 & 12/92 (Queenstown, Mt Darwin & Queenstown South). West Sedgewick and Garfield/Clark Valley. Annual Report April 1994 –March 1995. TCR 95-9721.

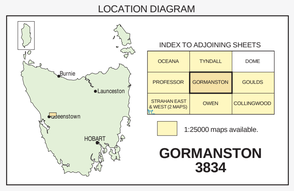
Updated by:

G K.D. Corbett, 2003 as part of the Western Tasmanian Regional Minerals Program.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



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Website: www.mrt.tas.gov.au

GDA94 – MGA Zone 55. Contour Interval: 20 metres.

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