

12 May 2023

## Alkemy Capital Investments Plc

### MOU with lithium technology company to unlock a major new source of lithium feedstock

Alkemy Capital Investments plc ("Alkemy") (ALK:LSE) (JV2:FRA) is pleased to announce that its wholly-owned subsidiary Port Hedland Lithium Pty Ltd ("PHL") has executed a Memorandum of Understanding ("MOU") with Lithium Services Pty Ltd ("LIS"), a world leading lithium engineering and technology company, to explore the development of a merchant lithium refinery located at Port Hedland dedicated to the processing of spodumene fines and tailings - a major new source of lithium feedstock.

#### HIGHLIGHTS

- **Australia is the world's largest producer of lithium however many mines are suffering significant losses during spodumene concentrate production with up to 45% of the lithium contained being lost to tailings.**
- **PHL and LIS are looking to develop a merchant lithium refinery at Port Hedland which, based on a proven fines processing technology, will provide miners with the opportunity to recover lithium from fines materials which would otherwise be lost to tailings.**
- **The refinery, located at the Boodarie Strategic Industrial Area, will offer spodumene producers a refining solution for lithium tailings and other fines material with direct access to the premium European battery market.**
- **The scoping study will proceed in parallel with the engineering and approvals work currently underway for the first train of the Port Hedland lithium sulphate refinery.**

Sam Quinn, Director of Alkemy commented:

*"We are delighted to be working with LIS, a world leading lithium engineering and technology company, to examine this exciting opportunity to develop new lithium processing solutions for miners in Australia."*

*"There are major yield losses during spodumene concentrate production, with significant volumes of lithium units ending up in mine tailings. This represents a significant challenge for miners from an economic and sustainability perspective, and both PHL and LIS believe there is a major opportunity to provide unique merchant lithium refining solutions for miners to improve their mine economics, diversify their revenue streams and maximise the sustainability of their operations."*

*"Working with LIS on the potential to develop a merchant lithium refinery dedicated to the processing of spodumene fines and tailings will proceed in conjunction with the engineering and approvals work already underway for train 1 processing standard specification spodumene concentrate at Port Hedland. Running these two work streams in parallel will provide us with significant optionality prior to making a final investment decision on the development of the Port Hedland lithium sulphate refinery."*

Jeremy Chang, Executive Director of LIS commented:

*"Together with PHL, we believe that LIS's world class engineering and process technology that is proven in operation in China can be deployed successfully to process spodumene fines and other tailings material from lithium mines in the Pilbara region of Australia."*

*"We look forward to working with PHL to examine this unique opportunity in the near future with a view to developing a world leading lithium refinery at Port Hedland that will unlock a major new source of lithium feedstock for PHL."*

## Memorandum of understanding

Under the MOU signed between PHL and LIS, the parties have agreed to immediately commence a scoping study into the development of a merchant lithium refinery at Port Hedland dedicated to the processing of spodumene fines and other lithium tailings material to produce primary lithium sulphate.

As part of the scoping study, the parties will determine whether or not to negotiate and enter into a binding engineering, technology and cooperation agreement under which (amongst other things) LIS will supply lithium processing technology and engineering services to PHL to enable it to develop the lithium refinery dedicated to the processing of spodumene tailings.

The scoping study is expected to take 90 days and PHL and LIS will undertake this work in conjunction with the engineering and approvals work currently underway for train 1 of the Port Hedland lithium sulphate refinery and with support from PHL's existing engineering and environmental advisors.

The existing engineering and approvals work underway is based on the processing of spodumene concentrate meeting standard grade and size specifications.

Following completion of the scoping study, if PHL and LIS determine that the opportunity is technically, environmentally and economically viable, the parties propose to enter into a binding engineering, technology and cooperation agreement that would provide for the parties to work together to complete a feasibility study, sign suitable spodumene tailings feedstock supply agreement(s), finalise the necessary environmental approvals and proceed to develop the refinery.

In the execution phase, PHL agrees to fund 100% of the cost of the necessary feasibility study, environmental approvals and development of the refinery (including LIS's consulting costs during those development phases), with LIS incentivised to deliver a successful refinery development.

### About LIS

LIS is part of a world leading lithium refining engineering and technology group that has worked with some of the largest lithium mining and refining companies in the world.

LIS is backed by the largest calcining system supplier for lithium salt production in the world.

### Lithium tailings

In the year ending 30 June 2023, Australia is forecast to export approximately 2.3 million tonnes of spodumene concentrate.

Based on published ore reserve yield losses during spodumene concentrate production, there is a significant volume of lithium units potentially available as feedstock for a refinery dedicated to the processing of lithium fines and tailings. This yield loss is between 15% and up to 45% of lithium ore reserves, with the lithium units ending up in mine tailings facilities.

If PHL and LIS are successful in developing a merchant lithium refinery dedicated to the processing of spodumene fines and tailings feedstock, this will unlock a major new source of lithium feedstock and improve the overall sustainability of lithium mining.

PHL has already secured appropriate spodumene fines and tailings feedstock samples for the test work to be undertaken during the scoping study work with LIS.

Through both the Port Hedland lithium sulphate refinery and the lithium hydroxide refinery being developed by Tees Valley Lithium at Teesside in the UK, the company is poised to have the capacity to process lithium units to produce lithium hydroxide for the premium European lithium market with the world's lowest embedded carbon. **Further information**

For further information, please visit Alkemy's website: [www.alkemycapital.co.uk](http://www.alkemycapital.co.uk) or TVL's website [www.teesvalleylithium.co.uk](http://www.teesvalleylithium.co.uk).

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**NOTES TO EDITORS**

Alkemy is seeking to establish the world's leading independent and sustainable lithium hydroxide production by developing state-of-the-art lithium sulphate and lithium hydroxide facilities in Australia and the UK.

Alkemy, through its wholly-owned subsidiary Tees Valley Lithium, has secured a 9.6 ha brownfields site with full planning permission at the Wilton International Chemicals Park in Teesside, a major UK Freeport, to build the UK's first and Europe's largest lithium hydroxide processing facility.

Tees Valley Lithium has completed a Class 4 Feasibility Study for its proposed lithium hydroxide refinery which will process feedstock imported from various sources to produce 96,000 tonnes of premium, low-carbon lithium hydroxide annually, representing around 15% of Europe's projected demand.

Alkemy has also secured a 43 ha site near Port Hedland, Western Australia to build a world-class sustainable lithium sulphate refinery that will provide reliable feedstock for Tees Valley Lithium.

**Forward Looking Statements**

This news release contains forward-looking information. The statements are based on reasonable assumptions and expectations of management and Alkemy provides no assurance that actual events will meet management's expectations. In certain cases, forward-looking information may be identified by such terms as "anticipates", "believes", "could", "estimates", "expects", "may", "shall", "will", or "would". Although Alkemy believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those projected. Mining exploration and development is an inherently risky business. In addition, factors that could cause actual events to differ materially from the forward-looking information stated herein include any factors which affect decisions to pursue mineral exploration on the relevant property and the ultimate exercise of option rights, which may include changes in market conditions, changes in metal prices, general economic and political conditions, environmental risks, and community and non-governmental actions. Such factors will also affect whether Alkemy will ultimately receive the benefits anticipated pursuant to relevant agreements. This list is not exhaustive of the factors that may affect any of the forward-looking statements. These and other factors should be considered carefully and readers should not place undue reliance on forward-looking information.

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