



Training Diamonds in the Rough

*By Dale Schierbeck, Susan Devins,
and the Training Department*

The Ekati Diamond Mine™ (80% owned and operated by BHP Billiton Diamonds Inc.) is located in the Barren Lands about 320 km northeast of Yellowknife and 200 km south of the Arctic Circle. The Barren Lands is among the harshest climatic regions on earth and is the most sparsely populated landmass north of the Antarctic. BHP Billiton's mineral claim block covers 3,400 square kilometres in the remote tundra.

With the exception of an eight-week period every year when there is a winter road to camp, the Ekati Diamond Mine™ is only accessible by air. There are approximately 600 people on site at any one time with about 13% of these female.

BHP Billiton has committed to building a sustainable Aboriginal and Northern workforce. It has also committed to a rigorous environmental policy that promises to minimize the effect of mining on the BHP Billiton claim block and in the Lac de Gras region.

The company further made commitments to the North by signing a Socio-Economic Agreement with the Government of the Northwest Territories. In these, we undertook to provide opportunities for Northern residents and Northern aboriginals in the areas of employment, training, and business. For example, we set hiring targets: 31% Northern Aboriginal residents and a combined total of 62% for all Northern residents. BHP Billiton continues to surpass these targets.



Safety is a primary concern as evidenced by a blast at the Ekati Diamond Mine™



Diamonds from the Ekati Diamond Mine™

These targets, however, are not without their challenges. The NWT only has a population 42,000, of which only half are Aboriginal by descent. The Ekati Diamond Mine™ is not the only large company hiring from this small pool of workers: other Northern mines and the oil-sands projects continue to vie for the same workers. Hiring is further complicated by the fact that many potential employees live in small, remote communities. Nevertheless, the company hires and transports employees to and from many of these communities.

Almost 30% of these employees have less than a grade-nine education. According to the NWT Literacy Council's research project "Making a Case for Literacy: The State of Adult Literacy and Adult Basic Education in the NWT," 66% of Aboriginal adults - compared to 31% of non-Aboriginal adults - do not have the literacy skills needed for daily living (IALS Level 3). Such educational levels contribute to a 26% unemployment rate among Aboriginal job seekers. And because BHP Billiton has chosen not to screen for education in filling its entry-level positions, low literacy is prevalent in the workforce. Therefore, the Company's signed commitments to hire from the North and its small pool of skilled workers mean that we will continue to hire employees with low-level literacy.

Determining needs

We knew that a knowledge gap existed and that our employees were caught between low educational levels and high occupational demands. As a result, the

Department committed to learning about the workplace's training needs before implementing any projects.

The management and workforce at the mine site needed to understand and fully support the literacy initiative. BHP Billiton contracted Bow Valley College (Calgary) and Skillplan (BC) to put together recommendations and a plan for the development of a learning program.

Early work included developing essential skills profiles for our four entry-level positions, following the guidelines of the National Occupational Classification. The consultants used this information along with the Test of Workplace Essential Skills (TOWES) to develop a customized "Pre-Assessment TOWES", a tool for identifying learning gaps. In the midst of all this, Skilltest conducted a formal essential-skills needs assessment to help identify potential program components. Out of this, the Training Department's vision solidified as our awareness of our learners' needs grew.

Training Initiatives

Over the course of its three years, the Ekati Diamond Mine™ has undertaken numerous training initiatives. The demands on the Department are huge. With little on which to base our training, the Department has practically had to build a program from scratch. This includes everything from orientation, to progression plans, to all technical training, "soft-skills" training, and supervisory training. Training initiatives include:

Computer-based learning (Traccess)

TRACCESS provides two distinct functions for our Department. First, it allows us to track all training activities. Whether it be a one-time course, first aid certification, or on-site training courses, Traccess provides a record for us. For most workers on site, however, Traccess is a software application that allows users to direct their own learning. This is important given that most employees do shift work.

We have developed much of the learning that Traccess delivers. Learning materials have been developed in an array of formats, including PowerPoint, Word, pdf, and .html.

Secondly, Traccess organizes all learning into topics and logical sequences. The modules are learner-focused and reflect the piecemeal approach to learning so common among adult learners who are working at the same time. Through Traccess we know when a worker has completed their learning, how many attempts they required, and (if applicable) when re-certification is required.

Ekati Leadership Development Program (ELDP)

Established in 1999, this ambitious program was designed to provide all our "leaders" (real and de facto) with the same skills and knowledge base.

The ELDP is a self-directed, competency-based program. It has two parts to its structure: knowledge and skills. These components focus on helping participants to develop the knowledge and skills that groups at the Ekati Diamond Mine™ have determined are essential to effective leaders.

Key features of the ELDP include: prior learning and skills assessment; two-day introductory workshop; self-study manual (a three-inch binder worth of



Employees learning in the computer lab

materials); learning/study teams; additional workshops; and evaluation/tracking forms.

To date, more than a hundred candidates have entered the program. Most claim significant growth in their awareness of leadership issues. Others have used their learning materials as reference when in need of information. All in all, our leaders feel they are better prepared to do their jobs and that they can speak with a common language.

Apprenticeship

The Apprenticeship Program includes 22 apprentices in 6 different trades including Millwright, Heavy Duty Mechanic, Electrical and Instrumentation, Welding, and Mobile Cranes. Additionally, a number of our contractors support their own apprentices.

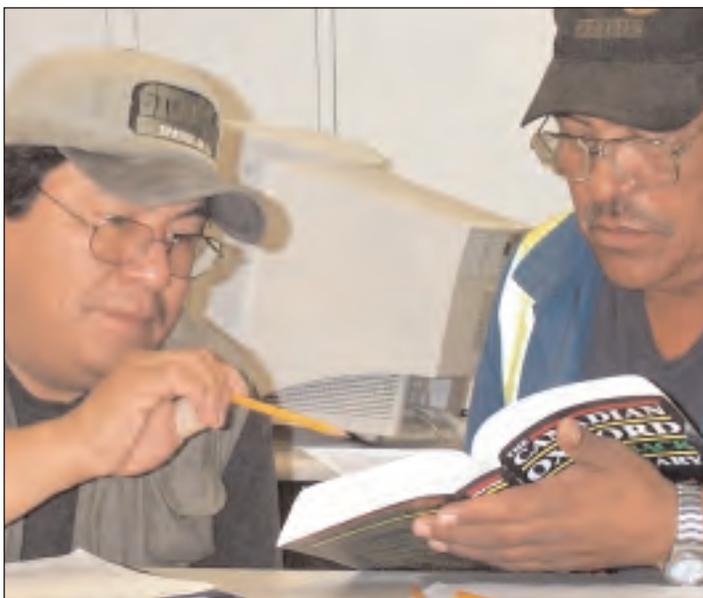
BHP Billiton is also supporting workers in the Warehouse Technician program through Fairview College, Alberta. Gaining their on-the-job experience here at camp, participants must complete three levels of technical training through correspondence. To achieve full-certification, these workers must write a provincial exam.

Already, two apprentices have completed full programs, both as welders. We have also sent apprentices to the nationally and regionally staged Canadian Skills Competitions held by Skills Canada. One of our apprentices recently won the Bronze medal in the Electrical Wiring competition at the national level.

Recognizing the need for recognition of its Process Plant employees, credentials, BHP Billiton has sought recognition of the “Mill Operator” position as a recognized occupation. Mill Operators are in high demand across the Territories and are found in all mines that process ore. It takes years to acquire the required experience to operate the different processes involved in ore separation. We are excited to be an integral part of this program’s development and believe that this is a crucial step towards the growth of so many would-be Operators at the Ekati Diamond Mine™.

Workplace Learning Program

We are proud of all of our training achievements. Yet, arguably, no other achievement best showcases the vision and strength of the Department than our unique Workplace Learning Program. A major impetus for the WLP was our first Core Guiding Principle:



Frank Sangris and Arsenne Ayha

safety. An estimated 30 - 35% (80-100 employees) of the mine’s Aboriginal workforce struggles with reading simple documents. Some cannot even read road signs. Teaching employees to read is imperative if we are to keep them safe.

At this stage, the WLP ranges from pre-literacy to pre-apprenticeship. The program includes individual

Many of those involved in the program have a great deal of skill and expertise. The gap is not knowledge but rather a skill deficit: they cannot communicate their knowledge through writing.

literacy assessments, one-on-one tutoring, small group instruction, and computer-based training. The Adult Educators have designed content in collaboration with Team Leaders (also called Supervisors) to ensure

lessons are relevant to each worker’s job duties. In addition to workplace documents, the Educators incorporate the employees, immediate and long-term needs into the program. Over 70 employees are currently taking part in the program.

As most readers are aware, workplace-literacy programs are not a common practice. Consequently we have had no prototype to use as a guideline, particularly one that addresses our cultural diversity or the remoteness of our operations.

The program promotes “flexibility” and “inclusion”. Scheduling workers on a 2-week in/2-week out rotation as well as our 24/7 operations is a challenge. The two Adult Educators provide assistance and instruction to workers from all areas of the mine by meeting them before, after, and during their shifts.

Our Educators have set up the program to be responsive to individual needs and workplace requirements. The WLP includes reading, writing, math, oral communication, and computer-based training in the form of a reading/phonics program developed by AutoSkill. This computer exposure is important since computers are omnipresent in so many of the site’s jobs. This is also in consideration of the fact that, traditionally, Northern aboriginal languages are oral, so some employees cannot read or write in any language. Thus the program combines elements of whole language and phonetics as part of its training.

The program has only been running for eight months, but already the Adult Educators (Susan Devins and Elke Heinemann) have achieved noteworthy results. These include:

- **Improved self-esteem:** Workers want lessons to improve their personal skills to give them better access to things like understanding community events. Workers have the confidence to take part in activities hitherto intimidating. For example, after practicing phrases and scenarios in class, one worker participated in a safety meeting - the first time in over a year.

- **Ability to progress:** Many of our Aboriginal employees are discouraged when they see co-workers go on to more challenging positions and earn higher wages while they themselves are passed over. Their inability to read and write holds them back. As they succeed in the program, they are gaining confidence. The program has helped a maintenance worker to

pass his pre-apprenticeship exam to become an apprentice welder with BHP Billiton.

- **Greater community involvement:** A close working relationship has developed with Community Adult Educators to ensure workers have support in their home communities. Our Adult Educators provide lesson planning samples and strategies to support the work of local Community Adult Educators.

- **Growth of a learning-culture:** Employees are promoting the importance of education in their communities. Workers report how their families are helping them with reading and writing while they are home. Additionally, we are removing the stigma long associated with adult learning.

The success stories abound as workers acquire skills and overcome fears. For example, we observed one worker who was very reluctant to write anything. He did not know the letters of the alphabet. In just two months, he began to write more freely. He recently wrote out his children's names so he could send them birthday cards.

For all its successes, the program has not been without its hurdles. Convincing workers to attend a voluntary literacy program was certainly a challenge. The Educators overcame this, in part, by holding meetings with Team Leaders to explain the program in detail and work out solutions to the potential barriers. The Team Leaders gained a vested interest in making the program a success. In addition, working with Aboriginal employees who both understood the importance of the program and were willing to participate in the program themselves was critical. These Aboriginal workers promoted the program and served as role models for those less confident to come forward for help. Indeed, four of them have been nominated for the Northwest Territories, Ministerial Literacy Award. In essence, our challenge was to create a learning culture founded on principles of respect and co-operative learning.

Most workers access the WLP on company time. However, releasing workers from their equipment and workstations remains an on-going challenge. Safety and production are the priorities and sending workers for the program cannot jeopardize either. Significantly, some workers attend the program on their own time as well as work time.

Many of those involved in the program have a great deal of skill and expertise. The gap is not

knowledge but rather a skill deficit: they cannot communicate their knowledge through writing. Many of these workers have avoided writing for most of their lives - a difficult mindset to overcome. Similar biases



Alfred Fish and Norman Betsina

against education exist. Many have had negative experiences with formal education. Thus, bringing "best educational practises" into an industrial setting is not simple. We have had to be sensitive to cultural differences and attempted to make the learning as meaningful as possible by using workplace and local documents in the development of training materials.

In the end, the WLP and our training program bring innumerable benefits to the business and employee. Improved essential skills means greater involvement in all aspects of life: work, family, and community. It means a better quality of life; reduced poverty, substance abuse, and dependence on government assistance; and increased participation in the wage economy. In improving the essential skills of our employees and by providing a comprehensive training program BHP Billiton Diamonds Inc. will leave a lasting legacy in the North. Our employees have the potential to take from the Company something richer than any sum of diamonds: greater opportunities, confidence, and a chance for true self-determination.

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