

## ASX Release

10 September 2024

# Significant upgrade to North Rukwa Western Margin prospective resources

## Highlights

- New NHE data available for NSAI evaluation indicates better reservoir properties, higher helium concentrations and more or larger prospective structures than previously.
- Total Western Margin P50 Helium Prospective Resource increased by 66%.
- Lake Beds P50 Helium Prospective Resource increased by 31%.
- The deeper Karoo P50 Helium Prospective Resource jumps 500% after mapping with the 2023 seismic.
- Significant implications for Eastern Margin, with prospective resource update in progress.

**Noble Helium Limited (ASX:NHE) is pleased to advise that following the integration of all new exploration data acquired since the last review in 2022, independent resource auditors Netherland, Sewell & Associates, Inc (NSAI) of Houston has completed an update of the Western Margin of the North Rukwa basin, as stage 1 of a full portfolio review. This has resulted in a significant resource upgrade, with the Eastern Margin review now underway.**

Shaun Scott, Managing Director & CEO said *“This prospective resource upgrade is further confirmation that the North Rukwa basin is a prolific, unique helium producing system. As I’ve said before we are in the right place with the best house in the best street. I look forward to drilling the shallow targets we are in the process of maturing and confirming commercial flow rates.”*

The new data has demonstrated better reservoir properties, higher helium concentrations and larger or more structures than evaluated in 2022, with the NSAI Western Margin review resulting in a net P50 resource increase of 67% to 18.2Bcf across all prospective reservoir levels, as set out in Table 1.

The net increase within the Lake Beds is especially significant as we continue our shallow geophysics program on the uppermost sections of this formation, to confirm the shallow gas targets which will be drilled and flow tested with a view to early, low-cost commercialisation.

The significant upgrades across the deeper plays within the basin is also very positive and has further and significant implications for the deeper plays on the eastern side of the basin, where work is now underway to update the prospective resource for this part of the basin. See Figure 1 below.

In 2022, NSAI assessed an unrisksd summed best estimate (P50) Helium Prospective Resource of 10.9 bcf for the Western Margin (ref. Table 1) and a combined best estimate (P50) of 100.7 bcf for both the Western and Eastern margins, (IPO Prospectus).

	NSAI 2022 West			NSAI 2024 West		
	HELIUM EUR			HELIUM EUR		
	bcf			bcf		
	P90	P50	P10	P90	P50	P10
<b>Western Margin - Total Prospective Resource</b>						
Lake Beds	0.8	4.4	18.8	1.1	5.7	24.2
Nsungwe	0.3	1.4	5.7	0.5	2.8	13.8
Galula	0.9	4.7	17.6	1.0	5.1	21.4
Karoo	0.0	0.3	2.0	0.9	4.5	18.5
<b>Increase</b>	<b>2.0</b>	<b>10.9</b>	<b>44.6</b>	<b>3.4</b>	<b>18.2</b>	<b>77.8</b>
				<b>171%</b>	<b>166%</b>	<b>175%</b>

Table 1. North Rukwa Western Margin Prospective Resources

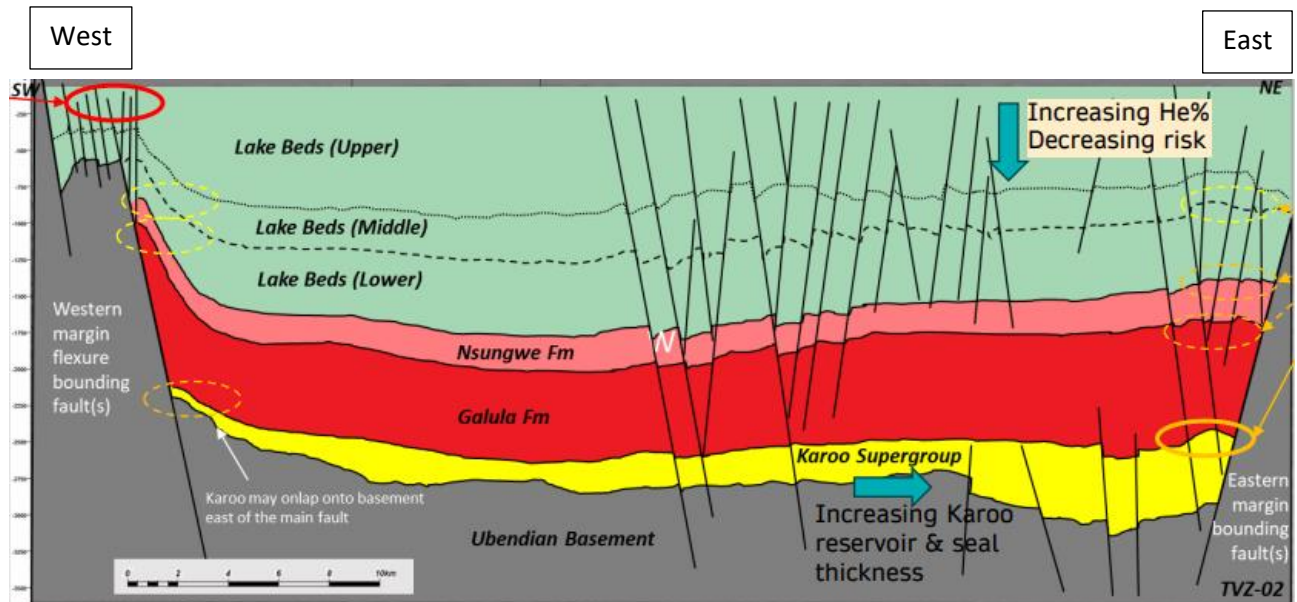


Figure 1. Rukwa-Nyasa Helium Play Fairway – Portfolio of opportunities. (NB: The red ellipse illustrates the approx. position of the uppermost Lake Beds, the target of NHE’s 2024, shallow gas E&A campaign)

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## Notes to Table 1:

1. For clarity, these latest estimates do not include any prospective resources in NHE's Eastern Rukwa Margin licences, other non-Rukwa, NHE licenced areas such as the Eyasi and Nyasa Projects, or areas under application such as onshore North Rukwa or Manyara.
2. The Lake Beds values in this table do not include the Mbebele-1 probable shallow gas cap which will be drilled and flow tested as part of the upcoming program.
3. The P90, P50 and P10 totals in this table are calculated by NSAI as the arithmetic sums of multiple probability distributions for each reservoir level across the individual prospects and may not add because of rounding.

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

**For further information:**

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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 prospective volumes are for helium, which are not hydrocarbons. However, Netherland, Sewell & Associates, Inc. have used the definitions and guidelines set forth in the 2018 Petroleum Resources Management System (**SPE-PRMS**) approved by the Society of Petroleum Engineers as the framework to classify these helium volumes as "prospective". The SPE-PRMS is specifically designed for hydrocarbons, which helium is not, however the principles and methods for hydrocarbon gas resource estimation are directly applicable to helium gas volume estimation.

The prospective helium volumes included in this presentation should not be construed as petroleum reserves, petroleum contingent resources, or petroleum prospective resources. They represent exploration opportunities and quantify the development potential in the event a helium discovery is made. The information in this presentation which relates to prospective helium volumes is based on, and fairly represents, in the form and context in which it appears, information and supporting documents prepared by, or under the supervision of, Alexander Karpov and Zachary Long .

Alexander Karpov is an employee of Netherland, Sewell & Associates, Inc. Alexander Karpov attended Texas A&M University and graduated in 2001 with a Master of Science Degree in Petroleum Engineering and attended the Moscow Institute of Oil and Gas and graduated in 1992 with a Bachelor of Science Degree in Petroleum Geology. Alexander Karpov is a Licensed Professional Engineer in the State of Texas, United States

of America and has in excess of 26 years of experience in petroleum engineering studies and evaluations. Alexander Karpov has sufficient experience to qualify as a qualified petroleum reserves and resources evaluator as defined in the ASX Listing Rules.

Zachary Long is an employee of Netherland, Sewell & Associates, Inc. Zachary Long attended Texas A&M University and graduated in 2005 with a Master of Science Degree in Geophysics and attended the University of Louisiana at Lafayette and graduated in 2003 with a Bachelor of Science Degree in Geology. Zachary Long is a Licensed Professional Geoscientist in the State of Texas, United States of America and has in excess of 16 years of experience in geological and geophysical studies and evaluations. Zachary Long has sufficient experience to qualify as a qualified petroleum reserves and resources evaluator as defined in the ASX Listing Rules.

Alexander Karpov, Zachary Long and Netherland, Sewell & Associates, Inc. have each consented to the inclusion in this presentation of the matters based on this information in the form and context in which they appear.

The technical information provided in this announcement has been compiled by Professor Em. Andrew Garnett, Non-Executive Chairman, and Mr. Justyn Wood, Executive Director, all of Noble Helium Limited. Mr Wood is a qualified geoscientist with over 30 years technical, and management experience in exploration for, appraisal and development of, oil and gas resources. Mr Wood qualifies as a Competent Person in accordance with the ASX listing rules and 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 any 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.