Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

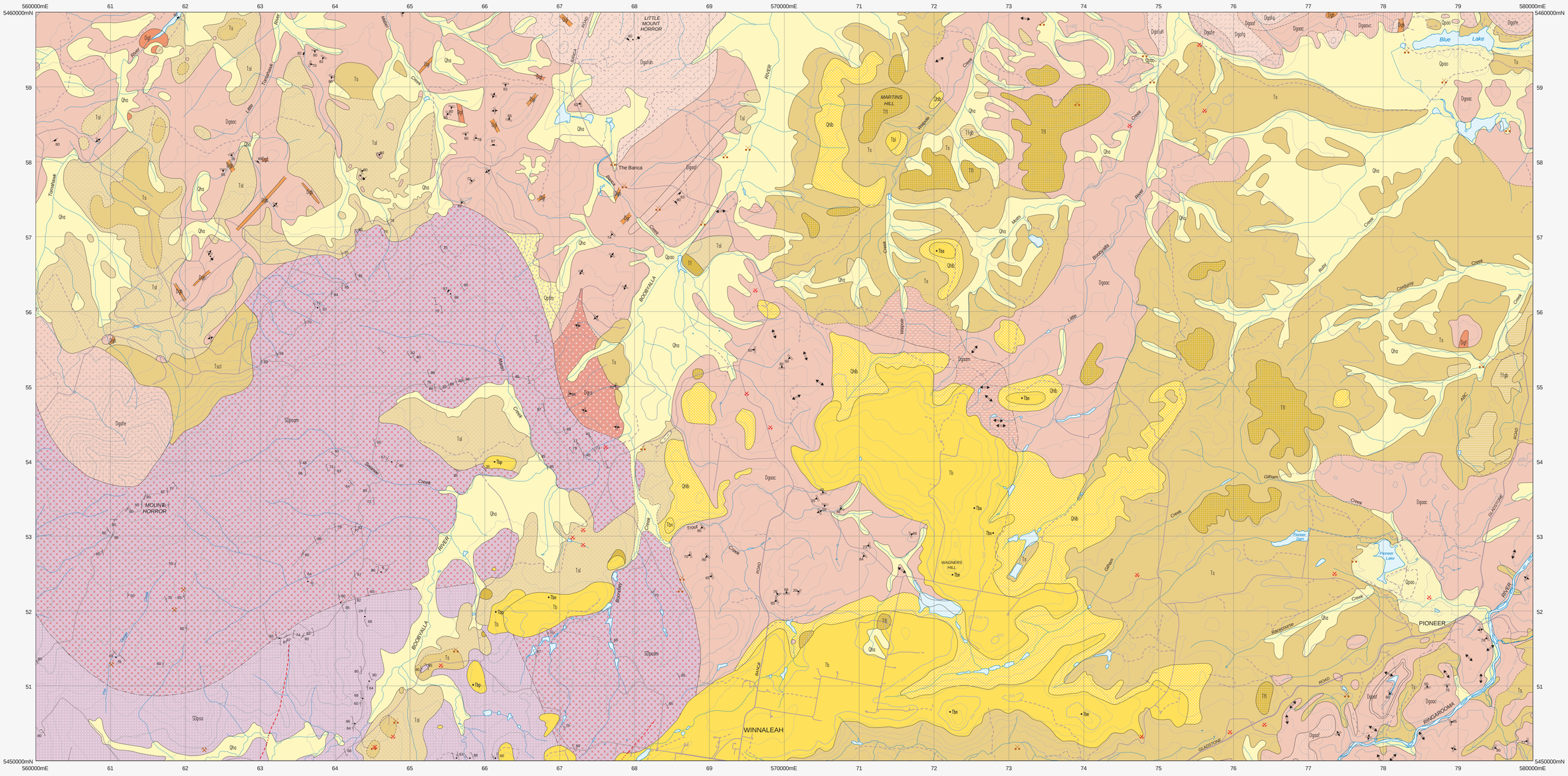
DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
PIONEER, SHEET 5645

PIONEER

Scale: 1:25 000

0 500 1000 1500 2000 2500m

Tasmania
Explore the possibilities



CENOZOIC

QUATERNARY

- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*
- **Qpao** — *Older alluvium of river terraces (Qpao).*
- **Qhb** — *Basalt derived lag deposit (Qhb).*
- **Qptm** — *Talus derived from Mathinna Supergroup (Qptm).*

PALEOGENE–NEOGENE

- **Tb** — *Basalt (Tb), including local occurrences of: alkali basalt (Tba), olivine nephelinite (Tbn), limburgite (Tbl), nodular basalt (Tbx); porphyritic pyroxene–rosettes basalt (Tbp).*
- **Ts** — *Conglomerate, gravel, sand, silt, mud and clay (Ts).*
  - **Tsl** — *Gravel lag (Tsl).*
  - **Tfgb** — *Greybilly and silcrete (Tfgb).*
  - **Tfl** — *Ferricrete lag (Tfl).*
  - **Tf** — *Ferricrete (Tf).*
  - **Tscl** — *Lag of Mathinna Supergroup clasts (Tscl).*

Unconformity.

PALEOZOIC

SILURIAN(?)–DEVONIAN — LUDLOWIT–LOWER DEVONIAN

- **SDpsa**, **SDpsam** — *Dominantly medium– to fine–grained turbiditic quartz–rich sandstone, with some interbedded siltstone. Rare vascular plant fossils (SDpsa). Contact metamorphosed by granitic intrusion (SDpsam). (SDpsa, SDpsam: possible correlates of Sideling Sandstone).* — PANAMA GROUP, MATHINNA SUPERGROUP

IGNEOUS ROCKS

CENOZOIC — PALEOGENE–NEOGENE

- **Tb** — *Basalt (Tb), including local occurrences of: alkali basalt (Tba), olivine nephelinite (Tbn), limburgite (Tbl), nodular basalt (Tbx); porphyritic pyroxene–rosettes basalt (Tbp).*

MINOR GRANITIC INTRUSIONS

- **Dgf** — *Quartz feldspar porphyry (Dgf).*
- **Dgi** — *Fine–grained, equigranular granite (Dgi).*
- **Dgb** — *Garnetiferous quartz–feldspar porphyry (Dgb).*
- **Dgh** — *Aplite (Dgh).*
- **Dgp** — *Quartz–orthoclase pegmatite (Dgp).*

BLUE TIER BATHOLITH

PALEOZOIC — DEVONIAN

UPPER(?) DEVONIAN

- **Dgafu**
  - **Dgafe** — *Fine– to medium–grained, equigranular to variably porphyritic (feldspar and quartz) biotite–variable muscovite syenogranite (Dgafuh) (Little Mt Horror pluton).*
  - **Dgafq** — *Fine– to coarse–grained, equigranular, biotite–muscovite alkali feldspar granite/syenogranite (Dgafe). Fine– to medium–grained, porphyritic (feldspar and rounded quartz), biotite–muscovite alkali feldspar granite/syenogranite (Dgafq).*

MIDDLE DEVONIAN

- **Dgaof** — *Fine– to medium–grained, porphyritic (feldspar), biotite–muscovite monzogranite (Dgaof).*
- **Dgaoc** — *Coarse–grained, porphyritic (K–feldspar) to equigranular, biotite–minor muscovite monzogranite (Dgaoc).*
- **Dgaocv** — *Coarse– to very coarse–grained, porphyritic (K–feldspar) to equigranular, biotite–minor muscovite monzogranite (Dgaovc).*
- **Dgaom** — *Coarse–grained, porphyritic (K–feldspar), biotite–muscovite granite with > 2% muscovite (Dgaom). (Dgaof, Dgaoc, Dgaom – Poimena Granite; I–type).*

LOWER DEVONIAN(?)

- **Dgrs** — *Medium–grained, equigranular to rarely porphyritic (K–feldspar) hornblende–biotite granodiorite and subordinate biotite granodiorite. Locally with a strong grain foliation. Variably but strongly magnetic (susceptibility typically 0.002 to 0.008 SI) (Dgrs).*

- *Geological boundary – position accurate or approximate.*
- *Geological boundary – inferred.*
- *Transitional geological boundary – position approximate.*
- *Fault – concealed, inferred from airborne magnetic and/or radiometric data.*
- *Fault – inferred from airborne magnetic data.*
- *(white line) Limit of mapping of sub–unit within undifferentiated rock unit.*

- *Strike and dip of bedding, right way up; facing unknown.*
- *Strike of vertical bedding, facing unknown.*
- *Strike and dip of cleavage of unspecified type and relative age, vertical.*
- *Strike and dip of outcrop–scale fault of unspecified relative age, type unspecified.*
- *Strike and dip of dominant joint set; vertical.*
- *Strike and dip of foliation due to alignment of K–feldspar phenocrysts in granitic rock; vertical.*
- *Trend of preferred orientation of K–feldspar phenocrysts in granitic rock.*
- *Notable small outcrop with rock unit indicated.*
- *Field station for adjacent readings on the 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.

Compiled by M.P. McClenaghan, B.Sc. (Hons), Ph.D., 1994 from the following sources (see responsibility diagram):

A BROWN, A.V., McCLENAGHAN, M.P., MOORE, W.R., TURNER, N.J., McCLENAGHAN, J., WILLIAMS, P.R., BAILLIE, P.W., CORBETT, K.D., CORBETT, E.B., COX, S.F., GROVES, D.I. and PIKE, G.P. 1977. Geological Atlas 1:50 000 Series. Sheet 32 (8415N), Ringarooma. Department of Mines, Tasmania.

Updated by:

B. M.J. Vicary, 2008 –2010. Limited geological traverses and interpretation of airborne geophysical data as part of the TasExplore Project.

REFERENCE THIS MAP AS:

McCLENAGHAN, M.P. and VICARY, M.J. 2010. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5645 Pioneer. Mineral Resources Tasmania.

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

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

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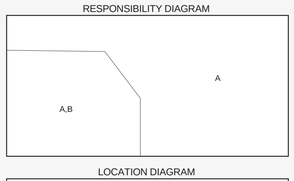
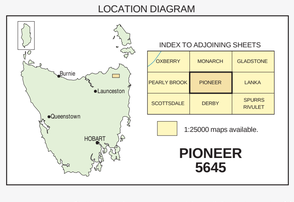
RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



Plotfile for this map generated from digital data as at: 02-AUG-2011

WARNING: INKS ARE LIGHT SENSITIVE