

NOTES

Standardization of publicly available digital magnetic data from assessment reports was performed in 2019 and 2020. Residual magnetic field was calculated through removal of the IGRF. A levelled magnetic field channel was calculated by sampling the 1:250 000 compilation grid and taking the mean difference between the residual magnetic field and the overlapping points; this mean difference is applied as zero order datum shift to the residual data. This is repeated for each 1:250 000 compilation that the survey overlaps.

Up to four gridded products are produced for each survey (Residual Total Magnetic Field (TMI), Reduced-to-Pole Magnetic Field (RTP), First Vertical Derivative of the Reduced-to-Pole Magnetic Field (RTP\_VD) and Tilt Derivative of the Reduced-to-Pole Magnetic Field (RTP\_TDR) and these have pre-existing analogous 1:250 000 products from Open Files 2017-5 to 2017-59.

The outline of the assessment report data is extracted and eroded by a buffer, typically 200 m. The buffer is automatically reduced if it exceeds half the range of either the x or y coordinates. The eroded buffer is then windowed from each the four corresponding 1:250 000 compilations.

Each assessment report grid is then blended with the compilation grid through averaging common points between the grids. By previously windowing out the eroded assessment report outline from the compilation, both fidelity to the higher quality assessment report data and a smooth transition to avoid edge artifacts are achieved. This is an appropriate approach when the assessment report data are of higher quality than the compilation. Mostly this is true due to the higher resolution of data that is typical of a property-scale survey compared to a government regional-scale survey. However this is not universally the case and for every assessment report each of the four new blended grids are compared with the unaltered compilation. Assessment report grids which upon blending lower the quality of the compilation are manually rejected. A log file of accepted and rejected assessment reports for each 1:250 000 sheet is maintained.

The Yukon Geological Survey created georeferenced \*.pdf maps of the shaded relief colour contour products for each 1:250 000 map sheet. The map data are provided as GeoTiff files.

Funding for this project was provided by the Canadian Northern Economic Development Agency through their Strategic Investments in Northern Economic Development program.

REFERENCES

- Geological Survey of Canada, 2017. Canadian Aeromagnetic Data Base, Airborne Geophysics Section, Natural Resources Canada. Datasets: Atlin, BC (2001)  
BC-Yukon-NWT II Area A - Cassiar Mountains (1996)  
Jennings River, BC (2006)
- Miles, W., Saltus, R., Hayward, N. and Oneschuk, D., 2015. Alaska and Yukon Magnetic Compilation, Residual total magnetic field. Geological Survey of Canada, Open File 7862.
- Cumberland Resources Ltd., 2006. 2006 Airborne Geophysical Assessment Report Tootsee River Property. Yukon Energy, Mines and Resources Assessment Report 94608.
- Strategic Metals Ltd., 2007. Assessment Report Describing Geophysical Surveys at the Dorsey Property. Yukon Energy, Mines and Resources Assessment Report 94904.
- Mega Uranium Ltd. and Twenty-Seven Capital Corp., 2008. Assessment Report Describing Geochemical Sampling, Geophysical Surveys, Hand Trenching and Diamond Drilling at the Alle Property. Yukon Energy, Mines and Resources Assessment Report 95013.
- Tarsis Capital Corp., 2007. Assessment Report Describing Geophysical Surveys at the Cabin Lake Property. Yukon Energy, Mines and Resources Assessment Report 95020.

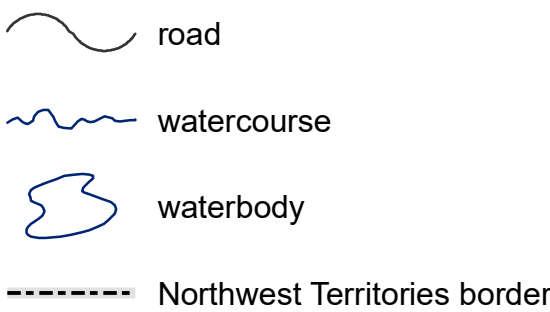
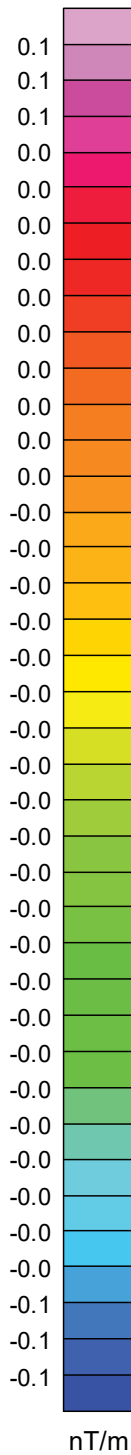
RECOMMENDED CITATION

Aurora Geosciences Ltd. and Bruce, J.O., 2020. First Vertical Derivative of the Reduced-to-Pole Magnetic Field Shaded Colour Contour Map (NTS 105B). *In*: Reprocessing of Yukon magnetic data for NTS 105B. Yukon Geological Survey, Open File 2020-10, scale 1:250 000, 4 sheets.

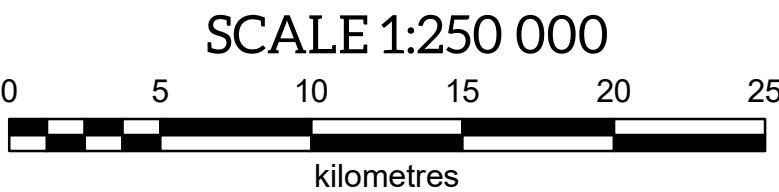
Any revisions or additional geological information known to the user would be welcomed by the Yukon Geological Survey.

Paper copies of this map and the accompanying report may be obtained from the Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5. Email: geology@gov.yk.ca.

A digital PDF (Portable Document File) file of this map, and available data, can be downloaded free of charge from the Yukon Geological Survey website: <https://yukon.ca/en/science-and-natural-resources/geology>.

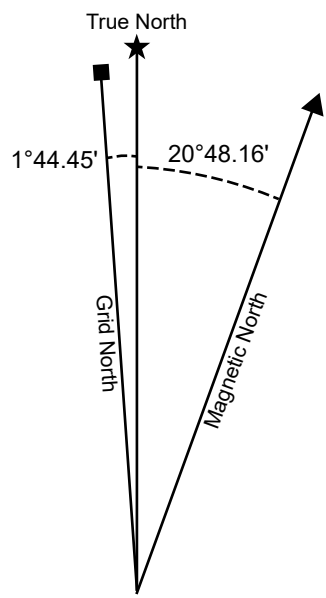


FIRST VERTICAL DERIVATIVE OF THE  
REDUCED-TO-POLE MAGNETIC FIELD  
WOLF LAKE (NTS 105B)  
YUKON



1:250 000-scale topographic  
base data produced  
by  
CENTRE FOR TOPOGRAPHIC  
INFORMATION,  
NATURAL RESOURCES CANADA

ONE THOUSAND METRE GRID  
Universal Transverse Mercator  
Projection  
North American Datum 1983  
Zone 9



Use diagram only to obtain numerical values  
APPROXIMATE MEAN DECLINATION 2020  
FOR CENTRE OF MAP  
Annual change 20.2' West

105F QUIET LAKE	105G FINLAYSON LAKE	105H FRANCES LAKE
105D TESLIN	<b>THIS MAP</b>	105A WATSON LAKE
104N ATLIN	104O JENNINGS RIVER	104P MCDAME

Yukon Geological Survey  
Energy, Mines and Resources  
Government of Yukon

Open File 2020-10  
Sheet 3 of 4

First Vertical Derivative of the Reduced-to-Pole  
Magnetic Field Shaded Colour Contour Map (NTS 105B)  
(1:250 000 scale)

by  
Aurora Geosciences Ltd.  
and  
J.O. Bruce