

# NORTH RUKWA OPERATIONAL UPDATE

## OUTSTANDING INITIAL SOIL GAS SURVEY RESULTS

### Highlights

- Western side of the Soil Gas Survey (SGS) complete, Eastern side Soil Gas Survey now underway
- Preliminary results highly encouraging, with final analysis expected mid-August
- Bridgeport aircraft anticipated to arrive in-country this week to commence the Airborne Gravity Gradiometry (AGG) survey
- The BGP seismic camp is now under construction for Q3 acquisition start

**Noble Helium Limited (ASX:NHE)** (“Noble Helium”, “NHE” or “the Company”) is pleased to announce an operational update on its flagship North Rukwa Project in Tanzania.

The Company has been advancing exploration activities at its North Rukwa Project, with a key focus of addressing every structural closure for its helium prospectivity, to ensure the selection of the best two candidates for drilling in 2023.

Soil Gas Surveying involves sampling the soil on a regular grid, one metre below ground, for helium and other useful indicator gases such as nitrogen and methane. The method is an indirect indicator of helium and other gasses trapped much deeper underground.

On 23<sup>rd</sup> June a Soil Gas Survey commenced on the western side of the North Rukwa Basin. Initial results are highly encouraging, demonstrating widespread elevated helium concentrations at up to 7.3 parts per million (ppm), or 35% above background. As a noble gas, this anomalous helium can only be sourced from underground and a repeat survey of one of the anomalies replicated the results from 12 months ago, demonstrating the effectiveness and reliability of this technique.

The Soil Gas Survey team has now moved its operations to the eastern side of the North Rukwa Basin and is anticipated to be completed in early August. Detailed analysis of the North Rukwa SGS is now in progress, with final results anticipated by mid-August.

The presence of a SGS helium anomaly, combined with AGG and 3D seismic in Q3/Q4, will be used to high-grade drilling candidates in 2023.

### **Managing Director, Justyn Wood, commented:**

*“These initial results from the Soil Gas Survey are highly encouraging and continue to confirm our belief that the North Rukwa Basin has the potential to hold a globally significant helium resource.*”

*“The AGG program will provide critical insights into the North Rukwa basin structural trends between the legacy 2D seismic lines, ahead of the 3D seismic survey to be carried out in September and October.”*

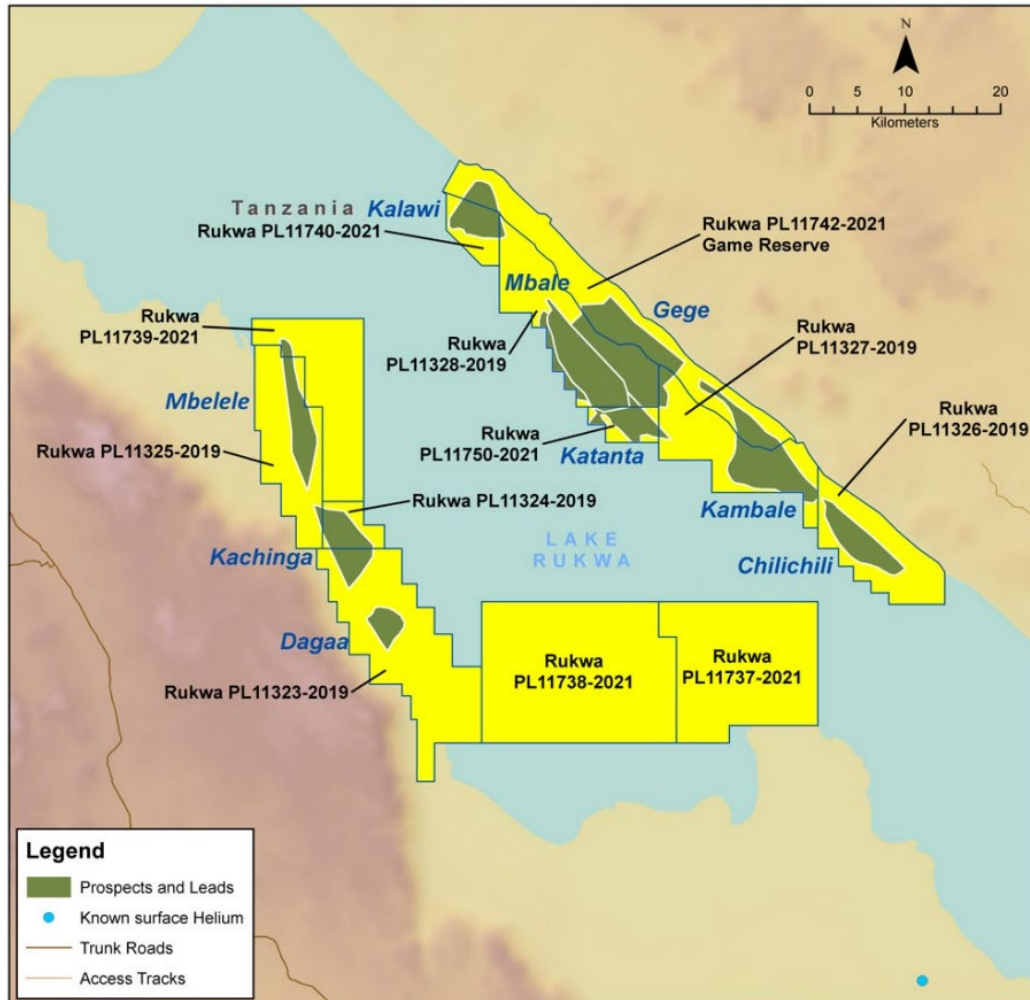


Figure 1 – North Rukwa Basin Helium Leads.

## Operational Update

The Company is rapidly advancing exploration activities in anticipation of its maiden drilling program in 2023. The Company is now in a very busy data collection phase for the dry season, running June to late November, with seven different geotechnical studies and activities underway involving some of the world’s leading exploration technologies and experts in their field to quantify the Rukwa Basin helium prospectivity.

The Bridgeport aircraft that will be completing the Airborne Gravity Gradiometry survey will be arriving this week and is expected to commence by this coming weekend. Bridgeport has the unique license to the latest Lockheed-Martin AGG instrument, which measures the Gravity Gradient with a four-fold improvement in signal-to-noise over its predecessor instrument. The enhanced data quality is expected to provide maximum confidence and precision in locating the 3D seismic surveys planned for Q3 2022.



*Image 1 - The Bridgeport AGG aircraft*

BGP's 3D seismic survey camp is now under construction, with acquisition expected to start late Q3 2022. BGP is recognised as the world leader in transition zone seismic. The seismic survey will create 250 jobs, the vast majority being local Tanzanians, and will enable University of Dar Es Salaam staff and students to gain first-hand experience and training in all elements of seismic surveying. This program will image a section of each of the structural closures in North Rukwa and provide highly valuable insights into their prospectivity. The 3D seismic program is the penultimate step in a comprehensive exploration program that will enable the Company to grade the already identified structures to select the most prospective targets to drill in 2023.

### Next Steps

- Integrate all new geophysical and geochemical data into our North Rukwa exploration model to optimally locate 3D seismic swaths
- Acquire 3D seismic swaths in Q3/Q4 to provide crestal 3D subsurface imaging of all structural closures, enabling optimal drilling target selection for 2023

This announcement has been authorised for release on ASX by the Company's Board of Directors.

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### Forward-looking statements

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## About Noble Helium

Noble Helium is a Tanzanian focused helium explorer looking to provide carbon-free and geopolitical-free helium to the global market for this scarce, tech-critical and high-value industrial gas. Noble has a substantial landholding of premium helium exploration acreage totalling 3,926km<sup>2</sup> across four key project areas in the East African Rift System (EARS) basins of Tanzania: North Rukwa, North Nyasa, Eyasi and Manyara.

The Company's flagship project, North Rukwa, already has an independently certified, summed unrisked mean Prospective Helium Resource of 176 billion cubic feet (equivalent to approximately 30 years' supply), with the benefit of legacy oil and gas exploration data. Rukwa Basin has the potential to be the world's third largest helium reserve behind USA and Qatar.

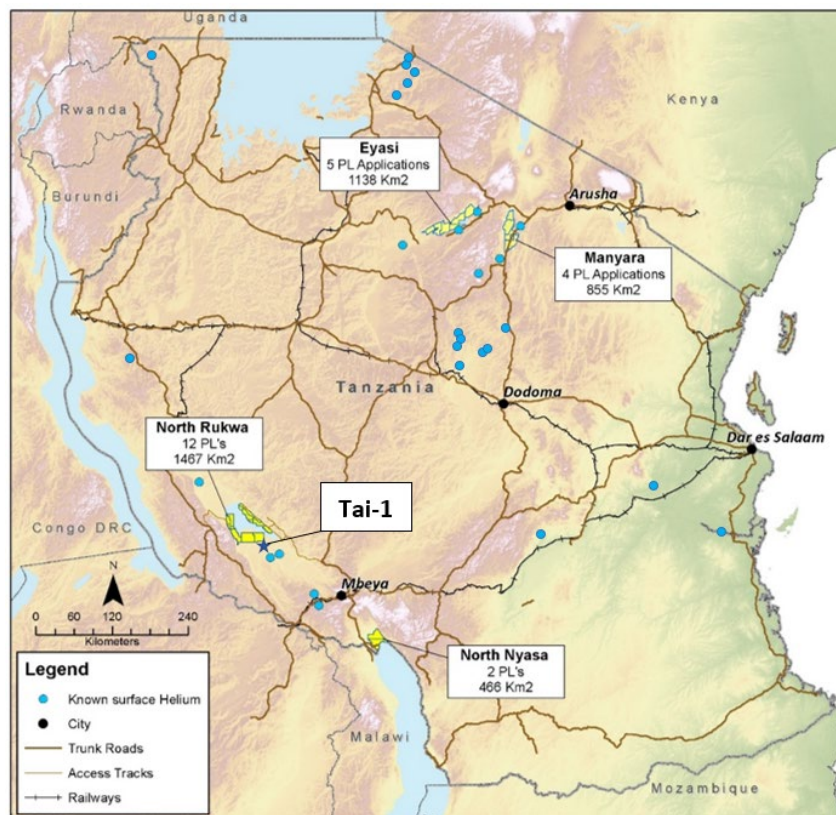


Figure 2 – Noble Helium Project Locations

The potential for helium to have been retained within the rift basins of Tanzania is considered significant. After the first oil discoveries in Uganda in 2006, in which Noble's CEO played a key role, a succession of oil and gas exploration wells in the EARS basins of Uganda and Kenya demonstrated an extraordinary discovery rate of 80%, or 4 in 5 from over 30 wells. More than 4 Billion BOE has been proven, and both countries are now progressing to commercial production.

Neighbouring Rukwa Basin explorer Helium One Global plc has recently announced plans to redrill its Tai-1 well, which demonstrated multiple helium shows from surface to basement in August 2021. Tai-1 is located 30km to the south of the Company's licences.

Additionally, Noble has commissioned the first ever helium Atlas, with an exclusive five-year agreement allowing the Company to identify additional prospective areas to target for diversification. The helium Atlas uniquely positions Noble as a world leading helium explorer.