From the Executive Director

I hope you enjoy the May issue of On the Outcrop. You’ll see from the articles below that it’s been a busy start to 2018 for GSNSW.

In addition to the products and projects outlined below, you may also have seen in late March that the MinEx Cooperative Research Centre (CRC) bid was successful in gaining $50 million in Commonwealth Government funding. GSNSW will contribute $16 million towards this 10 year, $215 million collaborative research effort, which has received backing from the Federal Government, 34 companies, most Australian geological surveys, the CSIRO and leading universities. MinEx CRC aims to deliver more productive, safer and environmentally friendly drilling methods, introduce new technologies for collecting data while drilling and, importantly for GSNSW, will collect new exploration drilling data on never-before-sampled undercover terranes across the continent, including a number of areas in NSW. It will be a major focus of GSNSW’s data acquisition programs over the next decade.

If you’d like to hear more about GSNSW’s future plans and latest products for mineral explorers, I’d encourage you to join us at the Sydney Masonic Centre next week for Exploration in another house, where you’ll have an opportunity to hear about our latest products and speak to many of our staff. You can view the program and register here. Registrations close COB Friday, 4 May. I hope to see you there.

Chris Yeats
Executive Director, Geological Survey of NSW

New products

XplorPak 2018 on USB and DVD – a directory for NSW explorers

XplorPak 2018 provides concise information on the geology, and mineral and energy resources of NSW to assist explorers and other stakeholders. As well as information on metallic minerals, industrial minerals, geothermal resources and coal and petroleum in NSW, it lists active exploration companies in the state, and all information can be filtered by commodity type. There is an overview of the state’s geology, free statewide GIS data, GSNSW project updates, links or information about our products and services, and current NSW government policy.
Advanced mineral projects and exploration highlights map updated

Recent exploration results, in the form of drilling intercepts and resource figures, are presented along with resource figures for operating mines on the Advanced Mineral Projects & Exploration Highlights in NSW map. The information is sourced from selected exploration results and resource calculations published in company reports available to the public.

Contact: geoscience.products@industry.nsw.gov.au or download a copy of the map.

Braidwood 1:100k map and explanatory notes

The Braidwood 1:100 000 geological map ($19.80) and explanatory notes ($37) are finally finished! This 160 page full colour book with DVD outlines the geological history, structure, metamorphism and mineral systems of the area, and contains detailed descriptions of all stratigraphic units. There is also a detailed palaeontological appendix.

The Braidwood 1:100 000 geological map and explanatory notes will be released at Exploration in Another House on 8th May 2018.

Contact: geoscience.products@industry.nsw.gov.au Ph: 02 4931 6426 for all product information
Compendium of New England granites

This report by Colleen Bryant (ANU) is the culmination of an extensive review of the granites of the southern New England Orogen (sNEO) in Queensland and New South Wales. The work updates the stratigraphic nomenclature, unit definitions and descriptions of more than 300 granites classifying them into a new schema of 16 supersuites. This represents the most comprehensive overhaul of the sNEO granites since the early 1980s. The compendium is an encyclopaedic resource (1153 pages in total) with more than 1240 references that will underpin ongoing metallogenic and petrogenetic studies of this important batholith.

The report may be downloaded from DIGS (GS2017/0408).

Project updates

Mendooran Drilling Project

Engaging with local communities

The Coal Resource Assessment team completed the on-the-ground activities for the Mendooran Drilling Project in February 2018.

The project, consisting of 5 exploration boreholes in the Mendooran–Dubbo district, was under budget and on schedule. The team is pleased to report:

1. Excellent relations in the local community
2. No reported injuries
3. Minimal disruption to the environment and the highest standard of rehabilitation at each site.

The boreholes ranged from 250 m to 600 m deep, targeting coal seams of the Blackjack Group and the Maules Creek Formation.
On advice from the Land and Water Commissioner Jock Laurie, the team engaged with local councils and other stakeholders as early as possible. A flyer outlining the project was provided to each of the effected councils, and an online presence was established early in the process.
With the assistance of some excellent local contractors, the team was able to build strong relationships with each of the landholders whose property was drilled. The landowners were keen to understand the nature of the rocks below their properties and to gain knowledge of water quality and quantity.

In the 3rd and 4th holes, some significant accumulations of coal were found and further analyses is being undertaken to estimate the prospectivity of the area.
**NSW Seamless Geology Project**

**First seamless map of NSW nearing completion**

Completion of seamless geology in UTM Zone 55 west and a statewide merge is on track for a mid-2018 release. You can already download seamless geology GIS packages for Zones 54, 55 east and 56 – plus fault attribution (Zone 54 – part 56), a new metamorphic layer for Zone 54 and other value-add products. See the project page.

Contact: chris.folkes@industry.nsw.gov.au

**East Riverina Mapping Project**

**Quarterly update available**

The latest Quarterly update (January to March 2018) is available on the project page, including links to project reports and data. Field mapping reports from the 2017 field season will be available via DIGS in April, along with new FieldObs data. The mapping team will commence the 2018 field mapping season in May.

Contact: phil.gilmore@industry.nsw.gov.au

**Southern Thomson Orogen Project**

**Workshop to showcase new stratigraphic drilling**

Stratigraphic drilling was completed in 2017 with seven holes successfully intersecting poorly understood basement rocks. A workshop at the W.B. Clarke Geoscience Centre at Londonderry on Wednesday 9 May will include presentations on the outcome of the drilling, tips for drilling in the Southern Thomson, specialist talks such as HyLogger and structural interpretation, and a chance to view the core. Details and registration for the workshop are at this website.

Products and data from the project are available here.

Contact: chris.folkes@industry.nsw.gov.au

**Online resources**

**Minview**

MinView has had two new datasets available for download. Government geophysical survey locations and microfossils. Check them out at minview.geoscience.nsw.gov.au.
Common Ground

Web application update

The NSW Strategic Release Framework (SRF) for Coal, Petroleum and CSG Exploration is a new policy that has been developed by the NSW Government to deliver greater transparency and control over the release of exploration areas and the granting of prospecting titles for coal and petroleum (including gas) resources. Common Ground has now integrated the SRF into its content design, effectively adding another stage at the start of the process.

SRF implements a transparent and strengthened selection process for issuing prospecting titles through the consideration of geological, social, environmental and economic factors, as well as operator suitability and capability. An advisory body, consisting of inter-agency representatives and an independent, oversees the Framework process and also allows for community consultation. SRF review and assessment must determine that an area is suitable for release before any coal, petroleum or CSG exploration licence application can be made. Minerals exploration licence applications are not subject to the SRF process.

Contact: geoinfo.admin@industry.nsw.gov.au
Broken Hill core library to expand

In mid-2016, GSNSW put forward a Major Capital Works proposal to build a Stage 2 extension to the EC Andrews Drillcore Facility in Broken Hill. Storage at the site has reached capacity, and a lot of material is being stored outside, uncovered.

As part of the NSW Budget for 2017–18, capital funding for Stage 2 was successfully secured. This extension will provide necessary additional undercover storage for drillcore from historical and current exploration and mining activities in the Broken Hill region. Expansion of the facility will provide industry, academia and the public with a high-quality geological research centre in Far West NSW.

The tender process is underway with bids being sought from qualified companies. Construction is anticipated to begin early May. The extension should be completed by August 2018.

Contact: mark.armstrong@industry.nsw.gov.au 02 4931 6688

Drillcore recently accepted at our core libraries

Approximately 36 700 m of drillcore has been accepted from November 2017 to March 2018. The drillcore is mainly provided by AngloGold Ashanti, BIACIL Holdings, Clancy Exploration, Doyles Creek Mining/Nucoal Resources and Sovereign Gold. For general drillcore information, please view the list of recent drill core accepted at the Londonderry Drillcore Library.
HyLogger update: Cobar regional study and new datasets

The Cobar Regional Study is a combined National Collaborative Research Infrastructure Strategy (NCRIS)/New Frontiers Initiative funded project to map the changes in host rock mineralogy by regional metamorphism and by mineralisation-related alteration using the HyLogger™ spectral scanning system at Londonderry. This study aims to detect wide but subtle alteration haloes surrounding mineralisation in the Cobar region to assist with future exploration. Spectral scanning of drillcore from Stage 1 of the project was completed in January with the results provided to participating companies. Stage 1 involved the scanning of 3000 m of diamond drillcore from Mallee Bull, Sandy Creek and Wirlong which are hosted by the Cobar Basin. Stage 2, which is about to commence, includes the transport and scanning of an additional 5100 m of diamond drillcore from deposits hosted by the Girilambone Group. All the data from the project will be uploaded to the National Virtual Core Library (NVCL) once the initial confidential period has expired.

Eighteen new HyLogger™ datasets have been added to the National Virtual Core Library since the start of 2018. There are now 304 drillhole datasets for NSW available for download from the AusGIN Geoscience Portal, which can be accessed via [http://portal.geoscience.gov.au/gmap.html](http://portal.geoscience.gov.au/gmap.html).

Diary and contacts

Upcoming conferences

**Exploration in another House (EIAH)** 8 May 2018, Sydney Masonic Centre, Sydney.

**GSNSW Data Workshop** 8 May 2018, Sydney Masonic Centre, Sydney.

**Southern Thomson Core Viewing Workshop** 9 May 2018, WB Clarke Geoscience Centre, Londonderry

**RIU Resources Round up** 8-10 May 2018, Sofitel Sydney Wentworth, Sydney.

**APPEA** 14-17 May 2018, Adelaide Convention Centre, Adelaide, SA.
Products
Digital Imaging Geoscientific Systems (DIGS)
Geophysical images and data
Geoscientific Data Warehouse
Online sales: www.shop.nsw.gov.au
OTO
Quarterly Notes

Product enquiries
Maps and data packages: geoscience.products@industry.nsw.gov.au Tel: 02 4931 6426
Geophysical images and data: geophysics.products@industry.nsw.gov.au Tel: 02 4931 6717
Counter sales: mineralpublication.orders@industry.nsw.gov.au Free call: 1300 736 122 Tel: 02 4931 6666
General product enquiries: gavin.ayre@industry.nsw.gov.au Tel: 02 4931 6426
Subscribe to OTO newsletter: outcrop.newsletter@industry.nsw.gov.au
Subscribe to Quarterly Notes: geneve.cox@industry.nsw.gov.au

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Visit the Geoscience Information webpages where you will find access to online systems DIGS®, MinView, GDW, upcoming GSNSW events, news, publications and product information.

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