

Minjng Journal

19 SEPTEMBER 2018

Spain's mining bull-run

Spain is known as one of Western Europe's most diverse mining industries and with its clear legislation and fiscal policies, well-developed infrastructure and skilled workforce with a depth of mining knowledge, it comes as no surprise that it is seeing a new wave of exploration from international companies.



Atalaya is expanding its Proyecto Riotinto in Andalusia

The country's mining history dates all the way back to 3,000BC when a number of different historical groups including the Romans, Phoenicians, Iberians, Tartessians and Greeks started mining the country's Andalusia region on and off for thousands of years.

At present, around half of the country's mining product by value is found in the same region, where Spain's copper deposits are located.

Mining in the Asturias region, which is another of the country's main mining and metallurgical areas (mainly gold), dates back to the first century AD when the Romans mined 2-6 million tonnes of material and recovered an estimated 176,370-246,918 ounces of gold, according to Spain-focused development hopeful, Black Dragon Gold.

More recently, modern exploration and mining restarted from the 1550s onward, with the Spanish government operating mines from 1724 until the 1870s when it sold them off cheaply at auction to stave off political and financial crises.

Black Dragon said in a June presentation Spanish mining output grew by 20% in 2017 and rapid growth was forecast to continue as recent investments and exploration converted to mining.

Spain, specifically Andalusia, is also the birthplace of mining giant Rio Tinto, which was founded by a multinational consortium of investors in 1873 when they bought the mining complex on the Rio Tinto river in the southern province of Huelva from the Spanish government via auction.

The company no longer has any operations in Spain but that is more the product of its own expansion and change in focus over the decades than a lack of opportunities.

The mine where Rio got its name is still going strong. Now known as Proyecto Riotinto, it produced 9,887t of copper in the first half of 2018, up 11% year-on-year.

Riotinto was acquired by AIM and TSX-listed Atalaya Resources, previously known as EMED Mining, in 2007 after the previous operators, a workers' co-operative, left it in 2001 due to lower copper prices and management issues.

Atalaya CEO Alberto Lavandeira told *Mining Journal* one of the main challenges Atalaya had faced in getting the project back up and running was the fact that it was a brownfields site that had been out of service for 15 years without proper care and maintenance.

"They had not planned to stop, they just stopped. So when we first arrived on site, it looked like ... getting a house that has frozen for 15 years. As you know, sometimes fixing up an old house is often much more difficult than building a new one," he said.

"The challenge was to build an old house with no equipment, but with the old infrastructure ... it was a good combination of new and old but it is working very well."

The other challenge was a legal ownership legacy and permitting process that consumed the company for a decade.

Once permitted, Atalaya managed to build the project up quickly from the first blast in April 2015 to commercial production in February 2016, then reaching its 9.5Mt per annum nameplate capacity by the end of the same year.

It is planning to [expand](#) the project to 15Mtpa, with the project at 41% at the end of the June quarter and completion planned and on schedule for the first half of 2019.

Bringing historical mines back to life

Rebuilding and recommissioning old operations is common among mining companies working in Spain.

In the Asturias region, ASX and TSXV-listed Black Dragon's Salave gold project, which it acquired in 2010 when it was called Astur Gold, has a history of exploration, with at least 65,965.5m of historic drilling.

Black Dragon CEO Paul Cronin said the historical work was useful, as a lot of it could be dusted off and verified to speed up a feasibility study.

"I think optimistically we could be in development at the back-end of next year ... we're fortunate in that a lot of work has historically been done on this, so I don't think the flow sheet is fundamentally going to change," he said.

"What we're really looking at is the mining approach and the plant throughput to minimise the amount of surface tailings we'd need to sort - they're really the only changes from our perspective".

Black Dragon is currently [exploring](#) the project, recently releasing good drilling results, including 12.5m at 2.6g/t, including another 5m at 53g/t, which Cronin said showed the resource was substantially larger than previously thought.

In the near future, the company is planning to release more results when it receives the final round of assays and after that will be updating the resource, doing a preliminary economic assessment, followed by the environmental assessment, which would be its first major permitting application since changing its name to Black Dragon in 2016.

Its previous incarnation Astur Gold submitted an amended environmental impact assessment in 2014 for an underground-only development, but this was blocked by the Asturia provincial government after the region's commission for environmental affairs gave a negative decision on the EIA, saying the proposed mine would discharge waters below environmental standards.

Astur denied this was the case and applied for the decision to be [revoked](#). The issue only got resolved last year when the Superior Court of Justice of Asturias dismissed final proceedings.

AIM-listed W Resources is developing the [La Parilla](#) tungsten mine in the Extremadura region, which operated in a 1970s and 1980s.

Chairman Michael Masterman said, because of its history, the company was able to take advantage of the infrastructure built during the original development.



Another miner operating an historical mine is Orvana Minerals with the El Valle-Boinás/Carlés project in Northern Spain's Rio Narcea Gold Belt, which was mined by Rio Narcea Gold Mines over the 1997-2004 period, but closed in 2006.

Orvana acquired the project in 2009 through its purchase of Kinbauri Gold and plans to produce 55,000-62,000oz of gold and 4.9-5.3 million pounds of copper in the 2018 financial year.

A restart of a sector of the Carlés mine is also planned as a short-term project starting in the December quarter.

Excellent jurisdiction

Spain's rich history in mining has resulted in a vibrant industry with no shortage of supporting factors, with clear mining legalisation, available infrastructure and an abundance of skills.

ASX-listed Apollo Minerals executive director Hugo Schumann said he had found Spain to be "an excellent jurisdiction", with a huge mineral endowment, including gold, copper, uranium, coal, iron ore, lithium, tin and tungsten.

Apollo only acquired a 75% interest of the high grade Aurenere tungsten-gold project in northern Spain [in March](#), although its management team and board have considerable experience in the country.

"There is an extensive labour force of highly skilled engineers, geologists and environmental scientists who are very cost competitive against other first world jurisdictions," he said.

"The infrastructure in Spain - particularly its road, rail and power network - are second to none, which provides very real cost advantages in terms of both capital and operating costs for mines."

Atalaya's Lavandeira said it was a game changer that Atalaya operated in Andalusia where there was established infrastructure due to the legacy of historical mining.

He noted there was a large port 80km away, nearby motorways, roads, housing, access to electricity/power and close water dams.

"If you have access to the difficult part of a remote operation that has been built in South America, in Indonesia or in places like that, most of the capex goes into infrastructure, except in the brownfields," Lavandeira said.

"Any greenfield requires big roads, a big electric line, a power line, a salination plant, a dam and that's really what costs money, not the plant to process the ore. That is our competitive advantage."

Masterman had a similar view, saying the company had been attracted to La Parilla due to its low operating cost and "fantastic" nearby infrastructure, which had reduced capital development costs.

He noted there was good power supply on site, water supply 1km from the mine site and within 30 minutes there were three big towns with large enterprises and industrial plants.

"That brings with it a fantastic local service industry, which can provide very quick turnaround on all things necessary to make sure a plant is well maintained and operating. There is also good skills and workforce that are proximate to the mine that we can tap into as part of the mine development," he said.

Nearby infrastructure is common in Spain, with Cronin pointing out the Salave project was also close to a paved motorway, hotels and power lines.

"We have found everything to be almost a dream so far ... everything has been easy. When we started drilling in January, we appointed a drilling contractor about a month before that and we gave him two days' notice to mobilise and he was there two days later," he said.

Spain recorded a score of 89 out of 100 in the Infrastructure category of the Investment Risk Index as part of this year's *Mining Journal* World Risk Report (feat. Minehutte ratings).

Cronin was also impressed with the work done by Spanish drillers at Salave, saying they had been confident in their work and afterwards had reclaimed the drill sites beautifully.

"Within three months after they'd completely moved and demobilised from the site, you wouldn't have even known they'd been there — they'd replanted grass and shrubs — it was really well done," he said.

Black Dragon had also found plenty of firms in Spain providing consultants for environmental studies and economic studies, with the right level of expertise to carry out JORC- and NI 43-101-compliant studies.

"There are a lot of high skilled, well-trained mining professionals in that region, so from an HR perspective, we'd say that's a perk. It is much easier to find the skills set you require than you would anywhere in Africa," Cronin said.

Masterman agreed there were some "exceptionally good contractors" in Spain, with top-level skills in a range of activities from construction to three-dimensional design that were "very competitive in terms of timely delivery, price and quality".

Spanish operating teams

Having a local operating team in Spain is something international companies have learned to value.

W Resources just this month [appointed](#) two new Spanish managers to drive the start-up of the La Parrilla openpit mine.

Black Dragon's Cronin said it had always been a priority to have a fully Spanish management team running the operations in Spain and the company had provided its Spanish subsidiary with a complete operating team, including CEO.

"I think it's really important in Spain that you conduct your business in Spanish ... they don't want things to be lost in translation, they want to make sure they have a very good understanding of what the company is doing and why, and to do that effectively you've got to do it in Spanish," he said.

Cronin added there was no need to bring in any expats.

"They have got one of the best mining schools in the world and are very capable workforce both at the junior and senior levels," he said.

There is also a social and political element.

"We believe [a Spanish team] will be far more successful in terms of community outcomes, in government relations outcomes and ultimately in economic outcomes," Cronin said. "Black Dragon has a board and CEO that intermits a bigger picture target for the company and keep a very close eye on the purse strings, but ultimately we let our experts in country run the project."

Being local himself, Lavandeira said Atalaya's team was around 99% Spanish and the company had had no trouble compiling a team of people with university degrees and those well-trained in the industry who could do maintenance on mine infrastructure.

"That has been a huge success and experience-wise we have some people with specific experience in mining and specific experience in building up mines from scratch. We are lucky to have a Spanish team - that is our secret to our success," he said.



Alberto Lavandeira at Proyecto Riotinto

Complex but clear legislation

One aspect that differentiates Spain from other mining jurisdictions is its regional approach to legislation, with explorers and miners having to work with autonomous regional governments, rather than on a national level.

The Spanish Constitution provides the state with exclusive powers over the foundations of mining law, although it also allows the country's various autonomous regions to exercise their powers on related areas, such as environmental protection, regional economic development and the development of basic mining state rules.

On a regional level, the local ministry for mining is the authority companies will deal with.

These operate under the national umbrella of the Ministry of Energy, Tourism and Digital Agenda, which in turn is led by the Directorate General on Energy Policy and Mines.

Cronin said Spain's legislative environment was very clear, although the mining code might look formidable to anyone used to operating in Canada or Australia.

"It can be a little bit daunting, but once you get your head around it and understand it, it's pretty straightforward to work through," he said.

Despite the company's previous permitting challenge, Black Dragon was positive about dealing with the regional government and said interactions had been going well.

Cronin said, for the most part, the regional approach made it easier, as you were dealing with federal bodies with a very regional jurisdiction, which for Black Dragon had been helpful in providing directions on what was expected.

"All our [recent] engagement with ministry of mines and ministry of environment and CHC [Cantabrian Hydrographic Confederation] have been very positive," he said.

W Resources had a similar experience with La Parilla, with Masterman saying, although Spain was segregated and the operating environment differed quite significantly between regions, a lot of good progress had been made in the country.

"The most important thing for us is the support of the regional Junta de Extremadura government, which is the decision-making part, so we've had fantastic time from Junta de Extremadura, including the provision of €5.3 million (US\$6.2 million) for the development of our mine," he said.

He said approval timeframes in the region had been good for environmental and project approvals, with good support garnered from the Extremadura region.

"There are always challenges and complications in working in some of the European countries, but in terms of approval, it's gone smoothly in terms of getting geared up to get environmental, and ... we are on track for completion for the first quarter of next year," he said.

He noted that Spain also gave long mining leases, with La Parilla's stretching all the way out to 2068.

"Certainly with Junta de Extremadura, there is good support from the local authorities for the expansion and development of the mine," he said.

Atalaya's Lavandeira described the country's legislative framework as "as difficult or as easy as any European country or even North American country", with the mining legislation and environmental framework being commonly complex.

"We feel comfortable because it is a very established mining law and, while complex, it is well understood and there's lots of mining in Spain and has always been, not specifically it metallic mines, but also in minerals," he said.

"I'd say it's complex, but the good thing that it is very stable jurisdiction - the rules are there, the rules are known and accepted by everybody and I think it's a first-class country to work in ... I'd rather be complex but in a stable country, than in a very light jurisdiction with political risk".

Spain's was rated a BBB jurisdiction, scoring a respectable 58 in the Legal category of the Investment Risk Index, a strong 77 for Governance and a reasonable 61 for Social.

Schumann told *Mining Journal* critics of Spain often cited permitting as the key risk facing new mine developments, although added it is unfair to "paint all new mines in Spain with the same brush", as some had been successful and others less so, but it was best to look at the specific attributes of each project.

"Some new mining projects are more challenging than others from a social and environmental perspective and some mines are located in regions of Spain where there is no prior experience of mine development, which tends to produce delays in permitting while the different stakeholders learn about the risks and benefits that the new projects bring," he said.

Schumann said there was certain to be "considerable scrutiny" over the environmental and social aspects of new mine developments by the media and the local stakeholders, but this was common in Europe and a growing trend globally.

"We think this is a very positive thing, forcing mining companies to operate in a responsible and transparent manner and having to demonstrate that their projects will bring lasting benefits to the communities, whilst minimising environmental impacts," he said.

While this is undeniably true, it should be noted many of the projects that have experienced significant delays are in established mining districts and some are actually past-producing mines.

Apollo has been in recent contact with regional authorities, having submitted an application for an investigation permit at Aurenere. This includes plans to conduct an airborne geophysics programme, followed by a [drilling programme](#) to test the gold and tungsten target identified from earlier field work. The project is contiguous with Apollo's Couflens project in France and provides the company with an extension of strike along a tungsten and gold corridor.

Overall, Spain seems to be a hospitable destination, with even the stock exchanges welcoming their first listed miner this year in the form of Berkeley Energia, which is developing the Salamanca uranium project in the western province of Salamanca that it hopes to commission in late 2019.

Schumann summed up the current attractiveness of Spain in one sentence: "One is effectively able to operate in a first world jurisdiction, with all the benefits of infrastructure and rule of law, at a fraction of the cost of countries like Australia where wages are considerably higher."

This was not always the case, with Masterman pointing out that, since W Resources acquired La Parilla in 2013, there had been a noticeable turnaround for the Spanish economy and in general global mid-level markets.

"The European crisis resulted in substantial unemployment in Spain. It has been pleasing to see the strong recovery in the economy," he said.

"I think both Spain and Portugal both realised that sensible mine developments and production can therefore be very positive for their economies and can be done in very sensible and environmentally sound ways. So I think probably over that period of the financial crisis and recovery, there's a much greater appreciation of the benefit of a healthy mining industry to Spain."

The Junta de Andalusia has demonstrated this by acknowledging the increasingly important role of the metal mining industry in its economy and establishing a mining strategy to 2020.

With all the benefits offered and autonomous regions starting to roll out the welcome mat, Spain's mining story looks set to continue well into the future.