



NHEET - Natural Heat Exchange Engineering Technology for Mines

MIRARCO Mining Innovation's NHEET project set to kick-off on January 29, 2020.

MIRARCO Mining Innovation is excited to announce the start of its Natural Heat Exchange Engineering Technology (NHEET) project.

The project's goal is to leverage previous collaborative research between MIRARCO and Vale on the natural heat exchange system at Vale's Creighton Mine, to determine how the benefits of this system can be replicated at other mine sites.

This exciting partnership with Laurentian University, CanmetMINING, and Cambrian College/OCE has received over \$1.8M in funding commitments from industry and government.

Background

Vale's Creighton Mine has a unique natural heat exchange system that has been in operation for over 50 years, providing both heating and cooling of ventilating air. Due to this natural heat exchange, mining is carried out at Creighton to a depth of 2.5 km without any artificial refrigeration, and is projected to continue to a depth of 3 km. Vale and MIRARCO have worked collaboratively over several years to better characterize and operate the Creighton system.

Replicating these benefits would displace the capital and operating costs of a refrigeration plant and heating system, while also reducing the use of electricity and natural gas. This results in both environmental and financial benefits.

Sponsorship Opportunities

For a successful outcome, it's important for us to have extensive input from participating mine operators. If you are interested in becoming a project sponsor, either through monetary or in-kind contributions, please **Join Us!**

All mining companies interested in sponsorship are invited to join our NHEET Project kick-off meeting.

When: Wednesday January 29, 2020 at 9:30am EST.

Where: Meeting room TBD, Laurentian University (935 Ramsey Lake Road, Sudbury ON P3E 2C6)

We look forward to answering your questions and working with you!

If you would like to be added to the meeting invitation, or would like more information on the project, please contact Lorrie Fava.

Dr. Lorrie Fava

Director of Decision Support Software

MIRARCO Mining Innovation

lfava@mirarco.org

(705) 671-3333 x5