2016 Highlights from the Geological Survey of NSW

Chris Yeats
Executive Director, Geological Survey of NSW
GSNSW Management Team in place
New Metallogenic Maps

- Broken Hill 250k – 2015
- Cobar – September 2016
- New England – preliminaries
- Macquarie Volcanic Province
- S.E. LFB

Where        When        Why        Where else?
Seamless Geology Zone 54 Coming Soon!

Basement
Curnamona, Thomson, Lachlan

Basins
Eromanga, Devonian, Permian

Cover
Seamless Geology of NSW – Derivative Products

NEO S-type granites

NEO outcrop map
Seamless Geology of NSW – Delivery
Statewide Depth to Basement Model

- Generating 3 volumes based on:
  - Waterbores
  - Exploration drill holes
  - Reflection seismic
  - Seamless geology

- Anticipated completion of version 1 early 2017
Seamless Geology Release Schedule

Due 2018

Due 2017

MILPARINKA
URISINO
COBHAM LAKE
BROKEN HILL
WILCANNIA
MENINDEE
MANARA
ANA BRANCH
POONCARIE
MILDURA
BALRANALD
SWAN HILL

GOONDIWINDI
WARWICK
TWEED HEADS
INVERELL
GRAFTON
MACLEAN
COFFS HARBOUR
TAMWORTH
HASTINGS
SINGLETON
NEWCASTLE
SYDNEY
WOLLONGONG
ULLADULLA
Statewide airborne magnetic/radiometric coverage

- Priority for next 5 to 10 years is infill of poor quality (>400m line spacing) areas west of the Great Dividing Range
Coonabarabran Airborne Survey

- 250m line spacing / 60m terrain clearance
- East-west lines
- Funded by New Frontiers
- Plan to start flying in early 2017 with 2 to 3 months acquisition
- Data available in mid 2017
GSNSW and Geoscience Australia signed an NCF Agreement in June, funding a program that will progress to full coverage of the State in the next three years

- To establish baseline deep crustal conductivity between 11 km and 100 km depth as an UNCOVER priority
- NSW includes ~300 of the 2800 AusLAMP sites for the continent at half-degree spacing
- Southern NSW complete by end 2016
- Southern Thomson Feb – June 2017
AusLAMP results from Victoria
WB Clarke Geoscience Centre Expansion

- $5M project completed ahead of schedule and under budget in March 2016
- Expands the core storage capacity from 1200 km to 1875 km of core
- Storage facility for naturally occurring radioactive materials
- Portable XRF, desktop XRD
- New meeting room
- Dedicated HyLogger™ facility
New DIGS Search Engine

- Flexible
- Basic vs Advanced
- Spatial
- Save searches
Whole Rock Geochemistry Available on GDW

GSNSW work & academic research

- ~27,000 samples
- ~629,000 results
• Historic industry surveys being updated

• Will include AEM and IP

• Current version available on MinView

• Major release in 2021: enactment of the Sunset Clause on closed-file data
GSNSW Training for Industry

Drillcore Logging and HyLogging
Londonderry

GSNSW Data Systems
Sydney, Orange, Cobar
National Collaboration

- National Mineral Exploration Strategy
- Australia Minerals
- UNCOVER
- Deep Exploration Technologies CRC
- Macquarie Arc ARC Linkage Project
- NCF Southern Thomson Orogen Project
- Southern Thomson ARC Linkage Project
New Frontiers Cooperative Drilling Round 2

• Funding available for up to 100% of per metre drilling costs
• Maximum of $200,000 per project
• Preference given to exploration in underexplored areas, under cover and/or testing new geological concepts
• 6 agreements executed to date
Cadia East wins gold bragging rights

BARRY FITZGERALD
RESOURCES

Western Australia has lost its long-held status as being the home of Australia’s biggest gold mine.

The bragging rights have shifted to central NSW, with Newcrest’s Cadia East operation near Orange eclipsing the biggest WA had to offer in the March quarter.

A survey of industry production in the quarter by Melbourne-based consultant Surbiton Associates showed Cadia East produced 192,024 ounces of gold, putting it ahead of Newmont’s Boddington mine in WA (189,000 ounces), and Newmont/Barrick’s Super Pit joint venture

worth more than $15.4 billion, based on annualised March quarter production and the spot Australian dollar gold price.

Surbiton director Sandra Close explained that the lower March quarter production, compared with the preceding December quarter

“Gold March quarter the other year,” she said, include dry weather in the fewer development days in the New Year.

Despite the past egg renewed feed hikos, the

Newcrest’s Cadia East gold mine in the central NSW led March quarter gold output

The Australian
30-5-2016