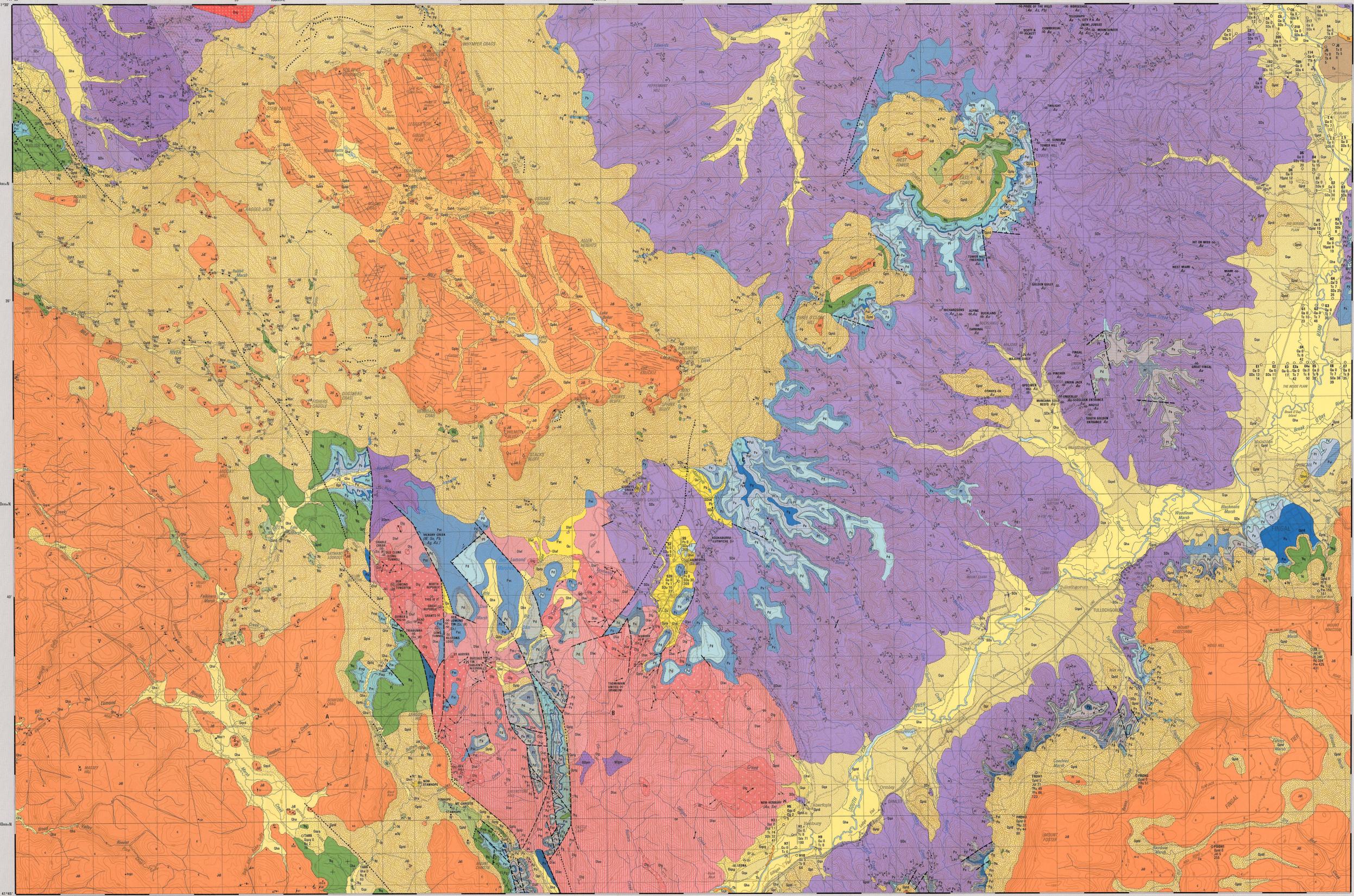


BEN LOMOND

GEOLOGICAL SURVEY OF TASMANIA — DEPARTMENT OF MINES — HOBART

GEOLOGICAL ATLAS 1:50 000 SERIES — SHEET 8414N — FIRST EDITION 1988

SCALE 1:50 000



REFERENCE

QUATERNARY

- Qm Mine tailings and man-disturbed ground.
- Qs Stream alluvium and swamp deposits.
- Qol Older alluvium of river terraces, predominantly dolerite-derived (Qol).
- Qcl Colluvium — clayey quartz-granite gravel derived from granitic rocks (Qclg); clayey gravel derived from dolerite (Qclsd); sand derived from Upper Permian rocks (Qclp).
- Qst Terrace, scree and rare till (terrace ridges indicated by + + +) consisting of dolerite (Qstsd); talus — dolerite and subordinate Upper Permian rocks (Qst); dominantly Upper Permian quartz sandstone (Qstp); dominantly Lower Permian rocks (Qstl); dominantly granitic rocks (Qstg).
- Qib Dolerite block fields, probably underlain by clay from weathered dolerite, with interstitial fines (Qib); without interstitial fines (Qibn).
- Qpl Trapped dolerite masses (> 100m) coherent or partly disaggregated, produced by cliff failure.

EROSIONAL SURFACES

- Es Erosional surface.

TRIASSIC

- Ts Carbonaceous grey clay, gravel including dolerite boulder beds, and minor conglomerates and thin sandstone. Clay recorded in boulders in upper South Est (EP620802) and Highway EP620700 areas.
- Tm Low-angle unconformity.
- Td Diamonitely lithic sandstone with minor mudstone and coal (R); in places with minor pebbly layers and conglomerates composed of extrabasinal clasts (R); dominantly mudstone (Rm); coarse rock lithic sandstone and minor quartz sandstone (Rq); with mudstone and carbonaceous mudstone (Rc).
- Tf Coarse bedded quartz sandstone (Rq).
- Tg Fine-grained slightly feldspathic quartz sandstone, micaceous shale, and minor carbonaceous mudstone.
- Tp Purely quartz grey mudstone, siltstone and rare sandstone, unfossiliferous except for rare forams. Bed of pebbly sandstone about 1m thick indicated (Pp). (Pp: Prospect Creek Mudstone).
- Tt Thick bedded, usually poorly sorted, pebbly sandstone passing up into interbedded sandstone, siltstone and mudstone. Marine fossils abundant in places (Pp: Mudstone Sandstone).
- Tu Marine fossiliferous mudstone, siltstone and minor sandstone and biotacite limestone (Pp); dominantly biotacite limestone (Pp: Bunt Gully Limestone).

PERMIAN

- Pf Fine-grained pebbly sandstone with phosphanic nodules. Marine fossils present in some areas (Pp: about 2m thick indicated by dot — in places (Pp: Easton Sandstone Member).
- Pm Mudstone, siltstone and minor poorly sorted sandstone. Unconformity marine fossils (Pp: Pp: Easton Sandstone Member).
- Pg Discontinuously fine-grained, well sorted quartz sandstone, commonly with interbedded and inter-laminated carbonaceous shale, lesser conglomerates and rare coal (Pp); dominantly very coarse grained coarse sandstone and granite conglomerates (Pp); (Pp: Abercrombie Formation).
- Pv Purely quartz pebbly mudstone, sandstone and minor conglomerates, marine fossils present in places (Pp); dominantly conglomerates (Pp); (Pp: Pp: Scaevola Group Formation).
- Pa Area of partly silicified Lower Permian rocks indicated by wavyline (Pp).

EARLY DEVONIAN (SILURIAN OROVICAN?)

- SDs Angular unconformity.
- SDu Quarternary turbidite sequence of interbedded sandstone, siltstone and mudstone (SDu); dominantly sandstone and siltstone (SDs); dominantly mudstone and siltstone (SDm).
- SDi Psammite (SDi) and spotted gneiss (SDi) contact metamorphosed by granitic intrusions indicated by wavyline (SDi).

IGNEOUS ROCKS

TRIASSIC

- Tb Basalt.

JURASSIC

- Jd Dolerite — grain size < 0.2mm (Jd), 0.2-0.7mm (Jd), 0.7-1.5mm (Jd) and > 1.5mm (Jd) indicated, with orthopyroxene (O), with abundant, poorly crystalline magnetite (M), with interstitial black glass (G). Areas with rare very fine-grained glass shown (G).
- xxxxx Contact metamorphism indicated by wavyline.

SCOTTSDALE BATHOLITH

- SB Biotite-hornblende granodiorite.

DEVONIAN

- DL Ben Lomond Granite.
- Df Pegmatitic fine- to medium-grained alkali feldspar granite/granite with quartz and variable amounts of K-feldspar phenocrysts.
- Dg Equigranular to porphyritic alkali feldspar granite/granite with variable amounts of K-feldspar phenocrysts (Dg); fine- to medium-grained (Dgf); coarse-grained (Dgc); areas of vertical pink weathering of K-feldspar indicated by wavyline (Dg).
- xxxxx Contact metamorphism indicated by wavyline.
- SDi Contact metamorphism indicated by wavyline. Crinoid (C), hypothetical alteration (H) indicated.

Some areas where rock units inferred from float indicated. (e.g. SDv, Pp, Jd).

Geological boundary-position approximate

Geological boundary-inferred

Geological boundary-transitional

Asphalte Lineament

Fault — position approximate, downthrown side indicated

Fault — inferred

Fault — concealed

Strike and dip of beds — right way up, overturned, facing unknown

Vertical bedding, facing known, facing unknown, horizontal bedding, right way up

Generalised palaeogeographic direction

Strike and dip of primary cleavage, vertical

Strike and dip of later cleavage, vertical

Direction and plunge of minor fold hinge line, with direction of dip of axial surface

Direction and plunge of major fold hinge line, with direction of dip of axial surface, and sense of displacement viewed down plunge

Direction and plunge of cleavage-fold hinge line, with direction of dip of axial surface

Plunge of extension jointing, vertical

Strike and dip of extension joint set, vertical

Strike and dip of foliation due to alignment of K-feldspar phenocrysts in granitic rock

Trend of apparent lineation of K-feldspar phenocrysts on horizontal surface of granitic rock

Trend of sulphide-bearing vein

Macroscopical locality in poorly-fossiliferous sequences

Field station for adjacent readings on map

Benchhole with identification number, depths in metres to rock types encountered, and final depth

Notable float occurrence

Peak concealing underlying rock type inferred from magnetometer survey

Crag

Limit of glacial smoothing of dolerite bedrock

Major mine — closed

Mine — operating

Mine abandoned

Mine or prospect — little or no production

Abandoned workings — operating

Abandoned workings — abandoned

Quarry or pit — operating

Quarry or pit — abandoned

(S — ha, W — wallform, Pp — lead, Zr — zinc, Cu — copper, Ag — silver, U — uranium, C — coal) (Ak — gneiss, SD — dolerite)

(G) — gravel, Es — building stone

RESPONSIBILITY DIAGRAM

LOCATION MAP

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