Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

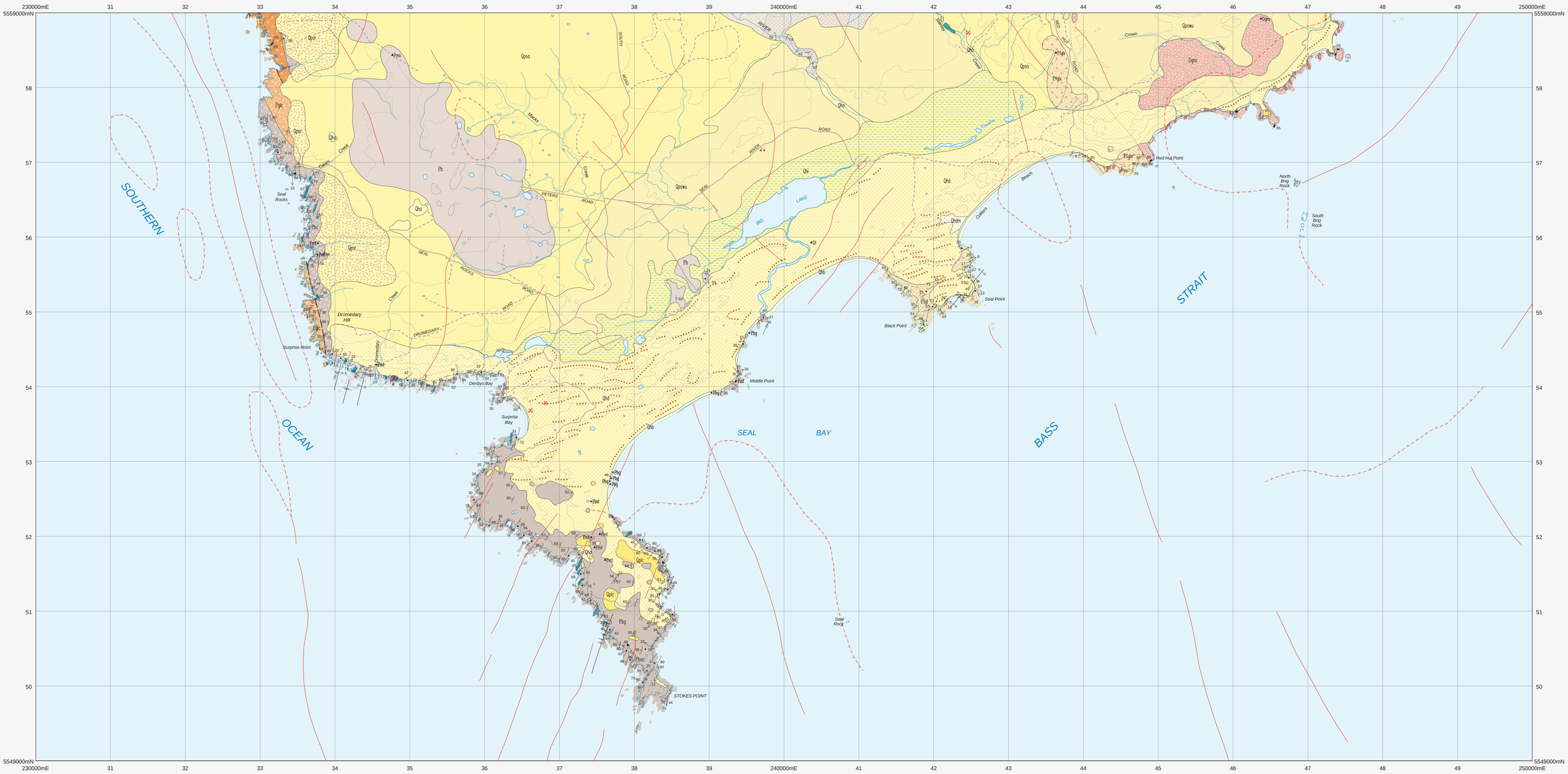
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
STOKES SOUTH, SHEET 2355

STOKES SOUTH

Scale: 1:25 000

0 500 1000 1500 2000 2500m

Tasmania
Explore the possibilities



CENOZOIC

QUATERNARY

HOLOCENE

- **Qhb** — *Mobile beach and dune sand (Qhb).*
- **Qhdm** — *Mobile dune sand (Qhdm).*
- **Qhd / Qhdc** — *Vegetated dune sand (Qhd); vegetated calcareous dune sand (Qhdc).*
- **Qha** — *Stream alluvium and freshwater swamp and marsh deposits (Qha).*
- **Qhl** — *Lagoon and paralic swamp deposits (Qhl).*

PLEISTOCENE

- **Qpsr** — *Older calcareous dune sand with locally abundant rhizomorph fragments (Qpsr).*
- **Qpsw** — *Older aeolian dune sand and minor clay, peat and gravel (Qpsw).*
- **Qpsa** — *Stabilised aeolian sand of coastal plain (Qpsa).*
- **Qplc** — *Well-bedded aeolian calcarenite (lithified calcareous dune sand; "aeolianite") (Qplc).*

NEOGENE

MIOCENE

- **Qf** — *Ironstone (Qf).*
- **Tmb** — *Bioclastic shallow marine limestone (bryozoal calcarenite) with a probable Early Miocene fauna (Tmb).*

Unconformity.

MESOPROTEROZOIC

NEOPROTEROZOIC — EDIACARAN

- **Ꝑyv / Ꝑyvx** — *Mafic volcanics and volcaniclastics (Ꝑyv); contact metamorphosed (Ꝑyvx). (Ꝑyx, Ꝑyvx – undifferentiated Skipworth Subgroup).*
- **Ꝑys / Ꝑysx** — *Undifferentiated sedimentary rocks of Grassy Group (Ꝑys); contact metamorphosed and metasomatised (Ꝑysx).*

Unconformity.

ECTASIAN (?)

Pf — FRASER FORMATION

- **Pfq** — *Massive silty metapelite with amphibole (tremolite–actinolite) porphyroblasts (Pfq).*
- **Pfgl / Pfglx** — *Pale grey quartzose metasiltstone, very fine-grained metasandstone and minor pelitic siltstone, laminated in most places, commonly with metamorphic chlorite, biotite and garnet (Pfgl); contact metamorphosed (Pfglx).*
- **Pflb** — *Interbedded quartzose siltstone and dark grey siltstone, with metamorphic biotite and chlorite.*
- **Pfl** — *Interbedded quartzose siltstone and dark grey siltstone (Pfl).*

Faulted contact

Pb — SURPRISE BAY FORMATION

- **Pbg** — *Banded schist with tremolite porphyroblasts and metamorphic garnet and biotite (Pbg); schist with abundant siliceous concretions (2–10 cm diameter) and tremolite porphyroblasts in matrix (Pbgc).*
- **Pbg** — *Schist, metasiltstone and metasandstone with metamorphic andalusite, garnet and biotite (Pbg).*
- **Pbb** — *Schist, metasiltstone and metasandstone with metamorphic biotite (Pbb).*
- **Pbc** — *Strongly foliated mica schist, with local cataclasite and mylonite (Pbc).*

IGNEOUS ROCKS

PALEOZOIC — CARBONIFEROUS

- **Dgnsg** — *Hornblende +/– biotite microgranodiorite dykes (thickness exaggerated) (Dgnsg).*
- **Dgns** — *Porphyritic (K–feldspar) to equigranular hornblende–biotite monzogranite, with common mafic enclaves (Sandblow Granite; I–type; dated at 350.6 +/– 1.7 Ma, U–Pb SHRIMP on zircon) (Dgns).*

NEOPROTEROZOIC — EDIACARAN

- **Ꝑyv / Ꝑyvx** — *Mafic volcanics and volcaniclastics (Ꝑyv); contact metamorphosed (Ꝑyvx). (Ꝑyv, Ꝑyvx – undifferentiated Skipworth Subgroup).*

NEOPROTEROZOIC — CRYOGENIAN

- **Ꝑyvbp** — *Chloritised picritic intrusion in Fraser Formation (Ꝑyvbp).*
- **Ꝑyvb** — *Metadolerite intrusions in Fraser Formation (Ꝑyvb).*
- **Ꝑmgl** — *Tholeiitic dolerite dykes in Loorana Granite (thickness exaggerated) (Ꝑmgl).*
- **Ꝑgld** — *Granitic dykes, including quartz–feldspar–biotite porphyry and pegmatite (thickness exaggerated) (Ꝑgld).*
- **Ꝑgl** — *Equigranular/seriate to sparsely porphyritic (K–feldspar), fine– to medium–grained biotite monzogranite, with coarse mafic enclaves (Loorana Granite; dated at 748+/–2 Ma, U–Pb SHRIMP on zircon) (Ꝑgl).*
- **Ꝑglc** — *Breccia, cataclasite and mylonite, derived predominantly from the Loorana Granite, with minor interfoliated pelitic schist (Ꝑglc).*

MESOPROTEROZOIC

- **Ꝑmt** — *Tholeiitic dolerite sills in Surprise Bay Formation (thickness exaggerated) (Ꝑmt).*
- **Ꝑma** — *Alkalic dolerite sills in Surprise Bay Formation (thickness exaggerated) (Ꝑgld).*

Geological boundary – position accurate or approximate.
Geological boundary – concealed.
Metamorphic boundary – position approximate.
Fault – unspecified type, position accurate or approximate.
Fault – unspecified type, inferred.
Fault – unspecified type, concealed.
Lineament visible in airborne magnetic data.
Magnetic gradient or lineament (direction towards lower values indicated).
Dune crest.
Axial surface trace of major antiform.
Axial surface trace of major synform.
Axial surface trace of major overturned synform.
Limit of mapping.
(white line) Limit of mapping of sub–unit within undifferentiated rock unit.

Strike and dip of bedding – right way up; vertical, facing indicated by single tic; overturned; facing unknown; vertical.
Horizontal bedding.
Strike and dip of dominant joint set; vertical.
Strike and dip of vein; vertical.
Trend of dyke or vein, dip unknown.
Strike and dip of outcrop scale fault.
Strike and dip of cleavage; vertical; relative local age S1.
Strike and dip of penetrative cleavage.
Strike and dip of crenulation cleavage; vertical.
Strike and dip of cleavage parallel to bedding, facing unknown.
Strike and dip of metamorphic foliation other than cleavage.
Strike and dip of cataclastic foliation; vertical.
Strike and dip of mylonitic foliation or mylonite zone; vertical.
Strike and dip of ductile shear band; vertical.
Trend and plunge of lineation of unspecified type.
Trend and plunge of bedding / primary cleavage intersection lineation (L1).
Trend and plunge of crenulation lineation.
Trend and plunge of minor fold hinge line; with dip direction and dip of axial surface indicated; antiform; horizontal.
Trend and plunge of minor fold hinge line, unspecified relative age, vergence dextral; vergence sinistral; relative local age F2, vergence sinistral.
Notable small outcrop.
Field station for adjacent readings on map.
Mineral deposit location – hardrock
Mineral deposit location – alluvial/tailings
Construction material/industrial – mineral/gemstone location
Data derived from Mineral Resources Tasmania DEPOSITS database. Data point position has not been verified in every case.

REFERENCE THIS MAP AS:

EVERARD J.L. (compiler) 2011. Digital Geological Atlas 1:25 000 Scale Series. Sheet 2355 Stokes. Mineral Resources Tasmania.

Base data from the LIST, Copyright State of Tasmania.

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

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

While every care has been taken in the preparation of this data, no warranty is given as to the correctness of the information and no liability is accepted for any statement or opinion or for any error or omission. No reader should act or fail to act on the basis of any material contained herein. Readers should consult professional advisers. As a result the Crown in Right of the State of Tasmania and its employees, contractors and agents expressly disclaim all and any liability (including all liability from or attributable to any negligent or wrongful act or omission) to any persons whatsoever in respect of anything done or omitted to be done by any such person in reliance whether in whole or in part upon any of the material in this data. Crown copyright reserved.

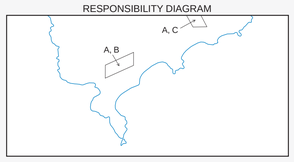
Compiled by J.L. Everard, B.Sc.(Hons), 2011 from the following sources (see responsibility diagram):

A J.L. Everard 1:25 000 scale geological mapping, 2008–2010.

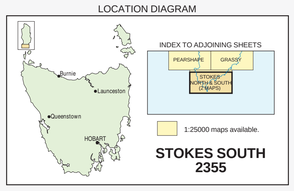
B J.N. Jennings, 1959. The coastal geomorphology of King Island, Bass Strait, in relation to changes in the relative level of the land and sea. Records of the Queen Victoria Museum, Launceston; New Series No.11.

C S.G. Brown, 1975. Progress report on the exploration of the Grassy Granite contact zone. Geopeko Limited. TCR75 –1079.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



Plotfile for this map generated from digital data as at: 18-APR-2013

WARNING: INKS ARE LIGHT SENSITIVE