product news

New map for nickel and platinum explorers

On 16 May 2007 the price of nickel metal rose to an all-time record of US$54 200 per tonne, surpassing the previous highest price of $US23 900 per tonne achieved in 1988. The nickel price has been surging in response to strong demands, constrained supplies and low metal stockpiles, all reflecting robust worldwide economic growth, particularly China's increasing need for raw materials. Similar pressures are also affecting the prices of platinum-group elements (PGEs) such as platinum and rhodium.

Economic quantities of these metals are concentrated in mafic-ultramafic igneous rocks. These rocks are a major focus for minerals exploration in Australia, and past exploration booms have witnessed significant nickel discoveries. To assist mineral explorers, Geoscience Australia has released a new poster-size 1:4 000 000 scale colour map *A Synthesis of Australian Proterozoic Mafic-Ultramafic Magmatic Events. Part 2: Northern Territory and South Australia*.

This map includes details of nineteen major Proterozoic magmatic events and associated mineral deposits throughout the Northern Territory and South Australia. Inset maps show the locations of mineral deposits (figure 1) and the distributions of Large Igneous Provinces (LIPS: large volumes of coeval mafic magmatism). A Time–Space–Event chart summarises the geological ages that underpin the rock correlations on the map and relates mineralised events in Australia to major Ni-Cu-PGE deposits overseas.

This map is the second of a series showing, for the first time, the continental extent and age relationships of Proterozoic mafic and ultramafic rocks. It will be of interest to companies actively exploring for nickel, platinum-group elements, chromium, titanium, and vanadium, as well as to those interested in the geological evolution of the Australian continent. Along with Part 1 (Western Australia) which was released in October 2006, it can be downloaded free online in pdf and jpeg formats from Geoscience Australia's website.

For more information

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Related websites/articles

A Synthesis of Australian Proterozoic Mafic-Ultramafic Magmatic Events. Part 2: Northern Territory and South Australia
www.ga.gov.au/image_cache/GA10251.pdf
www.ga.gov.au/image_cache/GA10252.jpg

A Synthesis of Australian Proterozoic Mafic-Ultramafic Magmatic Events. Part 1: Western Australia
www.ga.gov.au/image_cache/GA8798.pdf
www.ga.gov.au/image_cache/GA8797.jpg

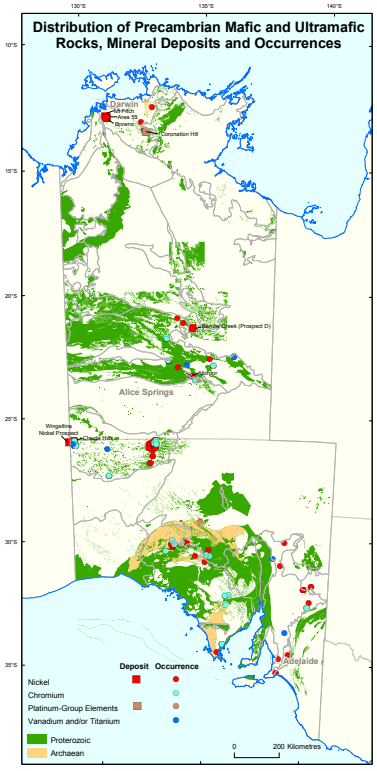

Figure 1. Section featured on the new map.

AusGeo News 84: New map for nickel explorers
www.ga.gov.au/ausgeonews/ausgeonews200612/productnews.jsp#product2

New geophysical datasets for Mount Isa area, Murchison region and Flinders Island

Datasets from five new geophysical surveys, released since April 2007, will be a valuable tool in assessing the mineral potential of the respective survey areas.

The new gravity surveys include three in the Mount Isa area in Queensland and one in the Murchison region of Western Australia as well as a new airborne magnetic and radiometric survey of Flinders Island in Tasmania.

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Table 1. Details of the gravity surveys.

Survey	Survey Type	Date of Acquisition	1:250 000 Map Sheets	Station Spacing / orientation	Stations	Contractor
Mount Isa Area C (Qld)	Gravity	Oct 2006 – Feb 2007	Duchess, Urandangi, Glenormiston, Mt Whelan	2.0 x 2.0 km east – west on Duchess and Urandangi (eastern half); 4.0 x 4.0 km east – west elsewhere	9 236	Fugro Ground Geophysics
Mount Isa Area D (Qld)	Gravity	Feb – May 2007	Bedourie, Machattie, Connemara (western part), Birdsville, Betoota	4.0 x 4.0 km east – west traverses	4 903	Daishsat Geodetic Surveyors
Mount Isa Area E (Qld)	Gravity	Feb – May 2007	Richmond, McKinlay, Manuka, Mackunda, Winton (western part), Brighton Downs, Maneroo (north-west corner)	4.0 x 4.0 km east – west traverses	6 233	Daishsat Geodetic Surveyors
Murchison (WA)	Gravity	Feb – June 2007	Belele, Glengarry, Cue, Sandstone	2.5 x 2.5 km east – west traverses	3 555	Fugro Ground Geophysics

Table 2. Details of the airborne surveys.

Survey	Survey Type	Date of Acquisition	1:250 000 Map Sheets	Line Spacing/ terrain clearance/ orientation	Line km	Contractor
Flinders Island (Tas)	Magnetic, Radiometric, Elevation	Jan – Mar 2007	NE Tasmania	200 m 90 m east – west	17 900	UTS Geophysics

The data for all surveys were acquired in surveys conducted in 2006/07 which were managed by Geoscience Australia on behalf of the Geological Surveys of Queensland, Western Australia and Tasmania.

The data have been incorporated into the national geophysical databases. The point-located and gridded data for the four surveys can be obtained free online using the GADDS download facility.

For more information

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Related websites

Geological Survey of WA
www.doir.wa.gov.au

Geological Survey of Qld
www.nrw.qld.gov.au/science/geoscience/

Geological Survey of Tasmania
www.mrt.tas.gov.au

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Estuary website expanded

Scientists, natural resource managers, policy makers and the community now have access to the largest central source of coastal information and data in Australia through the OzCoast and OzEstuaries website. Previously called OzEstuaries, it is used in more than 180 countries, territories, colonies and dependencies.

The latest version of the website includes a new Geology and Geomorphology (the study of landforms) module with 3D models and shallow water benthic habitat mapping case studies, an Environmental Management module and new information sheets on coastal issues related to climate change as well as the science underpinning commonly used estuary and coastal indicators.

The Environmental Management module, derived from the OzCoast database compiled by the Cooperative Research Centre for Coastal Zone, Estuary & Waterway Management (Coastal CRC), shows how data, planning and participation processes can be used in developing, implementing and reviewing catchment and coastal plans.

The data and information can be used to improve natural resource management and the conservation of Australia's coastal zone, estuaries and near-shore environments. Users can download maps, images, reports and data as well as build their own conceptual model depicting pressures and stressors on different coastal environments and utilise search tools to find information on stakeholders, regional plans and strategies and other coastal topics.

The website was designed with input from well over 100 scientists from 40 agencies including government, universities, private industry and the National Estuaries Network. The former Coastal CRC and the National Land and Water Resources Audit (NLWRA) were instrumental in coordinating communication between these agencies.

The name OzCoast and OzEstuaries is transitional and the site will assume the name OzCoasts in July 2008.

For more information

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Related websites

OzCoast and OzEstuaries website
www.ozcoasts.org.au/

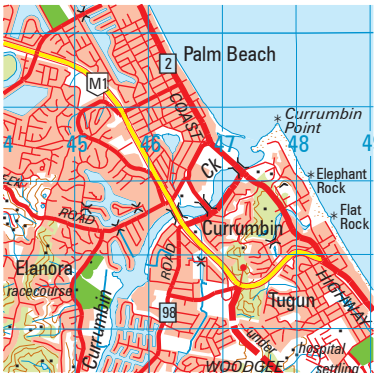

Figure 1. Section of Beenleigh map showing street pattern.

New 1:100 000 scale maps to help emergency management

Geoscience Australia has recently released three new 1:100 000 scale topographic maps covering the Brisbane – Gold Coast area (Beenleigh and Murwillumbah Special) and the area west from Beaudesert to Mt Lindesay (Mount Lindesay).

These maps have been produced using data captured at 1:25 000 scale as part of the collaborative arrangement between Geoscience Australia and the Queensland Government Departments of Emergency Services (DESQ) and Natural Resources and Mines (NRM) supplemented with data supplied by the New South Wales Department of Lands which is held at scale by Geoscience Australia.

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Production of these maps is part of a pilot program of mapping for emergency management in which Geoscience Australia played a significant role through the coordination and purchase of satellite imagery required for the map revision.

The maps are an example of the 'map once, use many' approach where data captured as part of the pilot project is merged with data at different scales to provide sufficient information to enable maps at various scales to be produced. During production various cartographic enhancements are incorporated into the final maps. The extended detail of streets within built up areas is a feature of the new maps and this information closely represents the data at 1:25 000 scale.

Geoscience Australia is currently using data sourced as part of the pilot mapping initiative to produce five 1:100 000 scale maps covering the Mackay – Proserpine area and seven maps covering the Bundaberg area. Areas still to be mapped include Cairns, the Condamine area west of Toowoomba and Warwick in Queensland as well as the West MacDonnell Ranges in the Northern Territory. Collaborative mapping of the pilot areas in the other states is also well advanced.

For more information

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GEODATA TOPO 250K Series 3 broadens its appeal

Geoscience Australia's popular *GEODATA TOPO 250K Series 3* topographic vector data is now available for general use without the need for expensive or sophisticated Geographic Information Systems (GIS).

GEODATA TOPO 250K Series 3 for Google Earth is based on 1:250 000 scale vector data and utilises the popular Google Earth™ Mapping Service platform (Google Earth™) to overlay the topographic data on the existing satellite imagery using Google Earth's own viewer. Google Earth™ Mapping Service is an online interactive browser for geospatial data which requires data in KML format. The data is cut into tiles to facilitate quick and efficient display and is arranged in nine main themes: elevation, framework, habitation, hydrography, infrastructure, terrain, transport, utility and vegetation.

Viewers can switch data layers on or off and delete or add them. While the satellite imagery shows detail at moderate to high resolution and with a high spatial accuracy, the data complements this by confirming which features are present and describing them with a range of attribution.

Because no background in mapping or GIS is required to use Google Earth™, presenting GEODATA TOPO 250K data through the Google Earth™ Mapping Service with a satellite image backdrop marks an exciting development that has great potential to broaden the use and appeal of this data, making it even more accessible to users.

GEODATA TOPO 250K Series 3 for Google Earth is available on DVD ROM from the Geoscience Australia Sales Centre and select map retailers.

For more information

phone Geoscience Australia Sales Centre on Freecall 1800 800 173 (in Australia) or +61 2 6249 9966

email sales@ga.gov.au

Related websites

GEODATA TOPO 250K Series 3

www.ga.gov.au/ausgeonews/ausgeonews200609/productnews.jsp#product1