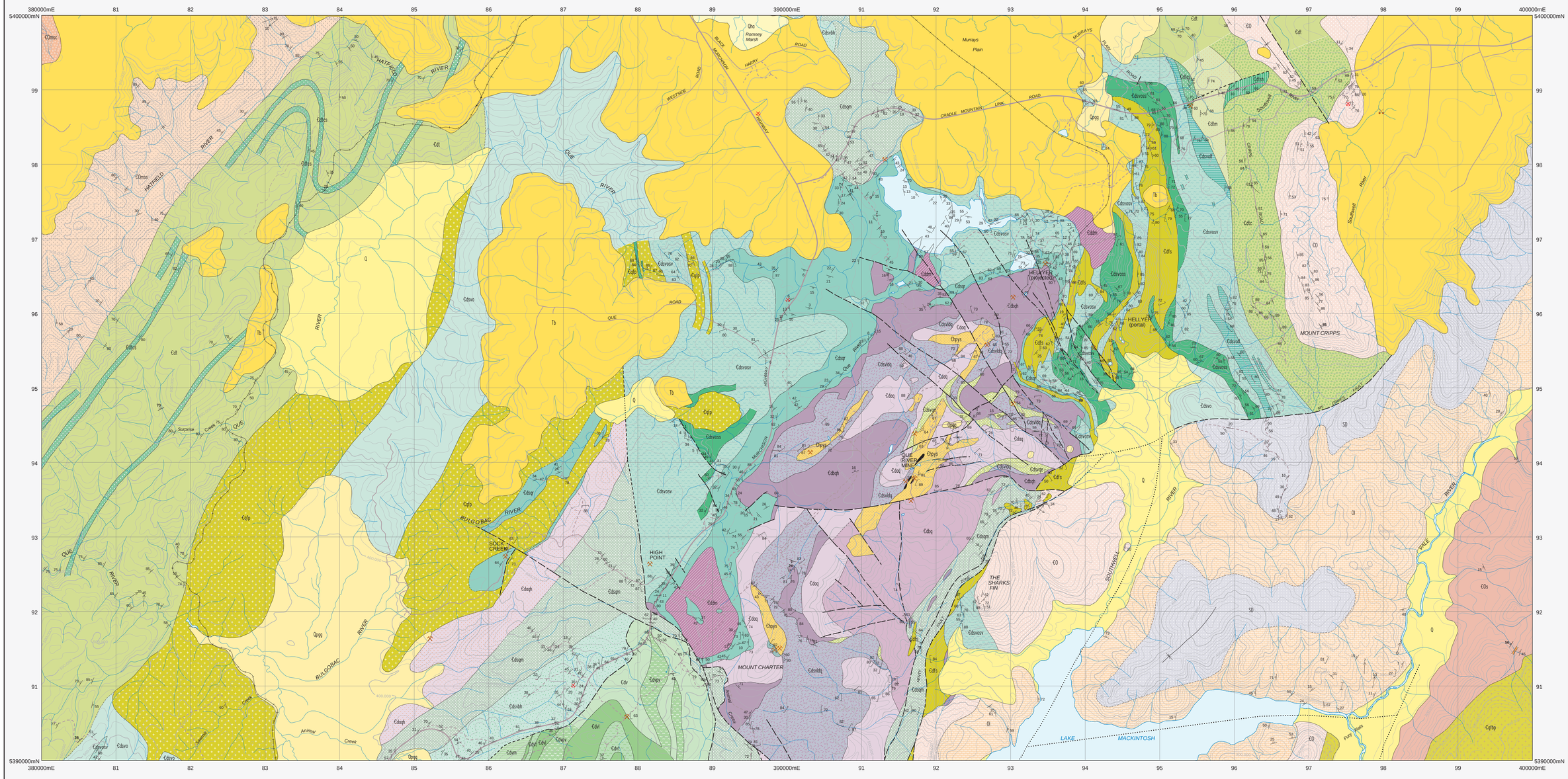
Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
CHARTER, SHEET 3839

CHARTER

Scale: 1:25 000

0 500 1000 1500 2000 2500m



CENOZOIC

QUATERNARY

Q

- **Qha** — Alluvium, swamp and marsh deposits (Qha).
- **Qpgg** — Pleistocene glacial deposits — mostly bouldery moraine (Qpgg).

PALEOGENE–NEOGENE

- **Tb** — Basalt with minor associated sediments (Tb).

PALEOZOIC

SILURIAN – DEVONIAN

- **SD** — Shallow marine quartz sandstone, siltstone and shale (SD). — ELDON GROUP

ORDOVICIAN

- **Ol** — Limestone with minor siltstone and sandstone (Ol). — GORDON GROUP

CAMBRIAN

FURONGIAN

- **€O** — Mainly siliceous conglomerate–sandstone–mudstone sequences (€O).
- **€Os** — Mainly pink sandstone and granule–pebble conglomerate with minor siltstone. Clasts of chert common. Correlate of Upper Owen Sandstone (€Os).
- **€Omsc** — Marine conglomerate–rich sequence with some sandstone and mudstone (€Omsc).
- **€Omss** — Marine sandstone–mudstone sequence (€Omss).

— OWEN GROUP — WURAWINA SUPERGROUP

PALEOZOIC

CAMBRIAN

CAMBRIAN SERIES 3

- **€dt** — Volcaniclastic sandstone, breccia, siltstone, mudstone and conglomerate, typically quartz–feldspar–phyric (€dt).
- **€dtc** — Dominantly volcaniclastic conglomerate and sandstone (€dtc).
- **€dtsh** — Interbedded siltstone, shale and sandstone (€dtsh).
- **€dtm** — Interbedded volcaniclastic sandstone and breccia, with minor welded tuff (correlate of Mt Julia Member) (€dtm).
- **€dtcs** — Mainly siliciclastic conglomerate, sandstone and siltstone (€dtcs).

— TYNDALL GROUP

- **€dsvo** — Interbedded volcaniclastic breccia, sandstone, siltstone and mudstone, with minor felsic lava and intrusive–extrusive porphyry bodies (€dsvo).
- **€dfs** — Feldspar–quartz porphyry, typically with spherulitic groundmass (€dfs).
- **€qfp** — Quartz–feldspar +/– biotite porphyry, mainly intrusive but may be partly extrusive (€qfp).
- **€dsvosv** — Dominantly volcaniclastic sandstone and mass–flow breccia, typically quartz–feldspar–phyric (€dsvosv).
- **€dsvoss** — Interbedded sandstone and siltstone (€dsvoss).
- **€dsvolf** — Felsic lava, typically quartz–feldspar–phyric (€dsvolf).

— SOUTHWELL SUBGROUP

- **€dsqr** — Black pyritic shale, mudstone, siltstone with minor sandstone. Marine fossils in places (Que River Shale) (€dsqr).

— MT CHARTER GROUP — MOUNT READ VOLCANICS

PALEOZOIC

CAMBRIAN

CAMBRIAN SERIES 3

- **€doqh** — Andesitic to basaltic volcanics with some intercalated dacitic lavas and breccias (€doqh).
- **€dbqh** — Amygdaloidal basalt lava, pillow lava and hyaloclastite breccia ('Hellyer Basalt') (€dbqh).
- **€dsvidq** — Mainly dacitic lava and breccia, typically feldspar–quartz–phyric (€dsvidq).
- **€dsvqe** — Polymict 'epiclastic' breccia and grit (€dsvqe).
- **€doq** — Dominantly andesitic volcanics (€doq).
- **€dbq** — Dominantly basaltic volcanics ('Lower basalt') (€dbq).

— QUE–HELLYER VOLCANICS

- **€doqm** — Micaceous quartzwacke with interbedded siltstone and black shale and minor volcaniclastic rocks (Animal Creek Greywacke and correlates) (€dsqm). Interbedded tuffaceous sandstone, vitric mudstone, minor volcaniclastic breccia (Black Harry Beds) (€dsvbh).
- **€dsvbh**

— MOUNT CHARTER GROUP

- **€dv** — Dominantly feldspar–phyric volcanic and volcaniclastic rocks (€dv).
- **€dvt** — Mainly felsic volcaniclastic and pyroclastic rocks, including pumice–bearing units (€dvt).
- **€dvpv** — Pumice–bearing volcaniclastic rocks, usually with eutaxitic texture (€dvpv).
- **€dvm** — Fine–grained vitriclastic mudstone (€dvm).
- **€dvl** — Felsic lava, typically feldspar +/– quartz–phyric, rhyolitic to dacitic (€dvl).

— CENTRAL VOLCANIC COMPLEX — MOUNT READ VOLCANICS

INTRUSIVE ROCKS

PALEOZOIC

CAMBRIAN

CAMBRIAN SERIES 3

- **€qfp** — Quartz–feldspar +/– biotite porphyry, mainly intrusive (€qfp).
- **€qfbp** — Quartz–feldspar–biotite +/– hornblende porphyry (€qfbp).
- **€dfs** — Feldspar–quartz porphyry, typically with spherulitic ground mass (€dfs).
- **€ddm** — Dolerite related to Que–Hellyer Volcanics (Mt Charter dolerite) (€ddm).

— MOUNT READ VOLCANICS

ALTERATION AND MINERALISATION

PALEOZOIC

CAMBRIAN

CAMBRIAN SERIES 3

- **qv** — Major quartz vein – probably Devonian (qv).
- **€xba** — Barite body (€xba).
- **€xmo** — Metallic orebody, projected to surface or mined out in some cases (€xmo).
- **€hpys** — Pyritic schist, typically with sericite +/– chlorite +/– quartz. (€hpys).

Geological boundary – position approximate.
Geological boundary – inferred.
Subsurface geological boundary projected to surface.
Fault – position approximate.
Fault – inferred.
Fault – concealed.
Axial surface trace of major fold, synform.
Axial surface trace of major early fold, synform.
(white line) Limit of mapping of sub–unit within undifferentiated rock unit.

Strike and dip of bedding – right way up; overturned; facing unknown.
Strike of vertical bedding, facing unknown.
Strike and dip of cleavage of unspecified type and relative age; vertical.
Trend and plunge of lineation of unspecified type.
Trend and plunge of minor fold hinge line, unspecified relative age.
Strike and dip of igneous banding or platy alignment.
Trend and plunge of hinge line of minor antiform, unspecified relative age.
Trend of horizontal hinge line of minor synform, unspecified relative age.
Mineral deposit location – hardrock
Construction material/industrial mineral/gemstone location
} Data derived from Mineral Resources Tasmania DEPOSITS database. Data point position has not been verified in every case.

Compiled by K.D. Corbett, B.Sc. (Hons), Ph.D. 1995 from the following sources (see responsibility diagram):

A BARTON, C.M., et al. 1966. Geological Atlas 1:63 360 Series. Sheet 44 (8014N), Mackintosh. Department of Mines, Tasmania.

B KOMYSHAN, P., 1986. Geology of the Mt Charter –Hellyer area. Mt Read Volcanics Project Map 1. Department of Mines, Tasmania.

C Vicary, M.J. and Pemberton, J., 1988. Geology of the Back Peak-Cradle Mountain Link Road area. Mt Read Volcanics Project Map 7. Department of Mines, Tasmania.

D Richardson, S.M., 1994. Exploration Licence 106/87 Lake Mackintosh Tasmania. Progress report for the period April 1993 to February 1994. Aberfoyle Resources Ltd. TCR 94-8537.

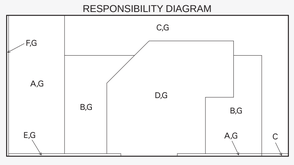
E CORBETT, K.D. and McNEILL, A.W. 1986. Geology of the Rosebery –Mt Black area. Mt Read Volcanics Project Map 2. Department of Mines, Tasmania.

F Collins, P.L.F., Guline, A.B. & Williams, E. (comp). 1981. Geological Survey Explanatory Report. Sheet 44 (8014N), Mackintosh.

Updated by:

G Revised and updated after WTRMP studies by K.D. Corbett, 2003.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM

INDEX TO ADJOINING SHEETS

LUINA	PEARSE	LEA
RAMSAY	CHARTER	PENCIL PINE
PARSONS	BLOCK	CRADLE

1:25000 maps available.

CHARTER 3839

REFERENCE THIS MAP AS:

CORBETT, K.D. (compiler) 1995. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3839 Charter. Mineral Resources Tasmania.

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Map produced by the Geoscience Information Branch of Mineral Resources Tasmania using G.I.S. software.

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

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