MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
GORMANSTON, SHEET 3834

GORMANSTON

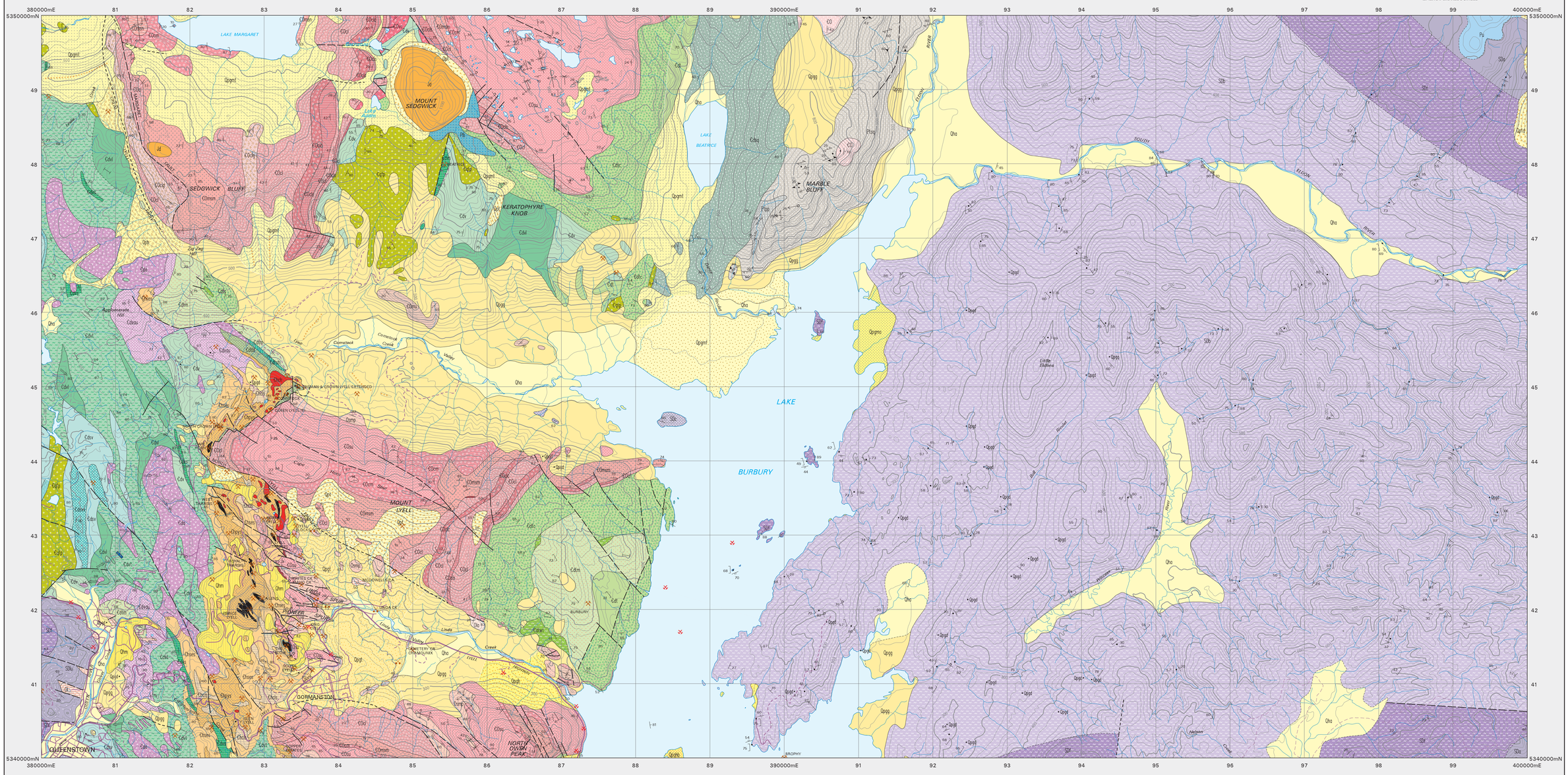
Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CAINOZOIC

QUATERNARY – HOLOCENE

- **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).
- **Qpt(d)** — Talus, scree and associated colluvium, derived from Jurassic dolerite (Qpt(d)).
- **Qpb** — Bouldery slope and fan deposits, commonly with leveed channels; probably partly of glacial origin (Qpb).

QUATERNARY – PLEISTOCENE

- **Qpgg** — Undifferentiated Pleistocene glacial deposits (Qpgg). 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).
- **Qpgmf** — Outwash deposits of Dante Rivulet fan (Qpgmf). 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).
- **Qpgl** — Deeply weathered till, outwash gravel and lacustrine sediments. Reversed magnetic polarity indicate age > 730000 ybp (Qpgl). Deposits of Linda Glaciation (> 730000 ybp).
- **Qpgm** — Undifferentiated Pleistocene moraine and associated deposits (Qpgm).

TERTIARY

- **Ts** — Pre-glacial alluvial deposits with preserved tree trunks at 383800mE, 5342100mN (Ts).

PALAEOZOIC

PERMIAN

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

LOWER PARMEENER SUPERGROUP

DEVONIAN

- **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).
- **SDa** — Undifferentiated sandstone–mudstone–minor limestone sequence (correlates of Crotty and Amber Formations) (SDu). Mainly mudstone and siltstone with minor sandstone and rare limestone (correlates of Amber Formation) (SDa).

SILURIAN

- **SDu** — Fine-to coarse-grained quartz-rich sandstone, calcareous sandstone and minor mudstone (correlate of Crotty Formation) (SDc).
- **SDc**

ORDOVICIAN

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

LATE CAMBRIAN

- **€Osmp** — Grey to pink quartz sandstone with basal pebble–granule conglomerate; trace fossils and chromite-rich bands in upper part (Pioneer Beds and correlates) (€Osmp).
- **€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).
- **€Omsn** — Mainly thin-bedded pink quartzitic sandstone and pebbly sandstone with bands of pebble conglomerate, minor siltstone (Middle Owen Sandstone) (€Omsn).
- **€Omsv** — Mainly grey thin-bedded sandstone and siltstone with minor pebble conglomerate. Marine fossils in places (Newton Creek Sandstone and correlates) (€Omsv).
- **€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).
- **€Occlg** — Grey pebble–cobble conglomerate and sandstone (€Occlg).
- **€Ocfc** — Thick–bedded to massive cobble–boulder conglomerate units. Erosional unconformity at base in some areas (€Ocfc).
- **€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).

ELDON GROUP / GORDON GROUP / OWEN GROUP — WURAWINA SUPERGROUP

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.

PALAEOZOIC – MIDDLE CAMBRIAN

TYNDALL GROUP

- **€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).

CENTRAL VOLCANIC COMPLEX

- **€dv** — Feldspar–phyric volcanic and volcaniclastic rocks undifferentiated (€dv).
- **€dvu** — Upper sequence of mainly andesitic volcaniclastic and volcanic rocks, including mass–flow breccia units, sandstone, siltstone, lava and lava breccia, and minor intrusive rocks (€dvu).
- **€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).
- **€dvag** — Dark green chlorite–rich mafic to intermediate agglomerate with abundant basaltic clasts (€dvag).

EASTERN QUARTZITE SEQUENCE

- **€dsq** — Well–bedded grey siliciclastic sandstone with interbedded siltstone and granule–pebble conglomerate. Trace fossils in some beds (Sticht Range Beds) (€dsq).

VOLCANDE RIVER SEQUENCE

- **€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).

MOUNT READ VOLCANICS

PROTEROZOIC

MESOPROTEROZOIC

- **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).

TYENNAN REGION METASEDIMENTS

INTRUSIVE ROCKS

MESOZOIC – JURASSIC

- **Jd** — Dolerite (Jd).

DEVONIAN

- **Dl** — Lamprophyre dyke with trend indicated (Dl).

PALAEOZOIC – MIDDLE CAMBRIAN

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

ALTERATION AND MINERALISATION

PALAEOZOIC – MIDDLE CAMBRIAN

- **€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).

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: 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.

Geological boundary – position accurate or approximate
Geological boundary – inferred
(white line) Colour boundary
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 Geological atlas 1:50,000 series, sheet 58 (8013N) Lyell 1987, Tasmania Department of Mines.

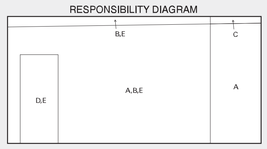
B 1:25,000 Geological series, Queenstown 1989, Tasmania Department of Mines.

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

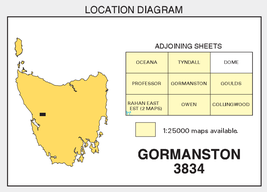
D M.Sc mapping by K.D. Corbett, 2001.

E Revised and updated by K.D. Corbett, 2003 as part of the Western Tasmanian Regional Minerals Program.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



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Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software.

AGD66 - AMG Zone 55. Contour Interval: 20 metres.

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