



## Celebrating Sidney Schafrik: First Aboriginal person in Canada to graduate with PhD in Engineering

"My name is **SIDNEY SCHAFRIK**. I am from the Yukon and am a part of the Chippewas of Mnjikaning or Rama First Nation. As an Aboriginal student, I was fortunate to receive funding from my band towards my educational endeavors which have led me to complete three degrees at Laurentian University.

My academic career at Laurentian began with a Bachelor of Mining Engineering, followed by a Masters in Mineral Resources Engineering, and now my final degree being a Doctorate in Natural Resources Engineering. Over the course of my undergraduate studies, I was privileged to work with an Aboriginal-owned engineering and environmental solutions company called Neegan Burnside Limited, located in Orangeville, Ontario. This provided me with practical experience and in-depth technical expertise in the field of engineering. Through this experience, I have learned to examine cost-effective solutions to land development. During my doctoral studies, I began working for the Mining Innovation Rehabilitation and Applied Research Corporation better known as MIRARCO under the supervision of Dr. Dean Millar.

Academic successes certainly came with their challenges. For instance, during my undergraduate degree I struggled with being far away from home and isolation. I especially found my undergraduate degree to be challenging, but was blessed to receive substantial help from Professors like Dr. Ramesh Subramanian. I also benefitted from utilizing Aboriginal Student Affairs supports and services for accessing a computer and printer as well as for help with managing and coping with my own personal issues associated with being Aboriginal.

In 2013, I was awarded the title of "Best Conference Paper" for a presentation on ventilation systems at the World Mining Congress that took place in Montreal, Quebec in 2013. I was also the recipient of the Derrick Kamanga Memorial

Scholarship Award for my work in dealing with First Nations and issues surrounding water, under the direction of Merv Dewasha, P.Eng, at Neegan Burnside Limited. After 5 years of doctoral studies, I successfully defended my thesis, "*The Geometry of Heat Exchange for Broken and Fragmented Rock*." The PhD process is rigorous, but I had help from my friends and colleagues at Laurentian, especially from the technicians, and the ERCM.

Through many years of hard work, both academically and professionally, I am beginning to see my hard work, as well as the work of many other Aboriginal peoples, pay off. MIRARCO is working to develop and implement an Aboriginal Access to Engineering program. As well, I will soon be working with a company called Zecenergy which is a combination of the Rama First Nation and an established company called Ontario Energy Matrix, to assist with work in the renewable energy industry, primarily with solar photovoltaics and to help First Nations people initiate projects using First Nations workers on their own reserves.

If I could offer advice to other Aboriginal and non-Aboriginal students, it would be to remember that with enough determination and perseverance anyone can make it through academics, and if you are willing to utilize the supports and services available to you, the success you will achieve is without limits."