Tasmanian Government

Department of State Growth
MINERAL RESOURCES TASMANIA

GEOLOGY OF TASMANIA

SCALE 1:500000

0 10 20 30 40 50 km

Grid: GDA94 – MGA Zone 55.

GDA

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Reference this map as:
Brown et al. (comp.). 2012
Geology of Tasmania. Edition 2012.1
Geological Atlas 1:500000 digital series.
Mineral Resources Tasmania.

The geological data for this map were derived from Tasmanian Geological Survey Geological Atlas 1:250,000 digital series maps.

For Source and Reliability information refer to 1:250,000 digital series maps.

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LEGEND

CENOZOIC

QUATERNARY — PLEISTOCENE – HOLOCENE

- Qh — Sand, gravel, and mud of alluvial, lacustrine and littoral origin (Qh).
- Qpt — Glacial and interglacial deposits (Qp). Talus (Qpt).
- Qpg — Predominantly glacial deposits (Qpg).
- Qps — Coastal sand and gravel (Qps).
- Qpl — Limestone (Qpl).

Erosional surface

PALEOCENE – MIOCENE

- Ts — Tb — Tm — Tc — Non-marine sequences of sand, gravel, silt, clay and regolith (Ts); basalt (thaleiitic to alkalic) and related pyroclastic rocks (Tb); marine limestone (Tm); conglomerate (Tc).

Erosional surface

JURASSIC

- Jb — Basalt (Jb).

Erosional surface

MESOZOIC

TRIASSIC — UPPER PARMEENER SUPERGROUP

- Rv — Basalt (Rb). Dominantly lithic sandstone with felsic volcaniclastics (Rv).
- Rq — Dominantly quartz sandstone (Rq).
- Pc — Freshwater sandstone with coal measures (Pc).
- Pu — Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu).

PERMIAN — LOWER PARMEENER SUPERGROUP

- Pl — Freshwater and paralic sandstone and mudstone with some coal measures (Pl). Lower glaciomarine sequences of mudstone, pebbly mudstone, pebbly sandstone, minor limestone and tasmanite oil shale (Pl).
- Pt — Basal tillite (Pt).

Erosional surface.

CARBONIFEROUS

Terrestrial cavern–filling deposits (Dc: Eugenono beds).

Angular unconformity

DEVONIAN

- SDb — Siltstone, shale and fine–grained sandstone and minor limestone (SDb).

SILURIAN

- SDf — Shallow marine quartz sandstone (SDf).
- SDa — Siltstone, shale and minor quartz sandstone (SDa).
- SDc — Shallow marine quartz sandstone (SDc).
- Ol — Shallow marine limestone. Siltstone in some areas (Gordon Group) (Ol).

ORDOVICIAN

- Os — Shallow marine sandstone and mudstone (Os).
- COc — Dominantly siliceous conglomerate and sandstone (COc).
- COms — Marine sandstone, siltstone and conglomerate (COms).
- COsl — Siliceous conglomerate and sandstone (COcl).

Angular unconformity in some areas, apparent conformity in others.

PALEOZOIC

CAMBRIAN — CAMBRIAN SERIES 3 — FURONGIAN

- Cdt — Cdtl — Dominantly felsic volcaniclastics (Cdt) with some felsic lavas indicated (Cdtl), (Tyndall Group and correlates).
- Cda — Dominantly andesitic volcanics and intrusives (Cda).
- Cds — Cdsv — Sedimentary sequences, with minor volcanics in places (Cds).
- Cdv — Basaltic to andesitic volcanics, shoshonitic in part (Cdb).
- Felsic volcanosedimentary sequences with minor lava (Cdsv).
- Felsic to intermediate calc–alkaline volcanics (Cdv).
- Cdsq — Siliceous sandstone and conglomerate (Cdsq).

Angular unconformity in some areas, apparent conformity in others.

CAMBRIAN — TERRENEVIAN – CAMBRIAN SERIES 2

- Cs — Cb — Peridotite, serpentinite and associated rocks (Cs); tonalite and associated rocks (Ct); low–Ti tholeiitic and baninitic lavas (Cb).
- Ccw — Turbiditic mafic volcaniclastics, red mudstone and chert (Ccw). Some basalt (Ccwb) and chert (Ccwc) indicated.

NEOPROTEROZOIC — CRYO– EDIACARAN — EDIA–CARIAN

- Psr — Quartz siltstone and shale (Psr).
- Psd — Psb — Psv — Psa — Pss — Pds — Shallow marine dolostone and limestone (Psd). Dolostone, diamictite and mudstone (Pwc). Turbiditic, mafic–volcaniclastic sandstone and mudstone (Psv), with some tholeiitic basalt indicated (Psb). Shallow marine dolostone (Pwt). Shallow marine dolostone, chert, shale and diamictite (Pss). Sandstone and conglomerate (Pds).

Low–angle unconformity.

YDGARA GROUP AND CORRELATES

- Po — Pob — Quartzwacke turbidite, dolomitic in some areas (Po); basalt (Pob).

OONAH FORMATION

- Prc — Pvc — Prs — Ph — Siltstone, mudstone, slate and phyllite (Prc). Carbonate (Pvi). Orthoquartzite (Prs). Quartz–rich lithicwacke, conglomerate and black slate (Ph).

ROCK CAVE GROUP AND CORRELATES

MESOPROTEROZOIC — ESTA–SCIAN

- Pb — Micaceous quartzite, schist, phyllite and minor amphibolite (Pb).

SURPRISE BAY FORMATION

CENOZOIC

PALEOCENE – MIOCENE

- Tb — Basalt (tholeiitic to alkalic) and related volcanicclastic rocks (Tb).

MESOZOIC

CRETA–CEOUS

- Ks — Shoshonitic to latitic lava, dykes and porphyry intrusions (Ks).

JURA–SSIC

- Js — Syenite, quartz monzonite and related alkaline rocks (Ks.)
- Jb — Basalt, comagmatic with Jurassic dolerite (Jb).
- Jd — Dolerite (tholeiitic) with granophyre in places (Jd).

TRIAS–SSIC

- Rb — Alkali olivine basalt (Rb).
- Dd — Dolerite dykes (Dd).

PALEOZOIC

DEVONIAN – CARBONIFEROUS

- Lamprophyre (at Varna Bay) (Dl).
- Dgsl — Dgst — Dgsb — Dgsa — Dgsg — Dgsba — Undifferentiated granitic rocks (Dg); undifferentiated alkali–feldspar syenogranite/monzogranite, I–type (Dgs); S–type (Dgas); dominantly alkali–feldspar granite, I–type (Dgat); S–type (Dgafs); dominantly syenogranite/monzogranite, I–type (Dgso); S–type (Dgaas).
- Dgn — Dominantly granodiorite/monzogranite, (I–type) (Dgn).
- Dgr — Dominantly granodiorite, (I–type) (Dgr).
- Dp — Felsic pyroclastic rocks (Dp).

NORTHEAST TASMANIA

Angular unconformity

- Dp — Felsic pyroclastic rocks (Dp).

Angular unconformity

ELDON GROUP AND CORRELATES

- SDps — Turbiditic sandstone and siltstone (SDps). Turbiditic sandstone and some siltstone (SDps).
- SDpl — Dominantly siltstone with some sandstone (SDpl).
- SDpt — Turbiditic sandstone and some siltstone and mudstone (SDpr). Interbedded mudstone and siltstone (SDpy).
- SDpy — Faulted contacts

WARATAH SUPERGROUP

- Ott — Phyllitic slate and sandstone (Ott).
- Ots — Turbiditic sandstone and slate (Ots).

MATHINNA SUPERGROUP

ARTHUR METAMORPHIC COMPLEX

- Pac — Pas — Chloritic schist, with minor dolostone and magnesite (Pac). Amphibolite (Pas).
- Pap — Dominantly phyllite (Pap).
- Pot — Dominantly quartz mico schist and quartzite (Pot).

TYENNAN AND SIMILAR REGIONS

- Pts — Dominantly quartzite sequences (Pts).
- Ptqs — Platy or schistose micaceous quartzite (Ptst).
- Ptsg — Garnet–bearing quartzite (Ptsg).
- Pt — Pts — Dominantly greenschist–facies pelitic rocks, mainly phyllite (Ptp).
- Ptpc — Pelitic schist (Ptpc).
- Ptpg — Garnet–bearing pelitic schist (Ptpg).
- Ptd — Dolostone (Ptd).
- Ptc — Schistose conglomerate (Ptb).

IGNEOUS ROCKS

PALEOZOIC

CAMBRIAN — CAMBRIAN SERIES 3 – FURONGIAN

- Cdt — Tholeiitic dolerite (Cdd).
- Cdtl — Felsic lavas of Tyndall Group (Cdtl).
- Cdb — Basaltic to andesitic volcanics, shoshonitic in part (Cdb).
- Cda — Dominantly andesitic volcanic rocks (Cda).
- Cdv — Felsic – intermediate, calc–alkaline volcanic rocks (Cdv).
- Cqfp — Quartz–feldspar porphyry (Cqfp).
- Cg — Granite (Cgr).
- Cg — Gabbroic rocks (Cg).
- Cb — Low–Ti tholeiitic and baninitic lavas (Cb).
- Ct — Tonalite and associated rocks (Ct).
- Cs — Peridotite, serpentinite and associated rocks (Cs).

TERRENEVIAN – CAMBRIAN SERIES 2

- Tholeiitic basalt (Ccwb).

MT READ VOLCANICS AND CORRELATES

NEOPROTEROZOIC

CRYOG– EDIA–CARAN — EDIACARAN

- Pdb — Tholeiitic basalt (Pdb).
- Pg — Granitic rocks (Pg).
- Pm — Tholeiitic dolerite dykes (Pm).
- Pob — Alkali basalt and dolerite (Pob).
- Poa — Amphibolite (Poa).

Geological boundary.
Fault.
Wrench fault with relative displacement indicated.
Concealed fault.

BASS STRAIT

SOUTHERN OCEAN

TASMAN SEA

THIS MAP IS EDITION 2012.1
BASED ON A STATEWIDE DATASET

WARNING: INKS ARE LIGHT SENSITIVE

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