



American Lithium Obtains 82% Lithium Extraction Using Roasting and Water Leaching on TLC Claystones

VANCOUVER, British Columbia, June 29, 2021 (GLOBE NEWSWIRE) -- [American Lithium Corp.](#) ("American Lithium" or the "Company") (TSX-V:LI | OTCQB: LIACF | Frankfurt:5LA1) is pleased to provide details of a recent breakthrough on process development at its Tonopah Lithium Claims Project ("TLC") located close to Tonopah, Nevada.

Highlights:

- Ongoing process work at Hazen Research Inc. has shown that roasting TLC lithium bearing claystones with sulfate and chloride salts, followed by water leaching, results in 82% of lithium being extracted with a significantly lower impurity load as compared to acid leaching.
- This alternative processing method will be investigated further at both Hazen Research Inc. in Golden, Colorado ("Hazen") and at TECMMINE in Lima, Peru ("TECMMINE").
- Test work at Hazen has so far utilized non-upgraded TLC claystones. Additional work will also commence on mechanically upgraded TLC claystones with even better results anticipated.
- Full roasting / water leaching results will be compared to results for sulfuric acid leaching to ascertain which method is best from an economic and environmental perspective.
- TLC claystone mineralization continues to demonstrate exceptional ability to be concentrated and amenable to multiple process options with lithium carbonate having already been produced.
- This latest round of process work is focused on optimizing flow-sheet design to deliver strong environmental and economic benefits to enable a robust Preliminary Economic Assessment.

Dr. Laurence Stefan, COO of American Lithium, states, "The early success of roasting demonstrates once again the robust nature of the TLC lithium resource and its processing versatility. This new metallurgical approach opens the door widely to produce either lithium carbonate or lithium hydroxide or both from the TLC project. The extremely low level of impurities in the leachate provides many advantages over the successful sulfuric acid leaching technique that has been the focus to date. We are excited to investigate the roasting route further and will be comparing the overall environmental and economic profiles of each route to make the best decision for the project moving forward."

American Lithium Provides TLC Process Update:

The TLC project has previously shown that its Li-rich claystones are amenable to rapid sulfuric acid leaching, with lithium extraction in sulfate solution reaching 92% in 10 minutes, for some of the samples. While the flowsheet for sulfuric acid leaching has been successful and is being further optimized, an alternative roasting / water leaching technique has demonstrated early success and will be investigated with additional laboratory test work.

Experiments performed at Hazen Research Inc. in Golden, Colorado, demonstrate that roasting the lithium bearing claystones at 900°C with sulfate and chloride salts (sodium chloride, sodium sulfate, and/or gypsum - calcium sulfate dihydrate) and then leaching in 60°C water for 2 hours, results in 82% of the lithium being extracted into aqueous solution. This roasting process followed by water leaching not only increased the final pH of the solution to 8.5, making the eventual final lithium carbonate or hydroxide precipitation much easier, but also produced an astonishingly low level of impurities, when compared to sulfuric acid leaching.

Heavy elements such as iron, aluminum, and manganese in the leachate are below detection limit (<10 ppm), with magnesium extraction below 1% (54 ppm) and calcium extraction below 3% (500 ppm). As expected, sodium and potassium are leached in greater quantities, but still at manageable levels (Na 78%; K 52% extraction in aqueous solution). Test work at TECMMINE shows a good rubidium extraction of 63%. The high extraction of potassium and rubidium presents the opportunity to produce saleable by-products such as potash as fertilizer and rubidium hydroxide for industrial applications. The overall impurities level in the aqueous solution obtained to date, through roasting and water leaching, presents a legitimate alternative route to producing battery-grade lithium chemicals from TLC claystone mineralization.

Additional test work is underway to build on these initial results and further investigate the roasting process-route at Hazen and at TECMMINE and the results will be fully compared to sulfuric acid leaching once sufficient data is compiled. American Lithium plans to compare the roasting option to acid leaching both in terms of capex, opex, environmental footprint and economic performance.

As previously announced on March 23, 2021, TLC claystones can be upgraded by up to 66%, in terms of lithium grades, using hydrocyclones and centrifuges. The preliminary test work on roasting was performed on non-upgraded claystones and further progress and efficiencies are anticipated from testing upgraded samples.

In parallel, hydrochloric acid leaching test work has started with TECMMINE. TECMMINE was instrumental in optimizing the leaching and precipitation of battery grade lithium from the Company's high-grade Falchani project in Peru and will be a key player in the optimization of flowsheets for TLC.

Dr. Laurence Stefan, COO of American Lithium, concluded "As we continue to optimize processes for the extraction of lithium from TLC claystone mineralization, we will be comparing overall environmental and economic performance for all relevant routes. American Lithium is fortunate that we have so many excellent options from which to produce battery grade lithium compounds from TLC which will enable us to select the best overall route for feasibility and to have other options if needed in the future. We currently anticipate finalizing this process this Fall."

Qualified Person

Dr. Jarrett Quinn, Ph.D., P. Eng. (OIQ 5018119), Consulting Metallurgist for American Lithium, and a Qualified Person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, has reviewed and approved the scientific and technical information related to metallurgical testing at Hazen Research Inc. contained in this news release.

Mr. Ted O'Connor, P.Geo., a Director of American Lithium, and a Qualified Person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, has reviewed and approved the scientific and technical information related to TECMMINE contained in this news release.

About American Lithium

American Lithium is actively engaged in the acquisition, exploration and development of lithium projects within mining-friendly jurisdictions throughout the Americas. The company is currently focused on enabling the shift to the new energy paradigm through the continued exploration and development of its strategically located TLC lithium claystone project in the richly mineralized Esmeralda lithium district in Nevada as well as continuing to advance its Falchani lithium and Macusani uranium development projects in southeastern Peru. Both Falchani and Macusani have been through preliminary economic assessments, exhibit strong additional exploration potential and are situated near significant infrastructure.

Please watch our informative project update videos and related background information at <https://www.americanlithiumcorp.com>

For more information, please contact the Company at info@americanlithiumcorp.com or visit our website at www.americanlithiumcorp.com. Follow us on [Facebook](#), [Twitter](#) and [LinkedIn](#).

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Cautionary Statement Regarding Forward Looking Information

This news release contains certain forward-looking information and forward-looking statements (collectively "forward-looking statements") within the meaning of applicable securities legislation. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking statements in this news release include, but are not limited to, statements regarding the plans, objectives and advancement of the TLC, Falchani and Macusani (the "Projects"), exploration drilling plans, in-fill and expansion drilling plans, results of exploration and development plans, expansion of resources and testing of new deposits, environmental and social community permitting, and any other statements regarding the business plans, expectations and objectives of American Lithium. Forward-looking statements are frequently identified by such words as "may", "will", "plan", "expect", "anticipate", "estimate", "intend", "indicate", "scheduled", "target", "goal", "potential", "subject", "efforts", "option" and similar words, or the negative connotations thereof, referring to future events and results. Forward-looking statements are based on the current opinions and expectations of management are not, and cannot be, a guarantee of future results or events. Although American Lithium believes that the current opinions and expectations reflected in such forward-looking statements are reasonable based on information available at the time, undue reliance should not be placed on forward-looking statements since American Lithium can provide no assurance that such opinions and expectations will prove to be correct. All forward-looking statements are inherently uncertain and subject to a variety of assumptions, risks and uncertainties, including risks, uncertainties and assumptions related to: American Lithium's ability to achieve its stated goals, including the anticipated benefits of the acquisition of Plateau Energy Metals Inc. ("Plateau"); the estimated costs associated with the advancement of the Projects; risks and uncertainties relating to the COVID-19 pandemic and the extent and manner to which measures taken by governments and their agencies, American Lithium or others to attempt to reduce the spread of COVID-19 could affect American Lithium, which could have a material adverse impact on many aspects of American Lithium's businesses including but not limited to: the ability to access mineral properties for indeterminate amounts of time, the health of the employees or consultants resulting in delays or diminished capacity, social or political instability in

Peru which in turn could impact American Lithium's ability to maintain the continuity of its business operating requirements, may result in the reduced availability or failures of various local administration and critical infrastructure, reduced demand for the American Lithium's potential products, availability of materials, global travel restrictions, and the availability of insurance and the associated costs; risks related to the certainty of title to the properties of American Lithium, including the status of the "Precautionary Measures" filed by American Lithium's subsidiary Macusani Yellowcake S.A.C. ("Macusani"), the outcome of the administrative process, the judicial process, and any and all future remedies pursued by American Lithium and its subsidiary Macusani to resolve the title for 32 of its concessions; risks regarding the ongoing Ontario Securities Commission regulatory proceedings; the ongoing ability to work cooperatively with stakeholders, including but not limited to local communities and all levels of government; the potential for delays in exploration or development activities due to the COVID-19 pandemic; the interpretation of drill results, the geology, grade and continuity of mineral deposits; the possibility that any future exploration, development or mining results will not be consistent with our expectations; risks that permits will not be obtained as planned or delays in obtaining permits; mining and development risks, including risks related to accidents, equipment breakdowns, labour disputes (including work stoppages, strikes and loss of personnel) or other unanticipated difficulties with or interruptions in exploration and development; risks related to commodity price and foreign exchange rate fluctuations; risks related to foreign operations; the cyclical nature of the industry in which American Lithium operates; risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals; risks related to environmental regulation and liability; political and regulatory risks associated with mining and exploration; risks related to the uncertain global economic environment and the effects upon the global market generally, and due to the COVID-19 pandemic measures taken to reduce the spread of COVID-19, any of which could continue to negatively affect global financial markets, including the trading price of American Lithium's shares and could negatively affect American Lithium's ability to raise capital and may also result in additional and unknown risks or liabilities to American Lithium. Other risks and uncertainties related to prospects, properties and business strategy of American Lithium are identified in the "Risks and Uncertainties" section of Plateau's Management's Discussion and Analysis filed on June 25, 2021, in the "Risk Factors" section of American Lithium's Management's Discussion and Analysis filed on June 25, 2021, and in recent securities filings available at www.sedar.com. Actual events or results may differ materially from those projected in the forward-looking statements. American Lithium undertakes no obligation to update forward-looking statements except as required by applicable securities laws. Investors should not place undue reliance on forward-looking statements.

Cautionary Note Regarding Macusani Concessions

Thirty-two of the 151 concessions held by American Lithium's subsidiary Macusani, are currently subject to Administrative and Judicial processes (together, the "Processes") in Peru to overturn resolutions issued by INGEMMET and the Mining Council of MINEM in February 2019 and July 2019, respectively, which declared Macusani's title to the 32 of the concessions invalid due to late receipt of the annual validity payment. Macusani successfully applied for injunctive relief on 32 concessions in a Court in Lima, Peru, and the grant of the Precautionary Measures (Medida Cautelar) has restored the title, rights and validity of those 32 concessions to Macusani until a final decision is obtained in at the last stage of the judicial process. If American Lithium's subsidiary Macusani does not obtain a successful resolution of Processes, Macusani's title to the concessions could be revoked.