

NTGS information delivery highlights for 2025–26

Tracey Rogers^{1,2}

Overview

Aligning with the NTGS strategic goal to modernise our data, work has commenced on reviewing and upgrading several data management and delivery systems. Options for delivery of regional geophysical imagery through STRIKE are being investigated and alternative views of STRIKE, starting with one enabling a user to set a specific viewing scale, are being introduced. GEMIS, the discovery and delivery system for industry reports and NTGS products, is having a significant software upgrade to provide a more robust management platform with consequential changes to the look and feel. The mineral occurrence database, MODAT, is also being redeveloped in a new platform to enable improved data management and delivery.

Products released over the last year include new editions of the HUCKITTA and MOUNT DRUMMOND 1:250 000 geological maps, GIS datasets and explanatory notes, data and grids for two new regional gravity surveys and six NTGS Records. An expanded and updated version of the popular critical minerals guide, renamed Critical minerals and gold in the Northern Territory, was released in February 2026 and the latest addition to the NTGS Report series, Base metal deposits in the Northern Territory, is in press.

STRIKE

An alternative view of STRIKE, enabling users to set their own scale, is being released before AGES 2026. Although possible on a previous iteration of STRIKE, this capability became unavailable when the default basemap switched to Google satellite imagery. The alternative view, called ‘user-defined scale’, utilises the NT aerial photography imagery as the default basemap. Setting your own scale, for example 1:250 000, is as easy as typing this value in the Scale text box next to the scale bar on the map view.

To facilitate access to both views, the STRIKE URL (strike.nt.gov.au) will direct users to a landing page. From the landing page users will be able to choose the view they prefer.

As part of the NTGS strategic plan, and towards reaching the goal to modernise our data, several data management and delivery systems are being replaced or upgraded over the next few months to ensure they are fit-for-purpose.

Work is being undertaken to investigate adding all the regional geophysical imagery, as well as all the NT-wide imagery currently served through the Geophysical Image Web Server, to STRIKE. The imagery generated for each regional geophysical survey is specific to the survey and of higher resolution than the NT-wide imagery. The ability to view these images in STRIKE would benefit users by facilitating the display of different STRIKE layers

overlying the images. The project involves trials using mosaicking and scaling to show or hide images depending on the zoom or scale level. As there is a significant number of images, optimising the performance and user interface with ease of navigation and a good user experience are key priorities. An example of how regional imagery overlying NT-wide imagery may be displayed is shown in **Figure 1**. For comparison, the same area displaying only the NT-wide imagery is shown in **Figure 2**. The difference in resolution and detail is evident, particularly in the northwest of the displayed area.

NT-wide geophysical images will be updated and available as GeoTIFF images and these will replace the ECW versions currently viewed through STRIKE. Options for download of the images through STRIKE is part of the broader investigation into providing more imagery in STRIKE.

GEMIS and other upcoming system upgrades

The software platform underpinning GEMIS is being upgraded to ensure a more robust management system. The new version of GEMIS will be available later in 2026. It will have a different layout and some navigational changes, a rearrangement of the individual record display pages, and an updated and streamlined download cart. File size and download limits are also being reviewed with a view to improving accessibility while maintaining system performance.

The NT mineral occurrence database, MODAT, underpins information delivered through the *Resourcing the Territory* website and is the source of the mineral deposit and mine layers on STRIKE. However, MODAT is no longer fit-for-purpose and is being redeveloped and migrated to a new database platform. This will enable improved data collection, particularly of historical resources, reserves and production data, and enhanced data validation. The new database will facilitate and enable more effective and efficient integration and interoperability with other databases and delivery systems, and additional content.

Exploration News and the InfoCentre library catalogue are also in line for a major upgrade with significant new features, and the incorporation of several separate library databases into the library catalogue.

New Northern Territory Geological Survey products

In the last year, NTGS has released six Records, several updates to Digital Information Package 001, NT geochemical and drilling datasets, one HyLogger Data Package, new editions of two 1:250 000 geological maps and GIS datasets with associated explanatory notes, one new 1:100 000 GIS dataset for a previously published map, and the final data and grids for the Pine Creek and West Arnhem gravity surveys.

In addition to geochronology results in the Birrindudu and Georgina basins and the AGES 2025 presentations and

¹ Northern Territory Geological Survey, GPO Box 4550, Darwin NT 0801, Australia

² Email: tracey.rogers@nt.gov.au

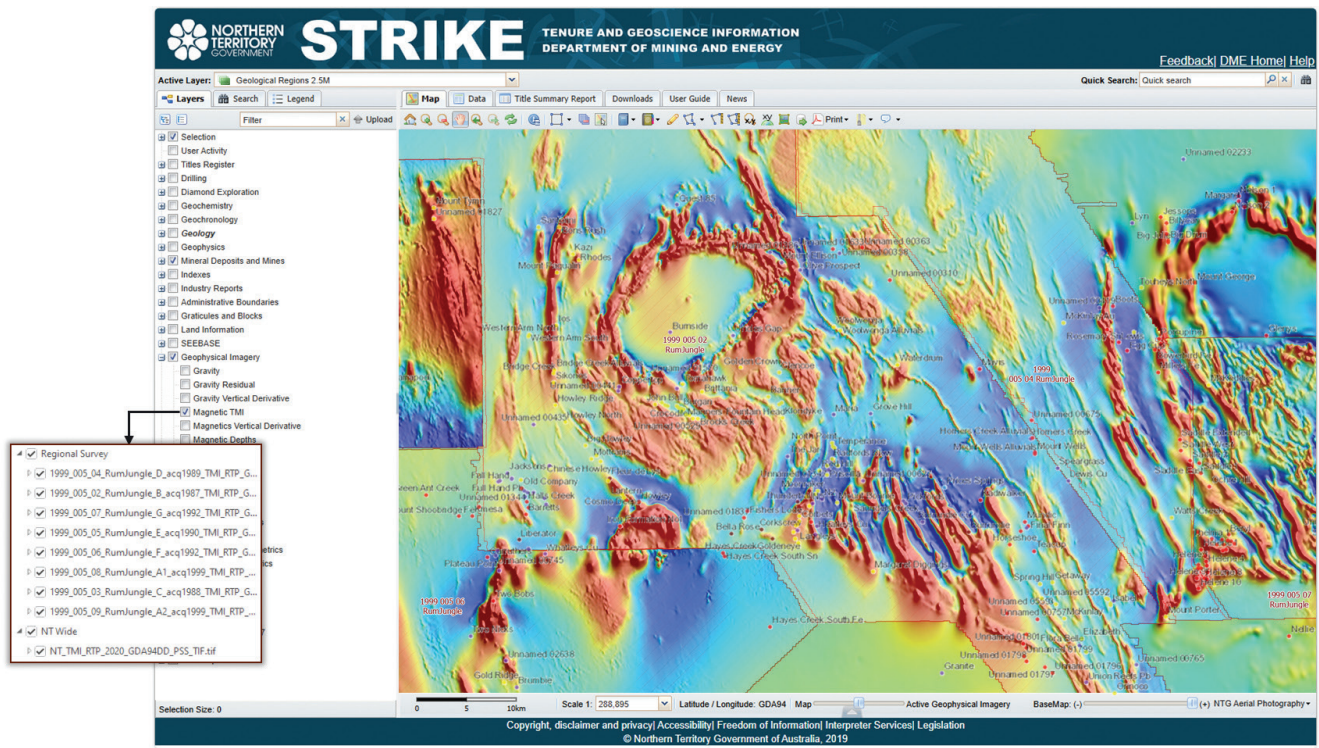


Figure 1. Regional total magnetic intensity (TMI) imagery overlain on NT-wide TMI imagery displayed in STRIKE – concept view.

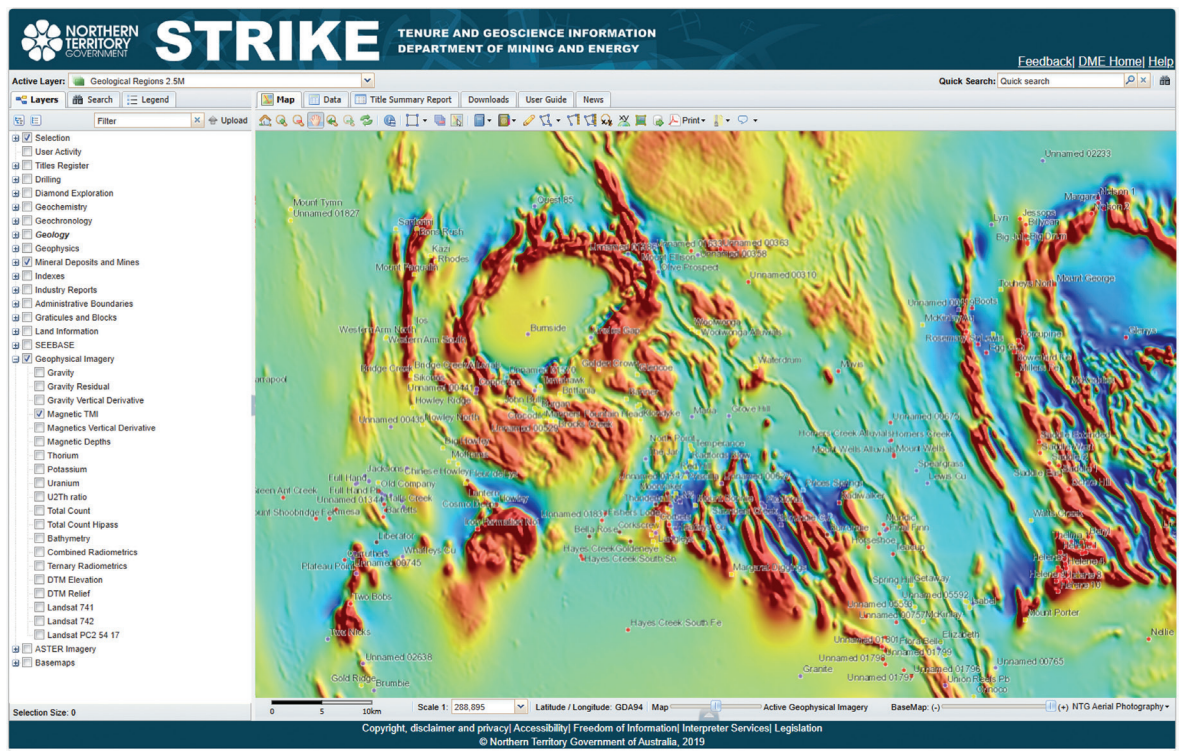


Figure 2. NT-wide magnetic TMI imagery displayed in STRIKE.

posters, there are two Records of note: Record 2025-005, the reinterpretation, 3D visualisation and mineral systems analysis of Pine Creek, and Record 2025-006, the hyperspectral analysis at Angularli uranium deposit. The former presents a 3D model and the results of a study in the Central Domain of the Pine Creek Orogen conducted by the Sustainable Minerals Institute, University of Queensland and was released in August 2025. Record 2025-006 reports on the integration of spectral

data with petrography, X-ray diffraction, geochemistry and geological observations from the Rio Tinto–Cameco Joint Venture, for 17 drillholes in and around the Angularli uranium deposit and was released in October 2025.

The third edition HUCKITTA 1:250 000-scale geological map, explanatory notes and GIS dataset were released in May 2025, and the third edition MOUNT DRUMMOND 1:250 000-scale geological map,

explanatory notes and GIS dataset were released in September 2025. In October 2025, an update to the Mosaic of the 1:250 000 geological maps of the Northern Territory was published and a new geological GIS dataset for the 1:100 000-scale HATCHES CREEK Region was released in February 2026.

Other releases include a report summarising Round 17 of the Geophysics and Drilling Collaborations and the 2026 edition of the critical minerals guide, which has been expanded to include gold and renamed Critical minerals and gold in the Northern Territory. The former was published in October 2025 and the latter in February 2026. Along with gold, the guide also includes five new additions to the critical minerals list: bismuth, iron ore, lead, silver and uranium. The guide is accessible from the *Resourcing the Territory* website or directly from GEMIS.

Two new publications, Base metal deposits in the Northern Territory, NTGS Report 21, and a new Digital Information

Package for the Warburton-Pedirka-Eromanga basins SEEBASE are in press. The 2026 editions of the NT gravity map, NT magnetic map and NT radiometric map, together with the geophysical grids and images, are also in progress.

All new products are available on GEMIS, and announcements are made on the *Resourcing the Territory* website and in the NTGS Monthly Alert. You can subscribe to the NTGS Monthly Alert email newsletter from the Data and Publications page on *Resourcing the Territory* website (resourcingtheterritory.nt.gov.au).

References

Rogers T, 2025. Discover what's new in NTGS information services and delivery: in 'Annual Geoscience Exploration Seminar (AGES) Proceedings, Alice Springs, Northern Territory 8–9 April 2025'. Northern Territory Geological Survey, Darwin, 41–43.