

Highlights from precompetitive geoscience across Northern Territory geology

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Precompetitive geoscience through funding initiatives and collaboration

Northern Territory Government funded initiatives *Creating Opportunities for Resource Exploration* 2014–2018 and *Resourcing the Territory* 2018–2020 are delivering new precompetitive geoscience data to drive progressive improvements in the understanding of the geology and resource potential of the Northern Territory. Work undertaken by the Northern Territory Geological Survey (NTGS) through these initiatives, and in collaboration with Geoscience Australia (GA), CSIRO, and various universities, has enhanced the understanding of:

1. basin architecture and petroleum and mineral resource potential of the highly prospective McArthur Basin/Beetaloo Sub-basin,
2. base metal potential of the Aileron Province, currently emerging as a significant copper province for the Territory,
3. basin architecture of the Territory's only onshore petroleum-producing basin, the Amadeus Basin.

This work will be further enhanced by collaboration with GA under the federally funded *Exploring for the Future* program, which has seen significant acquisition and integration of new data in greenfields areas, such as east of Tennant Creek. Highlights of the *Exploring for the Future* and *Resourcing the Territory* initiatives include the acquisition and integration of extensive regional scale surface geochemistry and hydrogeochemistry sampling results with geophysical magnetotelluric, gravity, passive seismic, reflection seismic and airborne electromagnetics data. This is combined with systematic analysis of available drill core in the Barkley and Gulf regions. The geophysical work has included the first regional seismic acquisition over the South Nicholson Basin/Lawn Hill Platform; this has provided vital subsurface information to investigate the links between the relatively unknown South Nicholson Basin/Lawn Hill Platform and the

resource rich, age equivalent McArthur Basin. Through the Territory's *Resourcing the Territory* initiative, NTGS will remap the outcropping geology of the South Nicholson Basin/Lawn Hill Platform to improve the understanding of stratigraphy and structural relationships and to provide important constraints on interpreting subsurface geology in the Barkley region.

Precompetitive geoscience through co-funded industry grants program

Under the 2018–2022 *Resourcing the Territory* initiative, the Geophysics and Drilling Collaborations (GDC) program has been revised and enhanced to encourage exploration in greenfields areas. The total funds available for each GDC Round is \$1 million per annum. GDC now includes funding for reverse circulation drilling exclusively in greenfields areas with no previous drilling activity. In addition, total amount per diamond drill program has now increased to a maximum of \$125 000 per project thus providing further incentive for this exploration method. There is also additional funding available under the Territory Supplier Incentive whereby a maximum of a further \$10 000 per project is available for projects that engage Territory-based enterprises that employ Territorians.

The enhanced grants program offers 33% more in funding than the previous scheme and with less restrictive criteria to open the grants to more explorers. It is designed to maximise local industry participation in exploration by making service and supply by NT-based companies eligible for co-funding. This has broadened eligibility for pure greenfields exploration to allow greater participation by the junior exploration sector.

All report and data acquired through the GDC program will be publicly available six months after completion of fieldwork.

The first funding Round under the revised GDC program (2018–2019) saw the highest number of applications in the history of the program. Applications for GDC funding for 2019–2020 opened on 6 March 2019 with closing on 15 April 2019. Successful applicants will be announced in May. Further information on the Geophysics and Drilling Collaborations program can be found at www.minerals.nt.gov.au/collaborations.

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