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These data accompany
Preliminary Map P.3800, *Precambrian Geology of the Attwood Lake Area, Fort Hope Greenstone Belt*.

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Miscellaneous Release—Data 334

**Geological, Geochemical and Geophysical Data from the Attwood Lake Area,
Fort Hope Greenstone Belt, Northwestern Ontario**

by B. Azar

This publication can be downloaded from

http://www.geologyontario.mndm.gov.on.ca/mndmaccess/mdm_dir.asp?type=pub&id=MRD334

This digital data release consists of geological information, geochemical (whole-rock and assay) data, magnetic susceptibility data and selected field photographs, collected in 2014, during bedrock geological mapping, at a scale of 1:50 000, in the Attwood Lake area in the Fort Hope greenstone belt. Also included are a previously published article and presentations to the public related to the project. This release comprises 308 photographs (*.jpg* files), 5 Microsoft® Excel® 2010 (*.xlsx*) files and 5 documents in portable document format (*.pdf*). These data augment Preliminary Map P.3800, *Precambrian Geology of the Attwood Lake Area, Fort Hope Greenstone Belt*; the marginal notes and the geological legend for this map are also provided.

Data are organized into 6 folders:

1. Field Data
2. Geochemistry
3. Geology
4. Geophysics
5. Photographs
6. Presentations and Publications

1. Field Data. This folder contains 2 Microsoft® Excel® 2010 (.xlsx) workbook files.

MRD334_Attwood Lake_Rock Descriptions-2014.xlsx contains 1 worksheet of field notes taken for each sample collected; the notes were recorded on the Trimble® handheld global positioning system (GPS) device. Notes have been edited to remove abbreviations and spelling errors. Some of the interpretations changed with geochemical information and additional review; these changes are not reflected in this document. Locations are provided as Universal Transverse Mercator (UTM) co-ordinates using North American Datum 1983 (NAD83), Zone 16.

MRD334_Attwood Lake_Structural Data-2014.xlsx consists of 2 worksheets that contain the structural measurements and related observations taken during the 2014 field season.

“Structural_data_Attwood” worksheet contains all of the station information, location, structure type, structure symbol, dip, azimuth and notes for each measurement taken. Locations are provided as UTM co-ordinates using NAD83, Zone 16.

“Structural_symbol_legend” worksheet provides a legend for all the symbols recorded in the column SYMBOL in the worksheet “Structural_data_Attwood”.

2. Geochemistry. This folder contains 1 Microsoft® Excel® 2010 (.xlsx) workbook file.

MRD334_Attwood Lake_Geochemistry.xlsx consists of 3 worksheets that contains the results of analyses performed at the Geoscience Laboratories (Geo Labs), Ontario Geological Survey, Sudbury. The methods used, lower detection limit for each method, and reported units for each method are included for each element (and oxide) listed. UTM co-ordinates are provided in NAD83, Zone 16.

“Whole rock geochemistry” worksheet contains 243 whole-rock geochemical and duplicate analyses from this study acquired from samples collected during the summer of 2014. The worksheet also contains location data (“Easting” and “Northing”), “Rock Name” and map code for each sample collected.

“Assay” worksheet contains 25 assay and duplicate analyses from this study acquired from samples collected during the summer of 2014. Sample descriptions are also provided. The worksheet also contains sample descriptions and location data (“Easting” and “Northing”) for each sample collected.

“Abbreviations” worksheet provides an explanation for the abbreviations and acronyms used in row 4 “Method” in the other 2 worksheets, and explains all additional abbreviations used in the workbook. Additional methods that were used in sample preparation are included here, but are not represented on the other 2 worksheets.

3. Geology. This folder contains 2 portable document format (.pdf) files, one of which is a publication associated with this project.

P3800_Legend.pdf is the general legend (rock codes) used as the base for Ontario Geological Survey Preliminary Map P.3800, *Precambrian Geology of the Attwood Lake Area, Fort Hope Greenstone Belt* (Azar, Ferguson and Mayer 2016). Material in the geochemistry workbook file are cross-referenced to map codes in the legend.

P3800_Marginal Notes.pdf provides additional information on the study area using a version of the marginal notes, with 2 figures and 2 tables, from Preliminary Map P.3800.

4. Geophysics. This folder contains 1 Microsoft® Excel® 2010 (.xlsx) file.

MRD334_Attwood Lake_Magnetic Susceptibility Data-2014.xlsx contains 2 worksheets.

“Mag sus data_Attwood-2014” worksheet provides magnetic susceptibility data from the study area collected during the summer of 2014.

Measurements were collected using an Exploranium® KT-10 magnetic susceptibility meter. Magnetic susceptibility is defined as the degree to which a substance can be magnetized and, in this case, is expressed as the ratio of the intensity of magnetization (k) to the ratio of the Earth’s magnetic field to magnetic field induced by the susceptibility meter. The readings (k) are expressed as 10^{-3} times the SI unit for susceptibility and are dimensionless. The minimum value that can be recorded by the meter is 0.001×10^{-3} SI units; the largest value is 999×10^{-3} SI units. Sample location information is given in UTM co-ordinates, NAD83, Zone 16.

“Pick Lists, Notes” worksheet provides additional information about the pick-lists for fields (“Geological Province”, “Meter Number”, “UTM Zone”, “Rock Type Pick List”, “Rock Types Corresponding to Pick List”, “Dike Swarm Name”, “Metamorphic Grade”) used in the workbook.

5. Photographs. This folder contains 308 field photographs (as .jpg files) and 1 Microsoft® Excel® 2010 (.xlsx) file. The photographs were taken during the summer of 2014 as part of the mapping project.

MRD334_Attwood Lake_Photo Captions.xlsx provides the photograph number, station number, location, the reason for taking the photograph (“Type”), a brief photo description and identifies the scale used in the photo. Photo file names for the .jpg files are based on station location, e.g., 14BA045P02 is photograph number 2 (“P02”), from station BA045 in 2014. Station location information is given in UTM co-ordinates, NAD83, Zone 16.

6. Presentations and Publications. This folder contains 3 portable document format (.pdf) files, one of which is a publication associated with this project.

MRD334_Azar_NWOMMS-2015_presentation.pdf is from a presentation entitled “Geology and Mineral Potential of the Attwood Lake Area” given at the Northwestern Ontario Mines and Minerals Symposium in Thunder Bay, Ontario, on April 15, 2015. The presentation highlighted the mineral potential of the Attwood Lake area.

MRD334_Azar_OEGS-NWOMMS-2014-2015_poster.pdf is part of the larger poster, entitled “Precambrian Bedrock Mapping Projects in the Far North”, presented at the Ontario Exploration and Geoscience Symposium in Sudbury, Ontario, on November 4–5, 2014, and again at the Northwestern Ontario Mines and Minerals Symposium in Thunder Bay, Ontario, on April 14–15, 2015.

MRD334_SoFW2015-04_Azar_Ferguson.pdf is an article (Azar and Ferguson 2014), published in the Ontario Geological Survey *Summary of Field Work and Other Activities, 2014* volume, which, written immediately following field work in the Attwood Lake area during the summer of 2014, outlined the activities and results of that field work.

References

- Azar, B. and Ferguson, S.A. 2014. Preliminary results from bedrock geology mapping in the Attwood Lake area, Fort Hope greenstone belt, eastern Uchi Subprovince; *in* Summary of Field Work and Other Activities 2014, Ontario Geological Survey, Open File Report 6300, p.4-1 to 4-12.
- Azar, B., Ferguson, S.A. and Mayer, C. 2016. Precambrian geology of the Attwood Lake area, Fort Hope greenstone belt; Ontario Geological Survey, Preliminary Map P.3800, scale 1:50 000.