



NORTHLANDS
COLLEGE

Northlands College Mine School

Northlands College Mine School

- **Northlands has offered Mine training programs for over 20 years**
- **Early Lab Tech program, over the years Underground Mining, Diamond Driller Helper, Radiation Technician, and Mine Engineering Technician**
- **In 2013, decision was made by college management and board to provide increased support to the main driver of the north's economy – the exploration and mining industry**
- **Increased support will be provided by the development of a Mine School**

Northlands College Mine School

- **Goals: To support existing mines and future growth in the industry**
- **To support more northerners to become engaged at skilled, technical, and professional levels**
- **To support growth of mine service sector through training and industry knowledge**



Northlands College Mine School

- Mine School concept was discussed with CEO, instructors, mining industry
- Research done to identify labour market demand for skilled workers in SK mining industry (MiHR, SMA studies)
- Concept was drafted, discussed and modified
- International Mineral Innovation Institute (IMI), and Western Economic Diversification (WED) were identified as potential funders
- Proposals were written and modified after more discussion



Northlands College Mine School

- **Goal to train skilled workers in primary demand occupations: skilled labour, technical and professional, trades**
- **Actions to better equip existing courses and develop new courses according to demand, recognise demand fluctuates with ebb and flow of commodities**
- **College dialogue with industry increases with Mine School development**
- **Dialogue with industry leads to understanding of potential Mine School connection to mining and exploration applied research and how this is economic driver for region**

Northlands College Mine School

- **Educational equipment and apparatus was identified as well as need for expanded facilities**
- **Equipment lists developed and initial facility plans made**
- **Training and research concepts, facility plan, equipment lists tied into development plan**
- **Cost of development proposed to funders**
- **Proposals successful, WED \$2.5M, IMII \$1.8M**



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- Prime Minister in La Ronge in July to announce the federal funding
- IMII funding is provincial and industry, will be announced in December (watch for date!)



Northlands College Mine School

- **Major purchase – mine equipment simulators**
- **Discussions with industry identified value of incorporating mine equipment simulators into training available to industry – both for entry level and intermediate underground miners**
- **Productivity, equipment wear and tear, worker safety, and company liability are all reasons industry is interested in mine equipment simulators**
- **Tender was let in late 2013 for mine equipment simulators**

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- Northlands CEO and Mine School Associate Director went to Vancouver, Salt Lake City, and Sudbury to see demonstrations of simulators
- Purchase agreement was made with Atlas Copco
- Main advantage was realism of simulators (actual equipment cabs and controls)
- Significant advantage as well that Atlas Copco is major supplier to mining industry world wide, very deep industry knowledge, great partner for Mine School



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Scoop Tram Simulator



- The program mirrors the condition and tasks the operator faces in different situations in mining and construction operations
- Simulator uses same cab as real equipment

- Management system to create suitable training paths
- Articulating motion platform give real time feedback on actions. Operator feels the bucket hit the ground
- Radio remote control and external large screen for group teaching



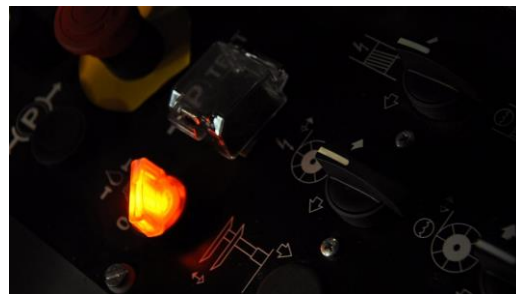
Northlands College Mine School

Boomer/Simba Drill Simulator

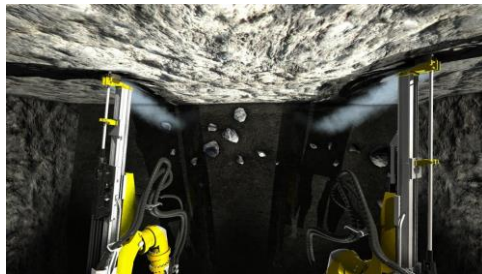
- Surface driving and underground tramming



- Authentic Controls



- Drilling and Scaling



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- **Other Equipment and apparatus being purchased to enhance teaching in technical programs eg. Survey Equipment, Mine Engineering Tech; Radiation instruments, Radiation/Environmental Tech**
- **Connection with U of S College of Engineering to develop Engineering/Technical bridging program**
- **Connections with Saskatchewan Polytech on Basic Mine Training**
- **Connections with Haileybury School of Mines, BCIT, Colorado School of Mines**



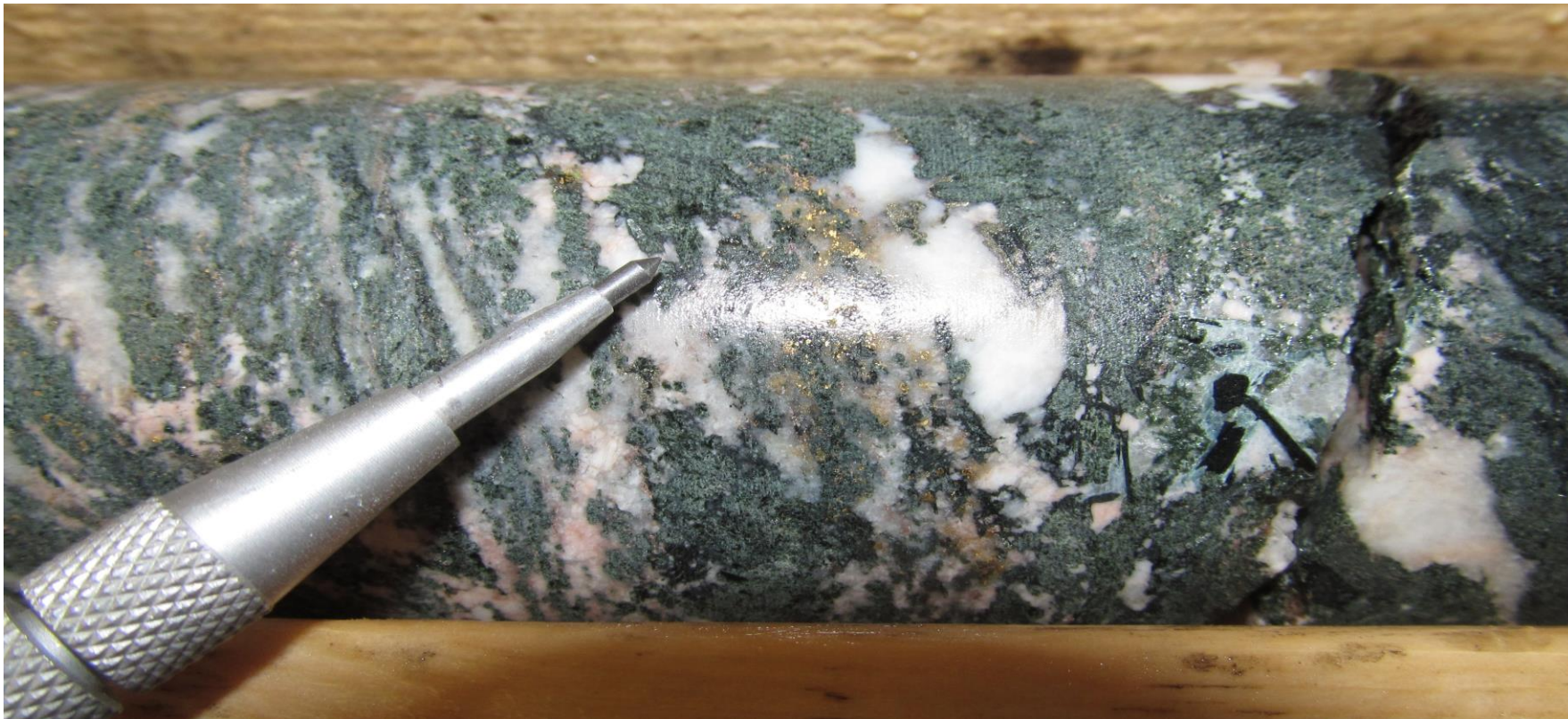
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- Deeper connections with operating mining companies, as well as juniors in exploration phase
- Connections with Pre Cambrian Geological Lab: educational, research, and economic development potential
- Developing deeper understanding and contacts of industry as a whole
- Institutional approach as opposed to program broker approach



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- **Visible Gold – Santoy Gap Drill Core, Claude Resources, Seabee**



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- **Current courses: Mine Engineering Technician (2 year diploma) – 2 sections**
- **Radiation/Environmental Technician (1 year+ certificate)**
- **Hardrock Underground Mining (Skilled Labour - certificate)**
- **Diamond Driller Helper (Skilled Labour – certificate)**



Northlands College Mine School

- **In Concept and Development: Basic Mine Training**
- **Chemistry/Metallurgy/Assay Technician**
- **Underground Diamond Driller**
- **Advanced Hardrock Underground Mine Training (Master Driller Program)**
- **Engineering/Technical Bridging Program**
- **Working to identify transfer of credit opportunities, and linkages between programs**



Northlands College Mine School

- Northern mine research database, support applied research to drive economic development in the region
- Provide training at all levels from academic preparation to pre employment, to technical and professional, to skill development after employment
- Train for all phases of mine development from exploration, to development, to operation, to decommission
- Use this comprehensive training model to drive new Multi-Party Training Plan



Northlands College Mine School

Thank You!

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