

# LOCKSLEY UNLOCKS NEXT GEN TARGETING: HIGH RESOLUTION HELI-MAG & RADIOMETRICS SURVEY COMMENCE

#### **HIGHLIGHTS**

- High-resolution heli-mag and radiometrics survey across Locksley's Mojave Project commenced with EDCON-PRJ Inc. (Colorado)
- 40m spaced flight lines at 35m height anticipated to substantially improve the resolution over existing USGS regional data, accelerating the identification of new drill targets
- The Survey is dual-purpose, benefiting both REE and Antimony targeting pipelines
- Magnetics survey will enable detailed structural interpretation to generate new antimony drill targets by mapping the NNE-SSW structures which are known to be mineralised at the Desert Antimony Mine and Hendricks Prospects
- Radiometrics survey is specifically anticipated to define discrete REE targets for follow-up mapping and sampling due to the strong Thorium signature of REE-bearing carbonatites
- Geophysical consultants SGC appointed to manage geophysical data acquisition, data processing and interpretation to fast-track geological interpretation and new drill target generation



Figure 1; Photo of Eurocopter AS-350 B3 with magnetometer probe being utilised at Locksley's Mojave Project.



Locksley Resources Limited (ASX: LKY, OTCQX: LKYRF, FSE: X5L) ("Locksley" or the "Company"), is pleased to announce that it has signed a contract with EDCON-PRJ, Inc from Colorado and commenced with a high-resolution heli-mag and radiometrics survey (the "Survey") across the Company's Mojave Project, located in San Bernardino County, California.

The new Survey will collect data at up to a 5x increase in density over the existing variable 100m - 200m spaced USGS dataset. This is achieved by collecting data along 40m spaced flight lines at an average 35m flying height. The resulting foundational datasets will be utilised to complete a comprehensive structural interpretation across the Project and rapidly accelerate the identification of new drill targets.

#### Kerrie Matthews, Locksley Managing Director & CEO, commented:

"Undertaking this high-resolution survey builds on the foundational datasets which Locksley is acquiring to fast-track exploration activities across Mojave. Our exploration strategy is to both advance the already identified El Campo REE and Desert Antimony Mine Prospects through drilling, whilst simultaneously aggressively exploring across the rest of our claims to grow the project pipeline.

The success of this strategy is being realised by the identification of the high-grade Hendricks Silver Prospect (up to 219g/t Silver) from recent mapping, proving the value of our systematic approach to pipeline growth.

In addition, the appointment of SGC as geophysical consultants to the Company brings a high calibre of technical expertise to complement our existing team. I look forward to the outcome of this survey, which is specifically designed to define new carbonatite-style REE targets by mapping Thorium signatures, and the ongoing input from SGC."

#### Survey Specifications: Step Change in Resolution

Existing magnetic (Figure 2) and radiometric geophysical datasets were acquired by the USGS at regional level resolution 100m to 200m fly line spacing at ~70m fly height. These datasets are suitable for regional scale activities, but are of insufficient resolution for defining direct drill targets.

As such, the Company has commenced with a high-resolution helicopter-based magnetics and radiometrics survey across the Mojave Project (Figure 1). The new Survey is being acquired along 40m spaced flight lines at ~35m flying height, significantly improving the resolution of the currently available data. In areas of USGS data collected on 200m flight lines, this represents a 5x increase in data density which is anticipated to significantly improve the resolution of the resulting imagery.

The Survey is being completed by EDCON-PRJ, Inc. from Colorado under the supervision of Geophysical Consultants SGC.



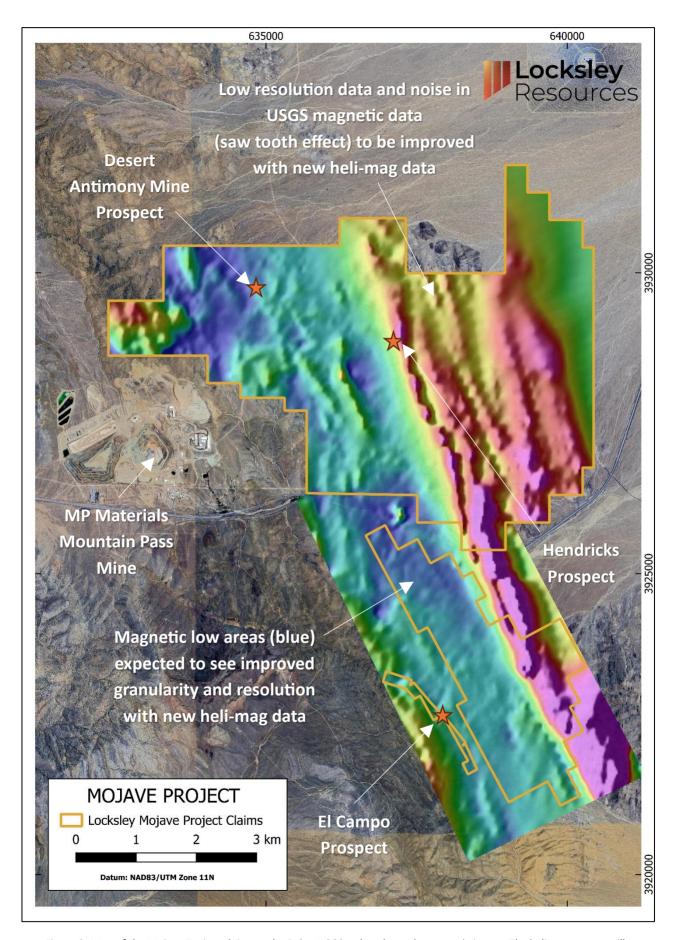


Figure 2; Map of the Mojave Project claims and existing USGS reduced to pole magnetic image. The heli mag survey will collect new data over the claim area which will improve the resolution and assist in new structural interpretation.



## **Geophysical Data Review**

In parallel to the data acquisition, SGC has commenced a geophysical data review and reprocessing of currently available datasets. These include Airborne Gravity Gradiometry (AGG) surveys and Multispectral Aster and Sentinel-2B. These datasets will provide information to aid in the identification of alteration signatures and regional geology and support ongoing exploration activities.

SGC have been engaged to re-process the available data with the objective of building up foundational datasets which will complement the soon-to-be acquired high-resolution magnetics and radiometrics.

# Structural Interpretation & Target Generation (REE & Antimony)

Upon completion of the new Survey, SGC will complete a geological structural interpretation of the Mojave Project to support direct exploration targeting which will guide on-ground fieldwork and sampling.

The magnetics data is essential for identifying structures from breaks in magnetic stratigraphy, which is critical for defining Antimony drill targets. The Company will focus on areas exhibiting the common NNE–SSW striking structures, which align with the known mineralisation at the Desert Antimony Mine (DAM) Prospect, ensuring the survey directly assists the next phase of antimony exploration.

The radiometrics data is expected to be a primary tool for defining new Rare Earth Element targets, as REE mineralisation in carbonatite systems is often associated with elevated Thorium and Uranium (U) signatures.

## **Next Steps**

- Completion of the heli-mag and radiometric survey (expected early November 2025)
- Data processing and structural interpretation
- Detailed geological mapping of the underground workings at DAM, scheduled for November
- Incorporation of the LiDAR survey into the 3D geological model of mineralisation to support the generation of a JORC exploration target ahead of drilling
- Assessment of the ground conditions within the historic workings with the objective of detailed underground sampling (subject to safe working conditions being determined)

#### For further information, please contact:

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



## **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

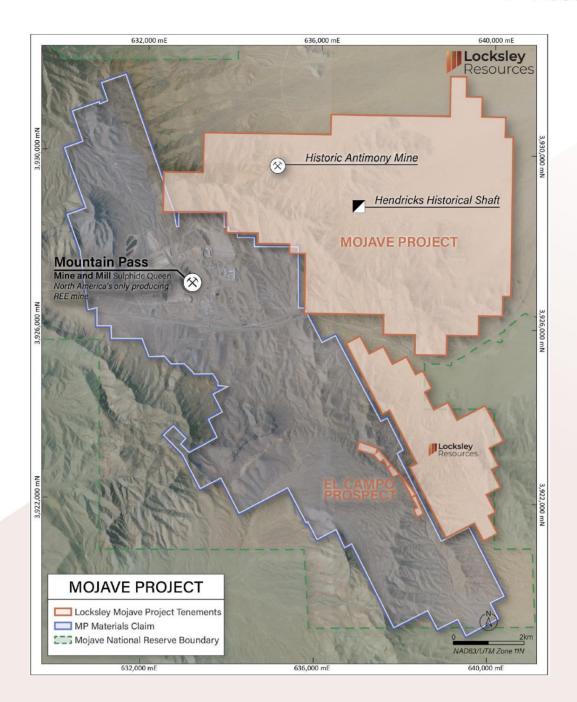
#### **MOJAVE PROJECT**

Located in the Mojave Desert, California, the Mojave Project comprises over 491 claims across contiguous prospect areas, namely, the North Block/Northeast Block and the El Campo Prospect. The North Block directly abuts claims held by MP Materials, while El Campo lies along strike of the Mountain Pass Mine and is enveloped by MP Materials' claims, highlighting the strong geological continuity and exploration potential of the project area.

In addition to rare earths, the Mojave Project hosts the historic "Desert Antimony Mine", which last operated in 1937. Despite the United States currently having no domestic antimony production, demand for the metal remains high due to its essential role in defence systems, semiconductors, and metal alloys. With significant surface sample results, the Desert Mine prospect represents one of the highest-grade known antimony occurrences in the U.S.

Locksley's North American position is further strengthened by rising geopolitical urgency to diversify supply chains away from China, the global leader in both REE & antimony production. With its maiden drilling program planned, the Mojave Project is uniquely positioned to align with U.S. strategic objectives around critical mineral independence and economic security.





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

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