



ISSUE 22, AUGUST 2014

## New regolith and landform maps

[Sixty-one new NSW regolith and landform maps](#) ranging from 1:5 000 to 1:500 000 scales are available as print on demand. Most maps can be downloaded free from the [GSNSW](#) website as JPEGs, ECW files and GIS vector data. Each map is viewable in Google Earth™ and Google Maps™. They are also available as downloads from the [GDW](#) to mobile devices.

Most maps were produced under the [CRC LEME](#). The maps include GSNSW 1:100 000 regolith maps in western NSW and student thesis maps. Regolith mapping covers the surficial mantle of weathered rock, sediments, soils, biotic complexes and water that is influenced by the natural processes of weathering, erosion, transportation and deposition.

**Contact:** [geoscience.products@trade.nsw.gov.au](mailto:geoscience.products@trade.nsw.gov.au)

## Release of AEM data for southern Thomson Orogen

The [VTEMplus® airborne electromagnetic survey \(AEM\) data](#) for the southern Thomson Orogen have been released and is available for download. Located data and conductivity depth sections are included. Further ground-based gravity and magneto-telluric (MT) surveys for the Southern Thomson Orogen project have started.

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## Riverina gravity survey

The [Riverina gravity survey data](#) is available on DVD and includes:

- gridded (50m) and located data and georeferenced imagery: ER Mapper, ECW format, TIFFs, JPEG, gravity, magnetics (TMI, TMIRTP, TMI1VD, TMI2VD, TMI1VDRTP), radiometrics (Dose, K, U Th, Ternary), elevation and Landsat.
- approximately 18 000 gravity readings taken over the Cootamundra, Wagga Wagga and Tallangatta (NSW part) 1:250 00 map sheet areas.
- tin prospectivity mapping and resources assessment for the Wagga Wagga tin belt
- ASTER and geophysical mapping over Wagga Wagga 1:100 000 sheet area.

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## New Frontiers Cooperative Drilling

The [New Frontiers Cooperative Drilling](#) program is well advanced in the assessment stage. Announcement of successful applicants and funding is expected in the coming weeks.

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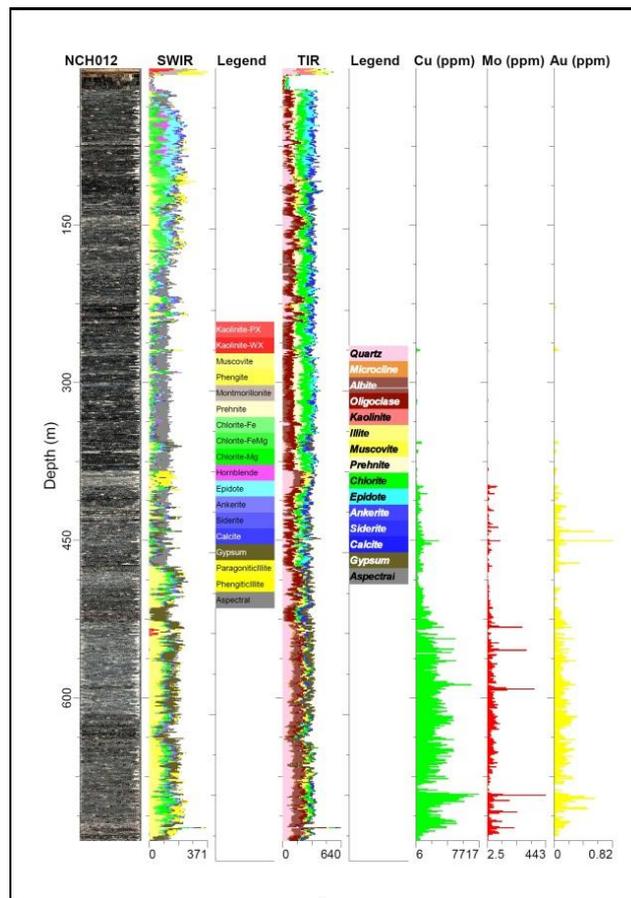
## HyLogging ramps up at Londonderry

The HyLogger™ unit at Londonderry is scanning over 1.3 km of drillcore per month to build the [National Virtual Core Library](#). So far over 56 km of drillcore have been scanned. This includes on request scanning of company core and core already held by the library.

Core is also scanned to support GSNSW projects. As part of the Nymagee project, cores from over 40 drillholes from 15 prospects were scanned to document background metamorphism and the alteration response to mineralisation in the region.

Spectral data from over 35 drillholes across the state can be accessed through the AuScope data portal <http://portal.auscope.org>. Other data, including that from the Nymagee project, is available on request.

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Thermal and short wave near infrared data for drillhole NCH012 (Copper Hill)  
now available from the AuScope portal

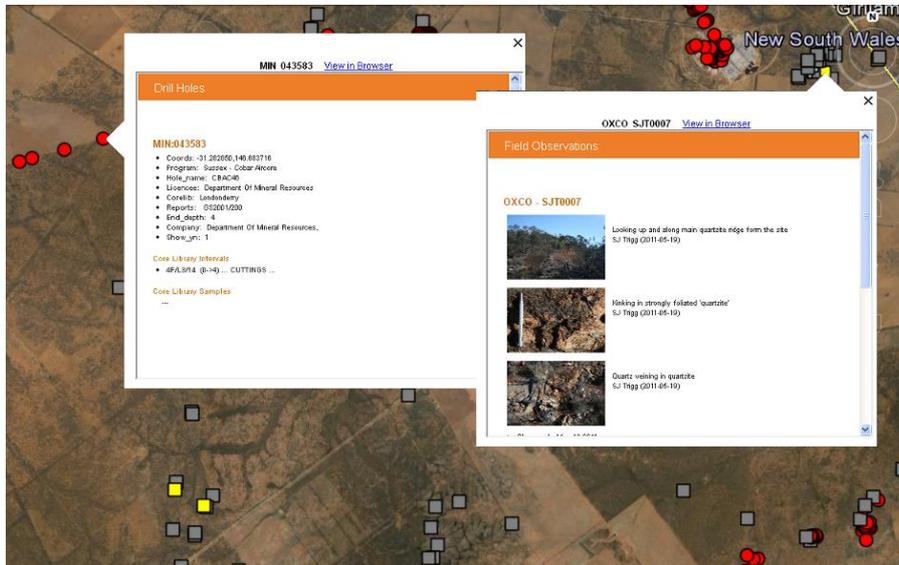
## New FTP service for large files — LaFiX

The [Large File exchange service](#) (LaFiX) allows the online submission of large (up to 11GB) files which are part of compulsory exploration reporting to the department. Coal, mineral and petroleum titles each has a secure FTP site. No registration is required.

**Contact:** see [EROL enquiries](#)

## GDW — Google Earth™ data display enhanced

Display of point data in Google Earth™ through the [GDW](#) has been upgraded. Points from different datasets are marked with different shapes. For example, drillholes are marked with circles and field observations are marked with squares. Confidential points are distinguished with a white border rather than the default black border. Colour-coding continues to be used to illustrate categories within datasets.



Display of drillhole and field observations point data in Google Earth™

## Quarterly Notes 140 — ASTER and geophysics for mineral exploration in the Wagga Wagga and Cobar areas

The study in [Quarterly Notes 140](#) evaluated and validated recently released ASTER satellite geoscience maps of Australia and evaluated their use in geological mapping in NSW using the Wagga Wagga 100K and Cobar 250K map sheet areas. ASTER products were useful in discriminating variations in surface composition of regolith and these results were enhanced when combined with geophysics.

## Quarterly Notes 141 — New geochronological and isotopic constraints on granitoid-related gold mineralisation near Majors Creek

[Quarterly Notes 141](#) presents new  $^{40}\text{Ar}/^{39}\text{Ar}$  dating, sulfur isotopic data and geological information for the gold mineralisation at Dargues Reef and the auriferous base metal vein-style mineralisation at Majors Creek. The work places pivotal constraints on the mineralising processes associated with the Braidwood Granodiorite and proposes a new genetic model for deposits in the Majors Creek area.

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## Update: East Riverina mapping project

Work to date on the East Riverina mapping project includes:

- release of the [Riverina gravity survey data](#)
- interpretation of ASTER data in [Quarterly Notes 140](#)
- start of field mapping on the Ardlethan and Barmedman 1:100 000 map sheets
- hydrogeochemistry (with CSIRO)

- SHRIMP U-Pb dating and a review of existing radiogenic isotopic work (with GA) is ongoing
- a geophysical–geological interpretation

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## Update: 3D database of NSW geology basement

The 3D NSW project is currently focussed on the Clarence–Moreton Basin and the New England Orogen. In addition to developing methodology for data integration to model basement and first order structures, these early stage models are being used as test cases for developing 3D databases for storage and online delivery. A preliminary basement model has been completed for the Clarence–Moreton Basin in collaboration with [Coal and Petroleum Geoscience](#).

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## NSW Seamless Geology Project

The project aim is to compile the different original scales, formats and rock unit naming conventions currently on GSNSW geological and metallogenic map sheets into a consistent, state-wide format. This requires edge-matching the geology and harmonising stratigraphic naming conventions across existing map boundaries.

The results are being incorporated into the Statewide Geology Geodatabase which was restructured to provide a single point of truth for best available geological mapping in NSW. The merged geology will comprise a series of layers including:

- the solid basement geology
- the basin cover rocks
- the Mesozoic igneous rocks
- the Cenozoic sedimentary and igneous rocks

The basement geology layer will be further sub-divided into: (i) rock units; (ii) metamorphic grade; and (iii) finite strain record. The geodatabase sets will be rolled out as the individual zones are completed. The Zone 56 geodatabase will be first and will include the New England Orogen and the Sydney–Gunnedah basins.

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## List of drillcore accepted at Mineral Resources core libraries

View a [list of non-confidential drillcore](#) accepted at the [W B Clarke Geoscience Centre](#), Londonderry, June 2013–July 2014. No core was accepted at the EC Andrews drillcore facility, Broken Hill, during that period.

## Geoscience Information webpages revamped

The [Geological Survey of NSW and Coal and Petroleum Geoscience web pages](#) have been restructured. Please update your bookmarks and favourites. Some links you may need are:

- [Maps](#)
- [Online Services](#)
- [Drillcore libraries](#)

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## Upcoming conferences

[China Mining, 20–23 October, Tianjin, China](#)

[Mining 2014 Resource Convention, 29–30 October, Brisbane](#)

[NSW Coastal Conference, 11–14 November, Ulladulla](#)

## Staff movements

**David Robson** is retiring from his position as Chief Geophysicist, Regional Mapping and Exploration Geoscience.

**Troy Kelly** commenced as NVCL technical assistant, W B Clarke Geoscience Centre, Londonderry.

## Products

[Geoscience Product Catalogue](#)

[Geophysical images and data](#)

[Online sales: \[www.shop.nsw.gov.au\]\(http://www.shop.nsw.gov.au\)](#)

[Quarterly Notes](#)

## Enquiries

**Maps and data packages:** [geoscience.products@trade.nsw.gov.au](mailto:geoscience.products@trade.nsw.gov.au)

**Geophysical images and data:** [geophysics.products@trade.nsw.gov.au](mailto:geophysics.products@trade.nsw.gov.au), 02 4931 6717

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**View previous issues:** <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/geoscience-information/products-and-data/books-and-brochures/newsletter>

**Visit the [Geoscience information webpages](#)** where you will find access to online systems DIGS®, MinView, EROL, GDW and GPC, upcoming GSNSW and Coal and Petroleum Geoscience events, news, publications and product information.

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