

This aeromagnetic survey and the production of this map were funded by phase 2 of the Geo-mapping for Energy and Minerals program (GEM-2) of the Lands and Minerals Sector, Natural Resources Canada.

GEOLOGICAL SURVEY OF CANADA OPEN FILE 8422 YUKON GEOLOGICAL SURVEY OPEN FILE 2018-13

RESIDUAL TOTAL MAGNETIC FIELD

## AEROMAGNETIC SURVEY OF THE MARSH LAKE AREA

YUKON Part of NTS 105-E/North

Scale 1:100 000 (kilometres) NAD83(CSRS) / UTM zone 8N Universal Transverse Mercator Projection North American Datum, 1983 © Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2018
Base map at the scale of 1:50 000 from Natural Resources Canada, with modifications
Elevations in metres above mean sea level

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Data acquisition, data compilation and map production by Geo Data Solutions GDS Inc., Laval, Québec

Contract and project management by the

Geological Survey of Canada, Ottawa, Ontario

Cartographic design by I. D'Amours

Permanent link: https://doi.org/10.4095/308233



## Residual Total Magnetic Field

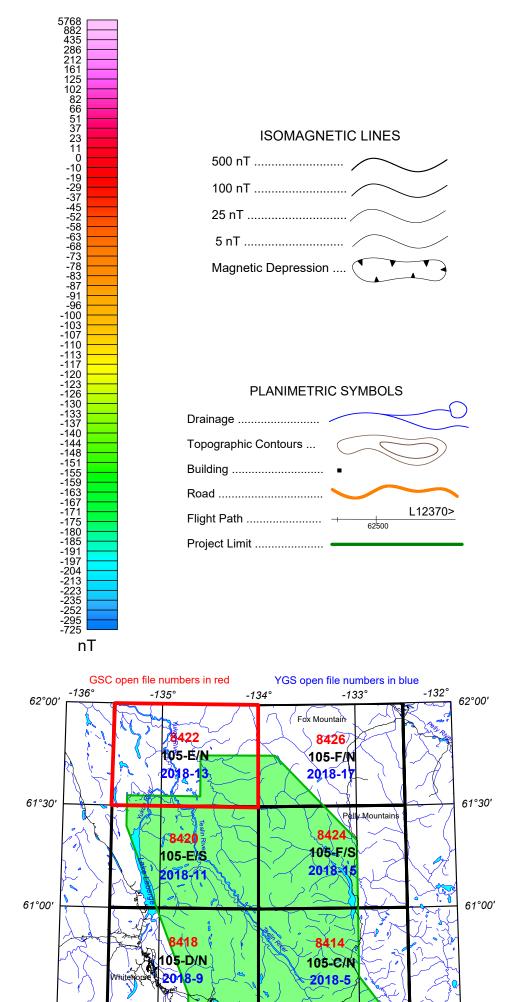
This map of the residual total magnetic field was derived from data acquired during an aeromagnetic survey carried out by Geo Data Solutions GDS Inc. from January 12, 2018 to March 16, 2018. The data were recorded using split-beam cesium vapour magnetometers (sensitivity = 0.005 nT) mounted in each of the tail booms of a Beechcraft King Air aircraft (C-FLRB) and a Piper Navajo (C-GPTB). The nominal traverse and control line spacings were, respectively, 400 m and 2400 m, and the aircraft flew at a nominal terrain clearance of 150 m. respectively, 400 m and 2400 m, and the aircraft flew at a nominal terrain clearance of 150 m. Traverse lines were oriented N45°E with orthogonal control lines. The flight path was recovered following post-flight differential corrections to the raw Global Positioning System (GPS) data and inspection of ground images recorded by a vertically-mounted video camera. The survey was flown on a pre-determined flight surface to minimize differences in magnetic values at the intersections of control and traverse lines. These differences were computer-analysed to obtain a mutually levelled set of flight-line magnetic data. The levelled values were then interpolated to a 100 m grid. The International Geomagnetic Reference Field (IGRF) defined at the average GPS altitude of 1606 m for the year 2018.12 was then removed. Removal of the IGRF, representing the magnetic field of the Earth's core, produces a residual component related almost entirely to magnetizations within the Earth's crust.

This publication is available for free download through GEOSCAN (<a href="http://geoscan.nrcan.gc.ca/">http://geoscan.nrcan.gc.ca/</a>). Corresponding digital profile and gridded data as well as similar data for adjacent airborne geophysical surveys are available from Natural Resources Canada's Geoscience Data Repository for Aeromagnetic data at <a href="http://gdr.agg.nrcan.gc.ca/index\_e.html">http://gdr.agg.nrcan.gc.ca/index\_e.html</a>. The same products are also available, for a fee, from the Geophysical Data Centre, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8. Telephone: 613-995-5326, email: <a href="mailto:infogdc@agg.nrcan.gc.ca">infogdc@agg.nrcan.gc.ca</a>.

Copies of this map and accompanying data may also be obtained from the Yukon Geological Survey, Energy, Mines and Resources, Government of Yukon, P.O. Box 2703 (K-102), Whitehorse, Yukon, Y1A 2C6. Telephone: 867-667-3201, email: <a href="mailto:geology@gov.yk.ca">geology@gov.yk.ca</a>, website: http://www.geology.gov.yk.ca.

## Acknowledgements

The authors thank the field crew chief, Saleh Elmoussaoui (Geo Data Solutions GDS Inc.), for his cooperation and his technical assistance during the start-up phase of this survey contract.



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND GEOPHYSICAL MAP INDEX

OPEN FILE DOSSIER PUBLIC GEOLOGICAL SURVEY OF CANADA MMISSION GÉOLOGIQUE DU CANADA 2018

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OPEN FILE DOSSIER PUBLIC 2018-13 YUKON GEOLOGICAL SURVEY MMISSION GÉOLOGIQUE DU YUKON 2018

Recommended citation
Kiss, F. and Boulanger, O., 2018.
Residual Total Magnetic Field,
Aeromagnetic Survey of the Marsh Lake Area,
Yukon, Part of NTS 105-E/North; Geological Survey of Canada, Open File 8422; Yukon Geological Survey Open File 2018-13,

Scale 1:100 000. https://doi.org/10.4095/308233