

Peruvian Mining

*A favorable investment climate yields
abundant opportunities*

A REPORT BY GBR FOR E&MJ

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PERU: A Mining Power in South America

With large scale mines in operation and more in the pipeline; a vast, unexplored land with polymetallic resources; and a favorable climate for foreign investment, Peru has everything a mining investor could hope for.



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Peru is a land of opportunities for mining. It always was, but problems of political stability and the footprint of violent organizations such as the Shining Path were an insurmountable barrier for development until not too long ago. Today, production figures indicate that the country has a mature mining industry, but there's so much more to come that the sector actually remains very young.

According to the U.S. Geological Survey data for 2007, Peru is the world's largest producer of silver; it ranks second in copper and zinc; and it is the third largest in tin, fourth in lead and fifth in gold. When looking at Latin America only, Peru is number one on all of these fronts with the obvious exception of copper, where Chile is still far ahead.

At the current record prices of metals these high levels of production make an enormous impact on the country's finances. "Mining represents approximately 10% of Peru's GDP when taking into account the overall multiplying effect the sector has on the economy," said Roberto Hoyle, president, Lima Stock Exchange. "Mining companies are the major contributors to the fiscal balance and the main contributors contributing to Peru's current account balance surplus." Mining represents 51% of the general index and accounts for 61% of the traded volume on the Lima stock exchange. In 2007, mining exports also amounted to \$17.3 billion, 62% of the country's total.

"It is a fact that Peru is a mining country, but Peru does not depend any

more on one single sector. This was the case 40 years ago. Today we have industries growing very rapidly, such as agriculture and petrochemicals. In volumes, mining exports will give way to other industries," said David Lemor, executive director of governmental investment promotion agency, Proinversión.

The macroeconomic framework is undoubtedly favorable to diversification. GDP has grown healthily in the last years (more than 8% in 2007); the country has signed a free-trade agreement with the United States and Canada and is negotiating similar deals with various other countries; and in April, Fitch Ratings granted Peru the longed for investment grade. A couple of decades ago, similar developments would have sounded impossible.

Augusto Baertl, former CEO of Milpo and Antamina, recalled the challenges that mining had to face in the second half of the 20th century, "In the 1960s, 1970s and 1980s we were working and struggling to grow with our own resources and capabilities, both financially and technologically," said Baertl. "Not having foreign investment in the Peruvian mining industry, especially after the military regime in the 1970s, it was difficult to work in such a country. Then we had high inflation and terrorism."

It was only in the 1990s that the country opened its doors to foreign investment and terrorism ended. "We changed our agenda and our motivations. Everything was different," Baertl said.

Different indeed. Virtually all the majors are present on Peruvian soil, in one way or another. Large-scale mines like Antamina in copper or Yanacocha in gold have been producing for years. The number of projects that are getting closer to production are innumerable. Grassroots exploration offers such



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potential that geologists often describe Peru as "paradise," not just for the amount of resources that are waiting to be discovered, but also for their diversity. Peru has copper, gold, silver, lead, zinc, molybdenum, tin, iron ore...and even uranium, the latest addition to the country's portfolio.

"Our 1.2 million metric (mt) tons are still far from Chile's 5.6 million mt. Becoming the leaders in copper is a very big challenge, but if you review the pipeline of copper projects in Peru, there is enormous potential for growth. Besides copper, the biggest potential for Peruvian mining is in gold. Many companies are also increasing their zinc production," said Ysaac Cruz Ramírez, president, National Society of Mining, Petroleum and Energy.

Improving the Life of the Population

"A beggar sitting on a bench of gold." This description of Peru popularly attributed to 19th century naturalist Antonio Raimondi is still frequently used by the media and the politicians. Indeed, the question of how the wealth generated by



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the mining industry should be redistributed around the country is the subject of a permanent debate.

"The old concept was that the company exploited the land and just paid its taxes to the state," said Luis Gonzales Posada, president, Congress of Peru.

"Now there is a philosophy of redistribution to promote social development in the area of the mine. This way a link is created between the mining company and the society."

Today, half of the income tax that mining companies pay to the state, or *canon minero*, is transferred to the mining regions. Apart from tax, there are royalties, unless otherwise stated in a tax stability contract. Producing companies also need to share 8% of their net profits with their workers; and in 2007, Alan García's government started the *Aporte Voluntario* (Voluntary Contribution) pro-

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David Lemor is the executive director for Proinversión and the former Minister of Production. He is also the main negotiator of the Free Trade Agreement Peru-United States of America.

gram, under which companies are asked to invest up to 3.75% of their net profits in regional and local funds for the development of the local communities. So, if all this money is available, why do many underdeveloped communities surrounding mining areas still feel left out?

For some observers, the problem is that the funds (especially the share of the income tax that becomes the *canon*) get stuck at the institutional level. "The voluntary contribution program is an opportunity to improve the standards of living using money from the private sector," said Juan José Herrera, president, Institute of Mining Engineers of Peru between 2006 and 2008. "Companies show that they can implement the projects that the government is unable to develop due to the bureaucracy involved. The country has a large amount of money, about \$4 billion, that is waiting to be spent. The needs of the country with regards to health and education are waiting to be met, and our infrastructure is delayed by \$23 billion."

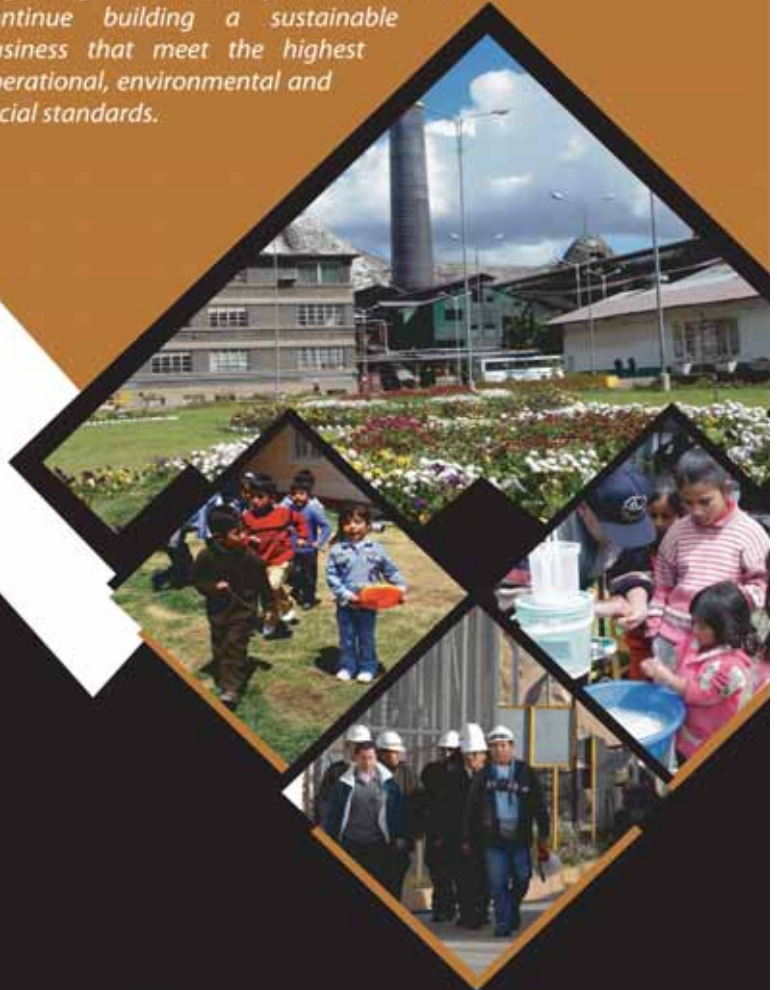
Poverty, illiteracy and difficult access to medical treatment are some of the challenges for which solutions must be found with the help of all the funds collected. But also related to the quality of life of the communities neighboring current or past mining operations is the environmental impact.

To meet the provisions of the free-trade agreement with the United States, the government confirmed in April the creation of a Ministry of the Environment, a project on which a group of experts led by environmentalist Antonio Brack has been working for several months. Public opinion expects the new body to be a serious watchdog of mining activities. "The main challenges are the environmental liabilities and the pollution resulting from informal mining activities," said Brack. "Mining has existed for centuries in Peru, but the environment has only been a concern since the 1990s. With regards to informal mining, the problem is that no one speaks about it because anti-mining campaigns go after big corporations."

Rather than changing the legal framework for environmental care, the Ministry of Environment is expected to enhance the credibility of mining in the public eye. Mistakes from the past have been expensive. So much so that today there is a negative perception of the sector that needs

Walking Together

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to be addressed. "The most important challenge we are trying to solve is people's perception of mining. They think it is bad for the environment and isn't socially accountable," said Cruz.

David Lemor (Proinversión) emphasized: "Mining is very different today than half a century ago. There are still some environmental liabilities, but those were caused by the old mining, not by the companies today. Peru is certainly not interested in attracting irresponsible mining companies."

Peru's Future: A Magnet for Investment

According to the Metals Economics Group, about \$475 million, or 5% of the world's exploration budget, was spent in Peru last year. That places the country as No. 6 in the world for exploration just behind Russia and Mexico, even though surveys from the Fraser Institute about the attractiveness for investment in mining give Peru a much lower ranking. The truth, though, is that money keeps pouring into the country, both for exploration and mining. The fact that big investors such as Southern Copper are not asking the government for new tax stability agree-

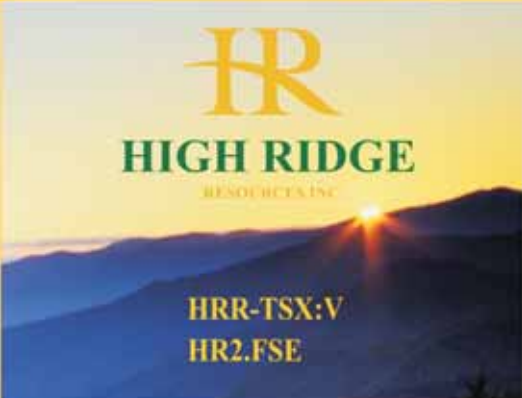


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ments is a sign that the perceived risk is lower than before, even if some still look at the 2011 election cautiously. There is widespread optimism in the industry, both from Peruvians and foreign nationals that identify the potential of the country to be world-class, if it is not already. "Peru is an emerging nation with enormous possibili-

ties," said José Marún, COO, Xstrata Copper's Southern Peru division.

"It is a fantastic country to work in, not only because of its amazing natural resources but because of the people available. Workers are very good and adapt very quickly to new environments," said Ian Kilgour, president and CEO,



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Antamina. "There is also a sophisticated financial market. The basics are all in place to exploit the mineral resources."

These mineral resources are increasingly being looked for and discovered. New areas are constantly joining the list of projects at pre-feasibility, feasibility or development. As a mining country, Peru has a very good workforce to push these projects forward, although a shortage of geologists and qualified skills for management positions, felt worldwide during the current mining boom, is inevitable. The governmental bodies also find it dif-

ficult to deal with all the permit procedures, environmental impact assessments and other paperwork. Is the Peruvian mining sector growing too quickly, then?

Common perception points in the opposite direction. "The mining industry is underdeveloped in Peru and many more projects could be brought into production. We are not growing as fast as we should," said Baertl.

Abraham Chahuan, general manager, Milpo, said, "With an output of less than 40,000 cars a year I don't see Peru as a

car-producing nation. Equally, I don't see Peru competing with China in refrigerators or radios. We have a competitive advantage in our mineral resources. To be a good mining country you need technology, people and resources. And Peru has them all. We could have 200 or 300 hundred more mines."

The price of minerals will be the key to determining the pace of growth. But the current super cycle is not expected to finish anytime soon. While it lasts, mining companies want to make the most of it. Peru looks like an ideal place for this.

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Valdivia Answers 10 Questions

Peruvian Minister of Energy and Mines, Juan Valdivia Romero, sets the record straight

Peru is very rich in natural resources. What are the main initiatives of the Ministry of Energy and Mines?

Our first obligation is to promote investment in the sectors of mining, hydrocarbons and electricity. With mining we are making very good progress despite some problems regarding the indigenous communities. The levels of investment have been high during the past few years. In the 1990s, the state had very important revenues as a result of the sale of public companies to the private sector. Since 2004, the investment from the private sector is related more to the exploration activities in new concessions in both private and state properties. The last big concession from the state was the Michiquillay copper project, granted to Anglo American, where we raised \$403 million. This rhythm of investment continues. About \$500 million is being spent on exploration activities annually, and this year several mines will start development. That is why investments over the next four years in exploration and development could reach \$13 billion.

We are also very active in the hydrocarbons sector. We have a petroleum deficit: we import two thirds of our consumption, but we have important reserves of gas that have been discovered recently. Our proven commercial reserves of gas are 15 trillion cubic feet. There have also been important discoveries of heavy oil and we are working with the companies to start projects that will allow us to use this heavy oil at a domestic level and also for export.

With regards to the power generation sector, we are promoting new hydroelectric plants and transmission lines to assure the sustainable development of our country and to export electricity to the neighboring nations.

Specifically related to mining, what are the key goals of the government?

Our primary goal is to promote investment. We are a country historically attached to mining, which provides us with our main revenues. Minerals account for 62% of exports and the sec-



Arq. Juan Valdivia Romero—Minister of Energy and Mining, Peru.

tor provides for nearly half the taxes that the state receives. It is an industry that does not directly employ vast amounts of people but that generates a large number of indirect jobs.

Our second goal is to promote a mining industry that is sustainable in time, and for that we take initiatives to develop the local communities. The Voluntary Contribution Program (Aporte Voluntario) was an initiative to promote investment in the improvement of the communities' quality of life: education, health and production investments. This scheme was started in June 2007 and is expected to last five years with a voluntary contribution of 2.75% of the companies' net profit. Last year, companies contributed \$190 million and this year the amount will be higher. Some companies have taken a decision not to collaborate and it is their right to do so because this is not a tax, as the name indicates, it is a voluntary contribution.

The country's production doesn't seem to match the perceived attractiveness of Peru for mining investment, as per the Fraser Institute surveys. Why?

The Fraser Institute does not know Peru. It asks for the opinion of companies that are not present in the country. We have

one of the largest exploration budgets in the world and the interest keeps growing. I keep receiving new investors that have not been present before, for instance Russian entrepreneurs. In 2007, Chinese investors bought three very important projects: Galeno, Toromocho and Río Blanco. We are very confident that investments will keep coming. Together with Chile, Peru is the most stable country in Latin America. Investors prefer to come here rather than go to countries where the authorities only look at the short term, such as Venezuela, Bolivia or Ecuador. In Peru, foreign investors have the security that the institutions will protect their agreements. There is no risk of nationalization of companies, and the population is against extreme positions.

What level of confidence does Peru have on the economy?

The Peruvian economy is growing steadily and the growth rate for 2008 should be more than 7%. This is something that should continue in the medium term. There is uncertainty at the moment about the global economy and that can have a negative effect, but we have strong fundamentals and enough reserves to face any crisis. The secret for this growth is political and legal stability.

Why doesn't the state put more resources into developing the poorest areas? Very often, mining companies play the role of the state by building schools, medical centers and roads.

Mining companies must not replace the state. Mining companies are responsible for carrying out their activities, respecting the environment and the local communities and paying their taxes. The state must invest in community development with the taxes it collects. Companies pay 30% of their income as tax, and half is transferred to the regions through the mining canon. They also pay a royalty of 1%-3%, depending on the price of minerals. Apart from this, there is no other legal obligation. However it is true that companies are also responsible for a cer-

tain amount of corporate social initiatives. The impact of those over the local population is positive. Recent studies show that the quality of life in areas close to a mine is better than in areas with no mining activities.

What is your assessment of the conflicts with the local communities that are putting projects on hold, such as the Yanacocha expansion or the Río Blanco project?

Production has grown in every metal with the exception of gold, where the problems of Yanacocha with the local communities have affected the levels of output. But now Yanacocha is reaching agreements with its neighbors. Sooner or later the people of Cajamarca will realize the importance of the mining activities in the area. As gold production diminished by 40% last year, they are receiving 40% less money from the canon, and that has an impact on their economy.

Patience will be needed to develop Río Blanco. Four years ago a campaign was started by the same non-governmental organization (NGO) that were very active against Manhattan Minerals in Tambogrande. The anti-mining movement ended last year with a popular consultation that failed as just 48% of the people participated. They want the state to validate that referendum but this is something we are not going to do. We'll need to solve this problem through dialogue.

Why have these problems become so serious in some areas?

Mining companies have not been very good at communicating with the local communities. In the transition from a dictatorship to democracy, people feel free to speak out and raise their demands. Dialogue is the key to sorting out these problems. In general, there is social calm even if there are specific issues. In Cerro de Pasco and La Oroya, for example, there are demands regarding the environment, but people are not against mining because they earn a living from it.

The people of Peru are aware of the importance of mining. With the exception of Yanacocha and Río Blanco, projects are being developed without any problems, especially in the center and the south of the country, which are traditional mining areas. The situation in the north is different because before Yanacocha, Cajamarca had an economy based solely on agricul-

ture. Because mining is a new activity, it has generated concerns among the local population.

What impact is the newly created Ministry of Environment going to have?

The idea behind creating an environmental ministry is to set up a strong regulatory body to take care of the environment without being an obstacle to economic development and investment. The role of the government is to explain that mining is a very important sector for the country and that it is compatible with any other activity. We try to apply international standards for environmental care to avoid damage, but with that being said, any activity has an impact over the environment, not just mining.

As well as monitoring the mining companies, how will the new ministry take care of informal mining?

In Peru we have a big problem with unregulated mining activities, which are having an effect on the environment and the health of the population. Small miners use chemical products without following any safety standards. It is a big problem in areas such as Piura, Madre de Dios and Puno. We estimate that the production from unregulated mining reaches 100 mt. But it is very difficult to measure. Unregulated mining is also related to drug trafficking.

Looking toward the future, where do you see the main opportunities for the Peruvian mining sector?

We have good copper projects: Las Bambas, the third stage of Cerro Verde, Los Chancas (copper and gold), and a new project in Tintaya, among others. We want to reach 3 million mt of copper production by 2012. That will not put us in front of Chile, but the great difference between the two countries is that Peru is polymetallic: we have copper, gold, silver, zinc, molybdenum, tin, and now we even have interesting uranium projects in Southern Peru. Peru is only exploring 10% of its territory and development is happening in just 1%. There is much to be discovered and mined. The potential is enormous and that will be explored by the next generations.

I would ask companies to trust Peru, to come and invest in the country. They will make profits while contributing to the development of our country.



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Peru's Major Players



Xstrata recently restructured to firm Xstrata Copper-Southern Peru division.

Call it copper, gold, silver or base metals, Peru is capitalizing on its impressive geological potential. With a number of large-scale operations and many more in the pipeline, especially in copper, the country is ready to take its mining industry to the next level. To achieve this, large international players and modernized Peruvian companies are increasingly well positioned in the market.

The 2007 production figures published by the U.S. Geological Survey speak for themselves. Peru has consolidated its position as the world's largest producer of silver while it has topped the U.S. as the second copper producer, and Australia as the second zinc producer. With regards to gold, the Andean country kept its position as No. 5 in the world and leader in Latin America despite of a 40% production decrease at Yanacocha last year.

Peru is a world-class mining country with a good number of mines in operation. This success, however, at a global level wouldn't be possible without the presence of large foreign companies that either own big production units, or that have made successful joint ventures such as Antamina. These big operations have a substantial impact in the country's production. In gold, for instance, Yanacocha and Barrick (with its Alto Chicama and Pierina mines)

together accounted for 58% of the total output in 2007.

Of the array of metals produced, it was actually gold that brought the least favorable news in 2007, as production decreased by more than 16% year-on-year, which put in question the country's position in the world's top five. The downward trend was mainly driven by Yanacocha as the mine, jointly owned by U.S.-based Newmont (51.35%) and Peruvian Compañía de Minas Buenaventura (43.65%), went from 2.61 million oz in 2006 to 1.56 million oz in 2007. The company expects 2008 production should be similar to last year's, while in 2005 it had been 3.33 million oz. Roque Benavides, president and CEO, Buenaventura, expects the negative curve to change. "Yanacocha will return to good levels of production soon and the more reasonable attitude to mining in Cajamarca will lead to the development of the Cerro Quilish expansion."

Cajamarca is a region in Northern Peru known in the sector for the intense anti-mining campaigns that have resulted in many projects being put on hold. Among which is the Cerro Quilish expansion. It is in this same region, however, that the Cerro Corona project is managing to make its way into production.

Run by Gold Fields, a company trying to diversify its gold resource base outside of South Africa, the \$421 million operation will produce a gold and copper concentrate from the second half of 2008. "In terms of equivalent gold ounces we are talking of 375,000 oz per year, which will increase Peru's total gold production by 7%-10%. We will become the third largest gold producer in Peru after Yanacocha and Barrick so it is a very important project," said Juan Luis Kruger, executive vice-president and country manager, Gold Fields La Cima. With 95 million mt of reserves, the project is initially expected to last 15 years, but the company is already working in expanding its life through a joint venture for exploration with Buenaventura.

Peruvian Copper Boom

If there are a few bumps on the road for gold, the prospects for copper seem much brighter, not just because of the smooth operation of the active sites, but also due to the number of projects (and their size) that are getting closer to production.

One of the main success stories has been, and still is, Antamina. A joint venture between BHP Billiton, Xstrata, Teck Cominco and Mitsubishi Corp., Antamina is the largest copper mine in the country. As one of the first large-scale projects since the country opened



Juan Luis Kruger, senior vice president and country manager for Gold Fields in Peru.

its economy in the 1990s and terrorism ended, Antamina's operation represents a defining moment for foreign investment in Peru. As with any skarn ore body, the production of copper and zinc can vary substantially from one year to the next due to the changing grades. In 2007, copper production was down to 340,000 mt of concentrate (-12.7%) while the output of zinc increased substantially to 550,000 mt. The company has just commissioned a new pebble crusher that will allow Antamina to increase production by 10% in 2008.

"The current life of the mine continues until 2023. The exploration program currently under way, for which we are spending \$40 million in drilling 230,000 m over the next two years, is yielding interesting results that will allow us to recalculate the potential of our resource base over the next months. We are also looking at the area outside our current leases," said Kilgour.

Company-wise, the largest producer of copper in the country is Southern Copper Corp. (SCC). Owned by Grupo Mexico, SCC operates two large mines in the south of the country: Toquepala



Antamina, an open-pit mine, is located in the Western Cordillera range of the Andes at an altitude of 4,300 m, approximately 270 km north of Lima. It employs 1,400 people directly and 3,500 indirectly.

and Cuajone, with a combined annual production of 350,000 mt of copper. The company, that also has a metallur-

gical complex in Ilo, has ambitious expansion plans for the future and will invest more than \$2 billion to increase

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José Marún, COO, Xstrata Copper—Southern Peru Division.

its Peruvian production by 80%, enlarging capacity at its two mining operations and adding a third one (Tía María) in the region of Arequipa.

"We want to start the Tía María project as soon as possible. We are contracting the engineering and sorting out the delivery of the equipment, which takes a long time due to the high demand. The plan is to start the construction in 2009 and production in late 2010," said Óscar González, president and CEO, SCC. Once the \$2 billion

expenditure is completed, there will be more to come. The Las Chancas project, although not included in the current investment program, has concluded its pre-feasibility study and is already moving into the feasibility stage.

As with Antamina's zinc, SCC also has something to add to its copper output. "We are the third largest molybdenum producer in the world after Freeport McMoRan and Codelco. This puts us in a very good position because the current molybdenum prices are very high. In 2006 and 2007, molybdenum represented more than 30% of our income, while it was only 10%-15% in the previous years," said González.

Freeport McMoRan is present in the south through a 53.56% stake at Sociedad Minera Cerro Verde, which runs a large copper/molybdenum/silver mine in the area near Arequipa. The other main shareholders are Sumitomo (21%) and Buenaventura (18.5%). In 2007, the company completed a \$900 million investment that allowed production to nearly triple. The expanded capacity is about 295,000 mt of cop-

per and 8 million lb of molybdenum, although the company is reportedly considering further expansion to reach 400,000 mt of copper.

Finally, the fourth player in copper is Xstrata. In addition to its 33.75% share in Antamina, the Swiss-based multinational's Tintaya mine, again in the Arequipa region, consistently produces 120,000 mt of copper per year. The company, with interests in other products worldwide such as coal, zinc and nickel, maintains its strongest focus on copper and within this business area Peru provides a sizable source of revenue. To manage its portfolio of new projects in the region more efficiently, the company restructured in 2007 and created a Southern Peru division. In March 2008, Xstrata announced a revised estimate for its copper mineral resources of 1.6 billion mt in Southern Peru—a 31% increase on the previous estimate.

José Marún, COO, Xstrata Copper-Southern Peru division, explained the rationale behind the new company structure. "The restructuring of our Peruvian operations is the result of Xstrata's need to move forward and develop our projects as quickly as possible. We wanted to set up a division that can deliver a clear strategy, which has already been presented in late 2007. Our aim is to develop the capability to produce in excess of 450,000 mt of copper per year (excluding Antamina), and that within the next four to five years."

To achieve this, the main projects ahead are Las Bambas and Antapaccay. At the latter, just 10 km south of Tintaya, the company plans to produce about 150,000 mt of copper. The feasibility study is expected to be completed during 2008. With regards to Las Bambas, which would be a 200,000+ mt per year operation, Xstrata is at the pre-feasibility stages.

"We expect to start production in Antapaccay by 2011 and sometime between 2012 and 2013 in Las Bambas," Marún said. "It is still early to say, but in the period 2011-2014 there will surely be new projects up and running. We will be a significant contributor to the government's plan to promote copper production in Peru."

The combined production from Antamina, Southern Copper, Cerro

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Verde and Xstrata totalled 92% of the country's copper production in 2007. Yet, the next few years should see the addition of several names to the list of big producers—and some of them will be Chinese.

In 2007, three large copper projects were acquired by Chinese investors. To start with, a consortium led by Zijin Mining bought London-listed Monterrico Metals and its large Río Blanco copper-molybdenum project. The conflicts with the communities in the area were not a transaction stopping obstacle. In another relevant acquisition, the state-controlled companies China Minmetals and Jiangxi Copper joined forces to take control of Northern Peru Copper, which owns the Galeno copper-gold-molybdenum deposit. Last but not least, the Aluminium Corporation of China (Chinalco) acquired Peru Copper with its large Toromocho copper deposit for nearly \$800 million.

When Peru Copper was established as a junior in 2003, the founders probably didn't think that they would end up in Chinese hands. Now, the company seems to be ready, with the financial support of the new owners, to undertake the \$2 billion investment needed to develop Toromocho. "This project is very large, larger than originally thought," said Gerald Wolfe, president and CEO. "With 120,000 mt per day, our concentrator will be the biggest in Peru and the biggest initial phase concentrator in the world. It has to be big because the deposit is low grade and large production is required to make it worthwhile. This needs the backing of a large company, which we now have with Chinalco."

The management expects to start production in early 2012, for an annual output of 210,000 mt of copper. "At current production figures, this would increase production by nearly 20% in the country," said Wolfe. "We will also produce molybdenum as an important by-product, and silver."

Other copper projects held by major players in Peru are Rio Tinto's La Granja and Anglo American's two interests; Michiquillay (recently bought from the government) and Quellaveco (at feasibility stages).

Silver and Base Metals

In silver and base metals, although there are also foreign companies controlling a substantial share of the country's output (such as Antamina, Pan American Silver and Glencore), the role of Peruvian players is significant. Local production of silver, zinc or lead cannot be understood without names like Buenaventura, Volcan or Hochschild. And although not as big in size yet, other Peruvian companies, of which Milpo is a good example, are expanding rapidly with very professional structures and innovative mining solutions.

Volcan Compañía Minera is one paradigmatic example of the transformation of the mining industry in Peru after the privatizations. "A small company until 1997," in the words of its General Manager Jacob Timmers, produced 650,000 mt of zinc and 201,000 mt of lead last year, and, even if Volcan is not necessarily seen as a silver company in the marketplace, it also achieved a stunning 33% increase in its silver production to total 21 million oz. Today, the company is listed in Lima, Madrid and Santiago, and is considering other listing options to fund its plans for the Cerro de Pasco unit.

"Our biggest project is the Cerro de Pasco expansion for 2011," said Timmers. "The pit is going to go much deeper



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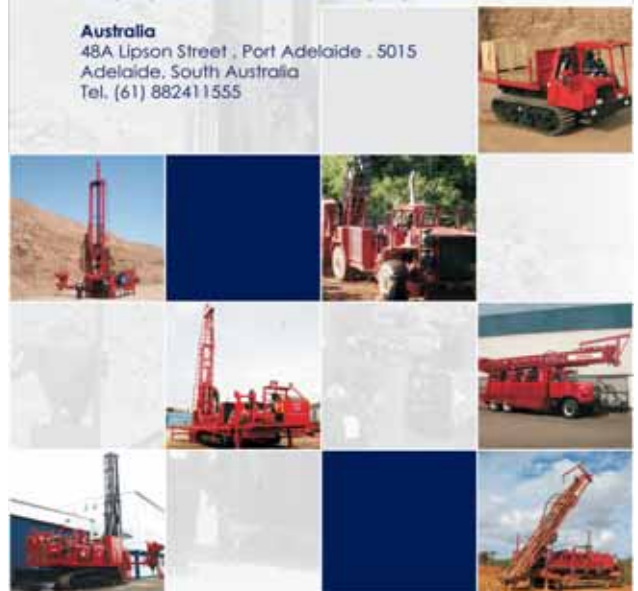
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and wider, extending the mine life. When we bought Cerro de Pasco it had a two-year life, and we have been mining there since 1999. For the longer term we need the super pit." Reaching good mutual levels of understanding with the local inhabitants will be key for Volcan's success.

Another fast-growing company is silver-producing Hochschild, that is not only enlarging its Peruvian mining operations but also expanding internationally through mines in Mexico and Argentina on one hand, and the acquisition of 19.9% of Canadian Lake Shore Gold Corp. on the other, a stake that Hochschild plans to augment to 40% during 2008.

"Until 2006, Hochschild was a family-owned company with plans for significant growth and internationalization," said Miguel Aramburú, CEO, Hochschild. "The problem was that we didn't have the financial resources for it. That is why we went public in November 2006, raising \$500 million in London. 2007 was a transformational year for Hochschild. We had three mines in one country and we now have six mines in three countries."

Some of these mines are joint ventures where Hochschild is leveraging off its financial strength and its expertise to control the operations. The 2007 expansion will not be the last. Indeed, the company has an ambitious growth plan for the medium term. "We position ourselves as an international company, not as a Peruvian company. Our aim is to double our production by 2011 as compared to 2006: from 23.3 million silver equivalent oz to 50 million oz."

Before abandoning the silver mines, it is worth mentioning Vancouver-based Pan American Silver, a company that produced 8.7 million oz in Peru in 2007, which is more than half of the company's total production (also located in Mexico, Bolivia and Argentina). "If you look at some of the big mining players today, their companies were established with mines already in production. We wanted that to be our case, which is why we decided to buy Quiruvilca," said Andrés Dasso, general manager, Pan American Silver Peru. "It was a good leg on which to support the company's growth. Then we bought Huarón from Hochschild and the silver stockpiles from Volcan and Morococha as the lat-



Miguel Aramburú, CEO, Hochschild Mining.

est additions to our Peruvian portfolio." Today, Pan American Silver's aim is to become the world largest primary silver producer with the lowest cost (forecast for 2008 is \$4.27/oz). "Looked far-fetched when the company was formed as a junior in 1994, but seems very reasonable now," said Dasso.

In line with this vision of aggressive growth is aforementioned Milpo, a historic Peruvian player trying to become a large producer, with a five-year strategic plan that foresees production of 1 million mt of lead-zinc-copper concentrates (from 205,000 mt in 2007) plus 100,000 mt of copper sulphate and cathodes (from 15,000 mt last year) by 2012. The company is 25%-owned by Brazilian Votorantim, who failed in its bid to take control of the company in April. Milpo sees exploration as a key growth driver.

"Saying Milpo is saying exploration," said Abraham Chahuan, general manager. "With 70 geologists and an exploration budget of \$68 million in 2008, we are strongly committed to expand our resource base." A resource base that does not need to be in Peru. With the Iván unit already producing in Chile, the company is now looking for investment opportunities in Colombia.

Not Just Concentrates

Peru counts three main metallurgical centers: Southern Copper's smelter and refinery; the La Oroya complex, taken over by Doe Run in 1997; and the Cajamarquilla zinc refinery run by Votorantim Metais. All of them are currently enjoying significant investment. Votorantim, for instance, is spending about \$500 million between 2007 and

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Azulcocha West - JV Glencore

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- Drill program by Q3 '08

Uranium

- Minergia is a joint venture company between Vena and Cameco created to explore and develop Vena's uranium assets
- The new company will explore three regions where Vena has 47,500 hectares of claims
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Aurora

- Planning third drill program designed to expand Cu/Mo mineralization

Inca Gold

- Review all properties by June 30, 2008

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2009 to expand its zinc production capacity from 130,000 to 320,000 mt per year, and to move into indium, with an annual capacity of 76 mt. Southern Copper's aforementioned plan includes investment in the Ilo Complex. Meanwhile, Doe Run is concentrating on its environmental projects and increasing

its recycling business, while going for an enlarged production of bismuth and indium, minor metals that should be seen as the "metals of the future," said Juan Carlos Huyhua, president and general manager, Doe Run.

These investments show a marked effort to adding value to the country's



Hochschild Mining's Ares produces gold and silver at 5,000 m above sea level.



Pan American Silver produced 8.7 million oz in Peru in 2007.

natural resources. But is the Peruvian market ready to support all of these increases in production? "We will produce more value-added items such as cathodes and anodes, as requested by

the government. However, the Peruvian demand for high value added copper is not high. The industry in Peru is not ready for it, so we sell mainly to the international markets. The need for

more refineries must be assessed because the industry is not ready to buy more cathodes," said González.

"Considering the potential of the polymetallic mining activities in this country, more La Oroyas should be built," said Huyhua. "That would provide Peru with true sustainable development for the mining sector."

Going downstream would definitely be beneficial for the country and would allow the economy to be less dependent on the sale of concentrates. The question is how to make and encourage that move. "The challenge is to add value to our resources," said Lemor. "But this cannot be achieved by a government decree. There should not be laws forcing the production of processed minerals, like the ones some congressmen are trying to introduce. Instead, we should promote an attractive business environment so that investors take the initiative to set up these projects."

Exploration: More Than Juniors

Peru is a country where many players in the medium and senior spectrum want to operate. To avoid missing out on Peru's mining bonanza, these companies are active in exploration which tends to be left to the juniors.

Teck Cominco, for instance, has been carrying out exploration for a number of years. Its main grassroots discoveries have been the Poracota gold project, now in Buenaventura's hands, and the Zafranal porphyry copper deposit in the area of Arequipa. "Around 5% of Teck Cominco's global expenditure is spent in Peru. This represents a budget of \$4 million in grassroots and early stage exploration," said Walter Tejada, general man-



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Walter Tejada Liza, general manager, Teck Cominco Peru.



Pan American Silver mines ore from multiple underground mines in Peru.

ager, Teck Cominco. As is the case elsewhere, the company gives a very important role to partnerships with other companies.

Iamgold, for its part, has just sold its gold-copper La Arena project to Rio Alto Mining for \$48 million in cash and a 5.5% stake in Rio Alto. After this transaction, the gold-producing company will continue with its exploration activities in Peru (it has four new properties all at very early stages, two of them will be drilled this year) and will also search for advanced projects with a significant resource.

Louis Gariepy, exploration manager, points out that being a strong producer worldwide opens doors junior companies do not have. "We are open to any kind of scenarios, joint ventures or 100% acquisitions, it all depends on what the counterpart or the partner wants, but obviously there are two things in which we insist: we want to be able to decide, and we want to have a majority position ideally. From grassroots, to direct acquisition and optioning, we are open for business and we definitely have the capacity, both financial and operational to do it."

Other companies with international production on sizeable assets and carrying out early exploration in Peru are Apex Silver Mines and Inmet Mining. Apex Silver, operating the huge San Cristóbal mine in Bolivia, looks at projects that would allow for an initial operation of 1,500- to 2,000-mt/d. The company, partnering with Sumitomo at San Cristóbal, also has agreements with the Japanese company for its Peruvian explorations.

With regards to Inmet, the company's main focus in Latin America is developing the Petaquilla deposit in Panama, jointly with Teck Cominco. In Peru, the company is aiming at the country's copper potential. "The company in its current size recognizes that it is copper-focused and that it definitely needs to target larger deposits," said Friedrich Speidel, regional exploration manager, Inmet. "If we look around the world for countries with a reasonable working and legal environment and with porphyry and iron-oxide-copper-gold deposits, obviously Peru has to be on the map, together with Chile."

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Peruvian Juniors Evolve

The junior market is increasingly populated by players who are discovering the advantages of becoming medium-sized companies with their own production units and Peru offers great opportunities for such organizations.

The traditional concept associated with a junior company is a group of geologists who make a good discovery, sell it to a mining company and re-enter the market with a new set of properties and even a new name. But with current prices, that reality is changing. In a diverse mining country like Peru, it is easy to find examples of companies still classed as juniors that are either getting their hands dirty extracting minerals, or preparing to do so very soon.

One such is Vena Resources, a company that defines itself as "multi-scenario." The organization is bringing the Azulcocha underground zinc mine back into production this year, with the purchase of a 500 mt/d flotation mill and the submission of the environmental impact assessment. A 43-101 report by the company highlighted about 200 million lb of recoverable zinc (indicated). Moreover, there's gold in the tailings and in Azulcocha West, an exploration project in partnership with Glencore, silver and copper grades have been found. Lima-listed Vena is also working on other

polymetallic projects, especially Pucará. It has entered the coal business with an investment in Sudamericana de Carbón (SDC) and has a strategic alliance with Cameco to explore for uranium in the south-east of the country.

"We are not like other juniors," said Rod Ogilvie, vice president engineering and Peru country manager. "We are more of a medium-sized company. In several months we are going to have income from our producing mine and we will be able to stand on our feet. We feel good about this independence because it opens other doors for us."

While Vena will have Azulcocha up and running soon, Fortuna Silver is already producing at Caylloma, a developed mine bought from Hochschild Mining in 2004. Although the company's primary focus is silver, the management saw a good opportunity in extracting the base metals.

"In the past, Caylloma derived 95% of its revenues from silver, but we saw that there was a significant polymetallic por-

tion of the deposit that hadn't been mined, and that would incur lower costs than silver. We started production in October 2006 and we have been scaling up since, from 500 mt/d to 820 mt/d by the end of 2007. We have 750-800 people on site and it has been a successful story," said Jorge A. Ganoza, president and CEO, Fortuna Silver.

The company will invest \$10 million this year to increase production, that was 820 mt/d by the end of last year (capacity at Caylloma is 1,100 mt/d). The \$30 million income from the mine gives the company financial support to look for new ventures. Indeed, Fortuna's flagship project is the San José silver-gold project in Mexico, where \$24 million is being spent to fast-track the project into production. "We should be producing in Mexico by 2010," said Ganoza. "With an output of 6 million oz silver equivalent, San José will catapult the company into the ranks of the leading silver producers in our mid-tier space."

Fortuna is about to be listed in Lima where it will join other companies in the junior market such as Vena or Minera IRL. The latter is another example of how having operating mines can help offset the cycles in the public markets. With investors in the sector less happy to risk money due to the subprime uncertainties and the U.S. slowdown, the first gold pour at the company's Corihuarmi mine in March was very timely.

"Corihuarmi is not a million ounces project, but it is a project that is not complex, that we can finance, that we can realize with our experience and that offers great profit margins," said Courtney Chamberlain, executive chairman, Minera IRL. "We will recover 113,000 oz of the 135,000 oz of minable reserves. We also have exploration potential that could extend the life of the mine from four to six or even eight years. Corihuarmi is a very good start for a mining company."

Apart from Corihuarmi, Minera IRL has other projects, including joint ventures with Alturas Minerals and Teck Cominco. The Ollachea project is the main centre of attention for the company after Corihuarmi. "We have just formed a M&A group to identify new projects, from grassroots to advanced exploration, of over 500,000 oz. There are companies leaving projects of 1 million oz or less which are an excellent dish for us. Our idea is to have a cascade of projects," said Diego



Geologists researching one of lamgold's exploration properties.

Benavides, vice president corporate, Minera IRL.

Another player that has centered its efforts on production is Gold Hawk Resources. In October 2007, the TSX-V listed company achieved commercial production status at its Coricancha mine, located 90 km east of Lima. Through its Peruvian subsidiary Compañía Minera San Juan, Coricancha produces gold, silver, lead and zinc. Gold Hawk also has another property in the area of Trujillo (Machacala) for which the company would be happy to find a partner. Unlike other companies in the junior and mid-tier space that choose to minimize risks by hiring most of their workforce through contractors, Gold Hawk decided to go for a large payroll as a way of gaining loyalty from the workers. "Sub-contracting is becoming an issue now as the profit-sharing agreement doesn't extend to the contracted workers," said Rod Lamond, vice president, operations, Gold Hawk. "We took the decision early on to have all the workers as direct employees who would receive their royalty payments when we achieve profits. It was difficult hiring 600 people in four months, but we wanted our employees to think long-term."

The list of companies bringing old mines back into production does not stop here. Trevali Resources, part of the Cardero group, expects to be producing silver-lead-zinc concentrates by the end of the year at the Santander mine, starting with the zinc-containing tailings and moving into hard-rock silver resources afterward. Being a former mine with the associated infrastructure in place, the capital expenditure should not exceed \$15 million according to company sources.

Like Vena, Gold Hawk and Trevali, Grenville Gold Corp. is following the strategy of unlocking the value of old mining activities. "At present, we are acquiring and developing properties in Peru with previous mining operations. Many of these operations focused exclusively on bonanza grades (25 oz/ton or more) and left extensive amounts of mineralized rock," said Paul Gill, president and CEO, Grenville Gold.

The company appears more interested in adding value to old properties than getting very involved in the production process. "Grenville is a Phase I acquirer," said Gill. "We understand that to develop a mine from acquisition to operation is a difficult task. We look to acquire projects that, with a little polish, will interest



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major mining companies." Grenville's main assets are the Silveria polymetallic property, a joint venture with Journey Resources, and the Española project.

Projects to Become New Mines

The companies mentioned so far are examples of the opportunities left behind in the past due to the political instability in Peru, the impact of terrorism and low metal prices. But besides refurbishing old mines to resume operations and provide sustained levels of revenue, new projects owned by players in the junior arena are poised to become important production units.

The country, for instance, offers very good potential for new iron ore operations. Cardero Resources, a company working on gold and base metals projects in Mexico and Argentina, but with a clear focus on iron in Peru, has two properties in the Marcona district: the Pampa El Toro iron sands project and Pampa de Pongo. The latter was acquired from Rio Tinto and described by the company as a "world-class" iron oxide copper gold (IOCG) deposit, with a 43-101 inferred resource of 954 million mt at 44.7% iron.

"Cardero is focused on getting the magnetite sand project of Pampa El Toro into production," said Mark Cruise, vice president business development, Cardero Resources. "Then, our aim is to find a major partner for Pampa de Pongo because it is clear that it will require significant capital expenditures. It is the largest undeveloped iron deposit in the west coast of the Americas of such grade."

Also operating in the iron ore arena is Australian firm Strike Resources, which controls the Apurimac Ferrum joint venture. The company has been followed closely since April, when a Peruvian weekly magazine published that Xstrata was negotiating the acquisition of Apurimac Ferrum's large projects, Apurimac and Cuzco. Information pushed Strike Resources' stocks up by 50% in two weeks. Strike Resources is working on the validation of the Ministry of Mines' historic estimates from the 1960s, which gave total resource of 1.2 billion mt at iron grades more than 60%.

"Our studies are based on the assumption that we will find 400 million mt of iron ore and that we will treat 20 million mt per year for 20 years. So far we have verified resources of 172 million mt, and

that is in just two of the more than 30 concessions that we have," said Federico Schwalb, general manager, Strike Resources, highlighting the potential of Apurimac Ferrum's properties.

The only "but" is the difficult location of both projects, way up into the Andes, which will need significant capital expenditure on building a pipeline or even a railroad to transport the material down to the coast. "Our initial assessment is that we should start the mine by 2011. The investment will be around \$1.2-\$1.5 billion, of which half a billion is just the pipeline. Being a junior we need investors to come on board," said Schwalb.

A company that won't need to solve pipeline headaches is Chariot Resources, as its Marcona copper project is located next to the sea. Marcona is 70%-owned by Chariot while the remaining 30% is with Korean investors. Within Marcona, the focus is on the Mina Justa prospect, containing about 7.1 billion lb of copper in all categories. "This is a medium-sized ore body by industry standards but with a fabulous location," said Ulrich Rath, president and CEO, Chariot Resources. "We are 420 km south of Lima and we have everything we need within 20 km: the paved Pan American

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The level of investment will be defined in the feasibility study that Chariot is completing at the moment, after which the company will start the permitting process. "According to the current plans, we will start Mina Justa as a leaching operation where we will produce up to 60,000 mt of copper cathode per year. Then, after the first three to four years we will build a concentrator to produce copper concentrates as well," Rath said.

Another future player in copper is Norsemont Mining with its Constancia property, which also contains molybdenum and silver. A former joint venture, the project is now 100%-owned by the Toronto-based company after Rio Tinto chose not to exercise its option. Norsemont is now defining its resource base with seven drill rigs on site. According to the latest resource estimate, Constancia contains 256.3 million mt at 0.5% copper or 0.62% copper equivalent (indicated) and 156.5 million mt at 0.33% copper or 0.43% copper equivalent



Cerro Lindo concentrator plant. The project is 100% owned by Milpo and is located 175 km in the south-east of Lima, in the Chincha province.

lent (inferred). Roughly, it's 4 billion lb of copper altogether.

"Our 2007 scoping study pointed at an average annual production of 90,000 mt of copper," said Robert Baxter, president and COO Norsemont. "Now the feasibility study should confirm this estimate and optimize the production rate. There are some attractive high copper grades near the surface,

which would give a three to four year pay-back on a base metal mine, and a 20%+ return on all production scenarios, depending on the final design and optimization." The company expects a production decision in 2009 and construction in 2010. "A joint venture is definitely an option," said Baxter, provided it has the approval of the shareholders.

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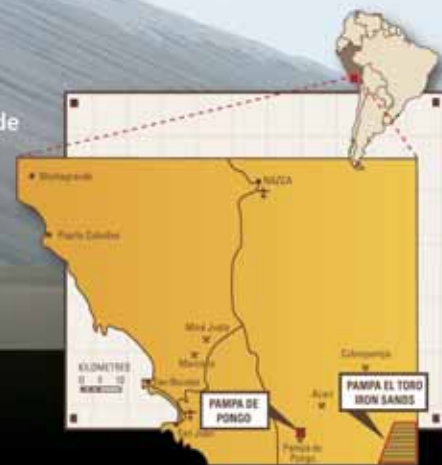


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The doors for a potential partner are also open at Inca Pacific Resources, 100%-owners of the Magistral copper-molybdenum project, for which both the feasibility study and the environmental and social impact assessment (ESIA) have been completed. "The feasibility study demonstrates that there is at least 150 million mt of material in the ground, that an open-pit mine is feasible and that the processing or the environmental management will not be a serious problem," said Thomas Kelly, COO, Inca Pacific Resources. "We are looking at processing about 20,000 mt/d to produce copper and molybdenum concentrates. Our timeline is commencing this year with road-building and setting up some equipment. Then we will start the construction of the site in late 2008-early 2009. If everything goes to plan, production will start by mid-2011. The deadline we have for our concession is December 2011." According to the current estimates the expected life of the mine will be 16 years, but Kelly said the company is confident of extending that.

Another copper property, Cañariaco, is located in the department of Lamba-

yeque, northern Peru. The project is owned by Candente Resources, a company that has been active in the country for more than a decade. The 43-101 resource estimate based on drilling completed by December 2006 is 643 million mt (measured + indicated) and 177 million mt (inferred), all at 0.45% copper. The company is about to release an updated estimate, and will complete the feasibility study in late 2008/early 2009.

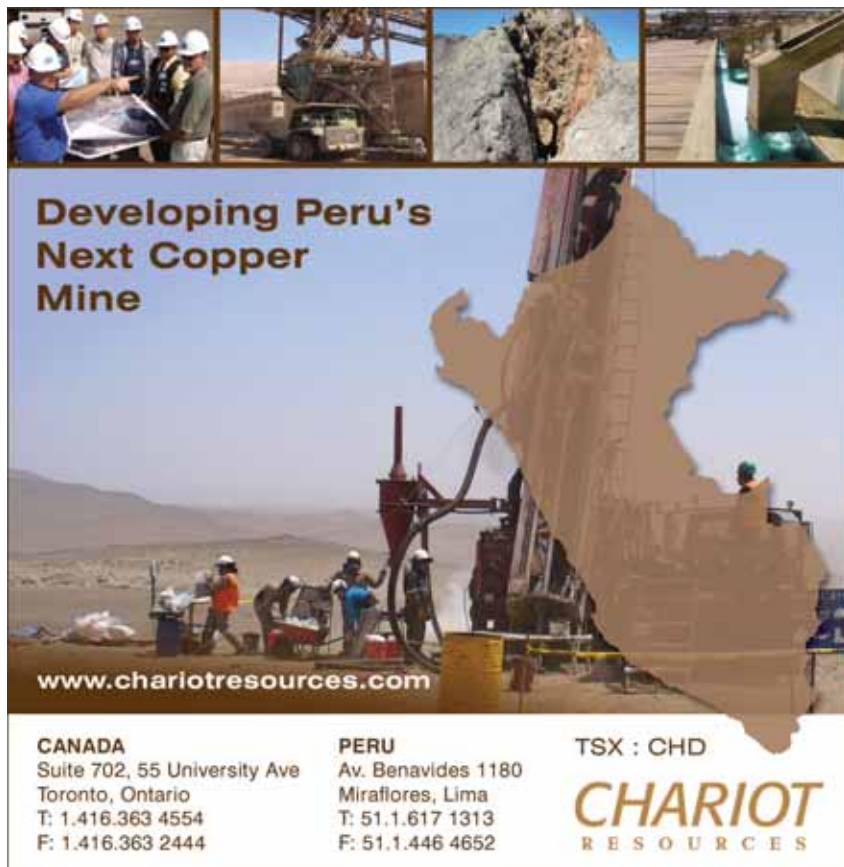
"We are still finding more copper but we are focused on bringing it into production soon," said Joanne Freeze, co-founder of the company and its president and CEO. The company initially thought of a leaching operation for an annual production of 83 million lb of copper, but is now looking at flotation for better recovery. "The project is looking very good for flotation. It should be a low-cost producer because it has a very low strip-ratio," said Freeze. Apart from Cañariaco, Candente has early exploration projects for gold and silver in Peru and Mexico.

Copper-focused Norsemont, Inca Pacific and Candente are all listed in the junior section of the Lima Stock Exchange, together with Panoro Minerals

that, as a result of its acquisition of Cordillera de las Minas, formerly owned by Vale and Antofagasta, now has an extensive portfolio of projects. Of those, Antilla (copper) and Cotabamba (copper-gold) are the two where the company sees the greatest potential. The company believes that Antilla could contain 135 million mt at 0.61% to 0.75% copper, while the inferred resource at Cotabamba is 90 million mt at 0.77% copper and 0.42 g/mt gold. Apart from these two projects, Panoro is also drilling Kusiorcco (copper) and El Rosal (polymetallic) this year, although the company has suffered from permitting delays to implement its 2008 drilling program.

"We would like to develop these projects ourselves, but many investors, especially Chinese, are moving pretty fast in buying copper assets," said Christian Pilon, president, Panoro Minerals' Peruvian subsidiary. "The intention of Panoro is to become a mining company." In its Cotabamba property, Panoro's idea is to mine the copper before the gold, which is the opposite of what another Vancouver-based junior, Acero-Martin Exploration, is thinking of for its Pinaya project.

Pinaya, located in southern Peru, has a gold resource of 496,000 oz (indicated)



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Concentrator plant located in Yanacancha that sits at more than 4,300 m above sea level. Antamina produces different mineral concentrates of which copper and zinc are the main products.

and 170,000 oz (inferred), and copper content of 385 million lb in both categories. "We are considering a two to three phase operation," said Ralph Stricklen, COO, Acero-Martin. "First we would treat the tailings/ripiro from the informal miners. Then, secondly, we would do the gold, which would payback in just a year. Finally we would do the copper. The reason for doing it that way is because we have to do some remediation for the informal activities. Moreover, by doing the gold first, we will be developing the copper mine, because the gold is closer to the surface. Gold is much faster and perhaps more appropriate." In the meantime, the company is also trying to expand its copper resource as much as possible.

The Value of Discovery

While Cardero and Strike Resources look after their iron ore opportunities and others like Norsemont, Chariot and Inca Pacific work on their copper, Bear Creek Mining's strength is silver and base metals at its Corani and Santa Ana properties. Both are located in Puno, an area "desperately in need of foreign investment" according to company sources. Of the two, Corani is the flagship project, with 327 million oz silver (248.4 million mt at 40.9 g/mt gold, measured and indicated), plus 4 billion lb of lead and 2.5 billion lb of zinc (also measured and indicated). Bear Creek completed the acquisition of 100% of the property through a deal with Rio Tinto in March. This transaction left Rio Tinto with a 7.5% stake in Bear Creek.

Santa Ana, so far a silver-only project, is at an earlier stage than Corani but results are looking very promising. "The first resource estimate, based on 20,000 m of drilling, came in at around 100 mil-

lion oz, which is astonishing considering that this property was open for staking and never had a hole drilled," said Andrew Swarthout, president and CEO. "We already know that it will be a very straightforward operation as it is an open-pit configuration and amenable to low-cost cyanide heap leaching, requiring just around a quarter of the capital expenditure of Corani."


The question is, is a company like Bear Creek, with a strong backbone of geologists



and a focus on exploration, ready to undertake such mining developments? "These assets will likely precipitate some sort of transaction," said Swarthout. "Major companies need new resources but they have curtailed their exploration to such a degree that they have few assets in the development pipeline. Bear Creek is perfectly capable of developing these projects and it is something we don't rule out. But it is likely that somebody else will take these assets into production, in which case the group of top-notch geologists from today's Bear Creek will emerge as another company to keep exploring."



The idea, then, is to build value through exploration and discovery. Although many companies have changed their focus in the metals "super-cycle," there are still players that prefer to leave the ore body in the ground for someone else to come in and extract the mineral. In order to promote the interests of these companies and attract newcomers from the junior sector, the Association of Explorers of Peru has recently been created by industry leaders.



One of these leaders, Miguel Cardozo, president and CEO of Alturas Minerals, defends the importance of developing a


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A landrover lends perspective to Cardero Resources' Pampa El Toro iron sands project.

strong exploration market. "We have to attract investors and conduct exploration as a separate business, like Australia and Canada do. Exploration has always been part of the cycle, but only when exploration becomes a business in itself discoveries increase and provide the resource base needed to increase production.

"Why spend five or six years developing a project when you can make a couple of new discoveries in the same period of time?" said Cardozo. The company, listed on the TSX-V and in the process of listing in Lima, currently has 14 prospects. Five of them are at the drilling stage, with a budget of \$6 million this year. "We hope that at

least one of the projects we are drilling will give us good news. If not we have nine other prospects to drill," said Cardozo, who has high hopes for two high sulphidation epithermal deposits, Baños del Indio and Huilacollo. "These are the kind of low operating cost deposits that gave Peru the Yanacocha gold production rush."

The focus on grassroots exploration is shared by Grosso Group-owned Amara Resources, whose most promising property is the copper-silver Cocha property. Although present in the country for a few years, Amara became more aggressive in 2007, pushed by increased competition to find land. "Since last August, we have acquired five new projects," said Pete Ellsworth, vice president exploration. "You have to move fast in this boom, and our advantage as a junior is that we can take quick decisions as we don't have the bureaucracy of majors. Moving fast is the key to success."

Although Peru is largely unexplored, this does not mean it is easy to acquire good land packages. Vancouver-based High Ridge Resources, for instance, spent several months seeing properties in the country until it bought Chanape, in the old mining district of San Mateo. The company is now moving fast to validate the historic data



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from Banco Minero's reports, that point to 2.1 million mt with high grades of gold, silver, copper, lead and zinc. "If the data we have proves to be correct, that will mean we have 400,000-500,000 oz gold in the vein systems, plus mineral content in the volcanic breccias of 1.7 million oz of gold and about 30 million oz silver," said Gary Anderson, president and CEO. "Provided our drilling in Chanape has positive results, we will probably have a joint venture before the end of the year or we will raise money to do the feasibility study." After Chanape, the management wants to next move into the Rosicler and Germania areas. "Our properties do have a resource. In Germania we could go and do mining as early as tomorrow. But we are not planning to become miners. What we are good at is exploration, the identification of prospects. As a small company, we react very quickly when we identify an area," said Anderson.

This article could continue for a few more pages because the number of juniors capitalizing on Peru's potential is very big and constantly increasing. We could mention Zincore Metals, a company created as a zinc exploration spin-off of Southwestern Resources, also active in the country. Or write more words on the emerging uranium opportunity, which companies such as Solex Resources and Frontier-Pacific, as well as the aforementioned Vena Resources and Cameco, are trying to grab. The point is that mining companies in Peru have barely scratched the surface. Harold Waller, an experienced geologist, who acts as the general manager in Peru for several juniors, said, "There were 20 years between 1970 and 1990 when nobody looked for mines, and that is one of Peru's great assets."

Exploring in Peru is definitely exciting. That's why the country is seen, by many, as the largest and most dynamic junior mining market in South America.



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The Importance of Canadian Investment

If Canadian companies already play an important role in mining operations worldwide, the junior exploration market is something typically Canadian. Peru is not an exception to this, as can be seen in this article where virtually all of the companies mentioned (exceptions are not numerous) have their headquarters in Toronto or Vancouver, and are listed on the TSX or TSX-V, going to other exchanges later (mostly Frankfurt, the AIM, and now Lima as well).

Canada's mining tradition and Peru's geological potential make the two countries inevitable partners, according to the Canadian Ambassador to Peru, Geneviève des Rivières. "Canadian companies have been present in Peru for more than 50 years. This intensified in the early 1990s, when the first Canadian juniors started to conduct exploration work. The development of the Pierina gold mine by Barrick and that of the \$2.3 billion Antamina project by a Canadian consortium (Teck Cominco-Noranda) were the initial success stories that led to the presence nowadays of more than 80 juniors and several mining operators from Canada. Additionally, a substantial number of Canadian service and supply companies operate in Peru."

The Ambassador highlights Peru's tremendous potential for growth. "Currently, less than 10% of the country's natural resources are being exploited," said des Rivières. "The regulatory environment is favorable and the labor force is experienced and well qualified. Mining taxation is competitive by world standards; it is ranked 11th best for base metals and 7th for gold." In order to further support the local mining industry, Canada has funded the PERCAN project with the goal of modernizing the Peruvian Ministry of Energy and Mines. The cooperation between the two countries will be further enhanced when the foreign trade agreement, signed in January, is implemented. "Our future work will build on established cooperation with Peru. In the context of the FTA, Canada has agreed to work with Peru to help maximize opportunities and benefits stemming from the agreement," said des Rivières.

The Canada-Peru Chamber of Commerce, created in the late 1990s in Lima, works to promote the commercial ties between the two countries. Its president, Luis Carlos Rodrigo Prado, a lawyer who specializes in mining issues, sees Canada as a great strategic partner for Peru. "Although the two countries have nearly the same population, Canada has achieved great economic development in a short time. That's something Peru can learn from."

Rodrigo credits Antamina's investors for building confidence in Peru at a time of low mineral prices and just after Shell and Mobil's decision not to go ahead with a massive \$3 billion investment to develop the Camisea gas field. "Canadians decided to go ahead with Antamina and that resulted in more Canadian investors following suit." Now, in a climate favorable to business and with the new FTA, the ties between these two mining countries can only be strengthened. "The relationship between Peru and Canada can have a very positive impact on our country. Not just in mining, but in other sectors such as agriculture as well. Peruvians realize that Canadians have a special interest in social responsibility. This good influence will continue over the next years," said Rodrigo.

Making Lima Latin America's Mining Exchange

The Lima stock exchange (BVL) is one of, if not the, leading mining exchange in South America. Mining accounts for 61.6% of the total traded volume (2007) and most of the major Peruvian players including Buenaventura, Volcan and Milpo are listed. This section

is relatively mature, that's the reason why the exchange is targeting new companies in the junior and medium-sized sector. "We are focused on increasing the number of listed companies. We expect junior mining companies to continue to tap the market in the near-term. We believe that this will eventually result in an increasing number of mid-sized companies interested in listing on the Lima stock exchange," said Roberto Hoyle, president, BVL.

The junior sector of the BVL, set up in 2005 to replicate the role of the AIM or the TSX-V, will soon have nine companies listed including Alturas Minerals and Fortuna Silver, the latest additions. More organizations are showing an interest in listing, both to the Lima exchange and also to the three financial institutions that can take companies through the listing process: Scotiabank, Credibolsa (subsidiary of Peruvian Banco de Crédito) and Intercapital.

The junior sector is currently made up of secondary listings of companies headquartered abroad, but this could change. "The first listing for Peruvian miners will be here soon. There are several companies researching how to do their first listing in Lima's junior market," said Andrés Milla, general manager, Credibolsa.

There are a number of reasons to list on the Lima exchange: increased exposure to Peruvian investors leading to fewer claims that companies are just taking money out of the country, and better liquidity. "What companies like is liquidity, and some of the companies that are listed in both Lima and Toronto have more liquidity here than there. Panoro is a clear example," said Ernesto Higuera, CEO, Intercapital. To reach potential candidates for listing, Intercapital recently opened an office in Canada. "Our Vancouver office receives many requests from companies that would like to be co-listed. The impressive thing is that companies with assets in Latin American countries other than Peru are also very interested in coming to Lima," said Higuera, who expects an enormous increase in the number of companies listed in Lima once the Canadian and Peruvian clearing houses reach an agreement for the direct transfer of shares.

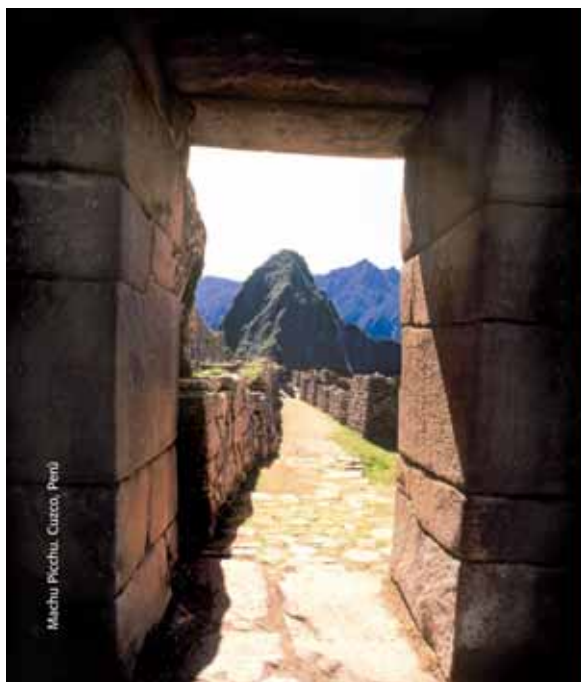
The Peruvian exchange will mature and develop as Peru becomes a more attractive place for foreign investment. The Fitch investment grade should accelerate this process. "A few years ago international funds didn't have confidence in Peru. The

investment grade will boost that confidence and encourage bigger funds to get involved," said Milla. However in this respect the country is still far behind Chile, for instance, and the good work will need to continue.

"The Fitch Ratings upgrade is an important first step, as major international funds usually consider a country investment grade if that status is awarded by two rating agencies," said Hoyle. Gaining this status from a second agency will certainly take Peru to the next level as an attractive and secure investment destination.



Roberto Hoyle McCallum, president, Lima Stock Exchange.



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Working with the Communities



Xstrata Copper has contributed funds to tackle malnutrition, provide training and health services, and improve the land, such as this sprinkler system project.

Unlike in Chile, where most big copper mines are located in unpopulated areas, in Peru there are people living and working around virtually every proposed mine site. The conflicts over Yanacocha's expansion and the Río Blanco copper project have not been the only ones in the country. The Tambogrande case that resulted in the mining company abandoning the project and leaving Peru is still in everyone's mind. These conflicts act as a reminder to the industry that the approval of the communities is indispensable. For that, it is important to get them involved from the beginning of the decision-making process.

High commodity prices mean that, from a business point of view, not a moment can be spared before putting a project into production. However the communities see timeframes differently, especially if they feel that the mine will have a significant impact on their lives. "Junior companies sometimes behave like financial companies who destroy sound opportunities in feasible areas because they want the project approved as soon as possible to sell it to bigger players," said Martin Beaumont, head of Oxfam GB's Peru Program. "I also see that some mining companies (no matter if they are junior or senior, national or global) think all the community wants is money, when all they really want is respect. Not being in a hurry is the best way of developing good relations with the locals."

The challenge is to explain that to the shareholders back in Canada or other countries. Former President and CEO of Antamina, Augusto Baertl, emphasizes how difficult it is to understand Peruvian social issues from outside. "My experience tells me that it's impossible to get a CEO or a member of a board of directors in London or Toronto to really understand how important community relations are." He points at the use of external auditors as one of the key elements in the establishment of a good relationship with the communities. "The auditors we had in Antamina were able to check everything without anyone from the company being present. That helped build some basic credibility more quickly. In this industry, basic credibility is lacking all over the place."

When asked about what went wrong in Tambogrande, a former Manhattan Minerals employee told us that the company had enjoyed good relations with the locals at the beginning, when drilling was being done in the streets of Tambogrande itself, and that suddenly a strong and well organized anti-mining campaign provoked a dramatic shift in the situation. "The locals were the big losers of what happened there," he regretted. They organized a referendum, and led by the farmers, refused the miners permission to continue.

Today, there are numerous projects that are on hold or advancing very slowly because the communities don't give their thumbs up under the form of the "social license." Most of them are in the new mining region that is the north of the country, perceived as the most challenging area to deal with the communities. Monterrico Metals' Río Blanco project in the region of Piura, a potential \$1.4 billion investment that would produce 200,000 mt of copper per year if developed, suffered a blow in September 2007 when three towns voted against the project. The government is on the company's side (Río Blanco is one of the 20 mining projects officially declared of "national priority") but the challenge is now convincing the surrounding population.

Xiaodong Huang, CEO, Monterrico Metals, said the management is determined to rebuild trust. "We try to talk to the people and understand what their concerns are. There are farmers that worry about pollution in the area, but we are a responsible company that will follow all the international standards. We are very frank to the communities; we don't deny that we made mistakes in the past. We face those mistakes and have already learned from them."

Concerns about pollution are predominantly related to water. The scarcer the water supply or the greater the importance of agriculture, the more tension increases. To avoid this issue, poly-metallic producer Milpo pioneered the use of desalinated sea water for its Cerro Lindo mine, with a plant that processes and pumps 36 liters of water per second through a 60 km long pipeline up to the mining operation, located in the mountains. A similar option is being considered by Southern Copper for its Tía María project, situated just 5 km from the seashore.

From a legal point of view, and together with surface rights, water regulations are one of the areas that need to be re-defined, according to Luis Carlos Rodrigo Prado, lawyer at Rodrigo, Elías & Medrano Abogados. "We need a new water law because water is the main point of friction between mining companies and local communities. Our water law is decades old and needs to be updated. There should be a new text, more clear on property rights, and that would set up the framework for negotiations."

Sustainable Development

In order to get the communities on board, it is key to explain carefully the benefits that the mining operation will bring to the area. It is thus important to demonstrate that other activities traditionally developed in the region (mainly agriculture) can coexist with mining and even be improved through the implementation of social responsibility programs. Communities also need to be sure that the economic growth will be sustainable and will be maintained after the mines close.

To achieve this, many companies are undertaking initiatives to strengthen the economy of the surrounding population.

"Sustainable development is about creating virtuous circles," said Kruger, responsible for the Cerro Corona project. "We have replaced natural pastures with improved pastures, and that has resulted in a fivefold improvement in the performance of milk-producing cattle. We have also improved the cattle by artificial insemination. We want to develop an industry that will support the community once we leave the area."

Big companies with revenues from large operations are in a better position than juniors to invest in the communities. Xstrata's Tintaya operation, for instance, contributed \$85 million in 2007, including the money for the canon and the local and regional funds. The share of that money that is managed by the company is used in a variety of schemes to tackle malnutrition, provide training and health services and improve the productivity of the land through irrigation projects, among others.

One of the main expectations from the communities is that the mine will employ many of its workers from the neighboring areas. The creation of employment is therefore another wealth redistribution instrument for the mining operation, as is the compulsory profit-sharing scheme that companies must implement for their employees. However, many companies have realized that having a happy workforce is key for the long-term success of the mine, and they have gone beyond the legal obligations, developing their own initiatives to empower the workers.

Gold Hawk Resources is an interesting example from the junior arena. At its Coricancha mine, the company has formed a "Junta de Fomento," a fund employees contribute to, which then reinvests their capital (to buy trucks, for instance), and then the company rents the services offered by the junta. At the end of the year a share of the profit is reinvested in new assets and the rest is distributed as dividends. "The junta is very useful for maintaining positive relations between employees and the company," said Rod Lamond, vice president operations, Gold Hawk. About 90% of the staff are members, including Lamond.

Looking Ahead

Peru's economy is growing at a good pace and the mining sector has to be given credit for its contribution, but poverty rates are still high in rural areas (malnutrition affects more than 40% of children in the region of Cajamarca, for instance). Collaborating with the communities, previously seen as a challenge, is an excellent opportunity to build a mining company's reputation in the country, showing its commitment to helping the population and demonstrating that the wealth generated by the exploitation of the natural resources can have a positive impact on the lives of all the stakeholders and their descendants.

This positive attitude, coupled with respect for the environment and a responsible use of water, needs to be implemented at all levels. Past experience has shown that it is very difficult to build trust once there is a conflict and that, in parallel, credibility is the first thing that is lost. In this context, the government should also collaborate by using the money it receives in taxes to increase its presence in areas where its authority is completely absent.

Millions of dollars from the canon and other social funds are sitting in bank accounts, waiting to be used. And millions of mt of gold, copper, silver and other metals are still in the ground, waiting to be discovered and developed. From this point of view, Peru is a rich country: it is in the hands of the authorities and the business leaders to ensure that this richness is distributed fairly.



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Peruvian Mining Services Boom

While mining companies in Peru have been growing and expanding, there has been a corresponding increase in the size and number of companies providing mining related services. These services companies, Peruvian and international, have seen impressive growth in manpower and revenue in the last years. The following examples illustrate this trend.

Stracon, a mining contractor, has seen growth of 64% in 2006 and 90% in 2007. Engineering firm AMEC has grown from 70 to 190 employees in just a year and AK Drilling International has seen spectacular annual increases in sales of 115%+ since 2002. These gains are replicated throughout mining's ancillary industries.

The exploration stage is one of the areas where the mining boom is most obvious and is demonstrated by the depths being drilled in Peru, reaching 1.3 million m last year in diamond core drilling (1.5 million is forecast for 2008) according to Guido Del Castillo, director, Bradley MDH and promoter of the Association of Explorers of Peru. The Peruvian drilling mar-

ket is increasingly mature with Boart Longyear, Bradley MDH, AK Drilling International, Geotec, Energold and Sondasur all providing a variety of drilling rigs and techniques.

AK Drilling International was the groundbreaker in introducing reverse circulation drilling to the Peruvian market. "Traditionally, in Peru, diamond drilling was the drilling method of choice. Now RC is a mainstream drilling option and we will keep expanding our position in this area because clients have smaller windows for permissions and need results more quickly," said Steve Petrovich, managing director, AK Drilling International. Yet the company doesn't turn its back on diamond drilling. Its fleet includes 10 diamond drilling rigs and new acquisitions are planned during the year.

The drilling companies have to combine the demands of their long-term producing clients with the short and medium term needs of the exploring companies. "For us it is very important to get in touch with the companies at the early stages because as

the projects grow in size the drilling is stepped up every year," said Óscar Ballón, general manager, Layne Christensen's Peruvian subsidiary Geotec. This view is shared by Petrovich. "We have to support the junior exploration market. It is these companies which are taking Peru forward. I want to participate in the discoveries and with as many different companies as possible," said Petrovich.

Caring for all sizes in the mining spectrum is a concern among all services companies. "Our main difficulty is to keep the organization large enough to provide good service to all customers and not to be too selective: we don't want to give very good service to some while not being so caring with smaller customers," said Anthony Davis, managing director, Metso Minerals.

The boom also implies some challenges related to the sustainability of this growth. "The challenge lies in the people because drilling is a very specialized business. Our advantage is that many of our operators have been with us for many years," said del Castillo. Most companies have programs lasting up to three to five years to fully train their drilling engineers. Local contractor SondaSur, active in the Peruvian market since 1997 and now planning to grow internationally, decided to go even further. "Qualified workers are very hard to find, so we are working on our own drilling school project," said Fernando Reyes, director and general manager, who expects the school to open during 2008.

The difficulties don't just lie in providing rigs and finding people, the areas drilled in the high Andes can also be very difficult to access. This difficulty can be turned into an opportunity by getting the local communities involved with road building and drill pad construction. Some drillers are moving away from a reliance on excess infrastructure, switching from heavy rigs requiring roads to all-terrain access rigs and man-portable rigs. Commenting on man-portable rigs', Harold Waller, general manager, Energold Drilling in Peru, said, "These rigs are the future as no-one wants a negative impact on the landscape. Our rigs can drill depths over 700 m but leave little footprint and they do not need a road into the area."

Ballón believes in putting recovery before portability. "Portability is very important, but the ground in Peru is very difficult.



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You need strong rigs to do good drilling. If your rig is not strong enough, you get stuck before you reach the required depth, or you don't have good recovery rates."

From whatever type of rig, the samples, core and chip need analysing. Many mining companies look abroad but there are currently seven laboratories in Lima processing thousands of samples a month. One of the largest is ALS Chemex. "We currently process more than 100,000 mineral samples per month in the Lima laboratory," said Vice President for South America, Ángel Rodríguez. The company needs to be very reactive to cope with the high demand and to fulfil the customer's expectations.

A key concern for many mining companies is transparency and knowing what is being done to their sample at any time. "Through new technology, ALS Chemex provides a deeper and more complete view into the laboratory, and it is with this that we invite our clients to look over our shoulders and track their samples all across the process. Who is doing what, and when, in real time. This detailed audit trail is unique to us," said Rodríguez.

The sheer quantity of samples to be processed means companies specialised in other areas are also offering laboratory test-



Geotec—Drilling at Tintaya mine.

ing. "Mineralogical characterization is the newest part of our business. The laboratory, which has all the latest equipment, opened in 2007. Most of the big compa-

nies have their own labs, but this is helping the medium sized companies," said José Vizquerra, general manager of EPCM company, Buenaventura Ingenieros (BISA).

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Buenaventura Ingenieros provided the concept for this crushing & grinding plant at a copper concentrator near Arequipa, Peru.

Helping With the Communities

Community relations are also essential for any project and require attention from the initial exploration stage. Local knowledge is essential for Carlos Alarco, BISA. "At BISA we can help foreign companies in Peru

because we have experts in the field. Although the geologists are the first ones to put their feet on the ground, they are not the ones with the correct knowledge and experience to deal with community relations. We have sociologists and anthropologists who can help in these areas," Alarco said.

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U.S.-based Montgomery Watson Harza (MWH), although focused on the environmental business, also view social consultancy as a growth area. "Social issues are a very important aspect of mine development and go hand in hand with environmental matters," said Juan Targett, MWH country manager.

Environmental issues are never going to go away, particularly as water availability becomes more of an issue. In this context, tailings and their treatment are vital in the quest for environmentally friendly mining and in Peru these can be designed by a number of companies. The first major MWH project in Peru was tailings storage for the Tintaya project, and the company is currently working on the Cerro Corona dams for Gold Fields.

In a country with as many operating mines as Peru has, the multiplication of tailings storage facilities has encouraged companies to look into new possibilities. Golder Associates, for instance, undertook projects for Minsur and Milpo using thickened and paste disposition technologies. "The idea is to dispose of the tailings as dry as possible, and this has a lot of benefits: the reduction of losses and environmental impacts, much more water recovery, and the need for smaller tailings ponds," said Siegfried Arce, general manager, Golder.

The construction stage is also well catered for in Peru. AMEC, who completed their first Peruvian ECPM in 2006, see this as the main growth driver. "We are looking at the upcoming ECPMs and we are well positioned for them," said Ricardo Glade, general manager. "As projects in Peru go through the different stages, we have different groups within the company to deal with all the phases of any project."



Luis Gonzales Posada, president of the Peruvian Congress.

This area in Peru has just got more competitive with the recent acquisitions of Sandwell, PSI and Vector Engineering by Australian firm Ausenco. Scott Elfen, general manager, Vector Peru, thinks the new ownership will take the company to the next level. "In the past we were able to do parts of the studies. Now, with the entire Ausenco group, we can provide cradle to grave service for clients. The services provided by the four companies do not overlap. On the contrary, many new synergies are being created," he said.

Vector Engineering continues to focus on leach pad technology, an area where they are rivalled in Peru by Knight Piésold. Elfen is proud of Vector's work at Barrick's Pierina gold mine. "Pierina is in very mountainous terrain and has some of the steepest leach pad slopes in the world." This is the type of challenging project that engineers like working on. In the current mining bonanza, qualified workers can easily move from one firm to the other, so having exciting projects in the company's portfolio is as important as offering a good package when it comes to retaining skills. Knight Piésold's first project in Peru, for instance, was with Yanacocha. "This gave us the opportunity to support a world class mine," said Mario Villavisencio, general manager, Knight Piésold.

Improving the Infrastructure

It is not just at the drilling stage that there are challenges in moving products around and away from the country. The roads leading up to many mine sites in the mountains can be tortuous and large tanks have to be moved in sections. Exporting the amount of concentrates Peru produces requires modern, deep water ports, and the allocation of docks has already become a point of friction between the authorities at Lima's Callao port and the mining industry. David Lemor, head of governmental agency Proinversión, is aware that Callao needs extensive improvement. "In Callao there is still much to be done. It is something Proinversión is analysing with the Ministry of Transportation and the National Port Authority. We are defining a strategy for the rest of Callao, besides the South Dock."

Another key element regarding infrastructure is power. For energy company EnerSur, part of the Suez Group, mining is a key business as mining companies account for most of their free customers (without regulated tariffs). General Manager Patrick Eeckelers knows that the demand for energy will grow in parallel to the construction of new mines. "Most of the new generation plants have been built around Lima, but there is a need for energy in the south, where demand is increasing quicker than the country's average growth rate due to the mining projects coming on line in the next five years. The transmission system is becoming congested, which could lead to a risk of blackouts in a couple of years."

Mining companies active in the southern, copper-rich areas, are already in talks with EnerSur to guarantee their future supply. "Any natural gas generation project takes at least three years to build, so we have to take risks along with the mining companies. The whole process is based on trust. We look for integrated solutions with all the mining companies involved in the region," said Eeckelers. These energy solutions are likely to rely, for the near future, on the economic and reliable supply of gas from Peru's Camisea gas field.

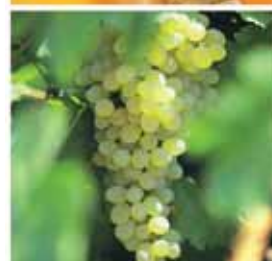
Ready for Production

Once a mine is operational there are still opportunities for contractors through the provision of services such as miners. Although Peru is not yet a totally mature mining market, this area is expected to grow as the number of mines increases. "Peruvian companies tend to operate their projects themselves, while in other coun-



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Yanacocha—home to Peru's largest gold mine.

tries, such as Chile or Australia, the use of mining contractors is more common," said Karl van den Brenk, general manager, Stracon. "We believe we are on the cusp of a boom in contract mining. 2009 is going to be a very interesting year as a number of projects are scheduled to kick off."

The area that needs to be resolved for contract mining services to develop more

rapidly is the legislation regarding profit-sharing, as contractors are not entitled to their share, while miners on a producing company's payroll do. This has led to labour unrest in mines where payroll and contracted miners operate side by side. Another matter that needs some attention in the regulatory framework is the responsibility of contractors should environmental problems occur.

"Companies subcontracting environmental services are not responsible for possible incidents; therefore they just chose the cheapest provider. In Canada that would be unthinkable," said Julio Zavaleta, general manager, Hazco Environmental Services. Hazco is a Canadian-based company planning to grow aggressively in the mining sector, and that plays with the advantage of being an environmental contractor by definition. However, according to Zavaleta, Peruvians are not too aware of how important environmental care is. At least, not yet.

There are other challenges for operational mines, such as the delivery of machinery and equipment. The demand is so high that sometimes the rental option, when available, can become an efficient solution to avoid long delivery times. SKC Rental, part of Chilean industrial group Sigdo Koppers, saw that there was a good opportunity in the machinery rental market in Peru, and entered it two years ago. Revenue from rental is expected to reach \$10 million in 2008. "All of the machinery we rent is completely new. A mining or a construction company cannot afford the luxury of stopping a whole production line because one machine is not working," said Gonzalo Castillo, general manager.

The problem of delivery times extends to all equipment areas. "Currently in the sector clients place orders only to be served a few months later," said Hans Neumann, general manager, Sandvik. "Sometimes we need to have stocks even if the costs for that are very high. We need to find a balance." This also affects the availability of spare parts for replacements. "Demand for spare parts is very high worldwide," said Davis. "Nobody wants to stop production; everyone wants their spare parts for tomorrow, or today if possible."

Although replacements will always be needed there are new technologies and materials which can extend the life of the equipment and reduce the associated costs. One such material is Reinforced Fibreglass Plastic, that doesn't corrode. "Metal offers lower initial costs, but RFP doesn't require so much maintenance. In corrosive environments rusted metal isn't safe to walk on," said Rafael Escalante, general manager, LEPSA.

The fact that large-scale products, like a 22 m diameter FRP tank cover for Yanacocha can now be produced in Peru, is just another example of how the mining industry is promoting development in other sectors and having a positive impact in the



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<p>Construction Support Services</p> <ul style="list-style-type: none"> ■ Construction Management ■ Construction Quality Assurance ■ Geoelectric Leak Location Surveys ■ Geotechnical Laboratories ■ Forensic Engineering 	<p>Hydrological Services</p> <ul style="list-style-type: none"> ■ Hydrological Characterization ■ Mine Dewatering ■ Water Resource Evaluation ■ Surface Water Management ■ Hydrogeologic Field Investigations



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country's economy. An impact that is already being felt by steelmaker Aceros Arequipa.

Steel is a key element for mining construction in a seismic country like Peru, but the growth in demand has been driven by the general economic growth of the country, in which the mining sector has played a key role. The result for Aceros Arequipa has been the boom in its sales for the construction sector. "With the opening of the country to foreign investment and the implementation of strong environmental and social responsibility regulations, the impact of mining over the economy is being felt more strongly and more rapidly," said Mario Munaiilla, commercial manager, Aceros Arequipa. To keep up with the demand, the company plans to expand its production significantly, but for this it needs to ensure its iron ore supply, currently at sky-high prices. That is why the management is considering the possibility of moving into iron ore production, and thus become less dependent on local Chinese-owned producer Shougang.

A Stronger Services Sector

The service-and-supply sector is responding well to the challenges presented by the growth of mining companies. Many Peru-



Loaded trucks transport concentrate down from Milpo's Cerro Lindo mine.

vian players are leveraging off this impetus to look outside the country and make themselves known internationally. BISA are looking to open an office in Argentina; LEPSA has made strategic alliances with Chilean companies to ensure that large scale products can be produced in the region while AK Drilling International sends rigs all over South America.

The previous years growth looks set to continue and if the companies continue expanding at this pace, developing their suite of products and services and training their staff—assuming the mining companies don't poach them—then the future of Peru's mine exploration, planning and construction services seems assured.



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