Emerging minerals

The global race for lithium



Local interest in lithium has increased since the "world's biggest battery" was constructed by Tesla in 2017 at Hornsdale, South Australia. Although the plant, operated by French renewable energy developer Neoen, has been used as a political football by warring politicians since its construction was announced by the then-Labor state government, its inaugural financial results have excited those in the renewables industry.

Earlier this year, Neoen said the \$29 million in revenue the 100MW/129MWh lithium-ion battery brought in during 2018 had exceeded its expectations. It also won the praise of Australian Energy Market Operator (AEMO), which sees the Hornsdale facility as valuable in protecting the local grid in cases of major interruption.

The release of its financial results coincided with the Lithium Mine to Market 2019 conference in Perth on February 22 that focused on Western Australia's role in the global lithium supply chain – but also shone a light on the lithium industry more generally.

Among the presentations by government representatives, analysts and miners was a keynote address delivered by the chief economist of the Department of Industry, Innovation and Science, Mark Cully, and the WA Government's chief scientist, Professor Peter Klinken, both of whom talked up lithium – at least in the WA context.

But on the eve of the conference, the Perthbased miner Galan Lithium, an explorer with the rights to earn a 100 per cent interest in projects located in the 'Lithium Triangle' region of Argentina, released its first drilling results from its Candelas Lithium Brine Project.

Lithium extracted from salt plain brine basins is less expensive than that which is mined and blasted from rock found in WA and parts of the US. The processing operations for brine are also relatively simple, with only a small number of steps required to produce lithium carbonate.

Galan said its Argentinian maiden drill results were "outstanding" and confirmed the presence of thick, high-grade, low-impurity, lithium-bearing brines

In announcing the results, managing director





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Juan Pablo Vargas de la Vega said: "We believe we have a potential world-class lithium project on our hands which we are keen to further demonstrate in our ongoing drilling."

"These initial results are exceptional, confirming the presence of high-grade lithium-bearing brines within a geological setting unique to the Hombre Muerto salar," he added, referring to the region that is the premiere lithium brine basin in Argentina known for its high-grade, low-impurity mineralisation.

"We have encountered exceptionally good

grades with low impurities which are comparable to the rest of Hombre Muerto Basin where Livent, POSCO and Galaxy have their operations," Vargas de la Vega said.

The drill program is now planned to include at least 10 to 12 holes (pending approval from local authorities) to be drilled along a 15-kilometre extension of the Candelas channel. The channel adjoins Galaxy's Sal de Vida project to the south about 1 kilometre away and is the main access channel for lithium-charged waters from source rocks to the south of the basin.

Galan's exceptional initial results have since been confirmed by follow-up drilling over an extensive area, with the company planning to fast track its defining of the maiden resource, while investigating the various processing options available.

"The discovery of high-grade, lithium-bearing brines over a large area within the Candelas channel reinforces our view that the project has the very real potential to host a significant lithium resource in one of the world's premium producing salars at Hombre Muerto," Vargas de la Vega said.

"If the brine is what we think it is, then the potential to develop a significant resource is very exciting."

International interest in lithium has waxed and waned since 2010. Many exploration projects fell dormant after an initial flurry of excitement about the emergence of electric cars started to cool when doubts were cast on the extent of that potential market.

Since 2016, however, interest has steadily

According to Bloomberg, the Global X Lithium & Battery Tech ETF (exchange-traded fund) was valued at less than \$US50 million in early 2016, but by June 2018 it had received more than \$US900 million of net inflows.

And the good run of news for lithium continued with the release of a recent Renub Research study which tipped the global automotive lithium-ion battery market to surpass \$US65 billion by the end of 2024, underpinned by growing government support for clean energy and environmentally friendly modes of transport.