Department of State Growth
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
GOG, SHEET 4440

GOG

Scale 1:25 000

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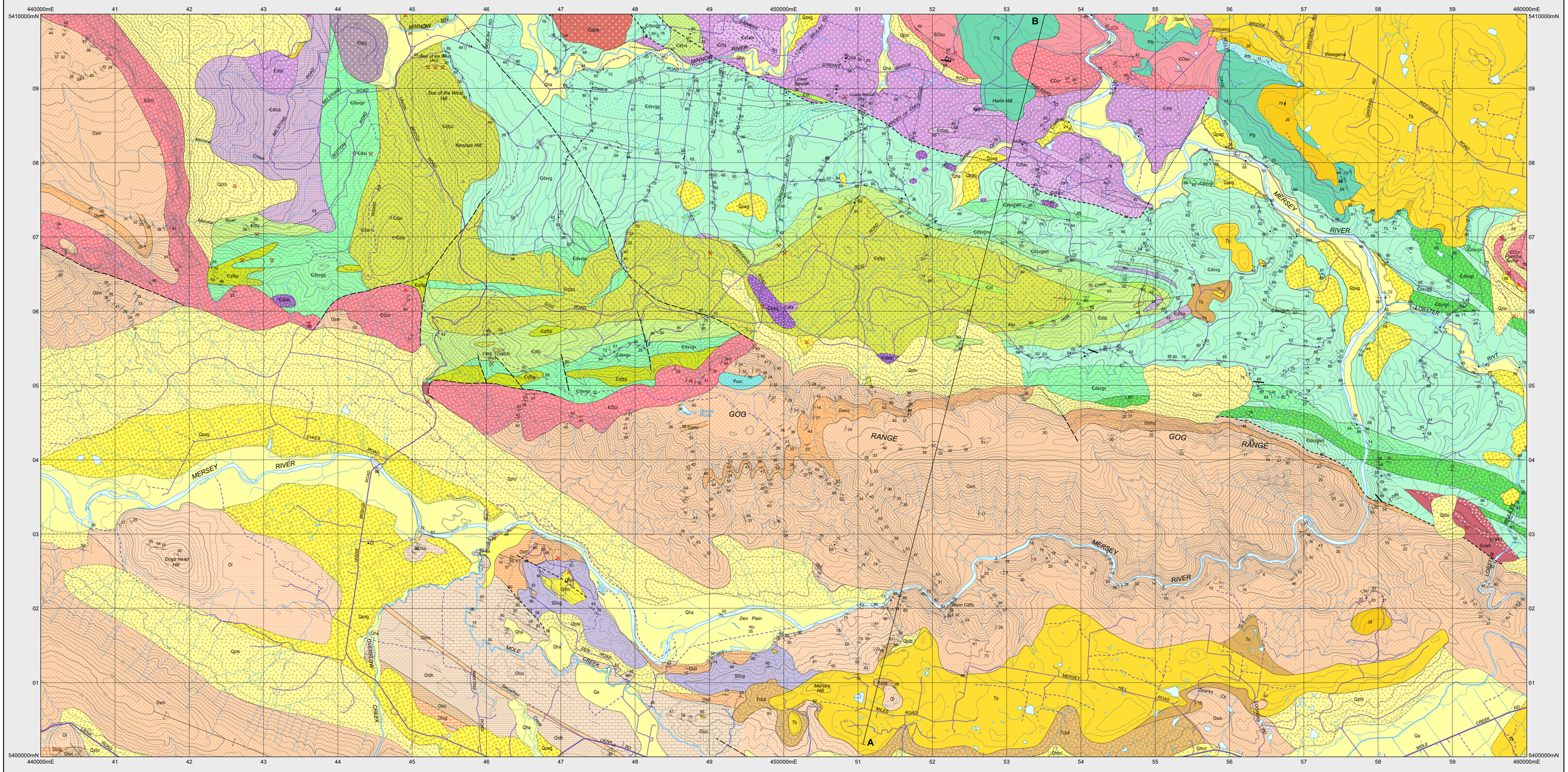
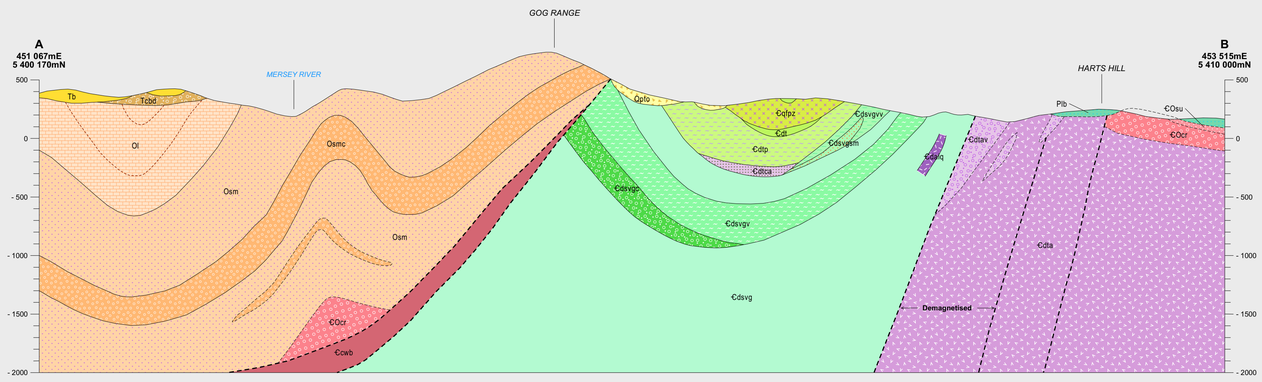




SECTION V:H = 1:1

CENOZOIC

QUATERNARY

HOLOCENE

- **Qhm** — *Man disturbed ground (Qhm).*
- **Qhcc** — *Colluvium with dolerite boulders and cobbles derived from Paleogene-Neogene dolerite conglomerate (Qhcc).*
- **Qha** — *Younger stream alluvium, marsh and swamp deposits (Qha).*

PLEISTOCENE

- **Qa / Qpag** — *Older alluvium, dominantly of river terraces, dominantly cobble-boulder gravel (Qpag).*
- **Qpt / Qpte** — *Talus, till and scree of probable Pleistocene age (Qpt); quartz sandstone and conglomerate talus derived from Owen Group correlates (Qpto); scree, talus and colluvium derived from unit SDcg (Qpte); talus derived from Paleogene - Neogene basalt (Qptb).*

Erosional surface.

PALEOGENE - NEOGENE

- **Tb** — *Basalt (Tb).*
- **Tcbd / Ts** — *White-weathering, non-marine siliceous gravel, quartz sand and silt (Ts). Poorly sorted large boulder of pebble grade deposits, clasts dominantly of dolerite; clayey matrix (Tcbd).*

Erosional surface.

CARBONACEOUS - PERMIAN

- **Pusc** — *Coarse-grained pebbly quartz sandstone and conglomerate with angular pink sandstone clasts (Pusc).*
- **Pfh** — *Quartz sandstone and muddy siltstone; possible correlate of Mersey Coal Measures (Pfh).*
- **Plb** — *Pebbly and bouldery mudstone and massive mudstone (Plb).*

LOWER PARMEENER SUPERGROUP

Angular unconformity.

PALEOZOIC

SILURIAN

- **SDcg** — *Pale grey, fine-grained quartz sandstone (correlate of Crotty Quartzite) (SDcg).*

EDON GROUP

ORDOVICIAN

GORDON GROUP

- **Oldf** — *Dark grey limestone, dolomite, calcareous mudstone and minor quartz sandstone. In part fossiliferous (correlate of Gordon Group) (Ol). Coralline calcrudite, sparsely fossiliferous micrite and minor black shale (Den Formation) (Oldf).*
- **Oloc** — *Unfossiliferous dolomitic micrite, dolomitic siltites, dolomicrite and dolosiltites (Overflow Creek Formation) (Oloc).*
- **Olmc** — *Fossiliferous red to grey quartz siltstone, black shale, calcarenite and minor micrite (Mole Creek Formation) (Olmc).*
- **Oldh** — *Interbedded micrite and dolomitic micrite. Nodular chert and bioturbation common (Dogs Head Formation) (Oldh).*
- **Olsc** — *Interbedded micrite and slightly dolomitic micrite with basal calcarenite (Sassafras Creek Formation) (Olsc).*
- **Olug** — *Nodular micritic limestone and bioturbated pyritic mudstone. Sparsely fossiliferous (Ugbrook Formation) (Olug).*
- **Olsh** — *Oncolitic carbonate and minor dolomitic micrite and calcarenite (Standard Hill Formation) (Olsh).*
- **Osm** — *Pale grey to pink, commonly cross-bedded quartz sandstone, coarse and pebbly towards base with tubicular trace fossils in upper sequences (correlate of Moina Sandstone) (Osm).*
- **Osmc** — *Dominantly pebble-cobble to granule-pebble siliceous conglomerate with interbedded coarse sandstone with abundant pebble horizons (Osmc).*
- **Osmc** — *Dominantly pebble-cobble to granule-pebble siliceous conglomerate with interbedded coarse sandstone with abundant pebble horizons (Osmc).*

Angular unconformity.

CAMBRIAN

FURONGIAN

OWEN GROUP — WURAWINA SUPERGROUP

- **€Osu** — *Pink quartzarenite, cross-bedded in places (€Osu).*
- **€Osuc** — *Quartzite-derived pebble conglomerate (€Osuc).*
- **€Ocr** — *Pale pink, quartzite-derived, closed- to open-framework, massive pebble-cobble conglomerate with minor pink quartzarenite beds (€Ocr).*

CAMBRIAN

CAMBRIAN SERIES 3

- **€dtfpz** — *Felsic to intermediate volcaniclastic, volcanic and sedimentary rocks, Cambrian Series 3 fossils in places. Tyndall Group and correlates (€dt). Quartz-feldspar±pyroxene±hornblende phyric porphyry. Intrusive to locally extrusive (€dtfpz).*
- **€dtfpq** — *Plagioclase-clinopyroxene-quartz porphyry, typically massive to brecciated (€dtfpq).*
- **€dta** — *Andesitic lava and associated volcaniclastic rocks, typically plagioclase-pyroxene phyric. Minor plagioclase phyric dacite lava, basalt lava, andesitic volcaniclastic sedimentary rocks and breccias. Includes 'Beulah Andesite' (€dta).*
- **€dtav** — *Andesitic volcaniclastic sandstone and conglomerate with interbedded black siltstone and minor dacitic to rhyolitic volcaniclastic sedimentary rocks. Includes local peperitic andesite lava and resedimented andesitic hyaloclastite breccia (€dtav).*
- **€dtap** — *Pumice breccia of andesitic derivation (€dtap).*
- **€dtabr** — *Andesitic lava breccia (€dtabr).*
- **€dtvs** — *Dominantly feldspar-quartz-pyroxene phyric crystal-rich volcaniclastic sandstone derived from andesitic and rhyolitic volcanics with interbeds of vitric and pumiceous volcaniclastic sandstone and finely banded micaceous siltstone (€dtvs).*
- **€dtca** — *Andesitic volcaniclastic conglomerate and sandstone. Typically crystal-rich with plagioclase-quartz-pyroxene±biotite crystals. Abundant andesite lava and minor quartzite clasts (€dtca).*
- **€dtp** — *Pumice-rich and shard-rich volcaniclastic sandstone, conglomerate and siltstone. Typically rich in quartz-feldspar crystals. Locally interbedded with pyroxene phyric volcaniclastic sandstone (€dtp).*
- **€dsvg** — *Marine volcano-sedimentary and sedimentary sequences of sandstone, siltstone, mudstone conglomerate and breccia with some felsic to andesitic volcanic rocks (Gog Range Greywacke) (€dsvg).*
- **€dsvgg** — *Dominantly non-volcanic sandstone and siltstone, typically siliceous-micaceous, massive to thinly bedded (€dsvgg).*
- **€dsvgc** — *Dominantly siliceous conglomerate and sandstone, typically rich in quartzite clasts (€dsvgc).*
- **€dsvgsm** — *Polymict sandstone of mixed felsic volcanic and metamorphic derivation (€dsvgsm).*
- **€dsvgvv** — *Dominantly pale-weathering fine-grained vitric mudstone, typically shard-rich (€dsvgvv).*
- **€dsvgv** — *Quartz-feldspar phyric pumiceous volcaniclastic sandstone and siltstone with minor rhyolite lava (€dsvgv).*
- **€dsvld** — *Dacitic lava, typically plagioclase-phyric, may include some shallow intrusives (€dsvld).*
- **€dsvgq** — *Interbedded siliceous siltstone, sandstone and mudstone (€dsvgq).*
- **€cwb** — *Pillowed to massive fine- to medium-grained augite bearing tholeiitic basalt (probable correlate of Motton Metabasalt) (€cwb).*
- **€cwbv** — *Basaltic breccia and volcaniclastic sandstone (€cwbv).*

CORRELATES OF TYNDALL GROUP

CORRELATE OF WESTERN VOLCANO-SEDIMENTARY SEQUENCES — MOUNT READ VOLCANICS

TERRENEUVIAN - CAMBRIAN SERIES 2

INTRUSIVE ROCKS

MESOZOIC

JURASSIC

- **Jd** — *Dolerite (Jd).*

PALEOZOIC

CAMBRIAN

MOUNT READ VOLCANICS

- **€daib** — *Andesitic monozodioritic intrusives with biotite, hornblende, pyroxene, feldspar and quartz. Typically massive, pink to brown weathering. Includes Beulah 'granite' and related rocks (€daib).*
- **€qfpz / €fpq** — *Quartz-feldspar±pyroxene±hornblende phyric porphyry. Intrusive to locally extrusive. Zircon radiometric U-Pb age 499.6 ± 5.6 Ma from 4445000mE, 5408830mN (€qfpz). Plagioclase-clinopyroxene-quartz porphyry, typically massive to brecciated (€fpq).*
- **€qfbp** — *Quartz-feldspar-biotite porphyry, mainly intrusive but may be partly extrusive (€qfbp).*
- **€daiq** — *Intrusive bodies of dioritic rock (plagioclase-amphibole-minor quartz-phyric), microdiorite (plagioclase-biotite-phyric) and quartz gabbro-norite (€daiq).*
- **€dai** — *Andesitic intrusive rocks, typically with plagioclase and pyroxene phenocrysts. May include dioritic and granodioritic types (€dai).*
- **€dsvld** — *Dacitic lava, typically plagioclase-phyric, may include some shallow intrusives (€dsvld).*

TERRENEUVIAN - CAMBRIAN SERIES 2

- **€cwb** — *Pillowed to massive fine- to medium-grained augite bearing tholeiitic basalt (probable correlate of Motton Metabasalt) (€cwb).*

CONTACTS

- *Geological contact.*
- *Geological contact - inferred.*
- *Limit of mapping of sub-unit within undifferentiated rock unit.*

FAULTS

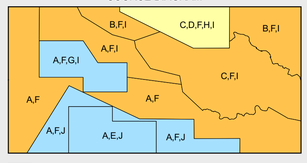
- *Fault.*
- *Fault - inferred.*
- *Fault - concealed.*

LINEARS

- *Axial surface trace of major antiform.*
- *Axial surface trace of major synform.*
- *Lithological trend line, including bedding trace interpreted from aerial photographs.*

- *Strike and dip of bedding, facing known - dipping; overturned; vertical with facing indicated by single tic.*
- *Strike and dip of bedding, facing unknown - dipping; vertical.*
- *Strike and dip of compositional layering.*
- *Generalised palaeocurrent direction, showing sense of movement.*
- *Strike and dip of cleavage, type and relative age unspecified - dipping; vertical.*
- *Strike and dip of penetrative cleavage - dipping; vertical.*
- *Strike and dip of crenulation cleavage - dipping; vertical.*
- *Trend and plunge of hingeline of minor fold, relative age unspecified.*
- *Strike and dip of outcrop-scale fault, unspecified type and relative age; vertical.*
- *Strike and dip of dominant joint set.*
- *Strike and dip of vein, composition unspecified; specified with rock unit indicated. Quartz vein (qv).*
- *Field station for adjacent readings on the map.*
- *Notable small outcrop with rock unit indicated.*
- *Mineral deposit location - hardrock.*
- *Construction material/industrial mineral/gemstone location.*

SOURCE DIAGRAM



- Highly detailed (eg. more detailed than 1:25 000 scale mapping).
- Detailed systematic (eg.1:25 000 map or equivalent detail).
- Regional systematic (eg.1:50 000, 1:63 360 map or equivalent detail).
- Regional mapping less detailed than 1:63 360 map or equivalent (all other scales).
- Reconnaissance mapping with sparse ground traverses.
- Remote sensing and/or geophysical interpretation with limited or no ground information.

Compiled by M.P. McClenaghan, B.Sc.(Hons), Ph.D., D.C. Green, B.Sc.(Hons), Ph.D., D.B.Seymour, B.Sc.(Hons), Ph.D. and A.V. Brown, B.Sc.(Hons), Ph.D., 2001 from the following sources (see source diagram):

A New 1:25 000 scale mapping by M.P. McClenaghan, 1998-2000.

B New 1:25 000 scale mapping by D.C. Green, 1998-1999.

C New 1:25 000 scale mapping by D.C. Green, 1998-1999, D.B. Seymour, 1999- 2000 and A.V. Brown, 1993.

D JENNINGS,I.B; BURNS, K.L; MAYNE, S.J. and ROBINSON, R.G. 1959. Geological Atlas 1:63 360 Series. Sheet 37, Sheffield. Tasmania Department of Mines.

Updated by:

E BURRETT, C., BANKS, M., CLOTA, G. and SEYMOUR, D.B. 1989 Lithostratigraphy of the Ordovician Gordon Group, Mole Creek, Tasmania. Rec. Queen Victoria Museum, N: 96.

F CORBETT, K.D 2004 Updating and revision of the 1:25 000 scale series geological maps covering the Mt Read Volcanics belt in western and northwestern Tasmania. Tasmanian Geological Survey Record 2004/03.

G Callaghan, T. 2002. Annual Report - Gog EL 12/2001. Sept 2001 - Sept 2002. Unpublished report Auriongold Exploration Pty Ltd. TCR 02-4766.

H Vicary, M.J. and Jackson, S. 1993 EL 15/1992 - Beulah, Annual Report August 1992 - 1993. RGC Exploration. TCR 93-3488.

I VICARY, M.J. 2008. Revisions to geological maps in the southern part of the Dial Range/Fossey Mountain Trough, northern Tasmania, with emphasis on Cambrian geology. Tasmanian Geological Survey Record 2008/01.

J C. CALVER, B. WAINING Mapping and photo interpretation, 2012-2013.

REFERENCE THIS MAP AS:

McCLENAGHAN, M.P., GREEN, D.C., SEYMOUR, D.B., BROWN, A.V. and VICARY, M.J.(compilers) 2008. Digital Geological Atlas 1:25 000 Scale Series. Sheet 4440 Gog. Mineral Resources Tasmania.

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Website: www.mrt.tas.gov.au

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

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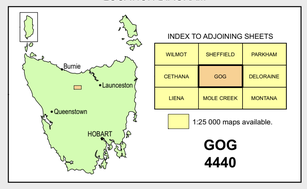
LOCATION DIAGRAM



INDEX TO ADJOINING SHEETS

WILMOT	SHEFFIELD	PARKHAM
CETHANA	GOG	DELORAINE
LIENA	MOLE CREEK	MONTANA

1:25 000 maps available.

GOG 4440

Map generated: 07-JUN-2024

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