



Green helium for a
high-tech world.

ASX Release

28 September 2023

Rig up underway at Mbelele-1, North Rukwa Project

Highlights

- Rig-up in advanced stages at Mbelele-1
- 20" conductor set ready to commence drilling
- World first test for helium in the proven EARS BMFC play imminent

Noble Helium Limited (ASX:NHE) (“Noble Helium” or “the Company”) reports that rig-up of Marriott Rig #16 at the Mbelele-1 site is approaching the final stages at the Company’s North Rukwa Helium Project in Tanzania.

The Marriott Rig #16 “rig-up” is well underway, with the 38 semitrailer loads of rig and associated drilling equipment all onsite and being assembled in preparation for spudding of Mbelele-1. Similarly, all the SLB services equipment is onsite for integration into the drilling unit as it is assembled. A key benefit of engaging experienced drilling and services partners is that all required equipment for the drilling campaign, including spares, has been delivered in one logistical effort.

A 20” surface conductor was set at each of the Mbelele well sites a number of weeks ago. Our first well Mbelele-1 will spud once operations are ready to commence safely, with all equipment assembled, commissioned and acceptance tested.

Mbelele-1 will test circa 450m of Neogene aged Upper, Mid and Lower Lake Beds before intersecting basement. Mbelele-2 will appraise these reservoirs, then drill an additional 400m of Lower Lake Bed sediments that are not present at the Mbelele-1 location before again intersecting basement. Anomalous, potentially gas-related responses are present in the seismic for both wells, accompanied by anomalous helium in the overlying soil, which can only have been sourced from underground.

Depth to Basement for the planned Mbelele-1 well is circa 500m true vertical depth (TVD) and circa 850m TVD for Mbelele-2.

The Mbelele Prospect is estimated to host an unrisksed summed mean Prospective Helium Resource of 15.7 billion cubic feet (Bcf) in high quality Neogene reservoirs, trapped within a Basin Margin Fault Closure (BMFC)¹.

¹ Refer ASX release dated 25 July 2023 *Mbelele Resource Increase and Table 1 below*.

Noble Helium CEO and Co-Founder, Mr Justyn Wood, said:

“it’s incredible to see the absolute focus and dedication from our team to pull together and execute the program successfully and safely. All of the years of hard work are now coming together as we prepare to demonstrate what has the potential to be an entirely new and globally significant helium province. Tanzania’s rift basin helium potential is self-evident in the anomalous helium concentrations where fluids are finding their way to surface up to an order of magnitude greater than anywhere else on the planet. We are applying over 20 years of very successful exploration experience throughout the East African Rift system to pinpoint locations for its accumulation in the subsurface – it is coming together and we are extremely confident.”

“We also now have everything in place to quickly move from discovery to monetisation and the whole team is very excited.”

Mbelele Prospect	Unrisked Recoverable Helium in gas phase (Bcf)			
	Low estimate	Best estimate	Mean estimate	High estimate
Neogene Reservoirs	1.8	8.2	15.7	36.8

Table 1: Company Estimated Unrisked Prospective Helium Resource range for Mbelele

North Rukwa Prospects and Leads	Unrisked Recoverable Helium in gas phase (Bcf)			
	Low estimate	Best estimate	Mean estimate	High estimate
Summed Totals	19.6	100.7	175.5	405.7

Table 2: NSAI Estimated Unrisked Prospective Helium Resource range for NHE North Rukwa

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 unrisksed 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.

