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Cuervo has something to crow about in Peru

SITE VISIT



BY JOHN CUMMING

CUZCO, PERU — Iron ore explorer **Cuervo Resources** (FE-C) is a little company with big ambitions.

Created in 2005 to look for iron ore in Peru, the Toronto-based junior has already shown that it's still possible to make a large, grassroots iron ore discovery here. Next, the challenge is to add enough tonnage in several zones to potentially support mining and justify building considerable infrastructure at the site, which is high in the Andes.

Cuervo — Spanish for “crow” — went public in May 2007 with a \$2.5-million initial public offering, and has been led since the beginning by president and COO John Siriunas, and chairman and CEO Brian Berner. A geological engineer by training, Siriunas divides his time between Canada and Peru to concentrate on the project's technical aspects, while Berner, a capital markets specialist, holds down the fort in Toronto. Brian's brother Tom Berner handles investor relations.

The management team is rounded out by: Dan Hamilton, chief financial officer; Manuel Vega C., general manager in Peru; and directors Gordon Watts, Velasquez Spring and Brian Cloney. Iron ore specialist Ekkehart Mertins serves as an advisor to Cuervo.

Cuervo acquired its key Cerro Ccopane



BY JOHN CUMMING

At the drill camp at Cuervo Resources' Cerro Ccopane iron ore project in southern Peru, with the Orcopura zone in the background: John Siriunas, Cuervo's president and COO (left); Gordon Watts, Cuervo director and mining consultant.

iron ore property in 2006 by acquiring 100% interests in six claims staked over aeromagnetic highs defined by a survey flown over the rugged mountains 65 km south of Cuzco. Pre-IPO seed capital for the work was provided from internal sources as well as German and Swiss investors.

“Almost nobody was looking for iron ore at the time,” Siriunas says of Cuervo's entry into Peru.

Then, by its own staking, Cuervo expanded the Cerro Ccopane property to 140 sq. km, covering six zones of shallow

mineralization at elevations ranging from 3,500 to 4,600 metres above sea level. Before Cuervo came onto the scene, the property had never been drilled, let alone mined.

Comments Watts: “This is kind of a neat project, because it's the last of the grassroots exploration — it's just staking a geophysical anomaly and finding massive mineralization in outcrop or at shallow depth.”

Driving to the property takes five hours from Cuzco and 24 hours from Lima, which is 600 km away in a straight line.

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Roads are few on the property, but the grassy concessions are widely accessible at a slower pace on foot or horseback. Climate is temperate, cool and dry, with most rain falling in summer from December to March.

The closest settlement to the project, at 6 km away, is the village of Huillque (population 500), which was only hooked up to the region's electrical grid last year. A larger town, named Accha, lies farther east and is a further source for provisions and personnel. The sparse but long-settled population in the region supports itself by potato farming and herding sheep, cattle, horses, alpaca and llama.

Cuervo's geologists describe the Cerro Ccopane iron ore resource as a calcic iron skarn occurring at the regionally faulted contact between Middle Cretaceous-age limestone of the Arcurquina formation and felsic intrusive rocks of the Andahuaylas-Yauri batholith. Post-mineralization tectonic activity has displaced the various magnetite-rich mineralized bodies to their current locations.

The Cerro Ccopane property sits in the same base metals mining district as **Xstrata's** (XTA-L) Las Bambas advanced project to the north (200 million tonnes grading 1.2% copper plus gold and molybdenum), and its Tintaya mine 100 km to the southeast (90 million tonnes of 1.5% copper).

Juniors active in the area include Australia's **Strike Resources** (SRK-A) exploring for iron 15 km to the south, **Norsement Mining** (NOM-T) advancing its nearby Constancia copper-moly porphyry and Lima-based Carbones y Derivados prospecting for iron. The long-lived but now-closed Katanga copper mine is 35 km to the south.

Cuervo has spent only \$13 million on the Cerro Ccopane project so far, but has much to show for it. It's opened substantial offices in Lima and Cuzco, built miles of mountain roads and a bridge, and set up an exploration camp at 3,850 metres elevation.



BY JOHN CUMMING

Cuervo Resources president and COO John Siriunas points to massive magnetite outcropping in the Aurora zone of the company's Cerro Ccopane iron ore project in Peru.

On the deposits, Cuervo has dug 27 trenches and, between July 2007 and April 2009, drilled 121 holes into the Orcopura zone, 21 holes into the Huillque zone and 25 holes into the Aurora zone, or 21,000 metres in total. In the Orcopura zone — the first-drilled and best-defined of the bunch — drill spacing was 50-100 metres.

Core samples were assayed at SGS Minerals Services' laboratory in Lima.

The Orcopura zone alone now boasts a National Instrument 43-101 compliant resource, calculated by consultants Micon International in March 2009 using a lower cutoff grade of 20% iron, of 56 million tonnes at 46.8% iron, plus 51 million inferred tonnes of 43.7% iron.

The iron is mostly in the form of very high-grade magnetite, and impurities are copper at 0.1%, and sulphur at 2.5% (mostly as pyrite). The impurity levels are somewhat elevated, but are not unusual

for skarn-type mineralization.

Metallurgical studies at SGS Lakefield Research in Ontario and the Midland Research Center in Minnesota show excellent recovery of iron ore from the host skarn, using simple magnetic separation of the magnetite-rich material, and leaving much of that pesky pyrite behind.

Compared to hematite-rich iron ore deposits, magnetite-rich iron-ore deposits are "easier to find, and easier to separate," Siriunis says.

The test results show the Cerro Ccopane mineralization could produce a concentrate grading 66-69% iron, 0.01% phosphorus, 0.02% copper, 0.09% sulphur and 4% SiO₂ plus Al₂O₃.

Midland also successfully carried out preliminary pelletizing tests on Orcopura material, and so pelletizing remains one processing option.

That's all good, but it's the geophysics that has Cuervo management really excit-

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ed about Cerro Ccopane.

Following up on the airborne geophysical data used by Cuervo and its predecessor for the original claim staking, Cuervo contracted the Lima office of consultants Val d'Or Geophysics to carry out ground magnetic and gravity surveying of the Aurora, Aurora B, Orcopura, Huillque, Huillque Norte and Bob 1 geophysical anomalies.

The arduous fieldwork was completed in 2006 and 2007, and the more-detailed geophysical surveying was then calibrated with Cuervo's drilling at Aurora, Aurora B, Orcopura and Huillque.

Released in mid-May 2009, Val d'Or Geophysics' survey results point to very large iron-ore resource potential on the property's undrilled Bob 1 and Huillque Norte anomalies, situated 2 to 5 km north of the Huillque zone at the northernmost reaches of current drilling.

Bob 1 shows a gravity-anomaly potential of 1 billion tonnes of mineralized material, while Huillque Norte shows a

similar 1.2-billion-tonne potential, all to depths of 300 to 400 metres from surface.

The news stunned Val d'Or and Cuervo personnel alike, and put the Cerro Ccopane project in a whole new light. Cuervo's shares reacted strongly, too, tripling in a few weeks to peak briefly at 63 cents.

"Huillque Norte appears to be very significant, though the mag isn't as definitive as on the other anomalies," says Siriunas. "There might be more hematite there, some secondary mineralization near surface, but then again some data is missing."

For due diligence purposes, Cuervo later hired geophysical consultants Matrix GeoTechnologies of Toronto to review Val d'Or Geophysics' work. Matrix confirmed Val d'Or's work and the multi-billion-tonne potential of the property's undrilled geophysical anomalies.

Other priority geophysical targets on the property include Cerro Tava, about 4 km west of Aurora, and Bobs 8 and 9 on the northwest stretches of the property.

Obvious drawbacks to the project are the rugged topography, the 4,000-metre elevation and the 320-km distance to a tidewater port.

"Transportation is important to our project," says Siriunas.

In March 2009, Vancouver-based consultants Sandwell Engineering completed a detailed transportation study for Cuervo. Sandwell concluded that a direct slurry pipeline is the way to go to deliver iron ore concentrate from the project site to a port facility at Matarani on the Pacific coast, making good use of both the elevation drop and the Cerro Ccopane property's plentiful water. Once loaded onto Capesize ships at Matarani, iron ore concentrate could make it to Asian ports in 33 days.

Estimated median pipeline costs are on the order of US\$8-10 per tonne, including recovery of capital costs.

"Very few people dare to speak of pipelines," Siriunas says. "People scoff at it, but the technology works, and it has worked for years."



BY JOHN CUMMING

Pausing to clear a rockfall on a Cuervo Resources-built road that connects the Orcopura and Aurora zones at the company's Cerro Ccopane iron ore project in Peru.

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He points to slurry pipelines of similar capacity now in use at mines globally, from Vale's 30-year-old, 396-km Samarco iron ore pipeline in Brazil, to the one in use at the Antamina copper-zinc mine in northern Peru.

Other transportation options include using trucks, rail or conveyors, or some combination of the above.

"Transportation is difficult in Peru," Pierre Montauban del Solar, general manager of Sandwell Peru, told *The Northern Miner* during a visit to Sandwell's Lima office.

"We find it hard to warn clients sufficiently that it's going to be a difficult component of the whole project, and that the costs are high. Depending on where the clients come from, they may not be used to that quality Peru has. The Andes are very, very difficult, and that's one of the reasons we don't have many railroads. But, that said, nothing is too high or too far in Peru."

As for government involvement in infrastructure development, Montauban del Solar argues that governments in Peru, like many Latin American governments, "need to strike a balance between controlling everything and controlling nothing."

Conceptually, for a 20-year mine operating at annual capacity of 5-20 million tonnes, development capex for Cerro Ccopane could be in the neighbourhood of US\$3.5 billion. But it's really too soon to pin down development-cost numbers.

Of note, due to be built in 2010-12 is a natural gas pipeline that will deliver gas from Punto de Recepcion in the Amazon's Camisea gas field to southern Peru population centres including Cuzco, Tinta, Tejada, Juliaca and, on the coast, Matarani and Ilo. This pipeline will supplement an

existing gas pipeline that begins in the same region and extends westward to the cities of Pisco and Lima.

The new pipeline's exact route has yet to be determined, but it is due to pass through, or very near, the Cerro Ccopane property.

For this reason, Cuervo is considering the benefits of trying to piggyback any possible construction of an iron-ore pipeline onto the right of way already established for the gas pipeline.

And with natural gas likely to be pumped through the area in the coming decades, Cuervo is also pondering using some gas for direct reduction of the iron ore on site.

On a more pressing matter, Cuervo has been scouting around the world for a major joint-venture partner to help fund at least \$40-million worth of work that will entail more geophysical surveying and substantial drilling of those enticing geophysical anomalies in the north of the property.

Cuervo is ready to sell around 35% of its project to an established JV partner so that it won't dilute shares, and can fund a stepped-up rate of development.

The recent rebound in iron ore prices has management optimistic some kind of deal can be struck in the coming months.

Back on the ground, new mountain roads, permits, land-access rights, and positive community relations all need to be in place before drills start turning on Huillque Norte and Bob 1. Cuervo also hopes to carry out ground geophysics on the Bob 8 and 9 anomalies this year.

The company has another 250 sq. km of 100%-owned prospects elsewhere in Peru's iron-rich belts, but is preserving capital and staying focused on Cerro Ccopane for now.

On the social side, Cuervo is a significant new employer of Peruvians and has become fully engaged with the communities closest to the project site. For instance, in the village of Huillque, Cuervo has improved roads, helped build medical and veterinary facilities, built a church, and bought a village truck and school computers. Cuervo is also considering establishing a vicuna reserve in the area.

On the corporate end, Cuervo is looking to jump to the Toronto Stock Exchange when the time is right. Comments Berner: "If we got a partner, we'd go directly to the TSX."

In the meantime, Berner sings the praises of the Canadian National Stock Exchange, and points to the hundreds of thousands of dollars Cuervo has been able to save and then reinvest in Cerro Ccopane by not being on the TSX Venture Exchange. The shares also trade in Frankfurt using the ticker CRR.

Cuervo currently trades at 32¢ and has 34.5 million shares outstanding (42.9 million fully diluted), for a market cap of \$11 million.

The company is debt-free and had \$774,000 in cash and equivalents at the end of 2009, after completing a \$350,000 private placement in December.

The recent sale for US\$100 million by **Cardero Resource** (CDU-F) to Chinese buyers of its Pampa de Pongo iron ore deposit along Peru's southwestern coast provides a timely benchmark for Cuervo. The deposit was pegged in a September 2008 scoping study at 863 million inferred tonnes grading 41.4% iron, and it is due to be exploited using underground bulk-mining methods, with an anticipated capex in the neighbourhood of US\$4.4 billion.