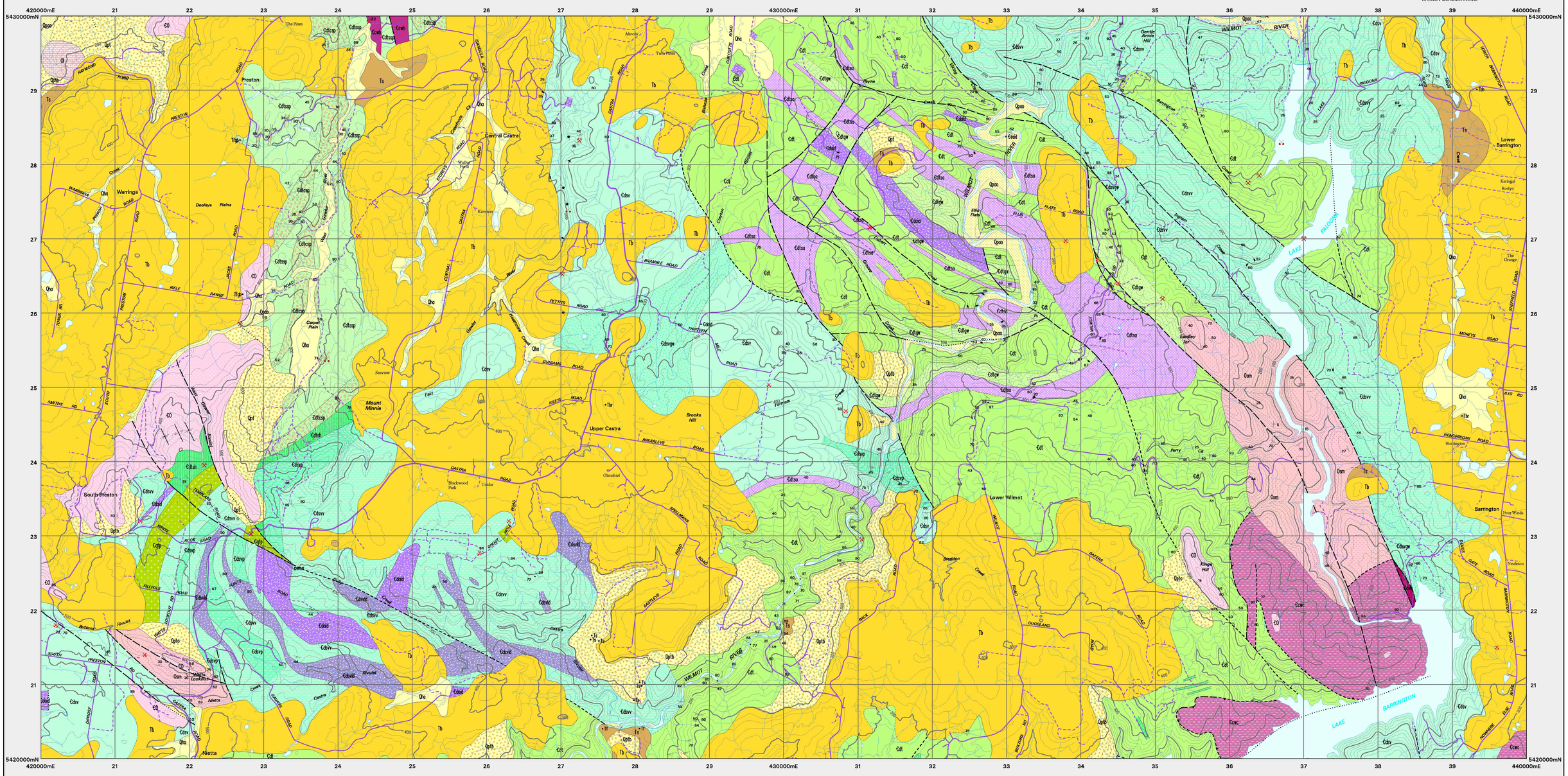
MINERAL RESOURCES TASMANIA
DIGITAL GEOLOGICAL ATLAS 1:25 000 SERIES
CASTRA, SHEET 4242

CASTRA

Scale: 1:25 000

0 500 1000 1500 2000 2500m

MINERAL RESOURCES TASMANIA
Tasmania
DEPARTMENT of INFRASTRUCTURE ENERGY and RESOURCES



CAINOZOIC

QUATERNARY

HOLOCENE

- **Qha** — *Stream alluvium, swamp and marsh deposits (Qha).*

PLEISTOCENE

- **Qptb** — *Basalt talus (Qptb).*
- **Qpto** — *Quartz sandstone and conglomerate talus derived from Owen Group correlates (Qpto).*
- **Qpoo** — *Older alluvium (Qpoo).*

TERTIARY

- **Tb** — *Basalt (Tb) including local occurrence of hawaiite (Tbh), and transitional olivine tholeiite (Tbr).*
- **Tfgb** — *Greybilly and silcrete (Tfgb).*
- **Tf** — *Ferricrete (Tf).*
- **Ts** — *Terrestrial sand, gravel and minor lacustrine deposits (Ts).*

PALAEOZOIC

EARLY ORDOVICIAN - LATE CAMBRIAN

ORDOVICIAN

- **Ol** — *Limestone (correlate of Gordon Limestone) (Ol).*
- **Osm** — *Grey poorly sorted fine–grained sandstone, commonly bioturbated (correlate of Moina Sandstone) (Osm).*

CAMBRIAN — OWEN GORGON GROUP; WARATAH SUPERGROUP

- **€O** — *Pebble–cobble siliciclastic conglomerate and coarse–grained sandstone with abundant quartzite and chert clasts (€O).*

MIDDLE - LATE CAMBRIAN

- **€dt** — *Predominantly crystal +– lithic rich volcaniclastic sediments with minor siltstone and minor acid to intermediate volcanics. (Correlate of Tyndall Group and Radfords Creek Group) (€dt).*
  - **€dtcs** — *Siliciclastic conglomerate, typically pebble–cobble grade, with quartzite and chert clasts, some interbedded coarse sandstone and lithicwacke (€dtcs).*
  - **€dtgw** — *Predominantly micaceous greywacke and siltstone (€dtgw).*
  - **€dtso** — *Predominantly andesitic–dacitic volcaniclastic sandstone. Commonly pumiceous (€dtso).*
  - **€dtssp** — *Predominantly fine grained ashy siltstone with interbedded lithicwacke, greywacke and shale (€dtssp).*
  - **€dtcsp** — *Coarse–grained polymict conglomerate with clasts of basalt, chert, siltstone and limestone (Sprent Formation) (€dtcsp).*
  - **€dtsh** — *Black laminated shale and volcaniclastic siltstone (€dtsh).*

MIDDLE CAMBRIAN

- **€dsv** — *Mixed volcano–sedimentary sequences of massive to bedded ashy–pumiceous volcaniclastic sediments with interbedded greywacke, siltstone, conglomerate and lava(€dsv).*
  - **€dsvv** — *Predominantly ashy siltstone (€dsvv).*
  - **€dsvp** — *Pumice bearing volcaniclastic sandstone and breccia (€dsvp).*
  - **€dsvld** — *Dacitic to rhyolitic lava intrusive (€dsvld).*
  - **€dsvgw** — *Predominantly micaceous greywacke and siltstone (€dsvgw).*

WESTERN VOLCANO–SEDIMENTARY SEQUENCE — TYNDALL GROUP; MOUNT READ VOLCANICS AND CORRELATES

PALAEOZOIC — TEARBY CAMBRIAN

CLEVELAND–WARATAH ASSOCIATION

- **€cwb** — *Pillowed to massive fine–to medium–grained augite bearing tholeiitic basalt with intercalated volcaniclastic sandstone and conglomerate, mudstone and chert bearing breccia (Motton Spilite) (€cwb).*
- **€cwc** — *Pale to dark grey, faintly bedded to massive or brecciated chert (Barrington Chert) (€cwc).*
- **€cws** — *Hematitic siltstone (€cws).*

INTRUSIVE ROCKS

PALAEOZOIC — MIDDLE CAMBRIAN

MOUNT READ VOLCANICS

- **€dsld** — *Massive plagioclase – hornblende phyric dioritic, andesitic and dacitic intrusives (Lobster Creek intrusives) (€dsld).*
- **€qfp** — *Quartz feldspar porphyry (€qfp).*

PALAEOZOIC — TEARBY CAMBRIAN

CLEVELAND–WARATAH ASSOCIATION

- **€cwb** — *Pillowed to massive fine–to medium–grained augite bearing tholeiitic basalt and intrusives (Motton Spilite) (€cwb).*

- *Geological boundary – position accurate or approximate.*
- *Geological boundary – inferred.*
- *Geological boundary – inferred from airborne magnetic data.*
- *Fault – position accurate or approximate.*
- *Fault – inferred.*
- *Fault – concealed.*
- *Thrust fault (teeth on upper plate) – position accurate or approx.*
- *Thrust fault (teeth on upper plate) – inferred.*
- *Axial surface trace of major antiform.*
- *Axial surface trace of major synform.*
- (White line) *Limit of mapping of sub–unit within undifferentiated rock unit.*

- *Strike and dip of bedding, right way up.*
- *Strike and dip of bedding, facing unknown.*
- *Strike of vertical bedding, facing unknown.*
- *Strike and dip of cleavage, type and relative age unspecified – dipping; vertical..*
- *Strike and dip of dominant joint set.*
- *Strike of dominant joint set, vertical.*
- *Notable small outcrop with rock unit indicated*
- *Mineral deposit location – hardrock*
- *Mineral deposit location – alluvial*

  Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

- *Construction materials location – Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.*

Compiled by M.J. Vicary, 2004 as part of the Western Tasmanian Regional Minerals Program from the following sources (see Responsibility Diagram):

A VICARY, M.J. 2004. 1:25000 Geological mapping and field checking.

B BURNS, K.D. 1957. Geology of the Nook-Gunns Plains area. BSc (hons) thesis. University of Tasmania. TCR57-185

C PORTER, T.M. 1974. E.L. 19/72 Dial Range, North West Tasmania, Progress Report CRA Exploration Pty Ltd. TCR74-0892

D JENNINGS, I.B, BURNS, K.L; MAYNE, S.J. and ROBINSON, R.G. 1959. Geological atlas 1 mile series. Zone 7 Sheet 37 Sheffield. Tasmania Department of Mines.

E VICARY, M.J. 1995. Exploration Licence No. 42/92 Loongana Annual Report May 1994 - May 1995. RGC Exploration Pty Ltd. TCR 95-3728.

F VIVIAN, R.M. 1994. Final Report on Exploration Activities within EL 33/92, Pelorna Northern Tasmania. Unpublished Report, Austamax Operations Proprietary Limited; Austamax Resources Limited. TCR 94-2297.

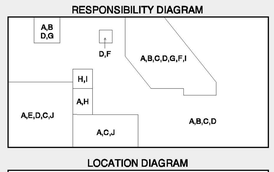
G CORBETT, K.D. 2003. Bedrock geological map of the Que River - Sheffield area, North West Tasmania. Mineral Resources Tasmania.

H POLTOCK, R. 2002. Ground truthing aeromagnetic and radiometric features, Northern Tasmania. Tasmanian Geological Survey Record 2002/20 Mineral Resources Tasmania.

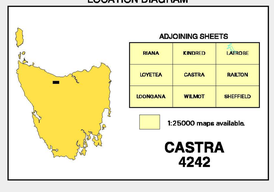
I Air photograph and WTRMP geophysical data interpretation by M. Vicary.

J PORTER, T.M. 1976. E.L. 19/72 Dial Range, North West Tasmania. Progress Report No 3. CRA Exploration Pty Ltd. TCR76-1157.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



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

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