MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES

MINERAL RESOURCES TASMANIA

GEOLOGY OF KING ISLAND AND FAR NORTHWEST TASMANIA

SCALE 1:250000

0 5 10 15 20 25 km

AGD66 –AMG Zone 55.

CAINOZOIC – QUATERNARY – HOLOCENE

- Qh — Sand, gravel, and mud of alluvial, lacustrine and littoral origin (Qh).

CAINOZOIC – QUATERNARY – PLEISTOCENE

- Q — Erosional surface
- Qg — Glacial, periglacial and fluviglacial sediments including till and interglacial deposits (Qg); talus, vegetated and active (Qpt); coastal sand and gravel (Qpa).

CAINOZOIC – TERTIARY

- Tm — Dominantly non-marine sequences of sand, gravel, silt, clay and regolith (Ts); marine limestone (Tm); basalt (tholeiitic to alkalic) and related igneous and pyroclastic rocks (Tb).
- Ts — Erosional surface.
- Tb

MESOZOIC – PERMIAN

- Pu — Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu).
- Pl — Freshwater and paralic sandstone and mudstone with some coal measures (Pl).

MESOZOIC – LATE CARBONIFEROUS

- Pl — Lower glaciomarine sequences of mudstone, pebbly mudstone, pebbly sandstone, minor limestone and Tasmanite oil shale (Pl); basal tillite (Pl).

LOWER PARMEENER SUPERGROUP

- Angular unconformity.

PALAEOZOIC – EARLY DEVONIAN–SILURIAN

- SDb — Siltstone, shale and fine-grained sandstone (Bell Shale and correlates) (SDb).
- SD — Shallow marine quartz sandstone (Florence Quartzite and correlates) (SD).
- SDa — Siltstone, shale and minor quartz sandstone (Amber Slate, Keel Quartzite, Austral Creek Siltstone and correlates) (SDa).
- SDc — Shallow marine quartz sandstone and pebble conglomerate (Crotty Quartzite and correlates) (SDc).

ELDON GROUP

PALAEOZOIC – ORDOVICIAN

- Ou — Dominantly shallow marine limestone with minor siltstone and sandstone (Gordon Group) (Ou).
- Ou — Undifferentiated or poorly constrained conglomerate sequences including Roland Conglomerate and Duncan Conglomerate (COu).
- COuc — Dominantly sandstone and pebble conglomerate sandstone sequences with rare fossils (includes Moina Sandstone, Caroline Creek Sandstone) (COuc).
- COuc — Dominantly quartz sandstone and pebble conglomerate (Cattley Sandstone and correlates) (COuc); tholeitic basalt (COucb).
- COuc — Thin bedded quartz sandstone, siltstone and minor conglomerate (Linda Sandstone and correlates) (COu).
- COu — Dominantly marine sandstone, micaceous siltstone and minor conglomerate (Newton Creek Sandstone and correlates) (COn).

WARRAWANA SUPERGROUP

OWEN GROUP

- Diachronous contacts; angular unconformity in some areas, apparent conformity in others.

PALAEOZOIC – LATE CAMBRIAN

PALAEOZOIC – MIDDLE CAMBRIAN

SMITHTON – ROCKY CAPE REGION

- Cm — Polymict conglomerate, lithicwacke, siltstone and mudstone with rare marine fossils (Scopus Formation) (Cm).
- Inferred disconformity

PROTEROZOIC – ? EARLY CAMBRIAN

PROTEROZOIC – NEOPROTEROZOIC

- Pzr — Pale-weathering, thin bedded, laminated quartz siltstone with subordinate interbedded fissile shale, commonly silicified (Salmon River Quartzite).
- Pzd — Shallow marine dolomite and minor limestone (Smithton Dolomite and correlates) (Pzd).
- Pzg — Turbiditic mudstone, siltstone, lithicwacke and lithicarenite with dominantly mafic detritus (Pzv); tholeiitic basalt (Spinks Creek Volcanics, Bernafai Volcanics and correlates) (Pzb).
- Pzs — Shallow marine dolomite, chert, shale and diamictite (Black Bluff Dolomite, Savage Dolomite and correlates) (Pzs); basal siliceous conglomerate and sandstone (Forest Conglomerate and Quartzite, Donaldson Formation and correlates) (Pzc).
- Pzc — Low-angle unconformity or inferred disconformity.

TOGARI GROUP, ARRIBERG GROUP AND DOPHOLITES

ARTHUR METAMORPHIC COMPLEX

- Cm — Chlorite schist, with minor phyllite, dolomite and magnesite (Pzac); amphibolite (Pzaa).
- Pzp — Phyllite with minor pelitic schist, foliated quartzite and dolomite, and rare conglomerate (Pzp).
- Pzl — Quartz–mica schist, quartzite, phyllite and rare dolomite (Kelly Metamorphics and correlates) (Pzl).

PROTEROZOIC – Angular unconformity.

- Pzq — Quartzwacke turbidite sequences with minor dolomite (Pzq); quartzwacke of high-grade metamorphic provenance (Pzq); (Burnie and Donah Formations and correlates). Alkali basalt and dolerite (within Burnie and Donah Formations, includes Cooee Dolerite) (Pzb).

PROTEROZOIC – MESOPROTEROZOIC

- Pzr — Shallow marine to perilidal, well-bedded, cross-bedded orthoquartzite, platy quartzite and siltstone (Jacob Quartzite) (Pzr).
- Pzl — Shallow marine laminated grey siltstone, mudstone and dolomite (Inky Siltstone) (Pzl).
- Pzd — Shallow marine to perilidal, well-bedded, cross-bedded orthoquartzite and subordinate siltstone (Detention Subgroup) (Pzd).
- Pzc — Dominantly dark, laminated, commonly pyritic marine siltstone and mudstone (Cowrie Siltstone and similar sequences) (Pzc).
- Pzs — Unassigned quartzite sequences (Pzs).

ROCKY CAPE GROUP

TYENNAN AND SIMILAR REGIONS

- Pzp — Dominantly pelitic sequences, mainly phyllite (King Island) (Pzp).

IGNEOUS ROCKS

CAINOZOIC – TERTIARY

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

MESOZOIC – JURASSIC

- Jd — Dolerite (tholeiitic) with locally developed granophyre (Jd).

MESOZOIC – EARLY CARBONIFEROUS–LATE DEVONIAN

- Dgn — Undifferentiated granitic rocks (Dg).
- Dgan — Undifferentiated alkali–feldspar granite/granite/adamellite, I–type (Dgan), dominantly adamellite/granite, I–type (Dgan).
- Dgn — Dominantly granodiorite/adamellite, I–type (Dgn).

PALAEOZOIC – ORDOVICIAN

- COucb — Tholeiitic basalt (Mt Tor area; upper Wilmot River) (COucb).
- COd — Tholeiitic dolerite (Black Bluff Range) (COd).

PALAEOZOIC – MIDDLE – LATE CAMBRIAN

- Cdo — Tholeiitic dolerite (Mt Charter area; upper Leven River) (Cdo).
- Cdf — Felsic lavas within Tyndall Group (Cdf).
- Cdo — Dominantly andesitic, volcanic and intrusive rocks (includes Lobster Creek Porphyry) (Cdo).
- Cdf — Quartz feldspar porphyry (Cdf).
- Cg — Gabbroic rocks (Cg).

PALAEOZOIC – ? EARLY CAMBRIAN

- Cbo — Bonmitic lavas (Cbo).
- Ct — Low–Ti tholeiitic lavas (Cbt).
- Ct — Tonalite and associated rocks (Ct).

MT REED VOLCANICS (INTRUSIVE AND ASSOCIATED EXTRUSIVES)

- Cu — Layered peridotite, serpentinite and associated rocks (Cu); dominantly layered dunite and harzburgite (Cuu); dominantly layered pyroxenite and dunite (Cup).
- Cb — Tholeiitic basalt (within Cleveland–Marotah association and correlates; includes Mutton Spilite) (Cab).

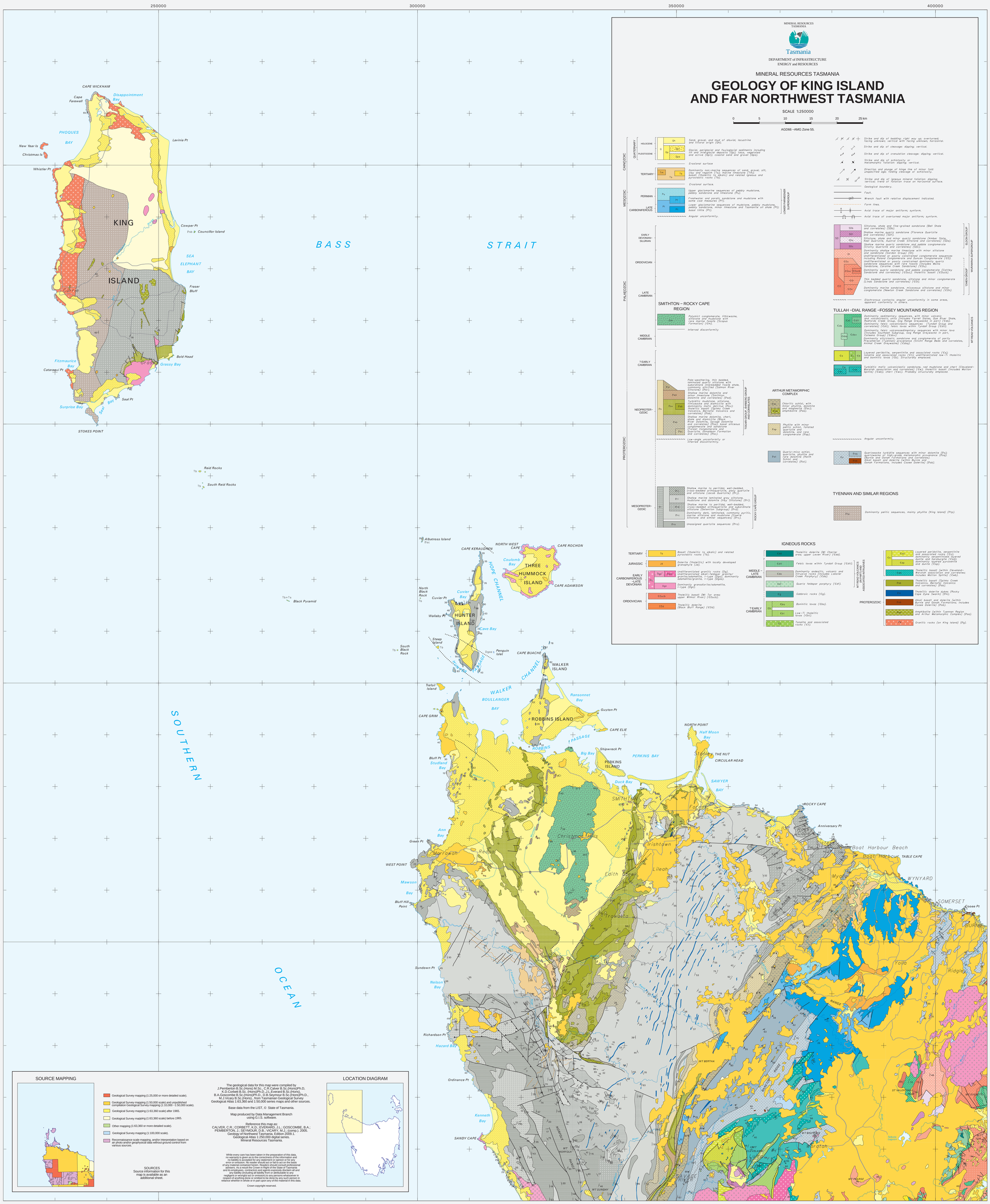
PROTEROZOIC

- Pzb — Tholeiitic basalt (Spinks Creek Volcanics, Bernafai Volcanics and correlates) (Pzb).
- Pzd — Tholeiitic dolerite dykes (Rocky Cape Dyke Swarm) (Pzd).
- Pzb — Alkali basalt and dolerite (within Burnie and Donah Formations; includes Cooee Dolerite) (Pzb).
- Pzo — Amphibolite (within Tyennan Region and Arthur Metamorphic Complex) (Pzo).
- Pzg — Granitic rocks (on King Island) (Pzg).

TULLAH – DIAL RANGE – FOSSEY MOUNTAINS REGION

- Cds — Dominantly sedimentary sequences, with minor volcanic and volcaniclastic units (includes Farrell Slates, Que River Shale, Rosebrook Creek Group, Gog Range Greywacke in part) (Cds).
- Cdv — Dominantly felsic volcaniclastic sequences (Tyndall Group and correlates) (Cdt); felsic lavas within Tyndall Group (Cdt).
- Cdsv — Dominantly felsic volcanosedimentary sequences with minor lava (including Southwest Subgroup, Gog Range Greywacke in part, Mount Owen Group).
- Cdsv — Dominantly volcaniclastic sandstone and conglomerate of partly Precambrian (Tyennan) provenance (Slight Range Beds and correlates, Animal Creek Greywacke) (Cdsg).

- Cs — Layered peridotite, serpentinite and associated rocks (Cs); tonalite and associated rocks (Ct); undifferentiated low–Ti tholeiitic and boninitic lavas (Cb). Structurally emplaced.
- Cw — Turbiditic mafic volcaniclastic sandstone, red mudstone and chert (Cleveland–Marotah association and correlates) (Cw); tholeiitic basalt (includes Mutton Spilite) (Cwb); chert (Cwc). Probably structurally emplaced.



SOURCE MAPPING

- Geological Survey mapping (1:25,000 or more detailed scale).
- Geological Survey mapping (1:50,000 scale) and unpublished compilation Geological Survey mapping (1:10,000 –1:50,000 scale).
- Geological Survey mapping (1:63,360 scale) after 1965.
- Geological Survey mapping (1:63,360 scale) before 1965.
- Other mapping (1:63,360 or more detailed scale).
- Geological Survey mapping (1:100,000 scale).
- Reconnaissance scale mapping, and/or interpretation based on air photo and/or geophysical data without ground control from various sources.

SOURCES
Source information for this map is available as an additional sheet.

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LOCATION DIAGRAM

WARNING: INKS ARE LIGHT SENSITIVE

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