

PRESENT AND ACCOUNTED FOR: MINE RESCUE IN THE NORTH

UNDERGROUND. The word evokes all kinds of imagery: deep, dark places with tons of dirt and rock overhead, tunnels, huge earth moving machinery, the clink of tools, and the sounds of voices echoing deep in the ground.





► **NOW**, imagine working in that environment, where, when something goes wrong, you depend on a highly trained team of people to know exactly where you are and exactly what to do.

ENTER MINE RESCUE

Every mine has one, a group of trained and experienced mine employees that become a rescue team in times of crisis. Ideally, there are 60 to 80 employees trained at each mine, with a minimum of 30 team members on site at all times.

These volunteer members come from all walks of life; paramedics, cooks, clerks, supervisors, miners, mechanics, etcetera. Upon making a commitment to the training and the team, they become a big part of an essential safety component at their mine.

Mine rescue training is standard across the mining industry. Responses, actions and timing are all similar. All Northwest Territories and Nunavut mine rescue trainers receive certification through standards set by the Workers' Safety and Compensation Commission (WSCC), based on the British Columbia Mine Rescue Manuals. And, in times of crisis, where an accident at a mine is too overwhelming

for the teams on shift, a mine can call in other rescue teams, confident the training and response techniques align with their own.

When the mine rescue team receives the call to address an issue or problem, they respond with three teams of at least five members each, depending on the scope of the incident. One team goes to the accident site in the mine, another team remains on the surface, or fresh air base, as the stand-by team in case the first team requires assistance. A third team stands in reserve. "These team members are a well-oiled machine," says Peter Bengts, Chief Inspector of Mines for WSCC. "Each member knows exactly what their role is."

Northerners get the opportunity to see mine rescue teams when they compete every year in Yellowknife at the Mine Rescue Competition in June. But, competition is not the target for their training. "Mine rescue is a serious and important foundation for any safety program at a mine," says Peter. "When something goes wrong in a mine, you need to know

there is a group of people so well trained they can deal with any crisis situation that comes up. Competition is just a bonus on top of that."

This past June saw all three territories competing in the Territorial Mine Rescue Competition for the first time, with two young teams that had never been in competition. This was the first year Capstone's Minto Mine from the Yukon Territory and Agnico-Eagle's Meadowbank Mine from Nunavut ever competed. This was also the first time the Competition had representation from the Yukon Territory.

Agnico-Eagle's Meadowbank Mine attended the Competition for the first time, with coach Andre Rouleau. "We were doing our regular training, making sure we were current and confident, when we found out mine management wanted us to attend the competition in Yellowknife," he said. "This gave us two months to prepare and make ourselves competition ready."

Andre's background is as a Deputy Fire Chief and a firefighter for more



than 30 years, so he has a breadth of experience in fire prevention and rescue techniques. “Right now, the Meadowbank site is a surface mine, so the majority of our incidents are fires and general safety incidents,” he said. “When we go underground in the near future, it will give us the opportunity to put our training into practice.”

The team consists of volunteers from every department at the site. They are given a medical exam to make sure they’re healthy enough to manage in a crisis situation, then receive first aid training if they need it, mine rescue training, and Firefighting 1 and 2. This means the team is ready for anything at their site.

To stay current and trained, they practice each Sunday, focusing on practical and theoretical training. All mine rescue teams must do eight hours of training every two months, as laid out in the *Mine Health and Safety Acts and Regulations*. These teams do much more than that.

It paid off. At their first competition, the *54th Territorial Mine Rescue Competition*, the Meadowbank team won two trophies: Practical

Bench – Surface (sponsored by BHP Billiton) and Smoke – Surface (sponsored by Draegar Canada). “We had a great time,” said Andre. “Just the opportunity to compete to see how we measure against other teams and their techniques was a great opportunity. It allowed us to see what we need to work on and what we’re already doing well. It gave us a great boost before we go to the *National Western Regional Mine Rescue Competition* in Fernie, British Columbia.”

The Yukon team had a similar experience. Capstone’s Minto Mine, another first time competitor, was led by coach Mark Goebel.

Mark has a strong background in safety and prevention. With experience as an industrial firefighter, paramedic, hazmat technician, first aid instructor, and ski patrol, he is well versed in rescue and first aid techniques. He is also a certified mine rescue instructor for underground and surface through the WSCC. “I believe in being prepared,” he said. “There are so many variables at a mine site; you have to be ready for anything.”

The Minto Mine is still a new mine, and the rescue team consists of only 20 members, two shifts of 10. Currently, all operations are on the surface, with plans to expand underground.

All their team members are also volunteers, from all departments across the mine site, including contractors. They look for people with some background in emergency response or first aid, but they will train someone who is willing to make a strong commitment to the team. Each team member and their supervisor sign commitment agreements. Mine administration is very supportive of the commitment and time it takes to train both the individual and the team to work as a unit.

“All members of our mine rescue team are highly committed,” said Mark. “They don’t just show up for the practices; there is a lot of self study and practice outside regularly scheduled training sessions.”

Their training schedule is thorough. They meet every Wednesday to check their gear and go through the schedule for each Sunday’s four-hour



training session. They have brought in outside instructors to provide new approaches and techniques to their schedule. Last year, they invited Canada Rescue technicians to provide training in rope rescue and confined space rescue. With the industry advancing so quickly with new techniques and practices, they commit to sourcing instruction to keep themselves current.

That approach paid off at last year's *Mine Rescue Competition*. The Minto Mine team went home with the trophy for Rope Rescue (sponsored by Nuna Logistics), but their overall experience with an unexpected award was the overwhelming prize.

"When we arrived in Yellowknife, we had no equipment," said Mark. "The Yellowknife Fire Department came to our rescue and gave us a bay and any equipment we needed; just full unconditional support. What they couldn't give us, Medic North stepped in and provided. We owe a big part of our success to them and their generosity."

And, the big surprise of the event for this team was the Mine Rescue Certifications they received from

Peter Bengts. "To see the team receive those certifications after all their hard work was the best trophy of the event," said Mark. The Yukon Workers' Compensation Health and Safety Board is just implementing their certification program, so none of the team members were officially certified.

"At the end of the day, the more tools you have in your toolbox, the better you can get the job done," stated Mark. "As long as you maintain the safety of your team, your patient's care, and meet your objectives, you should be able to manage in any crisis situation."

Mine rescue has come a long way since the early days; with communications technology, advanced techniques, training and equipment, and highly specialized instructors and team members. And with teams like Mark's and Andre's present and accounted for at the mines, underground isn't such a scary word after all.

For more information, contact WSCC Mine Safety at 1-800-661-0792 in Yellowknife, or at 1-877-404-4407 in Iqaluit. wsc.ca

MINE RESCUE

Competition Events

SURFACE AND UNDERGROUND WRITTEN TEST

While in lock-up, teams write an exam. The exam covers mine rescue procedures, respiratory protective equipment, fire fighting procedures, and first aid.

SURFACE PRACTICAL BENCH

This is task-specific and the task changes year-to-year. The task involves specific skills to challenge individual team members. It may involve respiratory protective equipment, gases and gas testing, knots, rope rigging, oxygen therapy, and general mine rescue knowledge.

UNDERGROUND PRACTICAL BENCH/FIELD TEST

This is equipment specific. Team members carefully check out (field test) their BG4 breathing apparatus and equipment for proper functioning and air tightness as they would in a real incident. The team may also answer questions on the BG4 equipment and mine rescue procedures.

FIRST AID

A five to six person team demonstrates its proficiency in first aid in a potential mining site incident. St. John Ambulance (NWT, Manitoba, Nunavut) prepares and judges the simulated incident.

FIRE FIGHTING

A six-person team reloads fire extinguishers and uses them to extinguish various live fires.

ROPE RESCUE

A six-person team performs a task that involves a rope rescue apparatus, such as lowering or lifting a person or rappelling.

SURFACE AND UNDERGROUND SMOKE

A five to six person team dons respiratory protective equipment and searches for and rescues victims in a smoke-filled room or simulated conditions.

SURFACE OBSTACLE/EXTRICATION

Up to a six-person team competes in this task. The teams use rescue devices common to mine rescue, such as pulley systems, come-alongs, air bags, etc., to extricate a person.

UNDERGROUND OBSTACLE/EXTRICATION

Using a mock mine to represent the tunnels and workings of an underground mine, judges set-up mine rescue problems the team must solve. The problem may involve finding and rescuing trapped mine workers, locating and extinguishing fires, and rehabilitating the mine. A five-person team wearing apparatus travels underground, where it receives direction from a Coordinator/Director of Operations, who is a member of the team.