MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
HARFORD, SHEET 4643

HARFORD

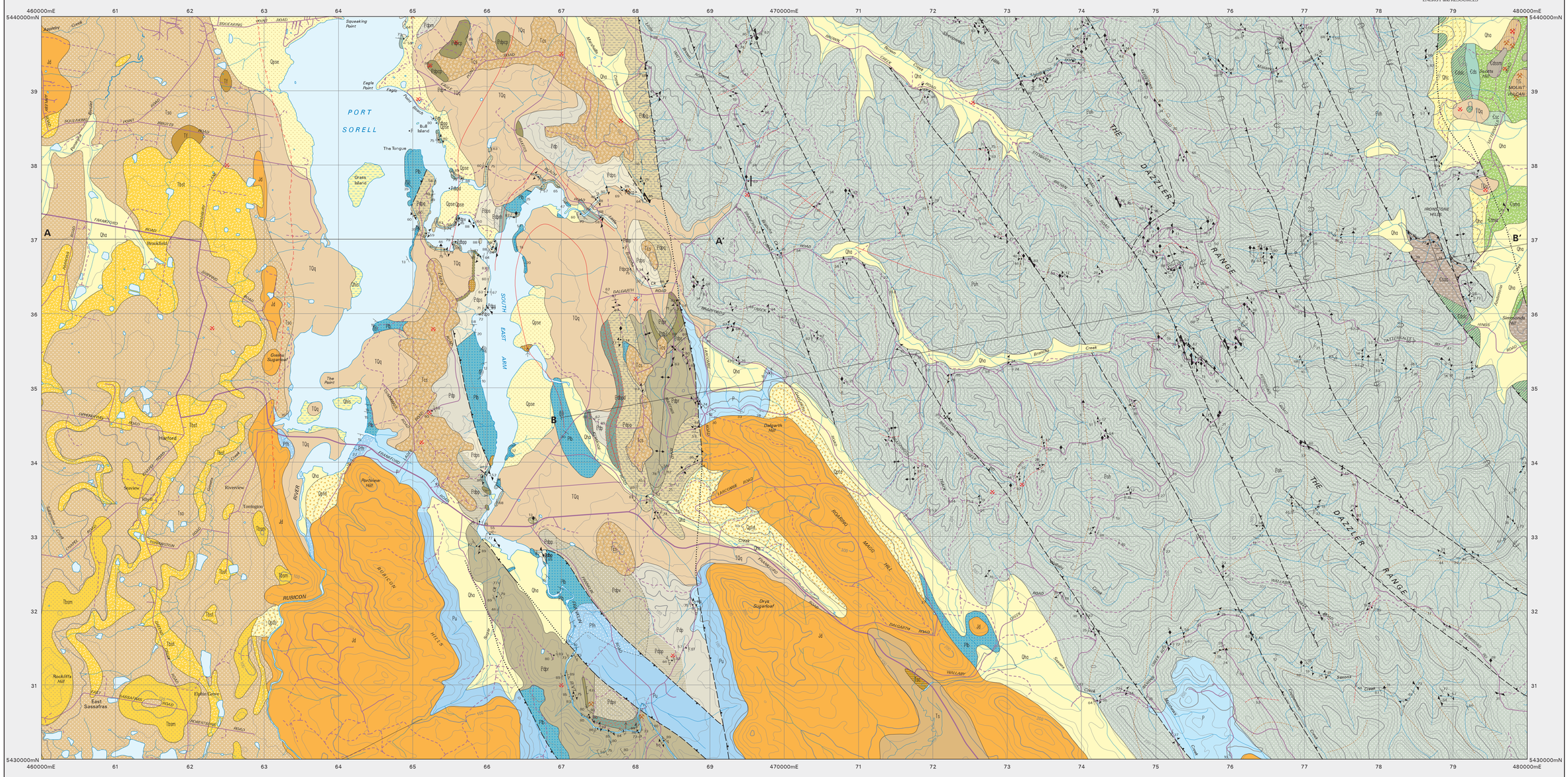
Scale: 1:25 000

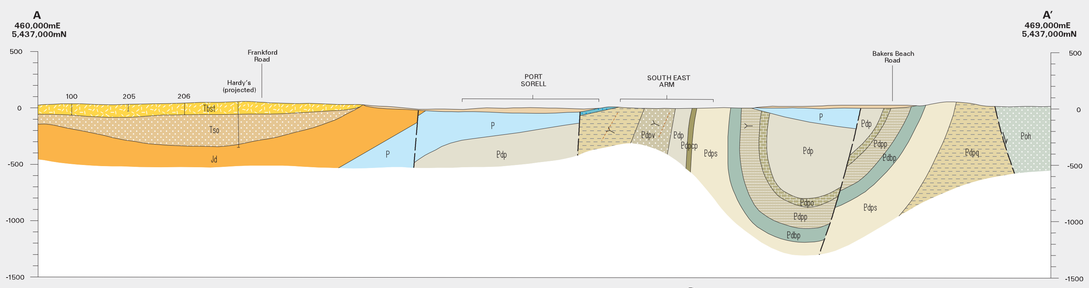
0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA

Tasmania

DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES





CAINOZOIC

QUATERNARY

- **Qhc** — *Colluvium (Qhc).*
- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qhs** — *Paralic clay, silt, sand and minor gravel deposits of modern slat marsh and associated tidal flats (Qhs).*
- **Qpse** — *Coastal fine-grained sand and pebbly sand (Qpse).*
- **Qpt, Qptb** — *Talus (Qpt); basalt talus (Qptb), talus consisting dominantly of dolerite boulders (Qptd).*
- **TQq** — *Undifferentiated sand and gravel deposits (TQq).*

TERTIARY

- **Ts** — *Undifferentiated Tertiary sediments: dominantly non-marine sequences of gravel, sand, silt, clay and regolith (Ts).*
  - **Tcs** — *Semiconsolidated siliceous gravel and fine-grained sand (Tcs).*
  - **Tcf** — *Siliceous conglomerate and course-grained sandstone, cemented with iron oxides in places (Tcf).*
  - **Tsc** — *Lignite and carbonaceous shale (Tsc).*
  - **Tf, Tfl** — *Ferricrete (Tf), pisolitic ironstone (Tfl).*
  - **Tso** — *Sand, quartzite gravel and clay, including interbasalt deposits (Wesley Vale Sand) of Oligocene age (Tso).*
  - **Tbsm** — *Olivine basalt, deeply weathered in most areas, dated at 25.9 +/- 0.2 Ma (Moriarty Basalt) (Tbsm).*
  - **Tbst** — *Non-vesicular to highly vesicular and amygdaloidal, in places deeply-weathered, dikal-olivine basalt, with minor volcanic sandstone and breccia, dated at 38.1 +/- 0.6 Ma (Thirlstane Basalt) (Tbst).*

Erosional surface.

PALAEOZOIC

PERMIAN

- **P**
  - **Pu** — *Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone (Pu).*
  - **Pth** — *Quartz sandstone and shale, carbonaceous in some places, and minor conglomerate (Pth).*
  - **Plh** — *Poorly sorted pebbly mudstone, sandstone and minor conglomerate; marine fossils present in places (Plh).*

LOWER PUMAHEUPER SUPERGROUP

Angular unconformity.

PALAEOZOIC — CAMBRIAN

DUNDAS GROUP

- **Ꞓds** — *Interbedded slate and chert, with lesser sandstone and polymict grit. Possible correlate of Blyths Creek Formation (Ꞓds).*
- **Ꞓdslc** — *Laminated, commonly brecciated chert (Ꞓdslc).*
- **Ꞓsao** — *Metamorphic succession comprising chlorite- and biotite-grade metasedimentary rocks, mafic and serpentinised ultramafic rocks, and banded amphibolite (Ꞓsao).*

PROTEROZOIC

NEOPROTEROZOIC

PORT SORELL FORMATION

- **Pdp** — *Undifferentiated sequences of predominantly mudstone, shale, slate and phyllite, with sandstone, siltstone, chert, basalt, dolostone, conglomerate and cataclasite; strongly faulted in most areas (Port Sorell Formation) (Pdp).*
  - **Pdpc** — *Cataclasite and tectonic melange (Pdpc).*
  - **Pdpb, Pdpbp** — *Basalt (Pdpb); porphyritic basalt (Pdpbp).*
  - **Pdpv** — *Mafic-volcaniclastic sandstone, siltstone and shale, with minor conglomerate (Pdpv).*
  - **Pdpo** — *Dolostone interbedded with chert and shale (Pdpo).*
  - **Pdpcp** — *Chert, thinly interbedded with shale in most areas (Pdpcp).*
  - **Pdpp** — *Laminated black to grey-green shale with minor siltstone, chert and dolostone; lacking sandstone (Pdpp).*
  - **Pdpm** — *Interbedded muscovitic quartz sandstone and shale (Pdpm).*
  - **Pdps** — *Dominantly black shale, with minor sandstone, siltstone, chert, dolostone and basalt (Pdps).*
  - **Pdpq** — *Laminated mudstone, slate and siltstone, with lesser interbedded quartzarenite (Pdpq).*
  - **Pdpt** — *Conglomerate containing felsic volcanic and related rocks, sandstone and siltstone (Pdpt).*
  - **Pdpr** — *Slate with lesser interbedded dolomitic conglomerate, and minor quartzarenite and impure dolostone (Pdpr).*

NEO-PROTEROZOIC

BADGER HEAD GROUP

- **Poh** — *Sandstone, slate and phyllite (Poh).*

INTRUSIVE ROCKS

MESOZOIC — JURASSIC

- **Jd** — *Dolerite and related rocks (Jd).*

PALAEOZOIC — CAMBRIAN

- **Ꞓsc** — *Layered norite, gabbronorite and plagioclase-bearing pyroxinite (variably saussuritised or altered to a talc-tremolite schist) (Ꞓsc).*
  - **Ꞓsma** — *Serpentinised pyroxenite (Ꞓspx).*
  - *Serpentinite with amphibole (Ꞓsma).*
- **Ꞓdssm** — *Siliceous metamorphic rock principally comprising fine-grained equigranular quartz, feldspar and biotite (Ꞓdssm).*
  - **Ꞓspx** — *Serpentinised pyroxenite (Ꞓspx).*

PROTEROZOIC — NEOPROTEROZOIC(?)

- **Pdbpd** — *Dolerite (Pdbpd).*

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
Geological boundary – transitional and inferred.
Geological boundary – inferred from aeromagnetic data.
Lithological trend line.
Trend line – S2 cleavage in Proterozoic sedimentary rocks.
Aeromagnetic lineament.
Fault – concealed.
Fault – normal – position accurate or approximate.
Fault – reverse – position accurate or approximate.
Axial surface trace of major later fold – Antiform.
Axial surface trace of major later fold – Synform.
Axial surface trace of major early fold – Overturned antiform.
Axial surface trace of major early fold – Overturned synform.
Fault – unspecified.
(White line) Colour boundary.
Airphoto lineament.
Magnetic gradient – direction toward lower values indicated.

Strike and dip of bedding – right way up; overturned.
Strike and dip of bedding, facing unknown.
Strike and dip of compositional layering.
Strike and dip of cleavage of unspecified type and relative age.
Strike and dip of cleavage, relative local age S1, S2, S3, S4, S4 vertical, S5.
Strike and dip of crenulation cleavage.
Strike of outcrop-scale fault of unspecified type and relative age.
Strike and dip of outcrop-scale fault of unspecified type and relative age; vertical dip.
Strike and dip of outcrop-scale fault, relative local age D4, type unspecified.
Strike and dip of cataclastic foliation.
Trend and plunge of minor fold hinge line, unspecified relative age; dextral vergence.
Trend and plunge of minor fold hinge line, relative local age F1, F2, F4, F4 dextral vergence. Where present, tick denotes dip direction of axial surface.
Trend and plunge of hinge line of reclined minor F4 fold.
Trend and plunge of lineation of unspecified type.
Trend and plunge of bedding/primary cleavage intersection lineation (L1). Trend and plunge of lineation formed by intersection of cleavages or foliations or unspecified relative local ages.
Trend and plunge of mineral elongation lineation.
Generalised palaeocurrent direction, showing sense of movement.
On sections : direction of upward stratigraphic younging.
Strike and dip of quartz vein.
Mineral deposit location – hardrock } *Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*
Mineral deposit location – alluvial
Construction materials location – Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

Compiled by A.R. Reed, B.Sc.(Hons), Ph.D. and C.R.Calver, B.Sc.(Hons), Ph.D. 2001 from the following sources. (see responsibility diagram).

A Gee and Legge 1971 (Beaconsfield 1:63,360).

B C.R.Calver, B.Sc.(Hons), Ph.D. - new mapping 1998-2000. Gee and Legge 1971 (Beaconsfield 1:63,360).

C Gulline et al. 1973 (Frankford 1:50,000).

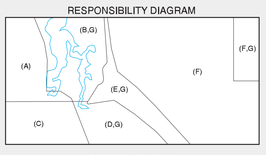
D C.R.Calver, B.Sc.(Hons), Ph.D. - new mapping 1998-2000. Gulline et al. 1973 (Frankford 1:50,000).

E C.R.Calver, B.Sc.(Hons), Ph.D. - new mapping 1998-2000. A.R. Reed, B.Sc.(Hons), Ph.D. - new mapping 1998-2000.

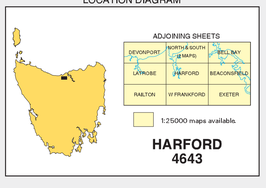
F A.R. Reed, B.Sc.(Hons), Ph.D. - new mapping 1998-2000.

G Updated by M. Vicary 2004 as part of the Western Tasmania Regional Minerals Program, with additional information from Calver C. and Reed A.R. (2001). Structure and setting of Proterozoic and Palaeozoic rocks in the Tamar region, Northern Tasmania. Geol. Soc. Aust. Specialist Group in Tectonics and Structural Geology Field Guide No.9.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



Base data from the LIST, Copyright State of Tasmania.

Map produced by the Data Management Branch of Mineral Resources Tasmania using G.I.S. software.

AGD66 - AMG Zone 55. Contour Interval: 20 metres.

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