

GDS1089 METADATA

GENERAL INFORMATION

Title

Ontario Airborne Geophysical Surveys, Magnetic and Electromagnetic Data, Grid and Profile Data (ASCII and Geosoft® Formats) and Vector Data, Saganash Lake Area

Alternate Title

GDS1089

Author(s)

Ontario Geological Survey

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October 1, 2021

Abstract

Geophysical Data Set (GDS) 1089 includes the results of an airborne magnetic and electromagnetic survey, totalling 4848 line-kilometres, flown over the Saganash Lake area of northeastern Ontario, and covers an area of approximately 826 square kilometres. The survey was flown by Geotech Limited (Aurora, Ontario).

This geophysical data set includes 1) airborne magnetic and electromagnetic profile data—both raw and processed—in ASCII (.xyz) and Geosoft® (.gdb) file formats; 2) 40 m × 40 m grids (in ASCII (.gxf) and Geosoft® (.grd) file formats) of the magnetic and electromagnetic profile data and derivatives; 3) database of picked electromagnetic anomalies in ASCII (.csv) and Geosoft® (.gdb) file formats; 4) database of Keating correlation coefficient anomalies in ASCII (.csv) and Geosoft® (.gdb) file formats; 5) GeoTIFF (.tif) images of magnetic and electromagnetic grids; 6) vector (.dxf) files of flight path, EM anomalies, Keating correlation coefficient anomalies, contours of the residual magnetic field, EM decay constant and apparent conductivity; and 7) the survey report in portable document format (.pdf).

Survey Parameters:

Survey type: magnetic and electromagnetic

Dates flown: January 26 to March 19, 2021

Survey conducted by: Geotech Limited, Aurora, Ontario

Survey size: 4848 line-kilometres

Survey area: 826 square kilometres

Traverse-line direction: 125°–305°

Traverse-line spacing: 200 m

Control-line direction: 35°–215°

Control-line spacing: 1500 m

Aircraft nominal terrain clearance: 93 m

Magnetic survey type: single sensor total field

Magnetic sampling interval: 10 readings per second

EM survey type: VTEM® Plus

EM domain: TDEM

EM height: 42 m
VLF-EM: N/A
Gamma-ray survey: N/A

These data accompany geophysical Maps 83026 to 83037; all maps are available separately from the digital data set.

The following publications are associated with this publication: M83026, M83027, M83028, M83029, M83030, M83031, M83032, M83033, M83034, M83035, M83036, M83037

Additional information can be found within a readme file provided with the product.

Purpose or Objective

Airborne geophysics is an integral part and core function of the Ontario Geological Survey's (OGS) geoscience activities. This magnetic and electromagnetic survey was carried out as part of the Ontario Geological Survey's Precambrian bedrock mapping program provide high-quality and high-resolution geophysical data to assist in mapping the bedrock geology of the area.

The objective of this product is to collect and disseminate geoscience information for Ontario.

Keywords

Geological Survey
Geology
Ministry of Northern Development, Mines, Natural Resources and Forestry
NDMNRF
Ontario Geological Survey
OGS
Geophysical Data Set
GDS
Airborne Magnetic (Residual)
Airborne Magnetic (Total)
Geophysical
Geophysics, General
High Resolution Total Field Magnetics
Residual Magnetic Field
Residual Total Magnetic Field
Apparent Conductance
Apparent Conductivity
Electromagnetic (EM) Decay Constant
Electromagnetic (EM) Anomalies
Keating Correlation Coefficients
Magnetic and Electromagnetic (EM) Data

Business Themes

Geological Survey
Geology

GEOGRAPHIC INFORMATION

Geographic bounding box (decimal degrees)

North bounding latitude:	49.3232°
West bounding longitude:	-82.6565°
East bounding longitude:	-82.1227°
South bounding latitude:	48.8042°

Description of Completeness: irregularly shaped study area - completeness not available

MAPPING INFORMATION:

Grid Coordinate System Used:	Universal Transverse Mercator
Map Projection:	Transverse Mercator
Horizontal Geodetic Datum:	NAD83
Vertical Datum:	Not Applicable
Horizontal Position Accuracy of Features:	±10 m
Vertical Position Accuracy of Features:	Not Applicable

DATA SOURCE INFORMATION

Data Source Type and Description

Includes Bibliographic Information: Product includes references to other sources of information

Data Source Type and Description

Direct Field Collection: Data acquisition and data compilation by Geotech Limited, Aurora, Ontario. Survey conducted from January 26, 2021 to March 19, 2021.

Current Status of the Data: Complete

Frequency of Changes or Additions to be made to the Data: Not Planned

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CONTACT INFORMATION

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