

Locksley Breakthrough Antimony Recovery Results From Rice University Collaboration

HIGHLIGHTS

- Rice University collaboration advances DeepSolv™ technology towards an integrated domestic U.S. antimony processing pathway
- Raw ore containing 9–12% antimony successfully upgraded to products containing up to 93% Sb following optimisation, while antimony concentrates produced recovered products grading approximately 91–96% Sb
- Electrodeposition successfully produced pure metallic antimony from raw ore
- Next phase to focus on DeepSolv™ hydrometallurgical process optimisation, solvent recyclability, pilot-scale evaluation and downstream product assessment

Locksley Resources Limited (ASX: LKY, OTCQX: LKYRF, FSE: X5L) (“Locksley” or “the Company”) is pleased to provide an update on its strategic collaboration with Rice University to advance innovative hydrometallurgical processing technologies for antimony recovery and support the development of domestic U.S. critical minerals processing capability.

Central to the collaboration is DeepSolv™ technology, an emerging low-temperature hydrometallurgical process being evaluated as a cleaner, lower-impact alternative to traditional high-temperature smelting and conventional chemical leaching for the extraction and recovery of antimony from ore and concentrates.

Laboratory work completed to date has delivered highly encouraging results across both leaching and recovery workstreams. Testing has successfully demonstrated that antimony bearing raw ore and concentrates can be dissolved using DeepSolv™ technology and recovered as high-grade antimony products.

Most notably, raw ore containing approximately 9–12% antimony, without flotation or prior concentration, was successfully upgraded to an 89% Sb-containing recovered product. Further optimisation increased product concentration to up to 93% Sb. Testing on antimony concentrates containing approximately 65–70% Sb also produced recovered products grading approximately 91–96% Sb.

The Rice team has also successfully recovered phase pure antimony oxide from raw ore under optimised laboratory conditions. This is an important step in demonstrating the potential for

DeepSolv™ technology-based processing to produce higher-value antimony products from Locksley's antimony feedstocks.

In a further positive development, electrodeposition testing has demonstrated the recovery of pure metallic antimony directly from raw ore dissolved using DeepSolv™ technology. This result is particularly significant as it supports the potential for an integrated processing pathway from ore leaching through to antimony metal recovery.

Together, these results demonstrate an increasingly integrated processing pathway, progressing from laboratory dissolution of antimony-bearing ore through to the recovery of high-purity antimony oxide and metallic antimony products.

The collaboration will also assess pilot-scale equipment options, including reactor and filtration systems that could support larger-scale leaching and recovery test work.

Locksley looks forward to updating shareholders as the Rice program advances through optimisation and scale-up planning.

Locksley Resources Managing Director Kerrie Matthews commented:

"These latest results represent another important technical milestone in our collaboration with Rice University. They demonstrate that DeepSolv™ processing technology has the potential to unlock a cleaner and more flexible antimony recovery pathway. The work has now moved beyond simple leaching tests and has demonstrated recovery of both antimony oxide and metallic antimony products from ore and concentrates."

For shareholders, this is meaningful progress. It supports the Company's strategy of advancing U.S. based antimony processing capability at a time when secure domestic supply chains for critical minerals are increasingly important."

Strategic Partnership with Rice University

Rice University is internationally recognised for its leadership in advanced materials, nanotechnology and sustainable process engineering, providing Locksley with access to world-class scientific expertise as it advances its downstream processing strategy.

Locksley's collaboration with Rice University forms a key pillar of the Company's broader mine-to-market strategy, combining resource development at the Mojave Project with downstream processing innovation aimed at strengthening domestic U.S. critical mineral supply chains.

Unlike conventional research partnerships focused solely on laboratory outcomes, the Rice collaboration has been structured to progress through staged technical development, process optimisation and pilot-scale evaluation, with the objective of assessing potentially scalable processing solutions for U.S.-sourced antimony feedstocks.

The Mojave Project provides the foundation for the current research program, with representative antimony feedstocks being used to optimise processing pathways, improve recovery performance and evaluate the production of higher-value antimony products.

The program is progressing through staged laboratory validation, process optimisation and pilot-scale planning, with each milestone helping to evaluate the technical and commercial potential of a modern domestic processing capability.

Importantly, the collaboration extends beyond process development. Under the Sponsored Research Agreement, intellectual property generated through the program is jointly owned by Rice University and Locksley, creating potential long-term strategic value as the research and technology matures.

As the program progresses, the knowledge, processing expertise and intellectual property being developed may have broader application across suitable U.S.-sourced antimony feedstocks, supporting the continued development of domestic processing capability.

Next Steps

Building on these encouraging laboratory results, the next phase of the collaboration will focus on further optimising the DeepSolv™ process and refining antimony product recovery. Work will include further purification, production of single-phase antimony oxide products at higher solid-to-liquid ratios, solvent recyclability, recovery testing using recycled DeepSolv™ technology, deposition rate determination and continued refinement of the underlying processing chemistry.

In parallel, the team will evaluate pilot-scale equipment, including reactor and filtration systems, to support larger-scale leaching and recovery test work, while assessing potential downstream applications for the recovered antimony products.

This announcement has been authorised for release by the Board of Directors of Locksley Resources.

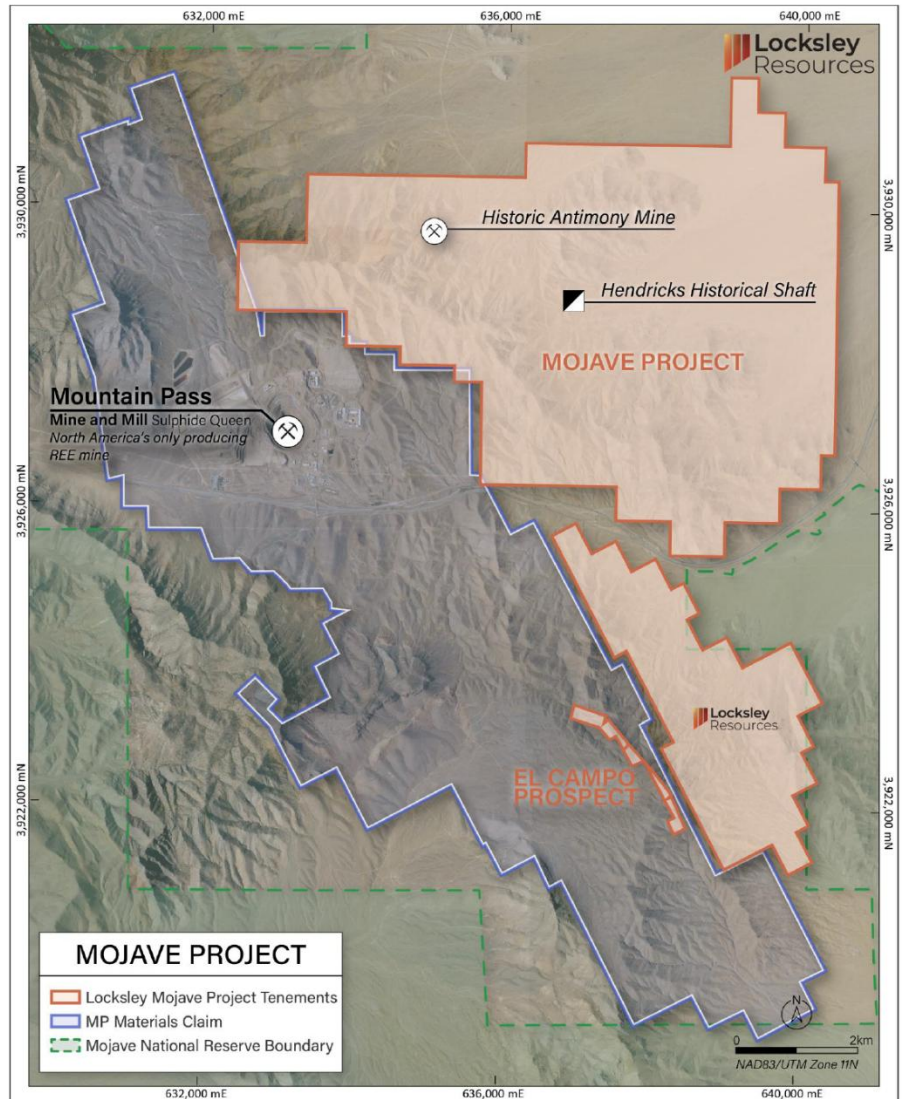
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ABOUT LOCKSLEY RESOURCES LIMITED

Locksley Resources Limited is focused on critical minerals in the United States of America. The Company is actively advancing the Mojave Project in California, targeting rare earth elements (REEs) and antimony. Locksley is executing a mine-to-market strategy for antimony, aimed at re-establishing domestic supply chains for critical materials, underpinned by strategic downstream technology partnerships with leading U.S. research institutions and industry partners. This integrated approach combines resource development with innovative processing and separation technologies, positioning Locksley to play a key role in advancing U.S. critical minerals independence. The Company also holds the Tottenham and Iron Duke Copper-Gold Projects in New South Wales, Australia.



Location of the Mojave Project Blocks in south-eastern California, USA

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Locksley Resources planned activities and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Locksley Resources Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

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