Department of Infrastructure Energy and Resources
MINERAL RESOURCES TASMANIA

DIGITAL GEOLOGICAL ATLAS 1:25 000 SCALE SERIES
HIBBS WEST, SHEET 3628

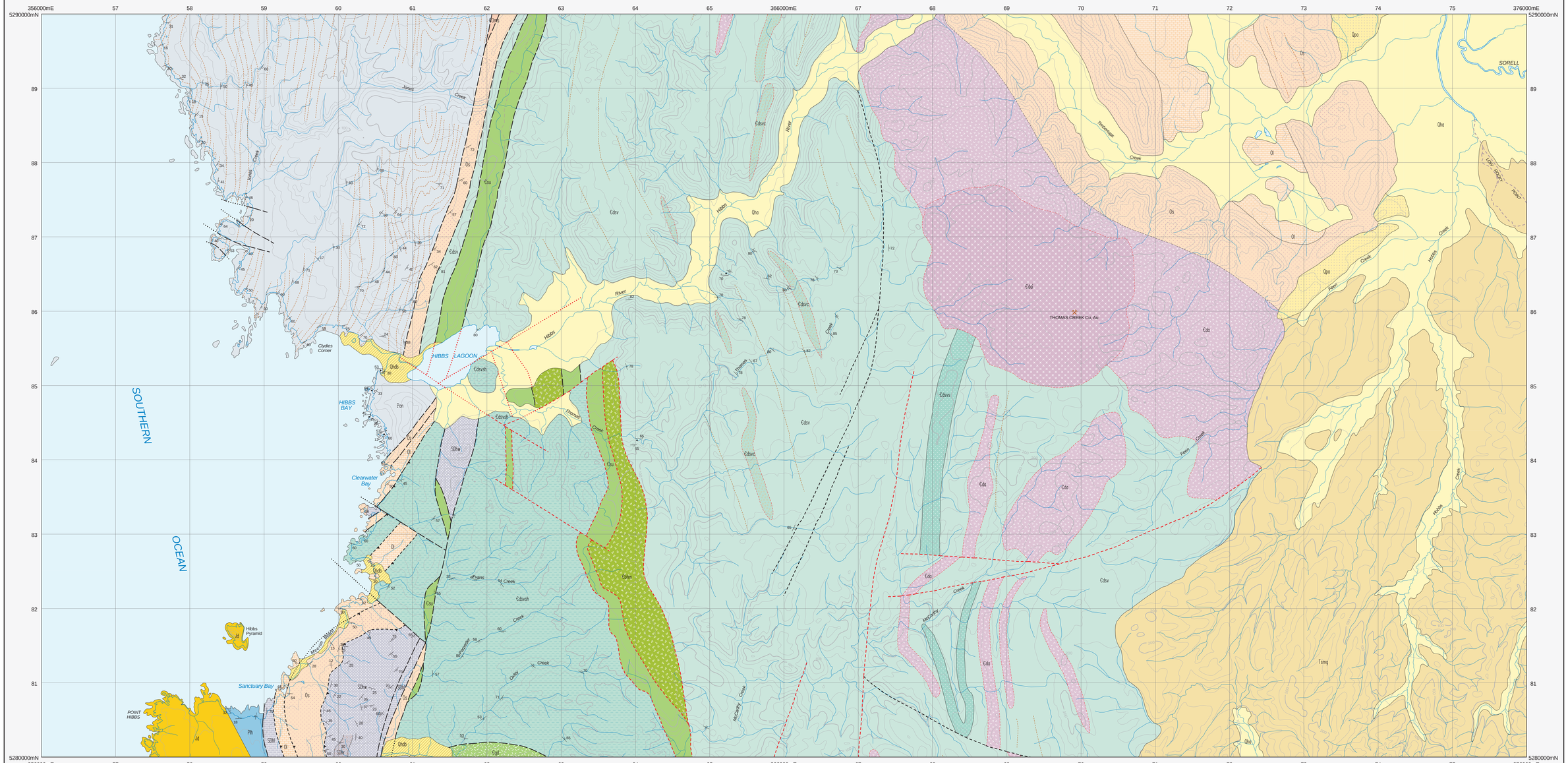
HIBBS WEST

Scale: 1:25 000

0 500 1000 1500 2000 2500m

INDUSTRY TOURISM RESOURCES

Tasmania
Explore the possibilities



COMPOSITE LEGEND FOR HIBBS EAST AND HIBBS WEST

CENOZOIC

QUATERNARY – HOLOCENE

- Qhdb — *Modern shore face and associated aeolian dune sand (Qhdb).*
- Qha — *Stream alluvium, marsh and swamp deposits (Qha).*

QUATERNARY – ?PLEISTOCENE

- Qpo — *Older alluvial gravels, mainly on raised terraces developed on Tertiary deposits, and showing a gradational relationship to younger alluvium (Qpo).*

Erosional surface.

TERTIARY ?

- Tsmg — *Semi-consolidated interbedded sands, pebble–cobble gravels (up to boulder grade in some places), silts and clays; some horizons contain coalified wood and rare amber (Tsmg).*

Erosional surface

LATE CARB–EARLY DEVONIAN

- Plh — *Marine sequence of grey, poorly sorted polymict cobble–pebble lithic conglomerate, pebbly lithic sandstone, siltstone, calcareous mudstone and limestone, with abundant marine macrofossils in some beds (Plh). (Correlate of lower Parmeener Supergroup).*

Angular unconformity due to Middle Devonian polyphase orogeny.

PALEOZOIC – EARLY DEVONIAN

- SDhw — *Pale–weathering, cross–bedded, well–sorted marine quartz sandstone with minor siltstone and conglomerate; fossiliferous bed near top contains brachiopods, tentaculids and orthoconic cephalopods (SDhw). (Whitehorses Beach Sandstone).*
- SDhr — *Unfossiliferous redbed sequence of predominantly fine–grained lithic sandstone with subordinate coarse lithic sandstone and lithic conglomerate, arranged in fining–upward sequences (SDhr). (Red Reef Cliff Sandstone).*
- SDH — *Interbedded fossiliferous marine limestone and calcareous mudstone, with abundant coral heads up to 0.5m in diameter (SDH). (Point Hibbs Formation).*

Possible disconformity.

PALEOZOIC – LATE CAMBRIAN – ORDOVICIAN

- Os — *Dark grey limestone, dolomite, calcareous mudstone, minor quartz sandstone and black clay weathering products; in part fossiliferous (Os).*
- Osu — *Grey to pink or reddish silceous sandstone with subordinate granule–pebble conglomerate and minor siltstone. Cross–bedded in places, bioturbated in places. Ordovician fossils at 364612mE 5296085mN north of this map sheet. Includes distinctive red cross–bedded sandstone sequence at Point Hibbs (Os).*
- €Oms — *Marine mudstone–siltstone–sandstone sequence, grey to reddish–grey, with Late Cambrian fossils at 364612mE 5298383mN north of this map sheet (€Oms).*

Unconformity

PALEOZOIC – MIDDLE CAMBRIAN

- €dsv — *Mixed sequence of volcano–sedimentary, sedimentary and volcanic rocks, ranging from felsic to andesitic in composition. May include non–volcanic sedimentary rocks (€dsv).*
- €da — *Andesitic lavas and breccias, with volcaniclastic units and possible intrusives. Typically plagioclase–pyroxene–phyric. Includes some units mapped from aeromagnetic signature (€da).*
- €dsvc — *Dominantly volcaniclastic conglomerate–sandstone unit, typically felsic, with weakly positive magnetic character (€dsvc).*
- €dsvs — *Ridge–forming, probable sandstone units, typically non–magnetic (€dsvs).*
- €dsvsh — *Dominantly siltstone–mudstone sequence, grey to greenish–grey, thin–bedded, with subordinate thin graded turbidite sandstone units (€dsvsh).*

Inferred erosional surface

PALEOZOIC – EARLY CAMBRIAN

- €bhm — *Dominantly intermediate volcanic rocks, including probable high–Mg andesites, and gabbro. Probably structurally emplaced (€bhm).*
- €su — *Undifferentiated, generally coarse–grained ultramafic rocks, gabbro and sheared serpentinite (€su).*

PROTEROZOIC – ?NEOPROTEROZOIC

- Pon — *Metamorphosed interbedded quartzwacke and mudstone/siltstone (Pon). Correlate of Donah Formation.*

CORRELATES OF GORDON OVEN GROUP

CORRELATE OF WESTERN VOLCANO – SEDIMENTARY SEQUENCE

CORRELATES OF MOUNT READ VOLCANICS

ALLOCHTHONOUS SEQUENCES

INTRUSIVE ROCKS

MESOZOIC – JURASSIC

- Jd — *Dolerite (Jd).*

PALEOZOIC – MIDDLE CAMBRIAN

- €da — *Andesitic intrusive rocks, including plagioclase–pyroxene–phyric diorite and granodiorite (€da).*
- €da — *Andesitic lavas and breccias and possible intrusives (€da).*

MOUNT READ VOLCANICS

PALEOZOIC – ? EARLY CAMBRIAN

- €gd — *Gabbro dykes, intrusive bodies and fault bounded units (€gd).*
- €bhm — *Dominantly intermediate volcanic rocks and gabbro, including probable high–Mg andesites (€bhm).*
- €su — *Undifferentiated, generally coarse–grained ultramafic rocks, gabbro and sheared serpentinite (€su).*

ALLOCHTHONOUS SEQUENCES

Geological boundary – position accurate or approximate.
Geological boundary – inferred.
Geological boundary inferred from airborne magnetic and/or radiometric data.
Fault – unspecified type, position accurate or approximate.
Fault – unspecified type, inferred.
Fault – unspecified type, concealed.
Fault – unspecified type, inferred from airborne magnetic and/or radiometric data.
Fault – unspecified type, concealed, inferred from airborne magnetic and/or radiometric data.
Thrust fault, position accurate or approximate, teeth on upper plate.
Thrust fault, inferred, teeth on upper plate.
Lithological trend line.
Scarp.
(white line) *Limit of mapping of sub–unit within undifferentiated rock unit.*

Strike and dip of bedding, facing known – right way up; overturned; vertical, facing indicated by single tic.
Strike and dip of bedding, facing unknown – dipping; vertical.
Strike and dip of primary igneous banding or platy alignment, and schlieren in granitic rocks.
Strike and dip of cleavage, type and relative age unspecified.
Trend and plunge of hingeline of minor fold, unspecified relative age, with dip and dip direction of axial surface indicated; vertical axial surface.
Field station for adjacent reading(s) on map.
Mineral deposit location – hardrock – Data derived from Mineral Resources Tasmania DEPOSITS data base. Data point position has not been verified in every case.

Compiled by D.B. Seymour, B.Sc.(Hons), Ph.D. and D. Green, B.Sc. (Hons), Ph.D. 2001 from the following sources (see Responsibility Diagram):

A Unpublished mapping by D.B. Seymour, B.Sc.(Hons.), Ph.D., 1989-1990.

B Unpublished mapping by B.D. Goscombe, B.Sc.(Hons.), Ph.D., 1989-1990.

C Unpublished mapping by M.P. McClenaghan, B.Sc.(Hons.), Ph.D., 1990.

D New interpretation of airborne magnetic and radiometric data and aerial photographs, with minor additional information from BHP Co. Ltd. Exploration Dept., 1969: 1 Mile Geological Map – Point Hibbs (Double Cove & Hibbs Belts); EI 13/1965 Southwest Tasmania.

E Bradbury, J, Pemberton, J, Vicary, M.J. & Corbett, K.D, 1992: Geology of the D'Aguilar Range area, Mt Read Volcanics Project, Map 12 (Hibbs East only).

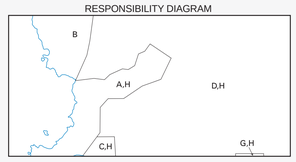
F 1:250000 Geological series, Southwest Tasmania (Hibbs East only).

G Green, D.C. 2003. Ground truthing WTRMP geophysical interpretation south of Macquarie Harbour. Tasmanian Geological Survey record 2003/12. Mineral Resources Tasmania.

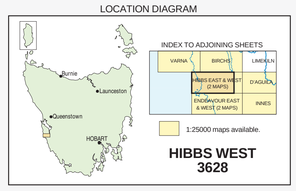
Updated by:

H K.D. Corbett, 2004 as part of the Western Tasmanian Regional Minerals Program.

RESPONSIBILITY DIAGRAM



LOCATION DIAGRAM



HIBBS WEST 3628

REFERENCE THIS MAP AS:

SEYMOUR, D.B. and GREEN, D. (compilers) 2004. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3628. Hibbs. 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.

GDA

Plotfile for this map generated from digital data as at: 14-JAN-2010

WARNING:INKS ARE LIGHT SENSITIVE