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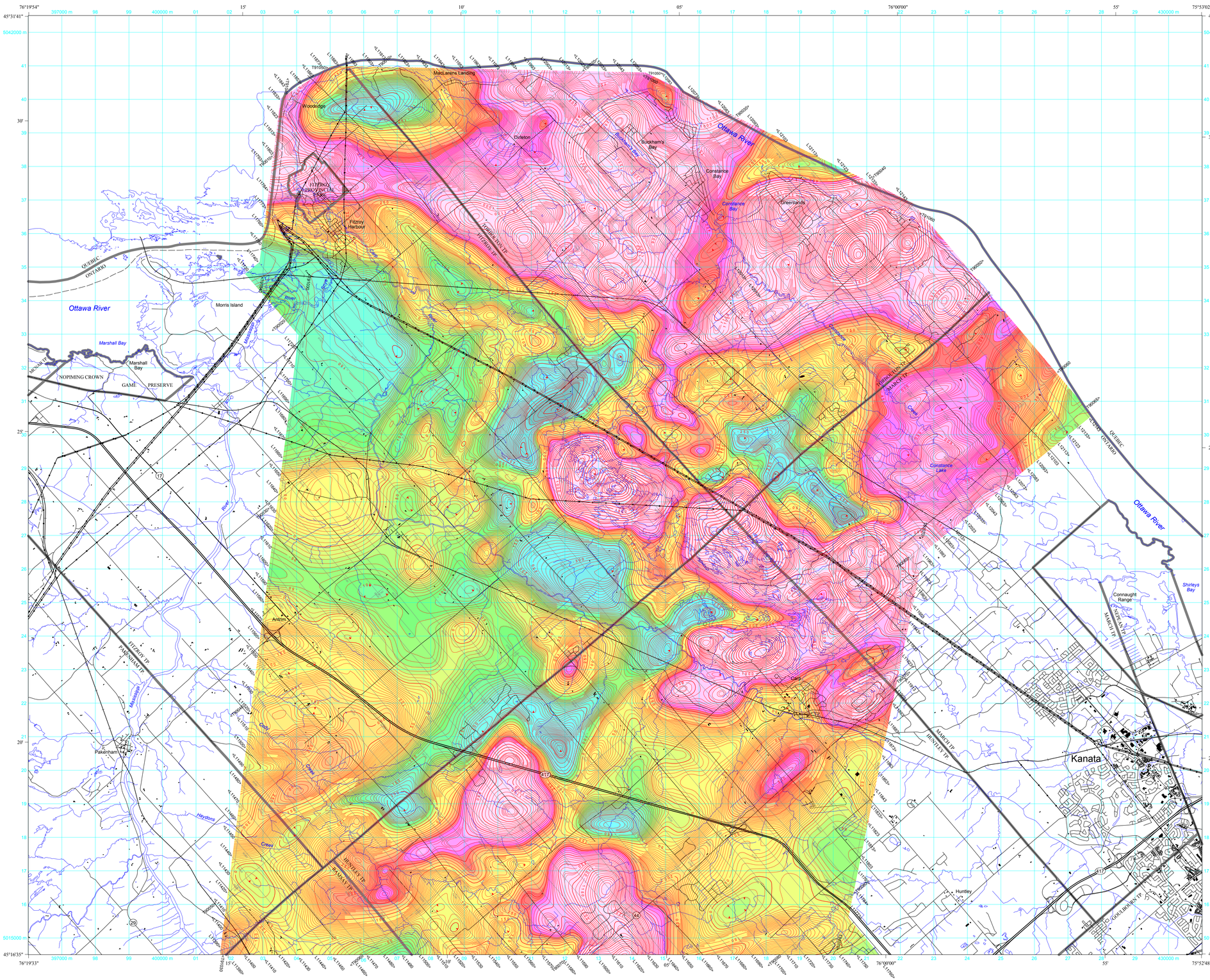

SURVEY PARAMETERS

AIRCRAFT
Type: Piper Navajo PA-31
Registration: C-GJBB, C-GJBG

MAGNETOMETER
Type: Geometrics caesium-vapour
Sensitivity: 0.005 nT
Noise level: 0.05 nT
Sample interval: 10 readings per second
Sensor locations: wing tips (transverse separation 14.783 m)
tail stinger (longitudinal separation 9.75 m)
Data Acquisition-Compensation: RMS AADCII
Data Acquisition: GEDAS

NAVIGATION SYSTEM
GPS receiver: Novatel OEM4 ProPak
GPS sample interval: 1 reading per second
Radar altimeter: Thompson CFS 530A
Radar sample interval: 10 readings per second
Barometric altimeter: Setra 270
Barometric sample interval: 10 readings per second
Video flight path camera: Panasonic GPKR402 HRSV
Navigation-Acquisition: GEDAS

BASE STATION
Magnetometer: GEM Systems GSM-19W
Magnetometer sample interval: 1 reading per second
GPS sample interval: 1 reading per second

SURVEY SPECIFICATIONS
Survey date: October 8 to December 6, 2013
Nominal aircraft terrain clearance: 200 m
Traverse line spacing: 400 m
Control line spacing: 4000 m
Traverse line direction: 140° azimuth
Control line direction: 50° azimuth

COORDINATE SYSTEM
Projection: Universal Transverse Mercator
Datum: NAD83
Central meridian: 75°00' W (UTM zone 18N)
Central scale factor: 0.9996
False easting: 500 000 m
False northing: 0 m

LEGEND

FLIGHT LINE INFORMATION

Line number → L12701
← Line direction
← Fiducial

MAGNETIC CONTOURS

nanoteslas (nT)

10 nT contour
50 nT contour
200 nT contour
1000 nT contour
Magnetic depression

RESIDUAL MAGNETIC FIELD GRID

850
680
570
500
440
380
340
290
250
220
180
150
120
80
50
20
0
-30
-50
-80
-100
-130
-160
-200
-240
-290
-350
-440
nT

Users of OGS products are encouraged to contact those Aboriginal communities whose traditional territories may be located in the mineral exploration area to discuss their project.

Ontario

Ontario Geological Survey

MAP 82 614

AIRBORNE MAGNETIC SURVEY

Colour-filled contours of the residual magnetic field

EASTERN ONTARIO AREA

Scale 1:50 000

1 km 0 1 2 km

NTS References: 31 F/8, 9; G/5

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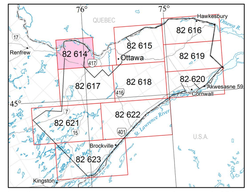

Location map 1 cm equals 25 km

DESCRIPTIVE NOTES

Introduction

The data comprising this map are derived from the results of an airborne magnetic survey carried out by Goldak Airborne Surveys. The survey was flown using two Piper PA-31 Navajo aircraft. Each aircraft was equipped with three Geometrics magnetic sensors, GPS navigation systems and digital data acquisition systems.

Residual Magnetic Field Map

The contours of residual magnetic intensity were generated from digitally recorded data. The magnetic data were levelled to the control lines and interpolated onto a 100 m regular grid. An International Geomagnetic Reference Field (IGRF) correction was applied to the total magnetic field data at average survey altitude 310 m using the 2005 model year extrapolated to 2013.85 (November 5, 2013). A regional correction was applied to level the magnetic field to the Ontario Master Aeromagnetic Grid. Gradient enhancement was incorporated using the measured longitudinal and lateral horizontal gradients.

Magnetic declination on November 5, 2013 for the centre of the survey area was 13°5'W. Magnetic inclination on November 5, 2013 for the centre of the survey area was 70°47N. Magnetic field strength was 54 310 nT (calculated using IGRF).

SOURCES OF INFORMATION

Base map information derived from the Ontario Land Information Warehouse, Land Information Ontario, Ontario Ministry of Natural Resources, scale 1:50 000.

Magnetic declination for the centre of the map area was approximately 13°15.1'W in 2014.

CREDITS

Data acquisition, data compilation and map production by Goldak Airborne Surveys, Saskatoon, Saskatchewan.

Project management and quality assurance by Paterson, Grant & Watson Limited, Toronto, Ontario.

Contract management, base maps and map surrounds by the Ontario Ministry of Northern Development and Mines, Sudbury, Ontario.

Every possible effort has been made to ensure the accuracy of the information presented on this map; however, the Ontario Ministry of Northern Development and Mines does not assume liability for errors that may occur. Users should verify critical information.

Corresponding digital data for this survey are available from the following Ontario Geological Survey publication:

Ontario Geological Survey 2014. Ontario airborne geophysical surveys, magnetic data, grid and profile data (ASCII and Geosoft® formats) and vector data, eastern Ontario area; Ontario Geological Survey, Geophysical Data Set 1075.

Issued 2014.

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