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Mining in MONGOLIA

getting back on track

by Robert L. Wallack, Ulaanbaatar, Mongolia

The efforts of Robert Friedland and his team have paved the way for other mineral explorers in this under-explored country. It is hoped that new mining regulations and a tax settlement regarding the strategic partnership between the Government of Mongolia, Turquoise Hill Resources and Rio Tinto (Oyu Tolgoi LLC) will bring back foreign investment.

Much of the rapid growth of investment in Mongolia's economy during the past 15 years can be attributed to the exploration successes of Canada-based Ivanhoe Mines (since renamed **Turquoise Hill Resources Ltd.** [TRQ-TSX, NYSE, NASDAQ] and its founder, mining entrepreneur Robert Friedland. Friedland's early familiarization with Mongolia's mineral potential, plus his extensive international experience with financing grass roots exploration and development in emerging markets, helped fuel his belief that undiscovered treasures lay beneath the South Gobi's

stony desert – when some western mining companies, even ones that had invested in Mongolian exploration, were more cautious, or gave up the search entirely.

The chain of copper, gold and silver discoveries revealed by Ivanhoe's team of international and Mongolian geologists now stretches over 12.4 km (7.4 miles) and made Oyu Tolgoi, which is Mongolian for Turquoise Hill, one of the great success stories of global mineral exploration. Ivanhoe's name was changed to Turquoise Hill Resources after mining giant **Rio Tinto plc** [RIO-NYSE] increased its owner-

ship stake to 51% and assumed control of the company in 2012. One of the legacies of the Oyu Tolgoi discoveries is that they continue to inspire many other mining and exploration companies now investing, exploring and producing natural resources throughout sparsely settled Mongolia, creating skilled jobs and helping to raise the standard of living of nearly 3 million inhabitants.

From 1996 to 1998, the Broken Hill Proprietary Company Limited (BHP), based in Melbourne, Australia, spent about US \$2 million on exploration at the

LEFT: The open pit at the Oyu Tolgoi copper-gold mine in the South Gobi Desert, Mongolia. An underground feasibility study has just been finalized which stated there is an after-tax NPV (8%) of US \$7.43 billion. Photo courtesy Turquoise Hill Resources Ltd.

Oyu Tolgoi property. Its work included detailed geophysical, geochemical and geological mapping, as well as diamond drilling 23 widely-spaced holes within a 5 km² area. At that time, copper and gold mineralization was indicated in three main zones: Central, South and North Oyu, according to an Ivanhoe Mines, May 8, 2000, news release. Ivanhoe Mines, conducting a separate, preliminary hunt for exploration prospects, examined more than 350 mineral occurrences in Mongolia between 1996 and 1999 and continued to monitor BHP's work.

However, BHP did not find sufficient resources to justify the development of a mine and in 1999 offered its Oyu Tolgoi exploration tenements to other companies through a joint venture arrangement. Friedland was quick to seize the opportunity; he settled a deal with BHP in May 2000 that gave Ivanhoe the right to acquire a 100% interest in the Oyu Tolgoi prospect and later the same month Ivanhoe began its own drilling at Oyu Tolgoi. With no impressive initial results and budgets running out, Friedland eventually staked everything on a deep-drilling campaign that finally succeeded in hitting Oyu Tolgoi's first gold and copper jackpot in June 2001.

In November 2003, Ivanhoe bought BHP's remaining interest in Oyu Tolgoi, paying US \$37 million to acquire its 2% net smelter return royalty interest. By this time, Ivanhoe's exploration program had grown to 16 drilling rigs and independent geologists termed the discovery one of the world's largest and highest-grade copper-gold porphyry deposits.

Independent experts have estimated that Oyu Tolgoi contains 100 billion pounds of copper and 61 million ounces of gold in measured, indicated and inferred



Kerry Griffin, Technical Director, Altan Rio, at left, and Nasandelger Buyanjargal, Project Geologist, Altan Rio, examine mineral samples in their Mongolian office. Photo courtesy Altan Rio Minerals Ltd.

resources. "Mongolia has become the place to be for large and small companies engaged in the global quest for copper and gold," Friedland declared in November 2003.

The major Oyu Tolgoi discoveries enabled Friedland's Ivanhoe Mines to commit to providing long-term benefits for the government and people of Mongolia. This included expanding international practices of environmental management and operational safety and health. It also saw to improving social programs and economic benefits in the South Gobi communities of Khanbogd, Manlai and Dalanzadgad, while respecting cultural values and nomadic traditions of livestock herding. For example, the community development program of 2011 took a wide variety of 53 local businesses through training and banking methods near the Oyu Tolgoi site.

Indeed, Friedland's commitment to the people and government of Mongolia also included Ivanhoe's 2003 purchase of a one-year US \$50 million treasury bill to help Mongolia retire its national debt to the Russian Federation that was incurred during the Soviet era, before 1991.

"He introduced my country to the

world of mining," said Ms. Bolormaa Nuurkhuu, Director of Geology of Mongolia-owned Khemchig Gold in an interview in Ulaanbaatar, Mongolia. However, these achievements were not without growing pains experienced by new systems of democracy and capitalism within Mongolia.

Between 2005 and 2009, Friedland and members of Ivanhoe's Canada-based leadership team travelled back and forth to Mongolia to participate in negotiations with the Mongolian government for a long-term Investment Agreement to provide the required stable legal and tax environment for the massive capital investment required to develop the Oyu Tolgoi Project. At the same time, Friedland was able to negotiate a strategic partnership with international miner Rio Tinto plc, which was accompanied by an initial Rio Tinto private placement investment of US \$303 million. After much wrangling, the Mongolian government, Ivanhoe and Rio Tinto signed an Investment Agreement in October 2009 to build and operate the Oyu Tolgoi copper-gold mining complex. The agreement allocated a 34% ownership stake in the project to the government,

Getting Mongolia back on track

Investors shy away from uncertainty and regulations they deem as unfair which has caused a significant drop in foreign direct investment (FDI) in Mongolia's important mineral sector. In an effort to correct this situation, Prime Minister Norovyn Altankhuyag recently made some surprising comments on Mongolian television and radio.

"A rapid soar of copper and coal prices at the world market made us lazy. Initial investment in Oyu Tolgoi and flows of dollars made some think that we would have all this forever," he said. The PM also noted that his government's policies scared away investors, stalled exploration and resulted in cancelled mineral licenses and a politicized business environment.

"The time has come to put aside all this empty politicization and solve problems," he added. "The country's security, external relations, policies with neighbouring countries, banking and financial trust and the rate of the national currency must serve the national interest, not politics."

In the wake of what were seen as unfair policies for the mining sector, Mongolia's parliament passed new mining legislation on July 1. It's going to take a while before investors regain confidence on a large scale; however, the *UB Post* reported that, in July alone, Mongolia attracted US \$82.4 million in FDI, the highest amount in the past six months.

In a related development, the *Financial Times* of London reported that Chultem Ulaan, Mongolia's Finance Minister, said that Mongolia is taking steps to boost foreign currency reserves by attracting more FDI and boosting exports while reducing fiscal outlays. Ulaan said it is crucial to solve the Oyu Tolgoi cost overrun dispute between Rio Tinto and the government.

Just before press time, the Tax Dispute Resolution Council of the Mongolian Taxation Department ruled that the amount of tax, interest and penalties claimed to be payable by Oyu Tolgoi LLC was reduced from approximately US \$127 million to about US \$30 million.

with Ivanhoe retaining a 66% interest. At the time, Rio Tinto held a 9.9% interest in Ivanhoe. This Investment Agreement began the full-scale construction of the Oyu Tolgoi Mine.

The first copper-gold concentrates produced from Oyu Tolgoi's initial open pit mine was exported from the multi-billion-dollar sprawling facility in the Gobi Desert to customers in China on July 9, 2013. A convoy of trucks delivered the initial sale of approximately 5,800 tons of concentrate to the Mongolia-China border over two weeks. In 2013, Oyu Tolgoi gross revenues were US \$55 million on sales of 26,400 tons of concentrate. For 2014, Oyu Tolgoi is targeting production of 135,000 to 160,000 tons of copper in concentrates and 600,000 to 700,000 ounces of gold in concentrates, according to Turquoise Hill Resources news reports.

For the second quarter of 2014, Turquoise Hill Resources reported revenues of US \$436 million on sales of 202,500 tons of copper-gold concentrates. This was comprised of: 51,600 tons of copper for US \$285.4 million; 126,000 ounces of gold for US \$145.2 million; and approximately 309,000 ounces of silver for US \$5.4 million. The company paid the Mongolian government US \$25.5 million in royalties. Concentrate sales during the second quarter of 2014 increased 320% over the first quarter of 2014 due to ongoing improvements in customer logistics and marketing. Turquoise Hill Resources reported August 12, 2014. Sales contracts for 2014 production are fully booked and nearly booked for 2015 and for the next eight years. The expansion plan for the US \$4 billion underground mine is stalled because of further approvals to the Minerals Law after Parliament reconvenes in September 2014 and also because of a tax dispute between Oyu Tolgoi LLC and the government (see sidebar).

The potential of mining and other natural resources in Mongolia is now known worldwide, yet the needed investments are only at a trickle at present because foreign investors have been discouraged by the parliament's passage of counter-productive laws and the government's failures to honor contracts. Currently, the foreign direct investments (FDI) needed for the economy to prosper are down 70% over the same period last year. Mining products generate 90% of Mongolia's total export revenue income – copper alone accounts for 40% – and 83% of FDI. The Strategic Entities Foreign Investment Law (SEFIL) of 2012 drastically decreased foreign investments and, as a result, was repealed in November 2013 and replaced by a new and more welcoming Investment Law.

"The new investment law of 2013 provides more security and stability by defining how long the period of tax and regulatory stability will be," said Graeme Hancock, President and Chief Representative for **Anglo American plc** [AAL-London] in an interview in Ulaanbaatar. In addition to the repeal of SEFIL and the passage of the investment law, the government has also passed a series of amendments to the Minerals Law that has led to the lifting of a moratorium imposed in 2010 on the granting of new exploration licenses.

Mongolia's new development profile has mining investors waiting for things to change. However, the juniors can't be patient like the majors can because shareholders' concerns weigh more on junior mining companies. "There were a lot of juniors here in the early to mid-2000s, hoping to be successful on the coattails of Oyu Tolgoi, but the actions of the government in 2006 with the Windfall Profits Tax and again in 2012 with SEFIL scared many of them off," said Dr. Hancock.

“But the real problem for future investment, as evidenced by the dispute over the Oyu Tolgoi investment agreement, is fundamentally about sanctity of contract and no longer so much the legal framework,” he said. Overall, the mining community in Mongolia is patient and looking to the new legal and contract environment to ensure that the business climate and the tax take is commensurate with the risk of operating here.

One of the beneficiaries of the new investment and minerals environment is **Altan Rio Minerals Ltd.** [AMO-TSXV]. The extension of the exploration license from nine to 12 years will improve their plans for copper and gold discoveries in their Chandman-Yol site in the western province of Khovd and in their Khavchuu site 110 km northwest of Ulaanbaatar.

“Legislation has been a problem, but we are starting to see some positive signs with the extension of the exploration permit length which will assist in attracting investors,” said Kerry Griffin, Technical Director, Altan Rio, who worked at Oyu Tolgoi in 2002. The 82,500-hectare Chandman-Yol exploration project has a similar geological setting and is part of the copper belt that supports numerous deposits such as Oyu Tolgoi, commented Griffin. Their Khavchuu site across 4,000 hectares is near the successful production of **Centerra Gold Inc.**

[CG-TSX] and the Boroo site. Drilling is to commence in mid-September to follow up on recent IP targets and the 11 g/t gold intercept located in 2012. The European Bank for Reconstruction and Development (EBRD) is in a private placement of up to US \$10 million for an 18.7% stake in a five-year development program.

Vancouver-based **Kincora Copper Ltd.** [KCC-TSXV; BDY-AIM] is testing large scale copper-gold porphyry targets in Bronze Fox in the Oyu Tolgoi corridor, actively drilling with two rigs and with near surface gold potential. The area of exploration is across 40 km² of a 223 km² license area and Kincora is the only copper exploration company listed without a strategic partner. Kincora is leading the effort for the return of the 106 licenses revoked late in 2013 involving corrupt government employees. Sam Spring, president and CEO of Kincora, commented that, “existing investors are in dispute with the government and that there were horrible drafts to the Minerals Law in the past, but this one is not bad.”

Erdene Resource Development Corp. [ERD-TSX] of Nova Scotia has three projects in the southwestern province of Bayankhongor, 950 km from Ulaanbaatar. The Altan Nar Project is gold-silver with lead and zinc prospects across 7.5 km² and hosts multiple shallow gold zones. Their Zuun-Mod molybdenum-copper project

has two mining licenses (valid for 30 years with two 20-year extensions) across 6,399 hectares hosting a measured and indicated resource of 218 million tonnes grading of 0.057% molybdenum and 0.069% copper for one of the largest molybdenum deposits in Asia. President and CEO Peter C. Akerley would like to see the price of molybdenum increase and looks forward to the opportunity to use the rail infrastructure 215 km to the Mongolia-China border of Shivee Huren-Ceke.

Erdene is also drilling on the Khuvyn Khar large copper-silver porphyry near Zuun Mod with results of 1.34% copper and 9.24 g/t silver. The **Teck Resources Ltd.** [TCK.B-TSX; TCK-NYSE] alliance had two private placements on April 21st for the large trenching program that began on August 18th for the copper potential and, on May 13th, for drilling Altan Nar.

Brisbane, Australia-based **Sedgeman Ltd.** [SDM-ASX] was awarded the contract for the engineering design, procurement and construction management for the 15 million tpy Ukhaa Khudag (UHG1) Mine of Energy Resources LLC, the first coal handling and preparation plant in the South Gobi region of Mongolia. Energy Resources LLC is a subsidiary of Hong Kong-listed Mongolian Mining Corp. The mine has been in production since 2009. ■

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