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IMII Announces Funding for and Progress on New RD&D Projects

(Saskatoon SK:) The International Minerals Innovation Institute (IMII), on behalf of its member companies and Innovation Saskatchewan, today announced funding for three new research, development and demonstration (RD&D) projects and progress on a fourth, focussed on mining safety and productivity. They are:

- Investigation of Polymeric Reagents for Potassium Chloride Collection During Potash Flotation –
 University of Regina
- Preliminary Quantification of Scaling Bar Impacts for Underground Mine Safety University of Saskatchewan
- Enhancing Mine Safety and Accuracy Through Underground Ultra-Wideband Positioning System
 Saskatchewan Polytechnic
- Cigar Lake New Concept Mining Yielding Bolt Test Trial Cameco Corporation and The Mosaic Company

The three academic proponents participated in AIMday[™] Minerals in March 2017 and were among 17 research teams originally invited to submit preliminary project proposals in April [News Release April 5, 2017]. Of these, six were shortlisted for consideration of full project proposals in the fall, and three recommended, with all three being approved by IMII's Board of Directors in December 2017.

The yielding rock bolt trial is IMII's first technology demonstration project. The project has already demonstrated that the different rock bolts — with the potential to stretch in response to strain while still retaining their strength and keeping rock safely in place for longer — can be installed using existing personnel and equipment, and testing is now underway to determine field performance and to compare performance of the new bolts to the old both at Cigar Lake and in the potash industry.

The budgets for the four projects total \$856,400, with IMII contributing \$267,400. The remainder of the costs are to be contributed by participating companies, government funding agencies and supply chain companies.

"IMII's project development process is a rigorous one, driven by the needs of industry," says Al Shpyth, IMII Executive Director. "Projects are advanced only if they have the potential to bring innovations of benefit to more than one company, or even more than one mineral sector. We extend our congratulations to the research teams and our member companies for advancing innovations that matter to mining."

"Saskatchewan's mining sector is a cornerstone of the economy, attracting investment, generating billions of dollars in revenue and employing tens of thousands of people in the province," Minister Responsible for Innovation Steven Bonk said. "AIMday 2017 was successful in identifying potential solutions to technical industry challenges and we are pleased with the opportunity to research and possibly develop made-in-Saskatchewan solutions to those challenges."



To better meet the needs of its mineral company members in 2017, IMII developed new funding models to support research, development and demonstration projects and leverage government funding to support industry investment. The first two new projects will receive funding under the *Exploring Innovations* program and the third, from Saskatchewan Polytechnic, will be funded under the *Developing Innovations* program. The *Exploring Innovations* program focuses on short-term research and development (R&D) projects that explore whether innovations are possible. Partners are to apply their expertise to address an industry challenge where the ideal outcome is scientific research that is ready to transition to applied research. It is expected that *Developing Innovations* projects will make contributions to next generation mines and mills by developing emerging technologies or applications, or validating "new to mining" technology components to manage risks and/or lower liabilities.

The yielding rock bolt trial is being funded under IMII's *Operationalizing Innovations* program. The objective of this program is to see a solution developed, demonstrated and available for adoption and use by the minerals industry. In this case, the project is looking to validate or demonstrate key technology components in a significant operations environment – the clay-infused geologies that are associated with Saskatchewan's potash and uranium mines.

"With IMII being industry-led, it is an effective vehicle for advancing projects that not only cut across company lines but also across commodity lines, and that helps to benefit both the industry and its employees," says Craig Funk, Nutrien's Director of Earth Science.

IMII's mineral member companies include BHP, Cameco, K+S Potash Canada, Nutrien Ltd. (formed out of the merger of Agrium Inc. and PotashCorp on January 2, 2018), and The Mosaic Company.

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About IMII

The International Minerals Innovation Institute is a unique innovation supporting network of mining companies, supply chain companies, government departments and agencies, post-secondary institutions, research institutions and other who share the industry's commitment to innovation and sustainability. It is jointly funded by industry and the Government of Saskatchewan, through Innovation Saskatchewan. It exists to deliver innovations that matter to mining in Saskatchewan.

About the R&D Programs

See http://www.imii.ca/rd/

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