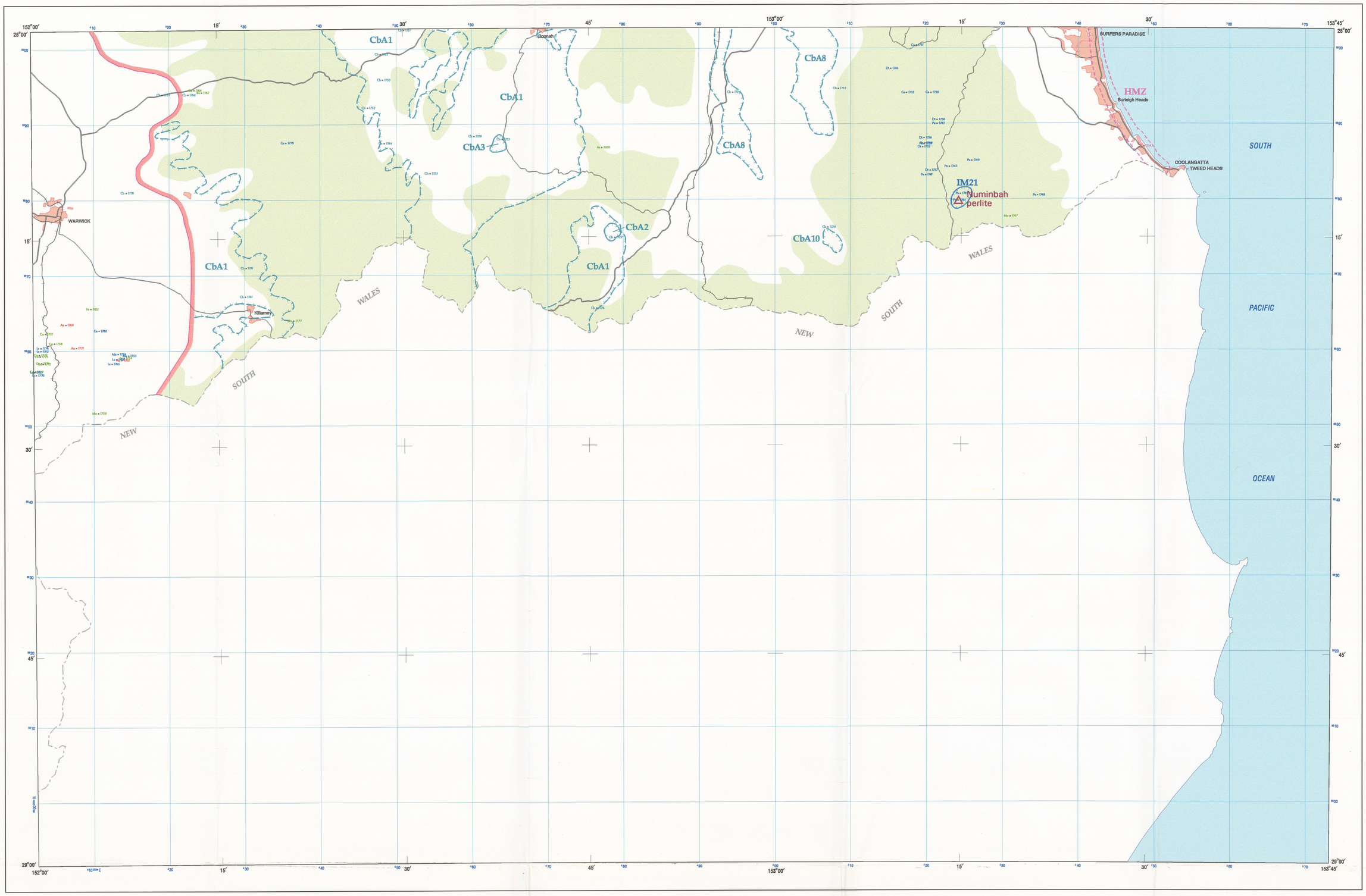
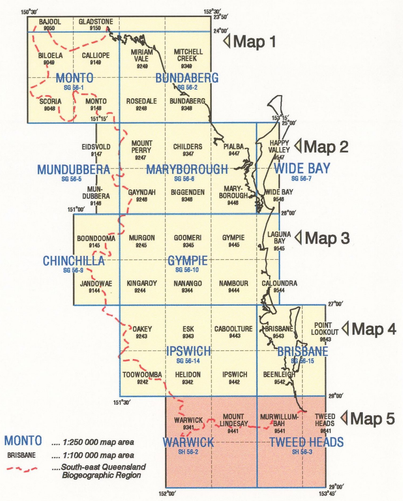


INDEX TO MAPS



DESCRIPTION OF ZONES OF MINERAL POTENTIAL

Map Code	Principal Commodity	Economic Importance	Probability of Further Deposits	Accuracy of Zone Boundary	Size of Deposits	Genetic Type
CbA1	coal	A	possible	A	small	sedimentary
CbA2	coal	A	likely	A	small	sedimentary
CbA3	coal	A	likely	A	small	sedimentary
CbA8	coal	A	possible	A	small	sedimentary
CbA10	coal	A	possible	B	small	sedimentary
HMZ	rutile, zircon, ilmenite	Z	alienated	B	small	coastal placer
IM21	perlite	-	likely	A	small	volcanogenic

MAP 5

Assessment of Mineral Resource Potential in the Warwick-Tweed Heads Sector of the South-east Queensland Biogeographic Region

SCALE 1:250 000

5 0 5 10 15 20 25
KILOMETRES

BLUE NUMBERED LINES ARE 10 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 56

TRANSVERSE MERCATOR PROJECTION

This series of five maps accompanies a report on the Mining Industry and Mineral Potential of Forested Areas of the South-east Queensland Biogeographic Region.

Information compiled by D.A. Berkman (Consultant) with assistance from C.G. Murray, L.C. Cranfield, W. F. Willmott and R.K.J. Blight (DME), 1996.

Cartography and GIS coverages prepared by the Graphical Services Unit, DME.

Forested areas have been interpreted from 1:250 000 maps of Landsat TM imagery supplied by the Forest Assessment Section of the Department of Natural Resources, Queensland.

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MAP REFERENCE

- Highway
- Secondary road
- Railway
- Built-up area
- Generalised area of predominant native forest cover
- South-east Queensland Biogeographic Region boundary
- Producing Mine in Forested Areas

MINERAL OCCURRENCES

Cb● 753 *Location of mineral occurence*

The number shown to the right of each location on the map is that in Appendix 3 of the accompanying report which lists details of occurrences.

Metals

Sb	*Antimony*	Cu	*Copper*	Ni	*Nickel*
As	*Arsenic*	Au	*Gold*	Py	*Pyrite*
Bx	*Barite*	Fe	*Iron*	Ag	*Silver*
Ba	*Bauxite*	Pb	*Lead*	Sn	*Tin*
Bi	*Bismuth*	Mn	*Manganese*	W	*Tungsten*
Cr	*Chromite*	Hg	*Mercury*	Zn	*Zinc*
Co	*Cobalt*	Mo	*Molybdenum*		

Industrial Minerals and Rocks

A	*Asbestos*	Gs	*Gemstones*	Ma	*Marble*
Ci	*Bentonite*	Im	*Ilmenite*	Pe	*Perlite*
Dt	*Diatomite*	Ck	*Kaolin clay*	R	*Rutile*
Do	*Dolomite*	Ls	*Limestone*	Si	*Silica*
Fs	*Feldspar*	Ms	*Magnesite*	Wo	*Wollastonite*
Sf	*Foundry sand*	Mt	*Magnetite*	Ve	*Vermiculite*

Energy Minerals

Cb *Coal* Os *Oil Shale*

Size of Deposits

The classification below is based on that established by Parkinson (1988) for the Atlas of Australian Resources.
It has been amended to allow for the well developed infrastructure of the Region.

SIZE CLASSIFICATION OF DEPOSITS*

Commodity	Size of Deposit (tonnes of contained commodity)		
	Small	Medium	Large
Bentonite	<100 000	100 000 - 1 000 000	>1 000 000
Coal	<10 000 000	10 000 000 - 100 000 000	>100 000 000
Copper	<50 000	50 000 - 1 000 000	>1 000 000
Dolomite	<2 000 000	2 000 000 - 10 000 000	>10 000 000
Gold (Troy ounces)	<50 000 (1.5 t)	50 000 - 500 000	>500 000
Graphite	<10 000	10 000 - 200 000	>200 000
Ilmenite	<5 000 000	5 000 000 - 10 000 000	>10 000 000
Kaolin	<200 000	200 000 - 20 000 000	>20 000 000
Lead	<100 000	100 000 - 1 000 000	>1 000 000
Limestone	<2 000 000	2 000 000 - 10 000 000	>10 000 000
Mercury	<500	500 - 20 000	>20 000
Molybdenum	<5 000	5 000 - 200 000	>200 000
Oil shale (cu. m of oil)	<10 000 000	10 000 000 - 100 000 000	>100 000 000
Rutile	<200 000	200 000 - 500 000	>500 000
Silica sand	<1 000 000	1 000 000 - 2 500 000	>2 500 000
Zircon	<500 000	500 000 - 1 000 000	>1000 000
Zinc	<200 000	200 000 - 5 000 000	>5 000 000

*Amended from Parkinson, G. (Ed) , 1988. Atlas of Australian Resources, vol. 5 (AUSLIG : Canberra)

ZONES OF MINERAL POTENTIAL

*Note: Areas of **likely** potential for further deposits are bounded by full lines; areas of **possible** potential for further deposits are bounded by long-dashed lines; **alienated** areas are bounded by short-dashed lines.*

- Gold
- Industrial Minerals
- Metalliferous
- Coal
- Heavy Minerals
- Oil Shale

Codes for Zones of Mineral Potential

Each zone of mineral potential is identified by a code, which describes the principal commodity, the economic importance of the deposits in the zone, and its location. The code is a series of letters and numbers, arranged in a standard order, to provide the following information :

1. Commodity : The first two letters indicate the principal commodity, using Cb for black coal deposits, Au for gold, HM for heavy minerals (ilmenite, rutile and zircon), IM for industrial minerals (dolomite, graphite, kaolin clay, limestone, magnetite, perlite, silica and foundry sand), ME for metals (copper, lead, mercury and zinc), and OS for oil shale.
2. Economic Importance : The economic importance of the various types of gold and metalliferous deposits is shown by the letters A, B, C, D and Z, which are based on the typical size of the deposits in the class. Thus an A class zone is expected to contain large deposits of mineable grade, suitable for company mines, average B class deposits are smaller than A size, whereas D class zones contain small deposits, which may be suitable for small mines where they contain high-grade ore. Deposits that have been alienated are shown by the letter Z.

For zones of coal deposits, these letters do not indicate relative economic significance, but identify the coal measure sequence, eg type CbA zones are expected to contain deposits of Walloon coal, CbB of Ipswich Coal Measures coal, etc. There is no letter for this purpose in the code identifying zones with potential for deposits of industrial minerals, which are only identified by the letters IM.

3. Location : This is a number which gives a guide to the location of the zone, starting in the north of the area for gold and and metalliferous deposits. As an example, zone AuA1 is a zone with potential to contain gold deposits, of type A genesis (in this case of volcanogenic origin) which is considered to have the potential to provide large ore bodies, and is the northernmost of the AuA type zones.

Probability of Further Deposits

The probability of further deposits existing in a zone of mineral potential is judged to fall within one of four classes :

Likely, indicating there is a strong probability that the zone contains more deposits; (zone boundary shown with a solid line, and abbreviated to the letter L in the coded name of the zone in the accopanying report); or

Possible, indicating that there is some chance that the zone contains further deposits; (zone boundary shown with a long-dashed line and abbreviated to the letter P in the report); or

Alienated, indicating areas of known resources, but where closer settlement, mature conservation and other interests effectively preclude development for the foreseeable future; (zone boundary shown with a short-dashed line).

Low or Unknown, with only a slight or unknown chance of further deposits.

Only the areas of likely, possible, or alienated potential are shown as mineral potential zones on the maps, and the area of little or unknown potential is left as a white or background area. The assessment of probability or potential is not in any way related to the size of a deposit which may exist within a zone, but is an indication of the chance that an unknown deposit, of a specified origin, may be found. Likewise the position of the boundary of the zone is not related to the assessment of the level of potential.

Accuracy of Zone Boundaries

The accuracy of the location of each zone boundary is described in the text of the accompanying report. Two levels of information were used. For level A, the position of the boundary is based on adequate knowledge, so that the boundary position is considered 'definite'. At this level the zone boundary was based on information from detailed geological mapping, or modern regional geological mapping, and confirmed by the airmagnetic pattern.

For level B, the information and concepts used to draw the zone boundary are of lesser certainty, and the position of the boundary is classed as 'probable'. In these cases the boundary is often based on information from 'first-pass' regional geological mapping, carried out in the early 1970s, which is less accurate than the recent mapping.