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product news

New Charters Towers region gravity datasets

The Charters Towers region is one of the major mining areas in north Queensland with gold the main metal produced. Datasets from the recently released Charters Towers gravity survey should provide a valuable tool for assessing the mineral potential of the survey area.

The survey was conducted in 2007 and managed by Geoscience Australia on behalf of the Geological Survey of Queensland.

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

For more information

phone Murray Richardson on +61 2 6249 9229
e-mail murray.richardson@ga.gov.au

Related websites

Geological Survey of Qld
www.dme.qld.gov.au/mines about_us.cfm

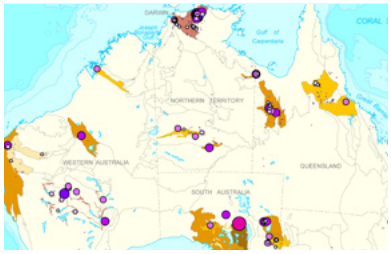
Table 1. Details of the gravity survey.

Survey	Survey Type	Date of Acquisition	1:250 000 Map Sheets	Station Spacing/ orientation	Stations	Contractor
Charters Towers (Qld)	Gravity	August – December 2007	Einasleigh, Ingham (pt), Clarke River, Townsville (pt), Hughenden (pt), Charters Towers, Bowen (pt), Tangorin (pt), Buchanan (pt), Mount Coolon (pt), Toompine (pt), Eulo (pt)	8 463 stations 2.0 x 2.0 km east – west and 5 699 stations 4.0 x 4.0 km east – west	14 162	Fugro Ground Geophysics

Proterozoic mineralising events maps

Geoscience Australia has recently released new 1:5 000 000 scale colour maps showing the major Proterozoic mineralising events for gold, uranium, copper and lead-zinc. Two maps have been produced for each of these commodities. The mineralising events shown on Map 1 are superimposed on the Australian Resource Map (showing regions classified according to their metal endowment), whereas Map 2 uses the Australian Proterozoic Regions map as a base.

Ten major Proterozoic mineralising events are identified for copper, nine for gold and six events each for uranium and lead-zinc. The maps include: the mineralising event (based on determined or inferred age) for each deposit, the style of the deposit, and the mineral occurrences within Proterozoic regions. The maps also include enlarged insets of mineralised areas, time-space-event chart, and pie-charts summarising resources by Proterozoic mineralising events. The map series can be downloaded online free from the Geoscience Australia website.



For further information

phone Subhash Jaireth on +61 2 6249 9419
email subhash.jaireth@ga.gov.au

Related articles/websites

Proterozoic Mineralising Events maps
www.ga.gov.au/map/index.jsp#minerals

product news

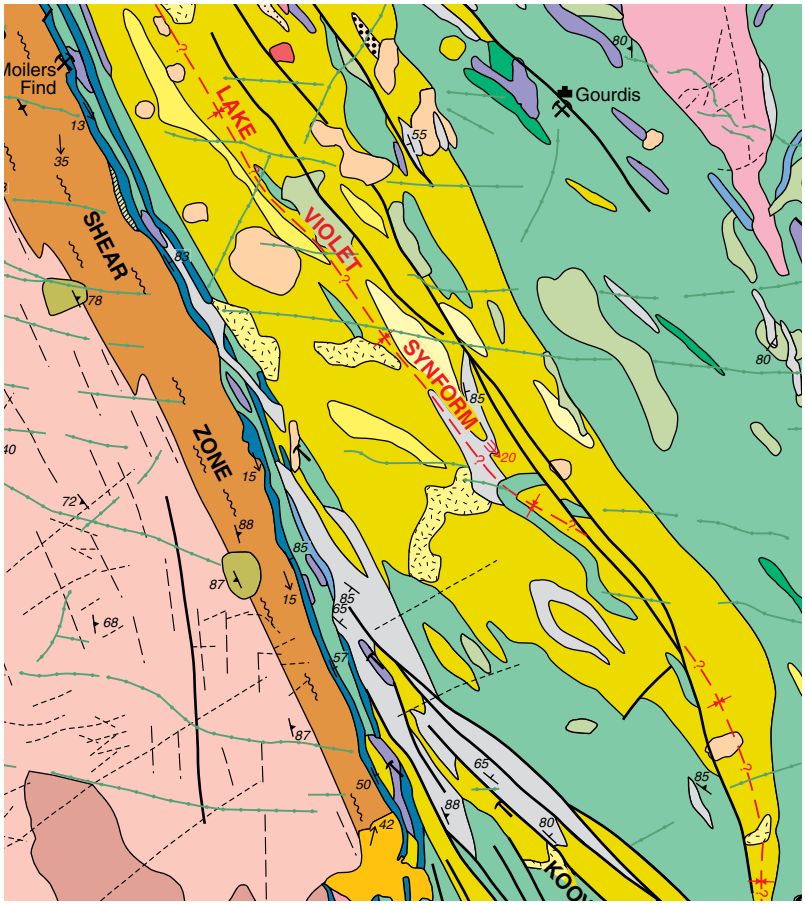
New publication on the Lake Violet 100 000 sheet area

The Geological Survey of Western Australia in association with Geoscience Australia has released Record 2007/21 entitled 'Geology, Structure, and Mineral Resources of the Lake Violet 1:100 000 Sheet, Western Australia' by A J Stewart.

The sheet area is part of the auriferous Yandal greenstone belt in the north of the Archaean Yilgarn Craton, and comprises 2700 million years (Ma) old mafic to felsic volcanic and clastic sedimentary rocks, that were deformed, metamorphosed, and intruded by granite at about 2660 Ma. The Record includes descriptions of all rock types, detailed analyses of the structure, metamorphism, and alteration of the greenstones, and summary descriptions of gold deposits in the sheet area. It also includes a new solid-geology map of the area, compiled from previously published maps (Vearncombe et al 2000 and English et al 2000) modified by outcrop and thin-section observations, identification of over 1000 rotary air blast bottom samples, interpretation of aeromagnetic data, and exploration company drilling data.

The area historically has produced relatively small amounts of gold compared with large nearby deposits (Jundee, Bronzewing) discovered in the 1990s, and this may be due to the style of alteration in the Lake Violet area, which is dominated by chlorite and sericite with lesser amounts of quartz, pyrite, and rutile; most gold deposits in the Eastern Goldfields of Western Australia are characterised by carbonate alteration.

The record was completed as part of a National Geoscience Agreement project between Geoscience Australia and the Geological Survey of Western Australia, and is available online through their website.



For further information,

phone Alan Whitaker
on +61 2 6249 9702
email alan.whitaker@ga.gov.au

References

Vearncombe JR et al. 2000. Regional, structural and exploration geology in a terrain with minimal outcrop—the Yandal belt. Australian Institute of Geoscientists Bulletin 32:17–39.

English TP et al. 2000. Mapping the Precambrian geology of the Yandal belt: compilation of drilling, outcrop and geophysical data. Australian Institute of Geoscientists Bulletin 32:51–54.

Related websites/articles

Geological Survey of Western Australia–publications
www.doir.wa.gov.au/GSWA/Geosciencepublications