

Skills training: Canada/Mongolia



Training in Quebec: an industrial maintenance excellence centre.

Canada's college for all the world

In close collaboration with Iron Ore Company of Canada (IOC), the Cégep de Sept-Îles college in Quebec has established a customised training programme that allows students to earn degrees in industrial maintenance and industrial electronics control. They can put their expertise to work in all sectors relying on production equipment.

Students come from all over the world to learn. There are 18 from the Pacific island of New Caledonia.

The young students, who have been fully embraced by their peers in Sept-Îles, are enrolled in either the industrial maintenance or industrial electronics technology programme, both of which are three year courses of study that include paid summer apprenticeships, some of them at IOC.

The students appreciate not only the training method but also the opportunity to explore another part of the world, in the northern hemisphere, completely unlike their southern home. They have already adapted to the rigours of the Canadian winter and are integrated into the study body and their host community.

The Cégep de Sept-Îles is open to the world. For a number of years it has been providing training required to

work in the mining industry in Quebec or elsewhere in Canada and the world. In addition to welcoming students from numerous countries, the college has developed training that is exportable, meaning it can be adapted to meet the needs of other partners and the local mining industry.

Broad range

Given the broad range of technologies used in industrial systems, the industrial maintenance training is multidisciplinary. The material covered is selected based on the needs of companies, no matter where in the world they are located, and the equipment used is full size.

As for the versatile industrial electronics control graduates, they will be equipped to work at mines, smelters and sawmills, for engineering firms, manufacturers and equipment dealers, as well as in technical sales positions associated with electrical and automated control systems.

With the support of major mining companies in the region such as IOC, the college has developed three targeted training programmes: one on iron ore processing, another on the occupation of railway conductor and a third, to be launched soon, on

maintenance of rail track.

The Cégep de Sept-Îles is recognised by the Government of Quebec as an industrial maintenance excellence centre, in light of its status as a college technology transfer centre. "We will now be able to offer this training anywhere in the world, just as we are able to welcome students from the four corners of the earth. We have made our services available to the Rio Tinto Group and would be pleased to develop targeted training partnerships with any of its business units, whether in Canada or elsewhere," says Donald Bherer, general director of the college.

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Diavik shows the way in Mongolia

Diavik Diamonds is leading a Rio Tinto initiative in Mongolia to prepare community members near the Oyu Tolgoi copper project for careers in the mining industry.

Led by Glenn Zelinski, manager,

Community Investment at Diavik, the same processes are being used as those that assisted northern Canadians, First Nations and Inuit peoples in Canada's Northwest Territories and Nunavut to recognise career opportunities in mining.

Diavik was developed in a land where local communities did not have access to learning mining related skills, similar to Oyu Tolgoi. Yet Diavik was committed to involving neighbouring communities in all aspects of the project. Over the years Diavik became a model for how to involve communities

1. Instructor using flash cards during English studies programme.
2. Lecture on welding theory.
3. One on one tutoring English studies.
4. Taking a break during welding practical.
5. Welding instructor critiquing flat welding with group.
6. Team fabricating welding training table that will be used by the participants for training.



Skills training: Mongolia/Brazil

and provide opportunities for employment. The majority of Diavik's construction training courses were delivered in the participants' communities where trainees raised not only their skill levels, but helped improve community services and infrastructure. For example, if a building needed renovation, community members would sign up for training in technical skills that would be learned on the job.

This community based training is now being tested at Oyu Tolgoi in advance of the project proceeding once an investment agreement with the Mongolian Government is in place.

Glenn said: "The programme now in place in the community of Khanbogd [the closest community to the Oyu Tolgoi site] is a pilot that is designed firstly to assist residents of the South Gobi to learn English and to test the waters of mining and construction related careers.

Two elements

"The programmes have two elements: academic learning and hands on competency based training. Welding was chosen as the competency based programme because it is a trade that is needed at the community level as well as in mining."

Like many countries in the world, educators in Mongolia have concentrated on academic studies in the education system. They have not put a lot of emphasis on skilled and semi skilled occupations that provide the predominant career opportunities in communities as well as in mining. Eighty per cent of the career opportunities on the Oyu Tolgoi project will be in these "hands on" areas.

Canadian Bob Dawe is leading the community based training effort. He is an educational consultant who worked on the Diavik project as a programme developer in the construction phase and became training superintendent when operations started. Bob was instrumental in the success of the Diavik training strategy that took the project from construction to production.

Reporting on progress at Khanbogd, he said: "The trainees took their first real English test today, a 60 item review of basic grammar. Happy to report that all 18 passed - three with 100 per cent, three with 99 per cent, ten in the 90 to 98 range, two in the 80s. The average score was 94 per cent.

"The energy and enthusiasm shown when the marks were posted was a

Building skills for local people in Brazil

Rio Tinto Brasil is taking action to ensure local people are technically qualified to apply for job opportunities arising from the Corumbá mine's US\$2.15 billion expansion of iron ore production and logistics.

RTB formed a partnership in August with SENAI, a Brazilian organisation serving industrial apprenticeships, to qualify 200 people. According to Jaime Verruck, regional director of SENAI in Mato Grosso do Sul, courses offered will be: equipment operator (120 participants), electrotechnician (20), mechanical technician (40), and chemical technician (20).

Classes for the two year technical courses started at the beginning of October. Applicants participated in a selection process carried out by Selecta Consultoria em Recursos Humanos and will sit an examination conducted by SENAI.

Rio Tinto is investing around R\$470,000 to cover 100 per cent of the cost of the courses. Another R\$190,000 will be used for the purchase of equipment to be donated to the training institution.

Sergio Visconti, RTB's senior manager, Human Resources said the initiative reinforces the role played by Rio Tinto in the contribution to local development. The company's expansion project targets the production of 12.8 million tonnes per year of iron ore from the fourth quarter of 2010 and a study is under way to increase this to 23.2 million tonnes per year.

Skilled jobs are also expected from creation of a steel centre at Corumbá for which studies are under way. "The expansion of the sector is a great opportunity for the people of Corumba and Ladario", Sergio said.

Moacir Lacerda, SENAI manager in Corumbá, believes that the partnership is a big quality step for the institution, a reference centre in terms of workforce courses in the industrial sector. "There is nothing better than paying attention to the vocation of the people and offering courses that are part of the local reality," he says, adding that, by means of the partnership, Rio Tinto demonstrates confidence in SENAI to promote the courses.

pleasure to hear and see. Our on site team think the results are amazing considering that one month ago only one of the 18 would have had any chance of passing."

He said the two greatest outcomes for students at the end of the training will be good basic English communication skills, and the tools and confidence to really benefit from a more structured, "text based", step by step English course. "The instructors have helped them develop a very good foundation for more advanced training," he said.

Regarding the "hands on" side of training, a Mongolian company, Hasu Megawatt, was contracted to teach both the theory of welding and training in practical welding.

The welding instructor from Hasu Megawatt and a group of volunteers built a trailer for community use. The welding trainees also cut material to make a fence.

The community relations group of Ivanhoe Mines, the Oyu Tolgoi operat-

ing company in which Rio Tinto has a 9.9 per cent interest, has played an active role in all aspects of the programme, from introductions to government agencies, participant interviews, logistics, and active participation at the programme delivery level.

The company's procurement activity has been an asset in purchasing and transporting training materials to the South Gobi. Oyu Tolgoi site management has been instrumental in supplying lodging for instructors as well as travel logistics, and the set up and routine maintenance at the training centre.

Glenn said the pilot programme has been implemented in strong partnership with the local community of Khanbogd. Desks and chairs have been donated by the local educational institutes. "The intent is that if we are to continue the process we will develop partnerships between all sectors of industry, government and NGOs."