Investor Briefing ASX: NHE noblehelium.com.au

### North Rukwa: A unique, prolific helium producing system.



Shaun Scott Managing Director & CEO 23 April 2024



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No reserves have been assigned in connection with the Company's property interests to date, given their early stage of development. Unrisked Prospective Helium Volumes have been defined. However, estimating helium volumes is subject to significant uncertainties associated with technical data and the interpretation of that data, future commodity prices, and development and operating costs. There can be no guarantee that Noble Helium will successfully convert its helium resource to reserves and produce that estimated volume.

#### Competent Person's 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 graduatedin2005 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.

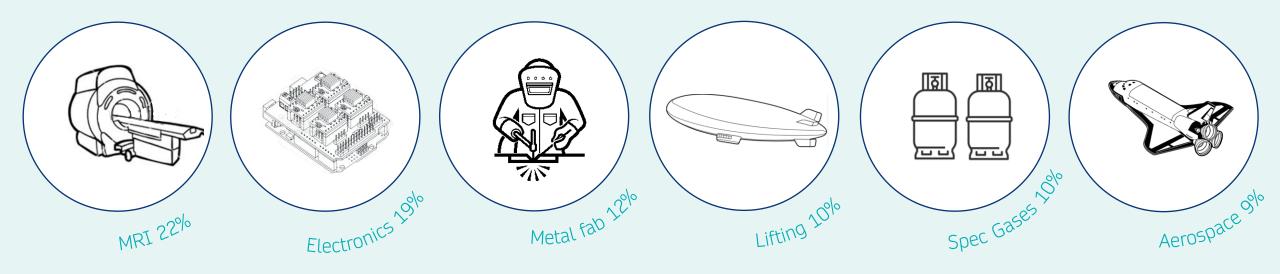
Alexander Karpov, Zachary Long and Netherland, Sewell & Associates, Inc. have each consented to the inclusion in this presentation of the matters based on this information in the form and context in which they appear.



### There's no technology without helium.

It's an irreplaceable input for many important technologies with significant demand growth from manufacturers of semiconductors used in computers, mobile phones, cars, (even kids' toys).

The global wholesale helium market is expected to grow from an estimated US\$5 billion in 2023 to over US\$8 billion in 2030.



### The high price of helium means a little makes a lot.

As a gas, helium has similar exploration/ production costs per Mscf as traditional oil and gas.

Revenue from 1,000 Mscf/day

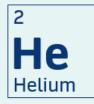


A\$692,000\*



A\$12,000/day\*

Production required for \$1 million/day revenue



1,444 Mscf\*



83,333 Mscf\*

At the current pricing, we can get the same revenue as a domestic gas project with <u>less</u> <u>than 2%</u> of the helium production.

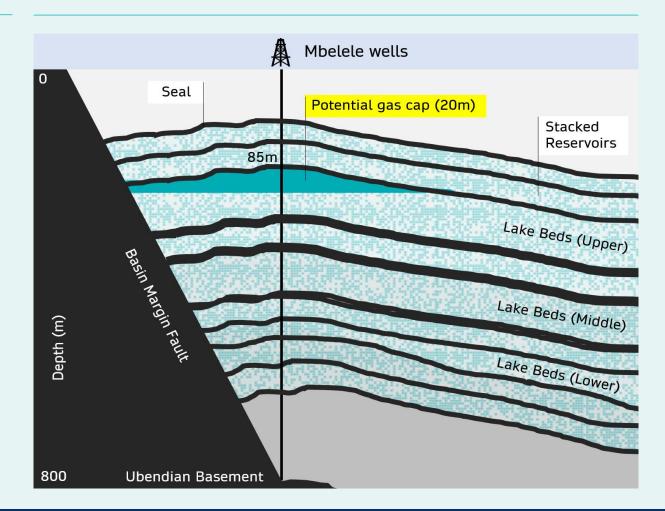
\*Long term bulk helium price of US\$450 (per Kornbluth Consulting) at 0.65 conversion versus the current domestic gas cap of A\$12



## Mbelele Prospect: Probable Free Gas Cap.

- Starting around 85m.
- Structure approximately 7km by 3km.
- Estimated 20m free gas column.
- Very high permeability and excellent porosity ie very high flow potential.

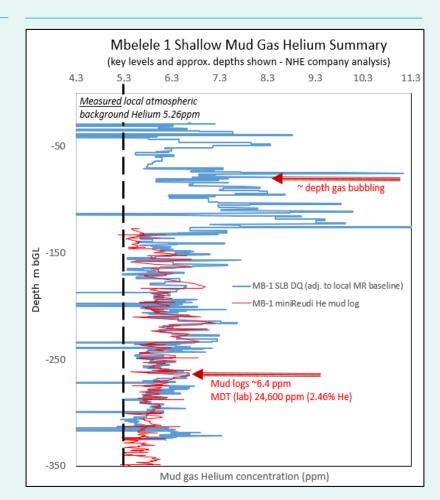
 Structure completely onshore of Lake Rukwa and easily accessible.

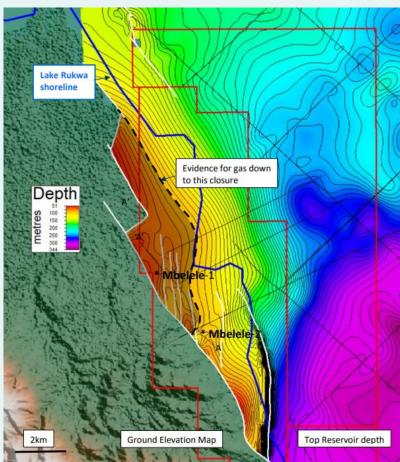




### Mbelele Prospect: Current data points.

- Gas bubbling in mud returns from ~80m.
- Gas bubbling ceased on mud weight increase.
- Pressure change from mud weight increase indicative of ~20m gas column.
- Helium significantly above background in mud gas ~75m to 125m.
- UQ modelling shows commercial flow potential.





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### Mbelele Prospect: Commercialisation.

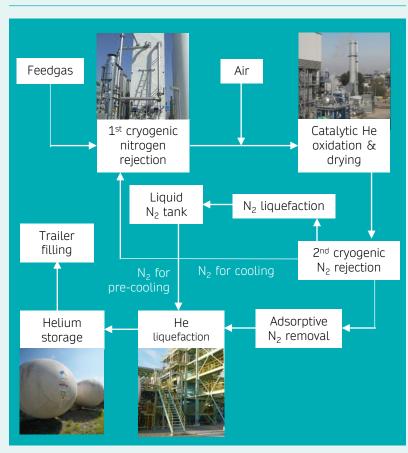
#### Mbelele has the potential to tick all the boxes required for successful commercialisation:

- ✓ Helium concentration.
- ✓ Reservoir with high flow potential.
- Easy land access.
- ✓ Supportive regulatory environment
- ✓ Off take partner.

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Indicative footprint of small-scale helium processing facility.



Indicative Helium processing plant layou.t.

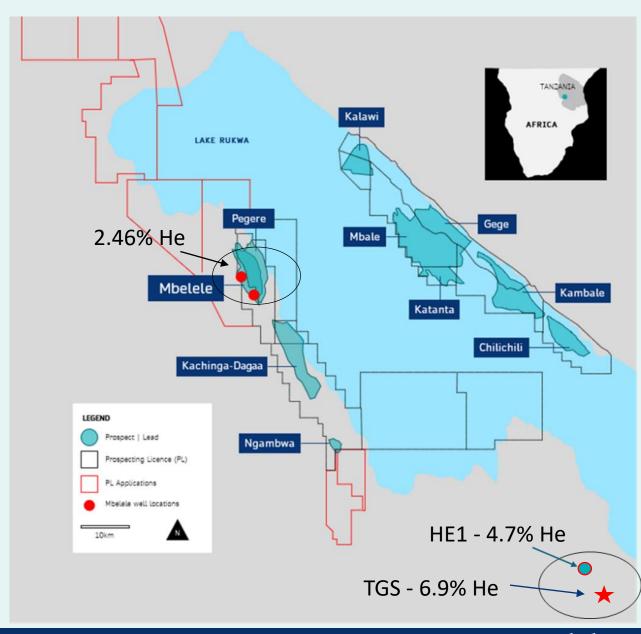


# Mbelele: the beginning of the story not the end game!

The number of helium shows at all levels across both wells and throughout North Rukwa demonstrates that this is a unique, prolific helium producing system.

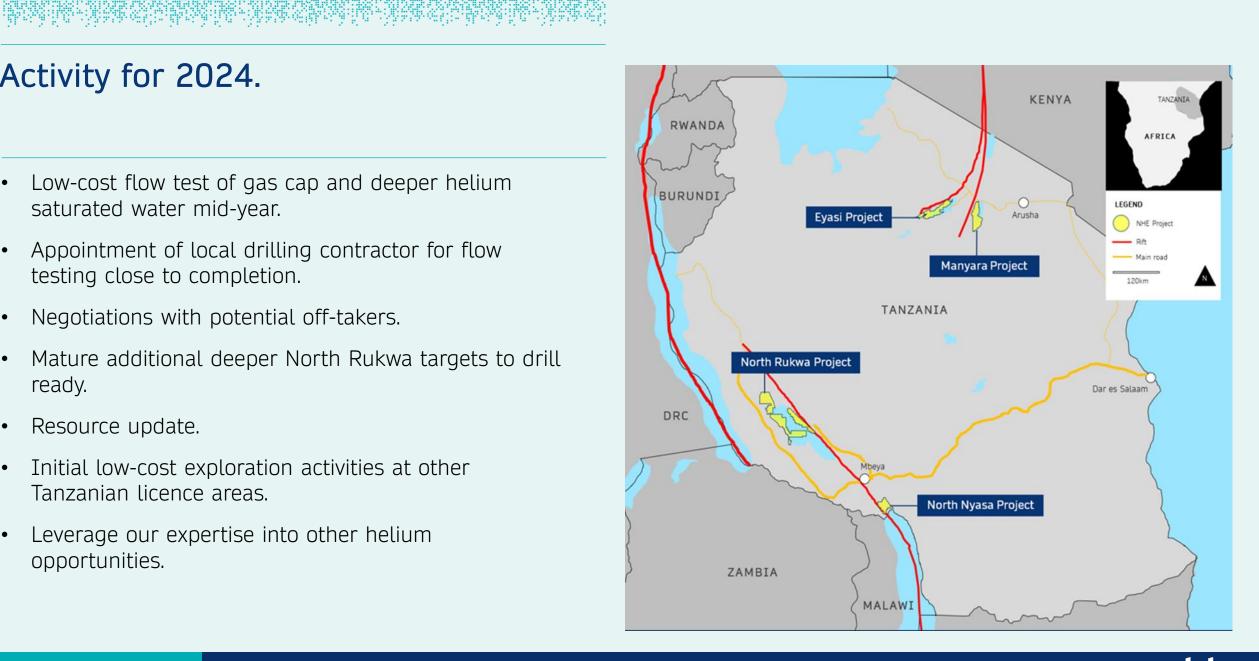
- Mbelele 1 & 2 are the first two wells at the North Rukwa Project.
- Simple shallow vertical wells to start in a new remote basin.
- Only tested the Upper, Middle & Lower lake beds. The Nsungwe, Galula and Karoo are yet to be explored.
- The quantity and quality of the reservoirs exceeded expectations.
- Helium is extremely rare and there are few places in the world with the helium potential of the North Rukwa.

Tanzania Geological Survey – TGS / Helium One – HE1



### Activity for 2024.

- Low-cost flow test of gas cap and deeper helium saturated water mid-year.
- Appointment of local drilling contractor for flow testing close to completion.
- Negotiations with potential off-takers.
- Mature additional deeper North Rukwa targets to drill ready.
- Resource update.
- Initial low-cost exploration activities at other Tanzanian licence areas.
- Leverage our expertise into other helium opportunities.





### Noble Helium is led by experienced oil and gas pioneers.



#### Shaun Scott Managing Director & CFO

Helped pioneer Queensland coal seam gas industry from "novelty" status to a \$20 billion per year export industry.

As CEO of Arrow Energy Ltd, Shaun led the growth of that business from a \$20m coal seam gas explorer until its \$3.5 billion acquisition by Shell and Petro-China.

Highly experienced independent nonexecutive director on publicly listed and private company boards. Currently a non-executive director of ASX listed Comet Ridge Ltd.

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Justyn Wood Executive Director -**Technical** 

The Exploration Geophysicist who helped put the East African Rift System on the world oil and gas map.

Justyn has nearly 30 years of E&P industry experience in both technical and management roles at Hardman Resources, Chevron Australia, Repsol Australia and Oil Company of Australia.

Made key contributions to the first oil discoveries in South America's Guyana margin as well.



**Prof Andrew Garnett** Non-Executive Chairman

Prof. Garnett is currently the Director of the University of Queensland's research Centre for Natural Gas (CNG), working closely with the main LNG project proponents in Queensland, Australia. Has over 25 years of international experience in senior technical, management and executive roles in the upstream oil and gas sector including with Shell and Schlumberger.



Eddie King Non-Executive Director

Former investment banker and current director of CPS Capital Group, a stockbroking and corporate advisory firm specialising in small to medium high growth companies. Executive Chairman of Rubix Resources Ltd (ASX: RB6), Executive Director of Ragnar Metals Ltd (ASX: RAG), Non-Executive Chairman of Bindi Metals Ltd (ASX: BIM), Eastern Resources Ltd (ASX: EFE) and Great Northern Minerals (ASX: GNM) plus a Non-Executive Director of M3 Mining Ltd (ASX: M3M), Queensland Pacific Metals Ltd (ASX: QPM)



**Greq Columbus** Non-Executive Director

Over 30 years of experience in Energy, and Oil & Gas including technical, commercial, executive, and nonexecutive roles. During this time, he has gained valuable business experience in delivering large, complex energy and oil & gas projects and has throughout the course of his career, also demonstrated strong strategic vision in leadership roles. Has also been involved in numerous M&A activities, most recently as the Independent Non-executive Chairman of Warrego Energy.



**Kent Masters Anchor Investor** 

A core early investor in Noble Helium, Kent is Chairman, CEO and President of Albermarle, one of the world's largest lithium companies. As former Executive Director of Linde, the world's largest industrial gas company by market share and revenue (capped at ~US\$160B), Kent held responsibility for the Americas, Africa, East Asia, South Pacific. And helium. He knows his industrial gases and has a network that stretches across the world and includes project developers and offtakers.



### Invest in the future of helium.

A ground-floor investment in the potential discovery and development of the world's largest green helium reserve.

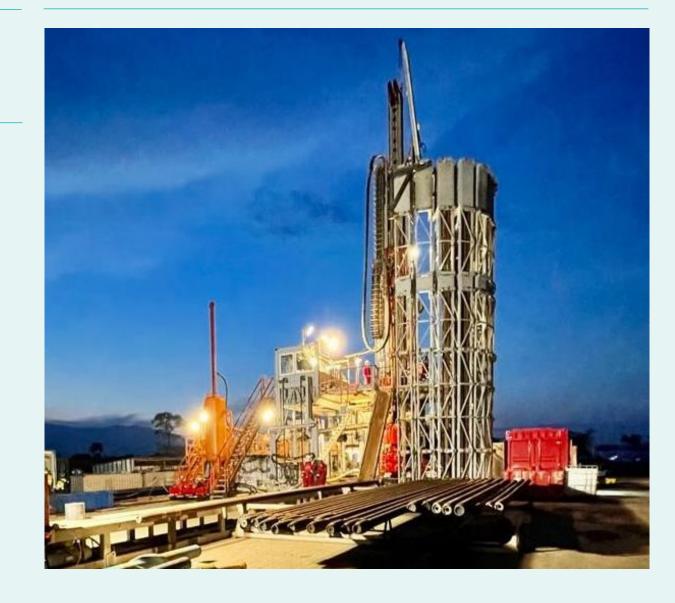


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