Green helium for a high-tech world.

# ASX Release

**6 September 2023**

# New Ngambwa Lead at North Rukwa Project

## Highlights

- New Ngambwa lead – unrisked summed mean Prospective Helium Resource 2.8 Bcf
- Ngambwa is a fault-independent four-way closure, adding a new play type
- Additional acreage application

**Noble Helium Limited (ASX:NHE) ("Noble Helium" or "the Company") has confirmed the presence of a new prospect in the south-west of its North Rukwa Helium Project in Tanzania.**

The new Ngambwa prospect hosts an internally estimated unrisked summed mean Prospective Helium Resource 2.8 billion cubic feet (Bcf) and represents the tenth major lead to be identified at North Rukwa. Ngambwa lies around 40km south of the Mbelele lead where the Company is on track to start drilling two wells later this month.

**Noble Helium Chief Executive and Co-founder, Mr Justyn Wood commented:**

*"As we prepare to drill our first two wells at Mbelele, we are continuing our exploration and evaluation of the North Rukwa Project which covers one of the world's most highly prospective helium systems.*

*"This new Ngambwa lead represents another "pearl" in the Company's western North Rukwa "String of Pearls", a proven geological phenomenon in the East African Rift System where one discovery demonstrates the potential for multiple discoveries along a pronounced trend.*

*"Ngambwa provides portfolio diversity and could be drilled with simple, vertical wells for minimised execution risk, as we are doing at Mbelele."*

### New Ngambwa Lead

As previously announced[1], the Company identified a prospective new lead at the southern end of its western Prospecting Licences in the North Rukwa, following interpretation of the recently acquired soil gas, Airborne Gravity Gradiometry (AGG), and 3D seismic data.

[1] Refer ASX release dated 20 April 2023 *String of Pearls emerge in North Rukwa*

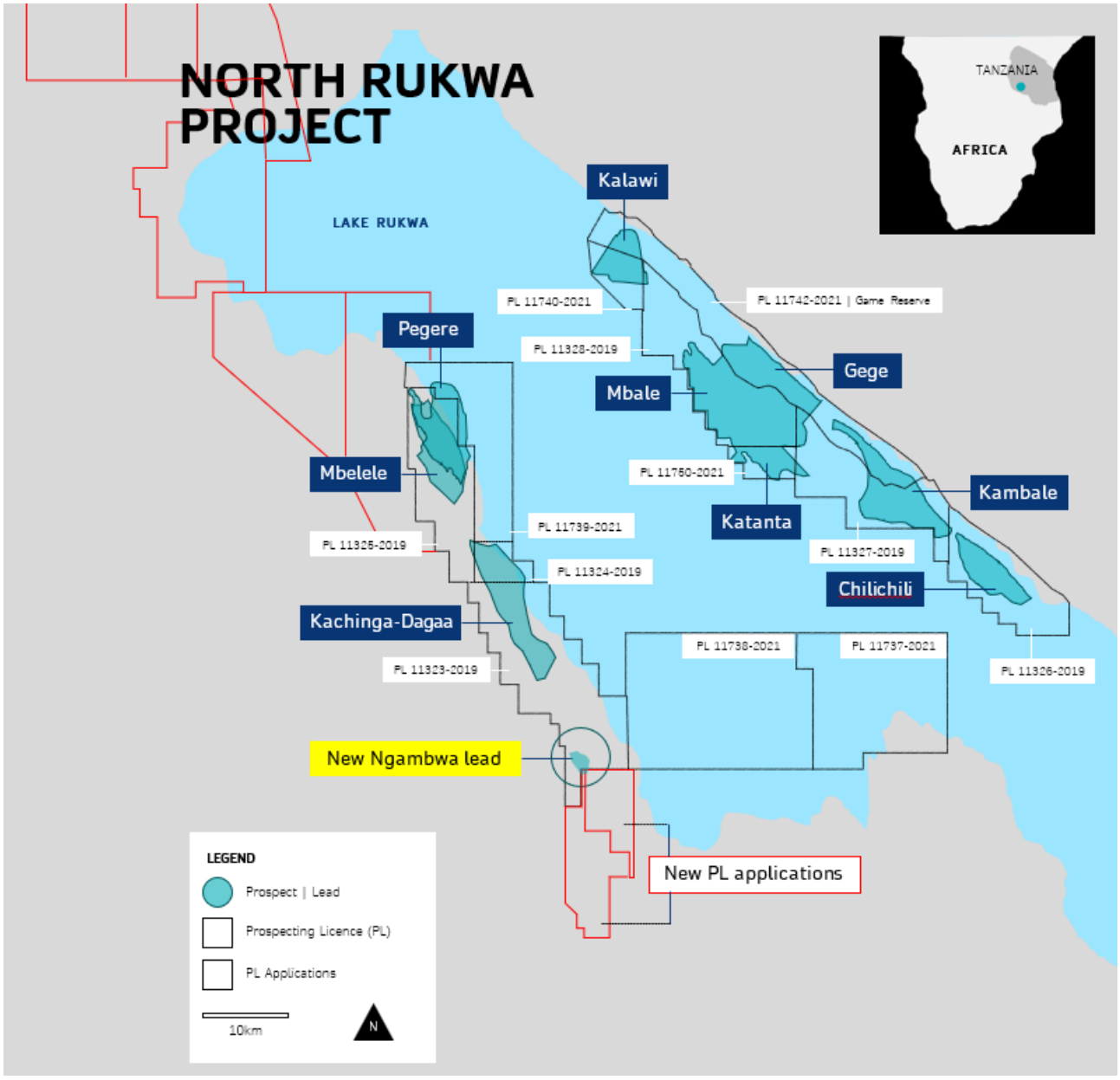


***Figure 1.*** *Ngambwa lead outline and new PL applications*

In addition, the Company has applied for an additional 36km$^2$ Prospecting Licence to capture the Ngambwa lead's full extent, adding to the previously announced 63km$^2$ PL application at the southwestern end of the Company's North Rukwa PLs[2].

Ngambwa is a fault-independent four-way closure, adding more resource potential within a new play type to the North Rukwa helium portfolio. The Company estimates Ngambwa to have an unrisked summed mean Helium Prospective Resource of 2.8 Bcf (full range in Table 1) using parameters consistent with NSAI's independent expert report for the North Rukwa. As previously announced, the Company will commission an updated independent expert review of its entire portfolio with the benefit of the data about to be collected in its upcoming maiden drilling program.

[2] Refer ASX release dated 21 September 2022 *North Rukwa Landholding Expands*

Similar to the Mbelele structure, the Ngambwa lead can be targeted from onshore with simple vertical wells for minimised drilling execution risk. Further exploration data to mature Ngambwa to Drillable Prospect status is planned for the Company's 2024 exploration program.

| Ngambwa Prospect | Unrisked Recoverable Helium in gas phase (Bcf) | | | |
|---|---|---|---|---|
| | ***Low estimate*** | ***Best estimate*** | ***Mean estimate*** | ***High estimate*** |
| Neogene Reservoirs | 0.1 | 0.7 | **1.4** | 3.7 |
| Nsungwe Fm | 0.1 | 0.3 | **0.5** | 1.2 |
| Galula Fm | 0.1 | 0.5 | **0.9** | 2.2 |
| Summed | 0.3 | 1.5 | **2.8** | 7.1 |

***Table 1:*** *Mbelele-1 Unrisked Prospective Helium Resource range*

***This announcement has been authorised for release on ASX by Noble Helium's Board of Directors.***

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### Forward-looking statements

This announcement may contain certain "forward-looking statements". Forward looking statements can generally be identified by the use of forward-looking words such as, "expect", "should", "could", "may", "predict", "plan", "will", "believe", "forecast", "estimate", "target" and other similar expressions. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.

### Competent Persons Statement

The technical information provided in this announcement has been compiled by Mr. Ashley Howlett, Exploration Manager, Professor Andrew Garnett, Non-Executive Director, and Mr. Justyn Wood, Chief Executive Officer, all of Noble Helium Limited. The resource estimates have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers.

Mr Howlett is a qualified geologist with over 20 years technical, and management experience in exploration for, appraisal and development of, oil and gas resources. Mr Howlett has reviewed the results, procedures and data contained in this announcement and consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

### Cautionary Statement for Prospective Resource Estimates

With respect to the Prospective Resource estimates contained within this report, it should be noted that the estimated quantities of gas that may potentially be recovered by the future application of a development project relate to undiscovered accumulations. These estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable helium.

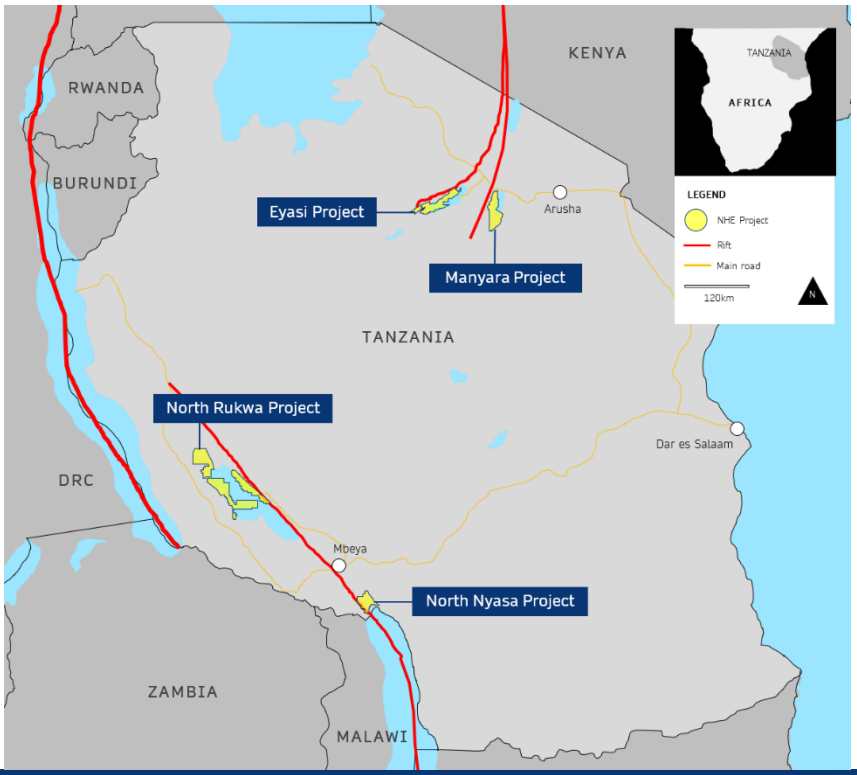
# Green helium for a high-tech world.

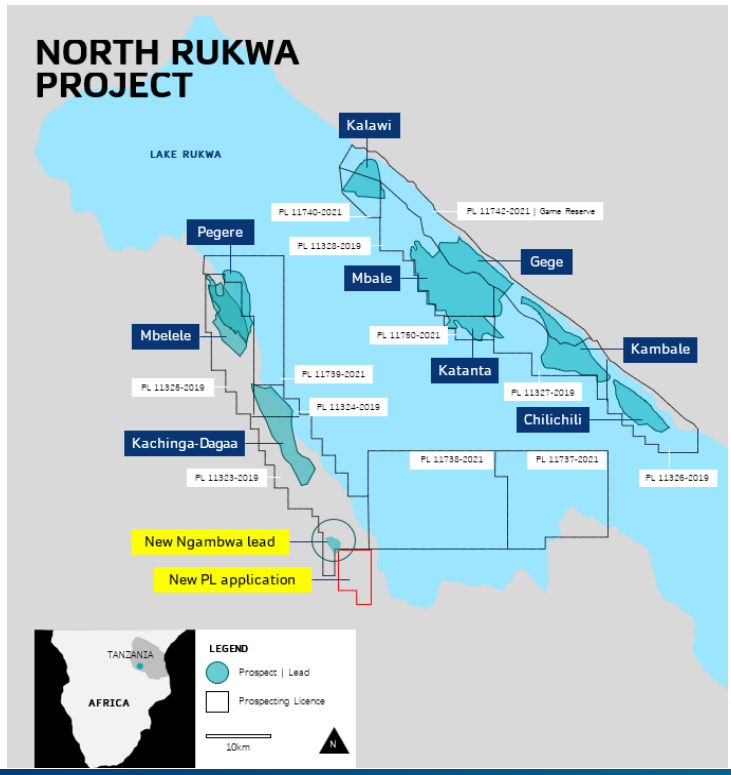
Noble Helium is answering the world's growing need for a primary, ideally carbon-free, and geo-politically independent source of helium. Located along Tanzania's East African Rift System, the Company's four projects are being advanced according to the highest ESG benchmarks to serve the increasing supply chain fragility and supply-demand imbalance for this scarce, tech-critical and high-value industrial gas.

Our flagship North Rukwa Project has an independently certified, summed unrisked mean Prospective Helium Resource of 176 billion cubic feet (equivalent to approximately 30 years' supply). The project lies within the Rukwa Basin, which has the potential to be the world's third largest helium reserve behind USA and Qatar.

Priced at up to 50 times the price of LNG in liquid form, helium is now essential to many modern applications as an irreplaceable element in vital hi-tech products such as computer and smartphone components, MRI systems, medical treatments, superconducting magnets, fibre optic cables, microscopes, particle accelerators, and space rocket launches – NASA is a major consumer. Rising demand and constrained supply are fuelling growth prospects within the global marketplace, particularly for cleaner "green helium" sourced from non-carbon environments. At present, more than 95% of the world's helium is produced as a by-product of the processing of hydrocarbon-bearing gas.

Additionally, Noble Helium 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 Atlas uniquely positions Noble Helium as a world leading helium explorer.

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