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INSIGHTS

### The exploration of lithium brine in Mongolia



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As Covid-19 continues to accelerate the global drive for the green revolution, the World Bank estimates that the production of lithium will need to increase by 500% by 2050. HC Insider speaks to Ali Haji, CEO and Director at lithium exploration company ION Energy, to find out how the company's presence in Mongolia is helping to pioneer the way to a green revolution.

Canadian mining company ION Energy is on track to becoming a major player in the battery metals space. The company's Baavhai Uul lithium brine project is the largest and first lithium brine exploration licence award in Mongolia. The project is also within 24 km of Mongolia's border with China, placing the company in an ideal position to feed into China's lithium supply chain. HC Insider speaks to ION Energy's CEO, Ali Haji, to find out more about the project and the company's long-term commitment plan to support the world's green revolution.

### HC Insider: Where did the idea for ION Energy come from?

Ali Haji: The idea for ION Energy came about during a visit to Mongolia. It came to my attention that only three per cent of the country had been explored for mineral resources. Mongolia is the most sparsely populated country in the world - about a million and a half square kilometres with a population of 3.225 million people. We started looking for lithium in the country, primarily because of the data from the Mongolian Ministry of Mines. We thought it was prudent to look for lithium given the last push for electrification – with the advent of Tesla and similar companies. We also chose to operate in Mongolia because our Chairman, Matthew Wood, has had significant success in this country. His first foray into Mongolia was in 2009 when he created a coal company. I was also advising a company at the time in Mongolia, Steppe Gold, and through this association I was able to build a good relationship with the Mongolian government. Also, the proximity to China, one of the largest battery manufacturers and electric vehicle consumers on the planet, was a massive advantage for us.

"The Baavhai Uul project is the largest land package ever granted to a public or private entity by the government of Mongolia for any resource exploration rights."

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and that is a rare thing in our industry. Bataa Tumur-Ochir, one of our directors, is a Mongolian citizen who also serves as CEO and Director of Steppe Gold and is an advisor to the Ministry of Mining and Heavy Industry. Another director, Enkhtuvshin Khishigsuren, is a geologist by trade and has over 30 years of Mongolian mineral experience. We also have four advisors that have lithium experience. Paul Fornazzari, one of our advisory board members, is a veteran and pioneer in the lithium brine space. Our second advisor, Don Hains, is a hydrogeologist and a lithium exploration expert. He currently designs, develops, and ensures the execution of our exploration programme.

Another advisor, Dr Khashbat Dashteseren, is a PhD lithium hydrogeologist with extensive resource exploration experience in Mongolia and he continues to scout for assets and acquisitions for us. Our most recent addition to the team, is Dr David Deaks who was the Senior Vice President and Chief Technology Officer of Lithium Americas.

# HC Insider: What did the initial discussions with the Mongolian government about the potential for lithium exploration involve?

AH: The initial discussions were ultimately to allow us access to the Ministry of Mines, to determine what work had been done in the lithium space in Mongolia. We found that in the 1950s the government had done some drilling in the Sükhbaatar province. They had found brine beneath the surface; they were maybe looking for portable water but ended up finding a saline solution that you cannot drink. In 2016, the Mongolian government funded the University of Science and Technology to do some early-stage lithium exploration in the Sükhbaatar province. Our approach with the government was to show them that the lithium project would be a way of moving Mongolia away from fossil fuels. The vast majority of Mongolia's power and heating comes from burning coal and so pollution is a massive issue. We told the government that looking at lithium as a potential resource is their best chance of moving towards a cleaner, greener future.

#### HC Insider: Has the political landscape in this region affected your business plans?

**AH:** Mongolia operates very well as a young democracy. The minerals and resources are also a big contributor to the country's GDP. So, irrespective of which party is in power, it's important that they pay attention to developing and ultimately extracting those resources to help aid economic growth. The political landscape in the region has affected our plans in the past two years, I would say, as a result of the US sanctions against China and a number of a trade deals falling through and also trade disputes between China and Australia have spurred us on to advance quicker.

# HC Insider: Tell us about the Baavhai Uul project. How does the Gobi Desert compare to other lithium brine operating environments around the world?

AH: The Baavhai Uul Project is located in the Sükhbaatar Province. It is in the Gobi Desert, a vast region in northern China and southern Mongolia. This project is the largest land package ever granted to a public or private entity by the government of Mongolia for any resource exploration rights. The work that I mentioned earlier with respect to the University of Science and Technology doing some drilling, spurred us on to go after this licence and we were awarded it in January of 2019. We have done some exploration work on it to-date. We have carried out micro-seismic work, some downward core drilling to determine the estimates of that particular asset, and finally we've been able to extract some brine samples. The Gobi Desert, like other brine operating environments in the world, is an arid region. It's a lot windier than what you might have expected, and the region can expect up to 250 days of sunshine. The elevation is also 1300 to 1400 metres above sea level, so not the 4000 to 5,000 metres above sea level that you would find in Latin America. This makes it an ideal environment to operate in as it encourages evaporation techniques.

# HC Insider: The project is within 24km of the country's border with China. Could you tell us more about why the location is crucial for ION Energy?

AH: China consumes 53% of the world's lithium and produces over 70% of the world's batteries. They refine just about 80% of all lithium that goes into batteries worldwide. Our proximity to that market obviously is very strategic. China today imports the vast majority of their lithium from the mines in Latin America or the hard-rock spodumene assets in Australia. The world is moving towards this continental supply chain and so our proximity to Australia, Latin America and China is of critical importance.

#### HC Insider: Did the pandemic affect ION Energy's IPO?

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two quarters of 2021 that there is a renewed interest in the battery metals space.

#### HC Insider: How has the pandemic changed the way the world uses and consumes energy?

**AH:** We've seen a drastic shift to electrification of mobility. We've seen the requirement for a lot of us to shy away from public transit where in the past we would have hoarded on to the tube in England or on trains in the US and Canada. We've now opted to find our own private vehicles because we're somewhat concerned about our health. And so, the pandemic has changed the way we transport ourselves and how we consume energy. Governments around the world have provided incentives for

anybody that wants to get off public transit and into a private vehicle to ultimately acquire an electric vehicle at a significant discount. We've also seen manufacturers around the world using the Covid-19 recovery funds on research and development in this area. General Motors, for example, is increasing its electric and autonomous investment by 30% through 2025 to \$35 billion. Volkswagen has also overtaken Tesla in European battery electric vehicle sales, so definitely the pandemic has caused a drastic shift in the way we use and consume energy.

## HC Insider: What is ION Energy's long-term commitment plan to support the world's green revolution?

**AH:** Our position in Asia, in the lithium brine space, is critical to the green revolution that is taking place in the world today. Our commitment to Mongolia is such that we would love to ensure that they move away from the fossil fuels of the past and start to move towards cleaner, greener technology. The ultimate plan is to start small with Mongolia, start with a nation that we know and that currently consumes a lot of fossil fuels, begin to convert their energy consumption, and then ultimately replicate that success in other regions.