

Winter 2020

DONOR IMPACT REPORT



PARTNERING WITH IMPALA CANADA (FORMERLY NORTH AMERICAN PALLADIUM)

Researchers at the Centre of Excellence for Sustainable Mining and Exploration (CESME) are excited to be working with Impala Canada to better understand the formation of the Lac des Iles Mine.

Financial support from Impala Canada is supporting Master's student Victoria Currie's project which is investigating the origin of the various dike suites at the mine to establish their link to the mineralized intrusions. Vicky spent the summer working at the mine, allowing her to obtain some great experience in the mining industry, and to get a head start on her project.

In December of 2019, Dr. Pete Hollings was awarded a Natural Sciences and Engineering Research Council Collaborative Research Development award. This award matched the funding from Impala Canada and enabled a second Master's student, Justin Jonsson, to start working on the project at Lac des Iles.

Justin is focused on whole rock and mineral chemistry. His work investigates the evolution of the magma chamber that hosts the mineralization.



IMPALA CANADA AND SUPERIOR SCIENCE AT LAKEHEAD

Impala Canada's contributions go beyond fostering innovative research and launching the professional lives of university students. Recently, they made a \$20,000 donation to Lakehead University's Superior Science – a student-run, non-profit program based at Lakehead Thunder Bay, that introduces children in grades 1 to 8 to fun hands-on activities in the science, engineering, and technology (STEM) fields.

Impala Canada's generosity will support the enhancement of summer camps, girls club programming, community events, and Indigenous outreach throughout Northwestern Ontario. "We anticipate reaching over 4500 children through Impala Canada's generous support," says Ashley Andrea and Michael Coccimiglio, the 2019 Directors of Superior Science.

"We are thrilled to develop new and collaborative ways to partner with and support Lakehead. The university's breadth of mining, science and engineering-based initiatives and programming complement our business enabling us to see clearly the many advantages of building a long-term future together."

— Erin Satterthwaite, Vice-President, Corporate Affairs and Communications, Impala Canada



"CESME is really excited to be working with our local partners to develop exciting new opportunities for our researchers and students while solving critical issues that advance the interests of Northern Ontario. These partnerships are critical to our research and provide outstanding training opportunities for our students."

— Dr. Pete Hollings, CESME Director

EXCEPTIONAL.
UNCONVENTIONAL.



Lakehead
UNIVERSITY

NORTHERN ONTARIO PROSPECTOR, GEOLOGIST AMONG MINING INDUSTRY AWARD RECIPIENTS



Dr. Rudy Wahl, Sc.D (Hon) of Marathon, Ontario, a prospector and discoverer of several precious metal, diamond and rare earth occurrences in northwestern Ontario, will receive the prestigious Bill Dennis Award from the Prospectors and Developers Association of Canada. This award recognizes industry leaders who have made a significant mineral discovery, or made an important contribution to the prospecting and/or exploration industry. The award presentation will take place at the PDAC Convention in Toronto March 3, 2020.

INDIGENOUS CERTIFICATE IN GEOLOGICAL STUDIES

CESME continues to move forward with the Indigenous Certificate in Geological Studies (ICGS) given the strong interest from Indigenous leadership and educational institutions to build capacity in the STEM fields. The ICGS is a university level micro-credential that will recontextualize the courses that make up the first year of the Geology degree at Lakehead and frame them within Indigenous world views. Thanks to support from the Dean of the Faculty of Science and Environmental Studies, we have started work on the recontextualization of the first year Chemistry course as a pilot study that can also be applied to other First Nations focused programs at Lakehead.

CESME HIGHLIGHTS

One of the primary goals of CESME is to recruit and foster faculty, postdoctoral fellows, postgraduate, graduate, and undergraduate student participation.

Highlights from CESME include:

CESME's Strategic Plan

Working with the Advisory Board, CESME's leadership team has developed a Strategic Plan for the Centre charting the way forward for the next 5 years. Copies of the strategic plan can be found on the CESME website.

CESME Researchers

CESME researchers are continuing to work with Freeport-McMoRan and NSERC in a study of the alteration system around the Pemberton Hills porphyry system in British Columbia.

Pat Hamilton and Andrew Jedemann

The two MSc students are back after spending three months at CODES, our research partner at the University of Tasmania. Their analytical work, supported by the Mitacs program, is producing exciting results that is refining our industry partner's exploration strategies.

THANK YOU TO OUR DONORS!

For generously supporting the following CESME awards currently available to graduate students, who are learning an interdisciplinary approach to research. This approach is providing a learning experience that better prepares them for the unique regional needs of Northern Ontario.

- SNC Lavalin CESME Graduate Scholarship
- John R. Craig Memorial CESME Award
- Dr. Melville Bartley Memorial CESME Award

RESEARCH SUPPORTS THE CESME ENVIRONMENTAL IMPACT PILLAR



This year's recipient of the Dr. Melville Bartley Memorial CESME Award was Kyle Stratton who is investigating the Steelhead fishery on Lake Superior's North Shore which has undergone dramatic fluctuations over the last few decades.

Kyle's work falls under the environmental pillar of CESME and will help to advance the understanding of the Great Lakes by determining how naturalized self-sustaining populations of Steelhead respond to changes in selective pressures such as over-harvest, competition and predation.

The results from this study will be applied to the other Great Lakes as all the species examined in Kyle's study are found in each of the Great Lakes.



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