Mineralogical Association of Canada

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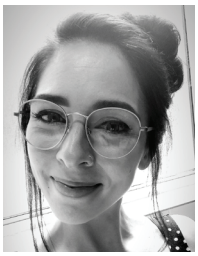
MAC FOUNDATION SCHOLARSHIP WINNERS

We congratulate Matthew J. Manor and Erin Gibbons, recipients of the 2018 Mineralogical Association of Canada (MAC) Foundation Scholarships.

Matthew Manor completed his BSc degree at the University of Minnesota Duluth (USA) in 2012 and his MSc degree at the University of British Columbia Vancouver (Canada) in 2014. His MSc research was under the supervision of Drs. James Scoates (University of British Columbia), Graham Nixon (British Columbia Geological Survey), and Doreen Ames (Geological Survey of Canada, Ottawa) and focused on the genesis of the Late Cretaceous ultramafic-hosted Giant Mascot Ni–Cu–platinum group element (PGE) deposit in southwestern British Columbia. Matthew utilized field mapping, petrology, sulfide geochemistry, and geochronology to constrain the mineralogy, textures, and timing of the Ni–Cu–PGE mineralization in a convergent margin ultramafic intrusion. Following his MSc, Matthew pursued additional research at the University of British Columbia, worked in the mineral exploration industry, and took an academic break in 2016. He then began a PhD in Fall 2017 with Dr. Stephen Piercey at Memorial University of Newfoundland (Canada) where his current research focuses on the petrology, lithogeochemistry, and U–Pb geochronology of felsic volcanic and intrusive rocks in the Finlayson Lake volcanogenic massive sulfide (VMS) district, southeastern Yukon (Canada). He uses a combination of bulk rock and in situ geochronological and geochemical data from felsic-hosted zircon, monazite, and apatite in VMS-hosting and VMS-barren stratigraphy to define new prospectivity criteria. The results of this study will provide a new stratigraphic framework for Late Devonian to Early Mississippian volcanic and plutonic activity in the Finlayson Lake district and add new perspectives on the formation of VMS deposits in the Yukon, on the crustal evolution of the northern Canadian Cordillera, and will contribute to our understanding of the global-scale interplay between tectonics, magmatism, and VMS genesis.



Erin Gibbons is an MSc student at McGill University (Canada) studying Earth and planetary science under the supervision of Dr. Kim Berlo and Dr. Richard Léveillé. She is currently living her dream of working on a Mars exploration mission as a student science collaborator with NASA's Mars Science Laboratory rover, *Curiosity*. Erin's research interests concern tracing the physical and chemical evolution of water in the solar system through the analysis of sedimentary rocks. Due to their ubiquity and their geochemical sensitivity to formation environment, iron-, magnesium-, and aluminum-bearing clay minerals will be the focus of her efforts to understand the aqueous history of Earth and other terrestrial planets. However, because no planetary exploration missions have returned extraterrestrial rock samples, Erin will work to create a suite of synthetic clay minerals that model the geochemistry of early Earth and other planets. She will conduct a thorough characterization of the synthetic products using cutting-edge geoanalytical instrumentation and molecular-scale techniques to enhance our understanding of the processes leading to clay mineral formation and alteration. The primary goal of the project is to develop spectral standards that allow for accurate and nuanced remote sensing–based identification of clay minerals. The results of this work will be directly and immediately relevant to the exploration of ancient sedimentary rocks on Earth as well as so the ongoing exploration of the Martian surface and the search for extraterrestrial habitable environments.