September 2022

noble HELIUM

Securing the Future of Helium

Investor Presentation

ASX: **NHE**

noblehelium.com.au

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Noble Helium has issue a prospectus dated 18 February 2022 in connection with its proposed initial public offering of shares and listing on the Australian Securities Exchange (**Prospectus**). Accordingly, this presentation should be read in conjunction with the Prospectus. Any person who wishes to apply for shares in Noble Helium will need to apply under the Prospectus by completing an application form accompanying the Prospectus. Comprehensive details regarding Noble Helium and its projects are set out in the Prospectus.

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This presentation may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Noble Helium. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements.

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.

Why Helium?

Un-substitutable Critical Raw Material

MRI

SEMI-CONDUCTORS

SPECIALIST WELDING

FIBRE OPTICS

AEROSPACE

Helium's Irreplaceable Unique Properties

Boiling Point -269° C
Liquid at ultra cool temperatures, enabling superconductivity

Non-Toxic
Numerous applications without causing health/wellness risks

Small Molecule Size
Ultimate escape artist, perfect for discovering leaks

Incredibly Light
Lighter than air, creating ability to lift or float

Highest Thermal Conductivity
Essential for semi-conductor manufacturing and aerospace applications

Helium is a Noble Gas: inert, colourless, odourless, non-corrosive, non-toxic, and non-combustible

Key Tech USES	% of global demand (2022)	Est Retail Value 2022 US$m	CAGR to 2026	Inert	Lowest density	Lowest boiling point	Highest thermal conductivity	Substitute?
MRI	22	820	-5%	⚛		⚛	⚛	No
Semi Conductor	**19**	**710**	**11.30%**	⚛			⚛	**No**
Welding	12	450	2%	⚛			⚛	Argon, some
Aerospace	**8**	**300**	**10%**	⚛		⚛	⚛	**No**
Fibre Optic manufacture	3	110	2%	⚛			⚛	No

Refs: Kornbluth helium market report, various public statements

Helium Dependent Technology

Global Market Size: Est US$5billion

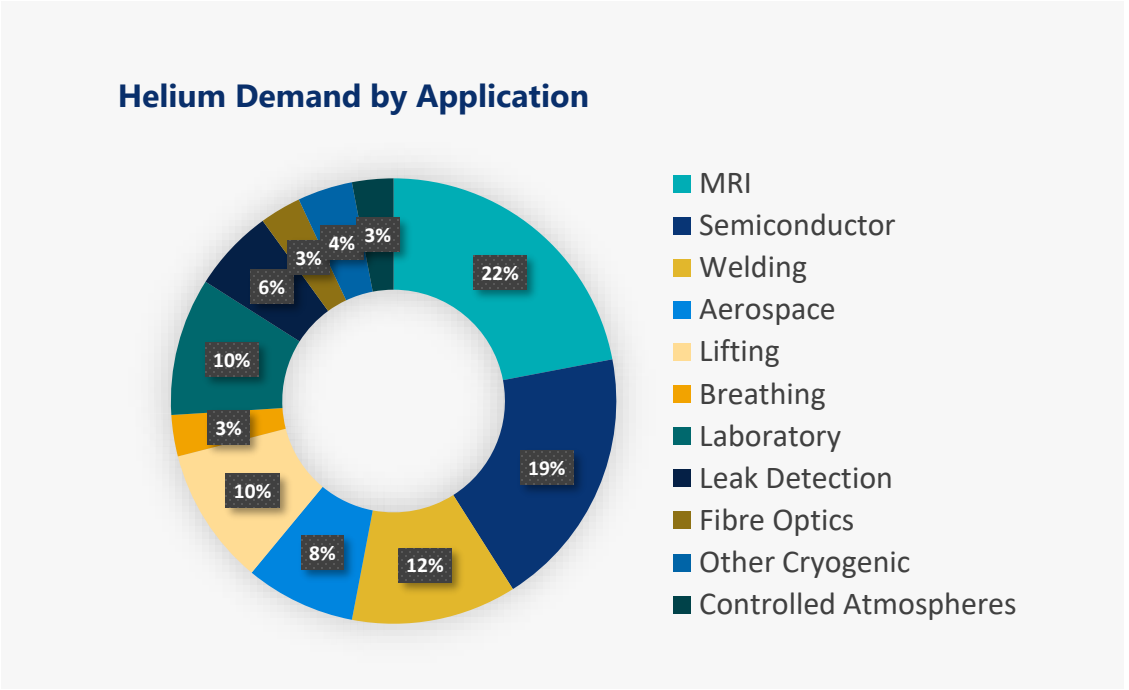
Demand Growth

Semiconductors

- Semiconductor fabrication demand for helium is forecast to grow at **11.3% CAGR by 2026 –** and may be conservative
- By 2026, electronics could account for **28% of global helium demand.**
- TSMC of Taiwan may be "the world's most important company", accounting for 54% of all semiconductors globally and 84% of sub-10 nano-metre chips
- TSMC is currently spending US$19b on two new plants in Japan and Arizona to diversify production away from China

Aerospace

- Commercialisation of space resulting in high demand growth for helium - SpaceX made **28 orbital launches in 2021, 33 in 2022 so far with 60 planned.**
- Anticipated **10% CAGR out to 2026**



Kornbluth Helium Market Report, NHE IPO Prospectus
https://www.asiafinancial.com/china-risk-sees-taiwans-tsmc-moving-chip-fabs-overseas

Helium Supply

Rigid capacity & increasing geopolitical risk

The global helium supply depends on roughly 20 natural gas sources, located mainly in the U.S., Qatar, Algeria, and Russia.

Currently experiencing the fourth worldwide helium shortage since 2006 with structural shift in supply after depletion of the US Federal Reserve:

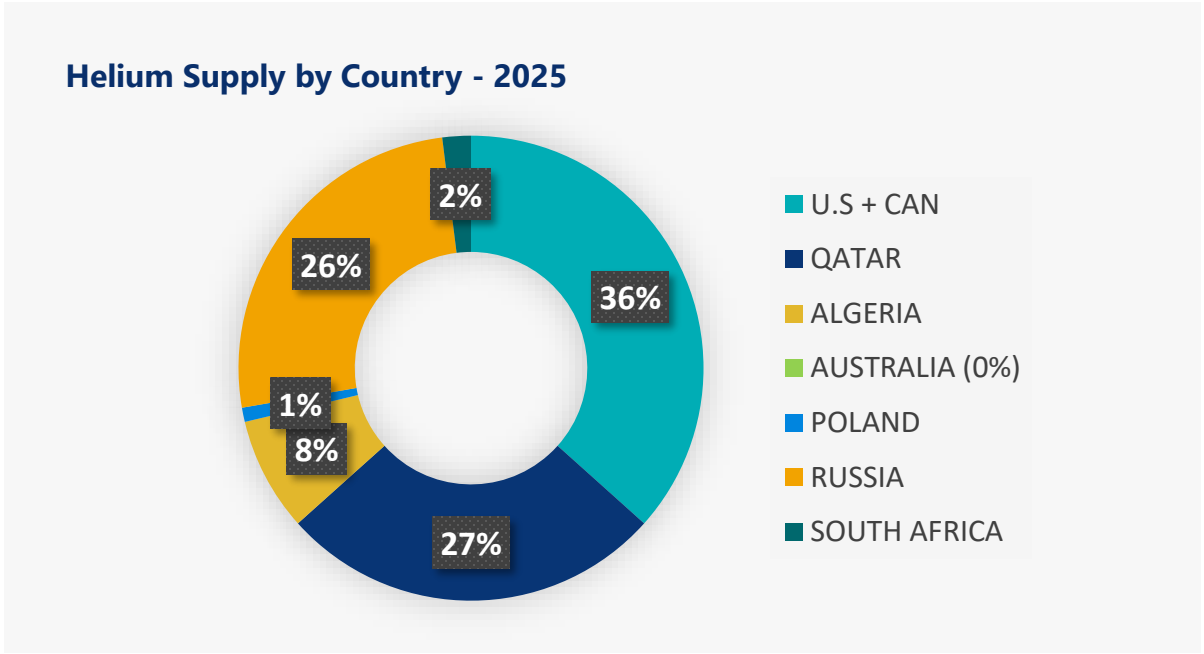
Russia – expected 26% of world supply by 2025, now in doubt with Amur plant startup fires coupled with growing geopolitical tensions

Qatar – 30% of world supply.
Embargoed for 6 weeks June 2017

Algeria – normally 8% of world supply; Skikda LNG feed redirected to Europe.

Price tripled over the last 15 years as the US BLM reserve depleted and market pricing took hold – long-term contract pricing now US$220/Mscf (50 x LNG price), current spot pricing up to US$3,000/Mscf

Diversification is the best solution for a secure global helium supply chain.



https://www.gasworld.com/kornbluth-helium-lessons-to-learn/2013498.article

Natural Gas *vs* Helium

- Liquid Helium sells at up to **50 times** the price of LNG
- LNG US$10/Mcf vs LHe US$250-$500/Mcf
- Renergen Helium Bid announcement 18th Aug 2022 – highest bids ranged between US$800 and US$875 per Mcf
- Similar production cost per Mcf but significantly less capital required to commercialise / higher margin using proven technology
- Discovering a 6 BCF recoverable helium resource is a company maker!

Why Noble Helium?

- Four core projects located in Tanzania
- The best acreage in the most prospective untested helium system on the planet
- Deep exploration know-how in the East African Rift System
- Supported by world's leading helium researchers
- Rukwa Basin alone has potential for world's third largest helium reserve – and largest primary reserve

Operating With Strong ESG Principles

Comprehensive community engagement programs

- Country Manager, Joseph Uisso and team have recently completed comprehensive Rukwa Basin and Lake Nyasa Stakeholder awareness programs.
- Sponsored a training course on geophysical exploration techniques for Students from University of Dar es Salaam

- Local workforce – Tanzanian nationals as full time employees
- Committed to ESG journey – baseline ESG report now completed through Socialsuite
- Tanzanian government is stable, highly engaged and supportive
- Tanzanian Helium has the potential to become the world's largest non-hydrocarbon associated "green" helium reserve



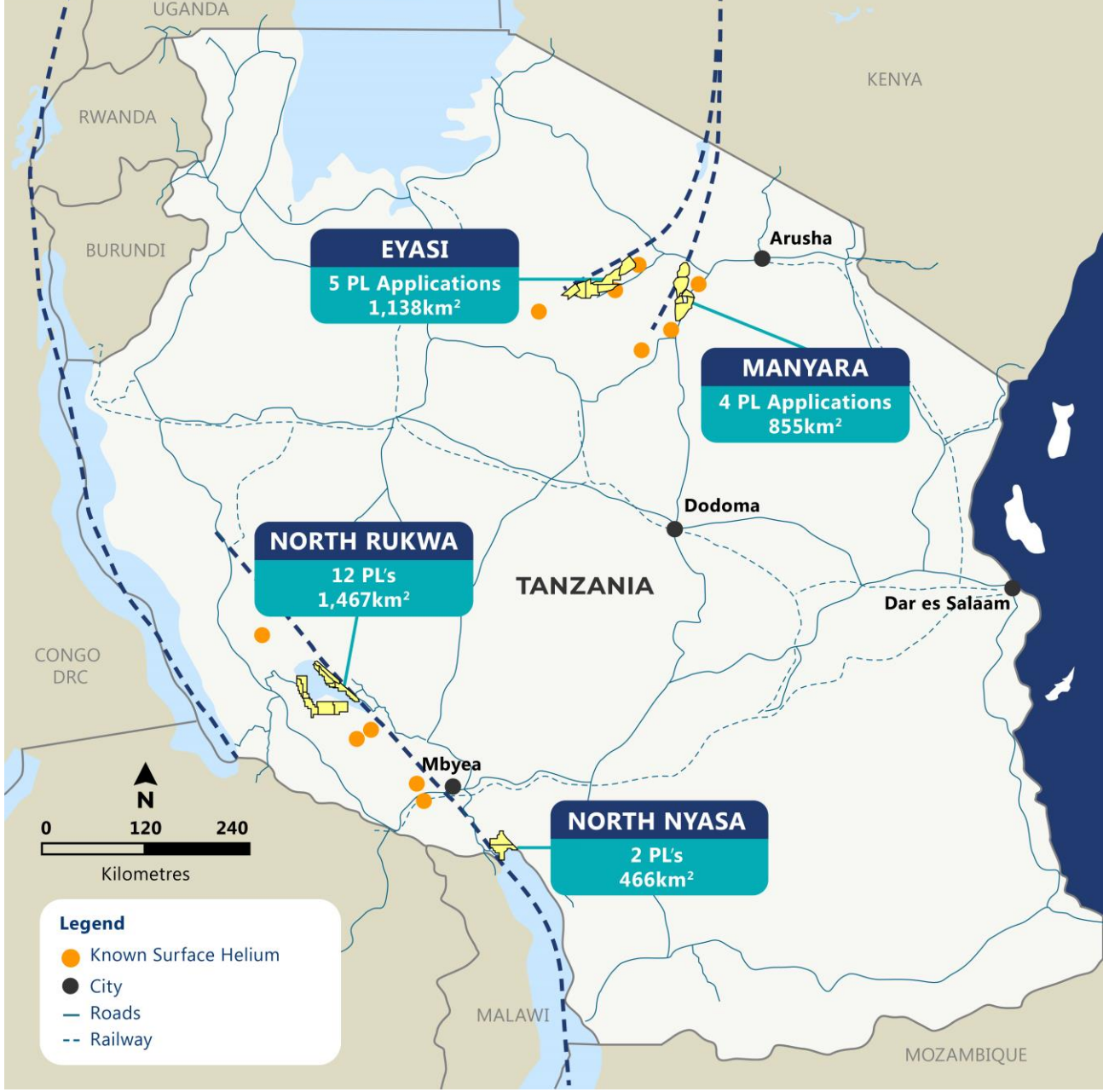

Tanzanian Prospecting Licences

- **3,926km² of premium helium exploration acreage** in Tanzanian section of the East African Rift System with direct access to port in Dar es Salaam.
- Globally unique helium geology - rifting of 2-3 billion year old Tanzanian Craton

- **North Rukwa Basin**
  - 12 PL's for 1,467km²
  - Valid for up to 11 years
  - Certified summed Pmean helium prospective resource of 176 Bcf

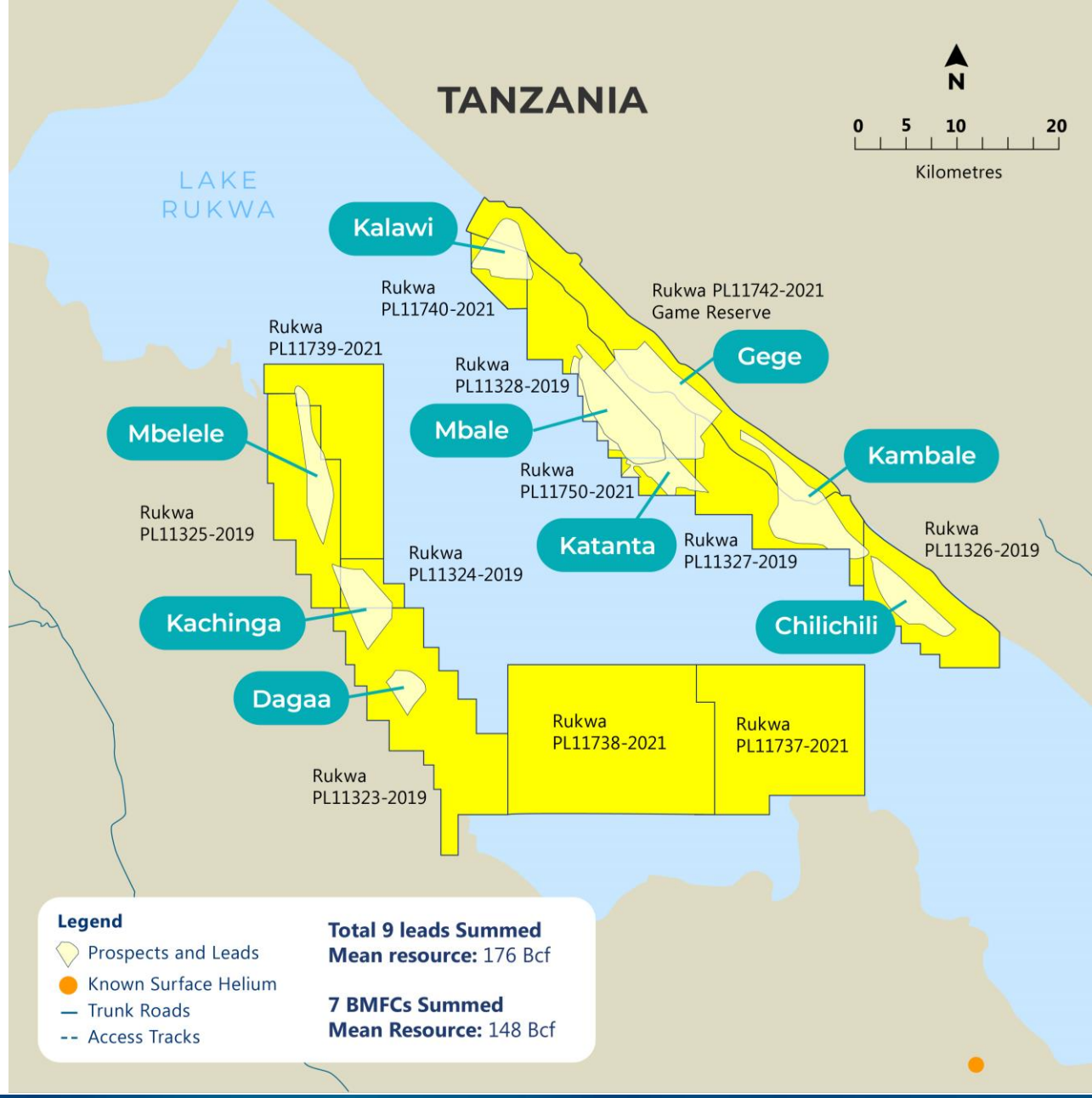
- **North Nyasa**
  - 2 PL's for 466km²
  - Very similar geology to Rukwa Basin
  - Potential Prospective Resource in 2022

- **Eyasi and Manyara Basin**
  - 5 Eyasi PLs awarded July 2022 for 1,138km²
  - 4 Manyara PLs for 855km² in award process
  - Similar resource potential to Rukwa basin



Flagship Project
North Rukwa

- Exploration fast-tracked by EAR success and Rukwa legacy oil and gas dataset of 2D seismic and wells, circa US$50m to replace
- **NSAI: Nine leads, summed unrisked Pmean Prospective Helium Resource 176 Bcf (6 Bcf is a company maker!)**
- Rukwa basin trends northwest-southeast, 300km long by 50km wide and **helium seeps at up to 10% (Qatar 0.04% He, commercial at 0.3%He, USA)**
- **Rukwa alone has the potential to be the world's third largest helium reserve**, behind USA and Qatar, but primary "green" helium



Flagship
North Rukwa Project

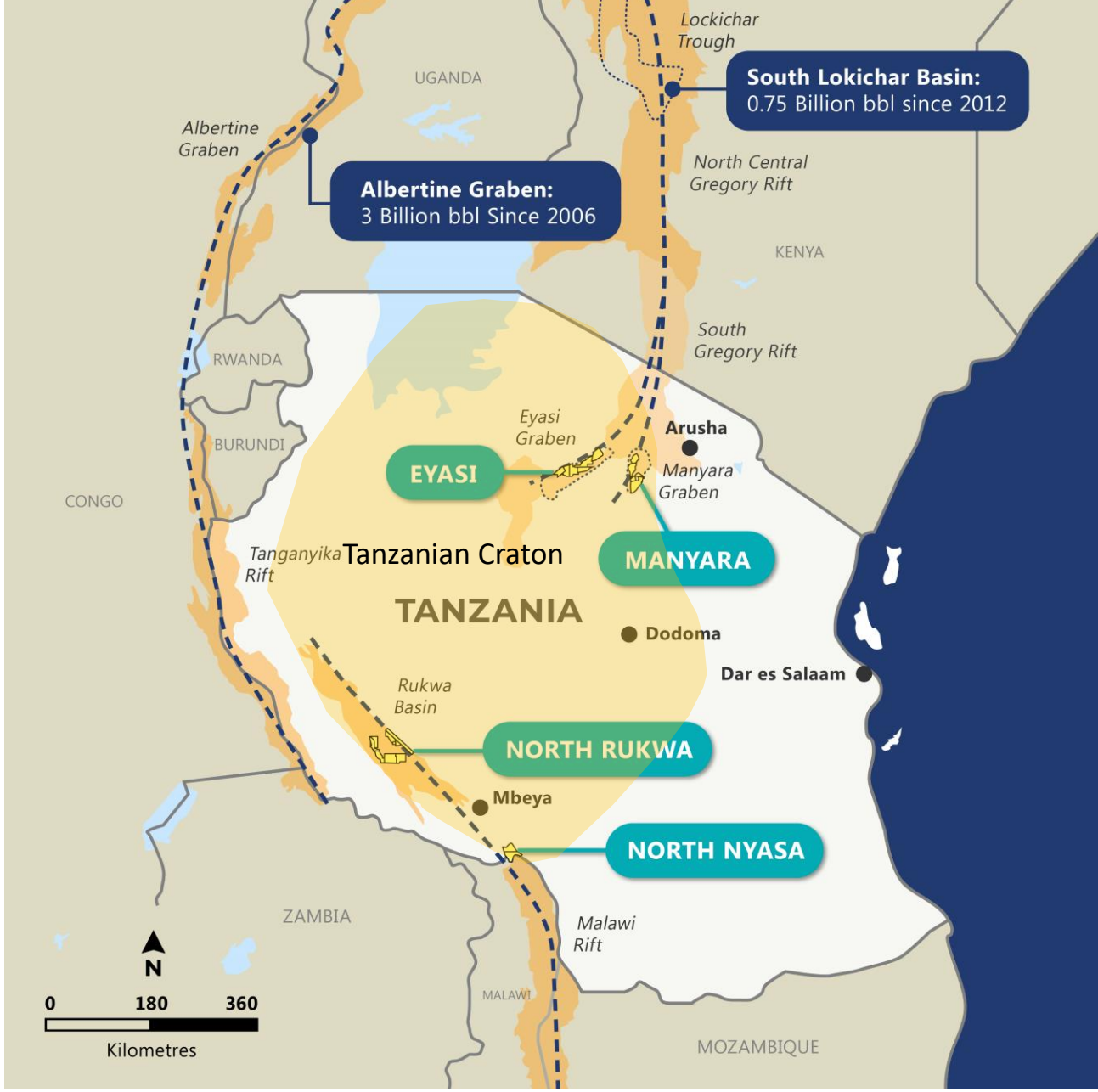
- **Over 80%** of North Rukwa's Prospective Resource is located within Basin Fault Margin Closures, **which have a 100% success rate** (14 discoveries from 14 wells)
- Comprehensive exploration program since IPO
- Airborne Gravity to fill the gap between legacy 2D seismic and BMFs, confirms and refines all BMFCs
- Soil and Gas Survey demonstrate widespread elevated helium concentrations – **7.3ppm, or 35% above background**
- 3D seismic over every lead in 2022 ensures selection of the two most prospective structures for drilling in 2023
- **Farmout program underway to fund 2023 drilling**

Prospective Helium Resource of **176 billion cubic feet –** equivalent to approximately **30 years' supply**

Lead Name	Summed Mean* Unrisked Prospective Helium Volumes Bcf
Chilichili*	10.5
Kambale*	20.7
Gege*	87.2
Katanta	23.2
Mbale	4.7
Kalawi*	10.2
Mbelele*	10.0
Kachinga*	7.9
Dagaa*	1.1
Summed Total – North Rukwa	**175.5**
BMFC Totals	**147.6**

East African Rift

- The East African Rift System (EARS) is one of the geologic wonders of the world, forming a chain of basins from Ethiopia to Mozambique.
- From 1930s to 2006, EARS basins were considered too active and high risk for oil and gas exploration.
- Noble MD played key role in the first oil discoveries in western Uganda in 2006, testing 2 Basin Margin Fault Closures (BMFCs).
  ~4 billion barrels oil and gas equivalent now proven in EAR basins of Uganda and Kenya.
- Overall EARS 80% success rate from over 30 exploration wells, with **14 from 14 (100%) BMFC success rate for oil and gas**.
- Tanzania's EAR basins possess same reservoir-seal-trap but charged with another type of gas – helium, which is seeping to surface at up to 10%



Basin Margin Fault Closure
(BMFC)

100% success rate

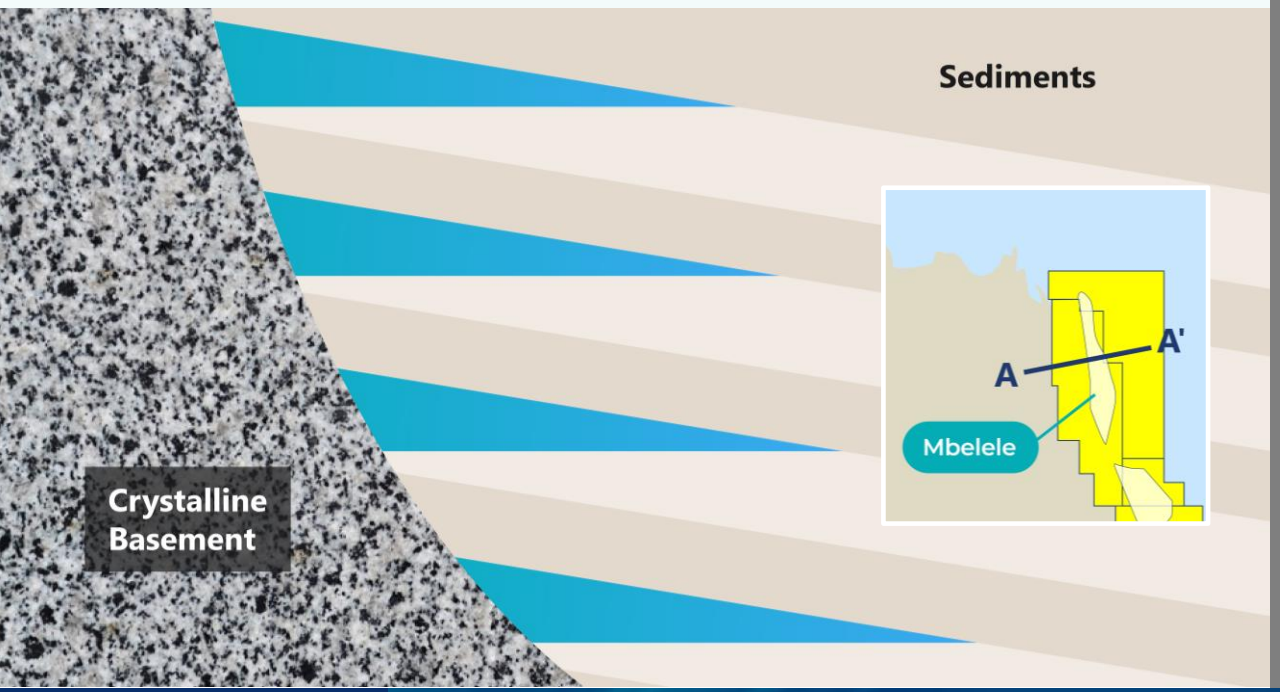
- Same play that we opened EARS for oil & gas exploration
- Sediments sealing against crystalline basement
- Ideal clay mineralogy for seal
- 100% success to date for oil and gas in EARS basins of Uganda and Kenya (14 discoveries from 14 wells)

VS

Intra-Basinal Fault Closure

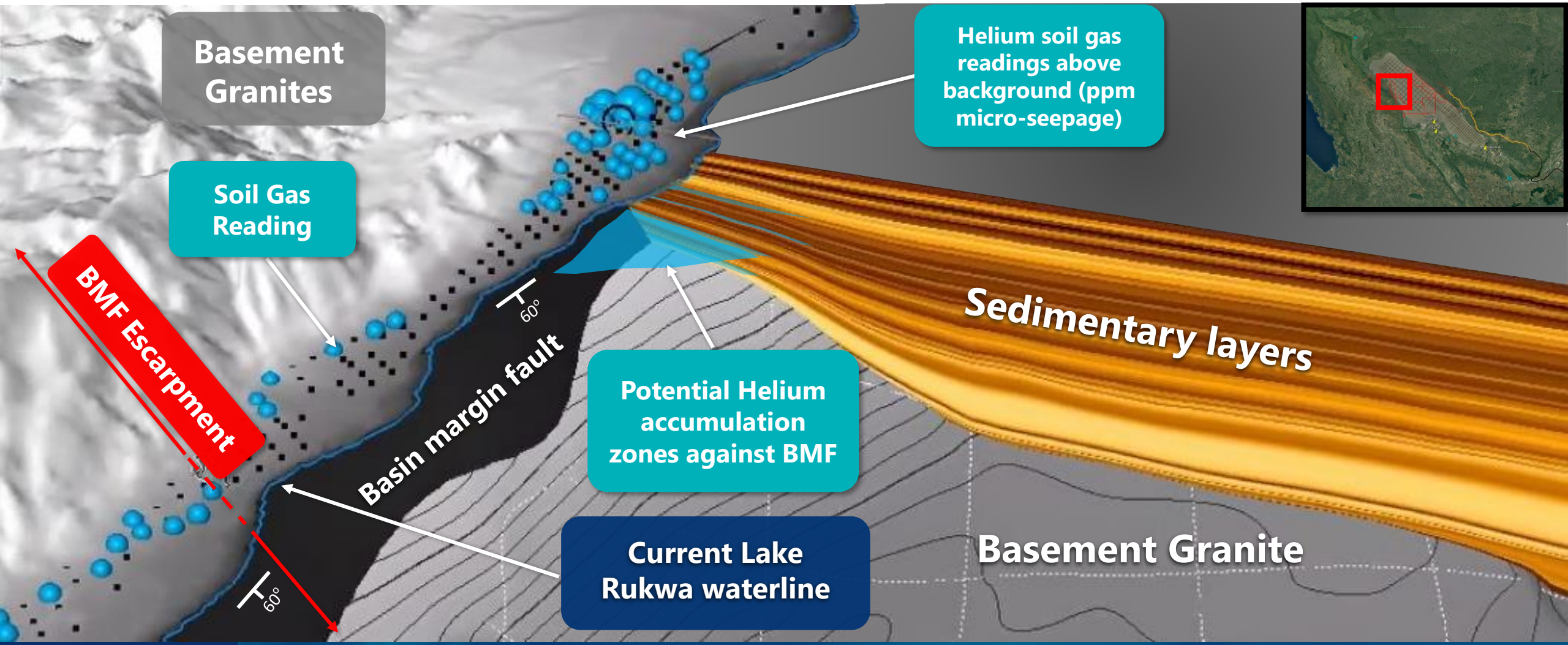
~30% success rate

- Sediments sealing against sediments for length of trap
- High fault leak risk in oil and gas globally est 30%
- Low success rate for oil and gas exploration in EARS to date (already 2 dry wells in Rukwa in 1980s)



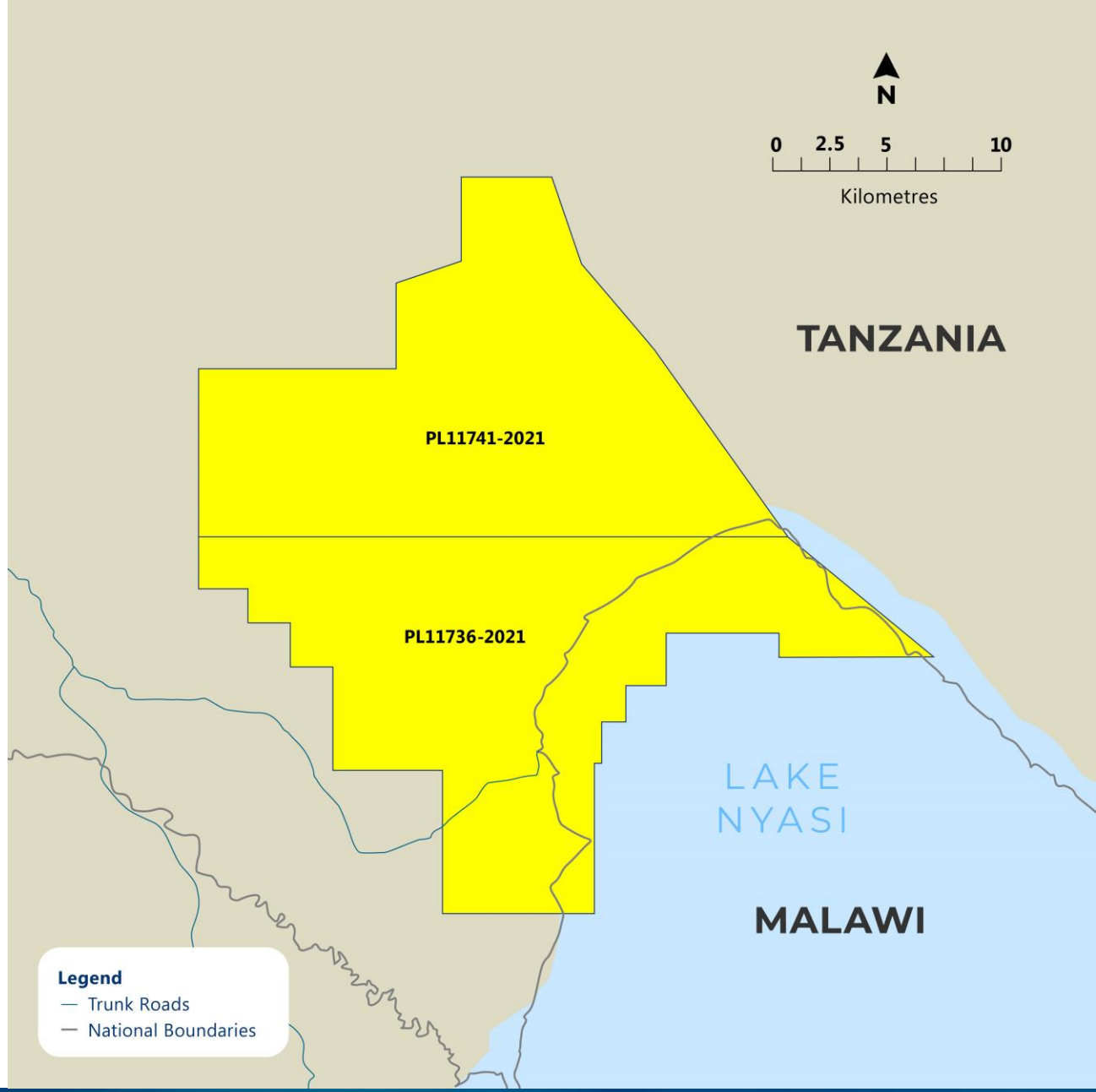
South Lokichar Basin, Kenya.
Image courtesy Africa Oil

Rukwa Helium Accumulation Model



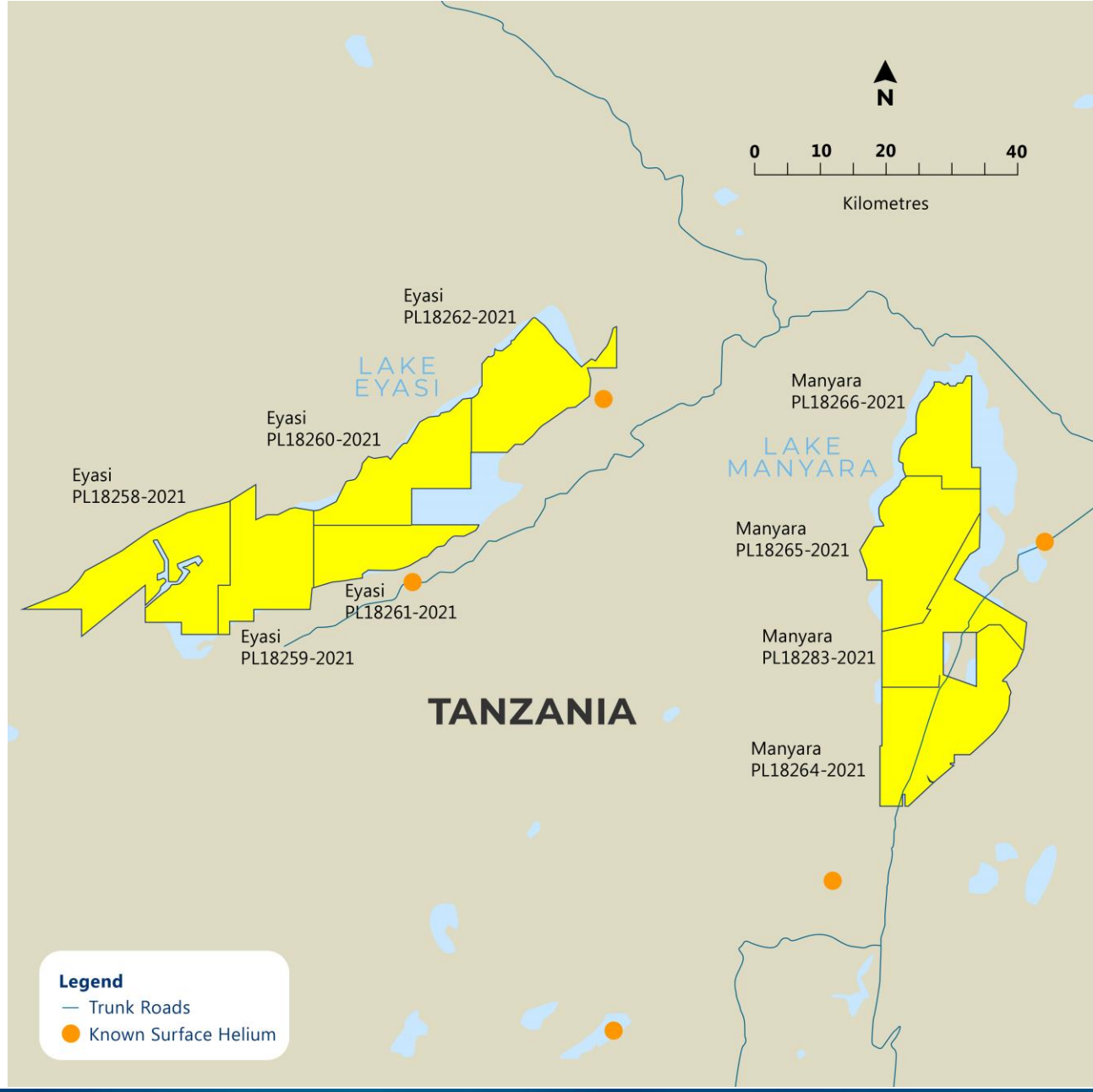
North Nyasa Project

- Two PL's totalling 466km^2
- Located 230km to the southeast of Lake Rukwa in the Western Branch of the East African Rift System
- Same rift segment as the Rukwa Rift and similar geology
- The project is accessible by road via the Tanzam highway from Dar es Salaam
- Potential maiden Prospective Resource estimate in 2022 from legacy exploration dataset of AGG and seismic
- Further data acquisition in the North Nyasa Area to progress to drill target selection

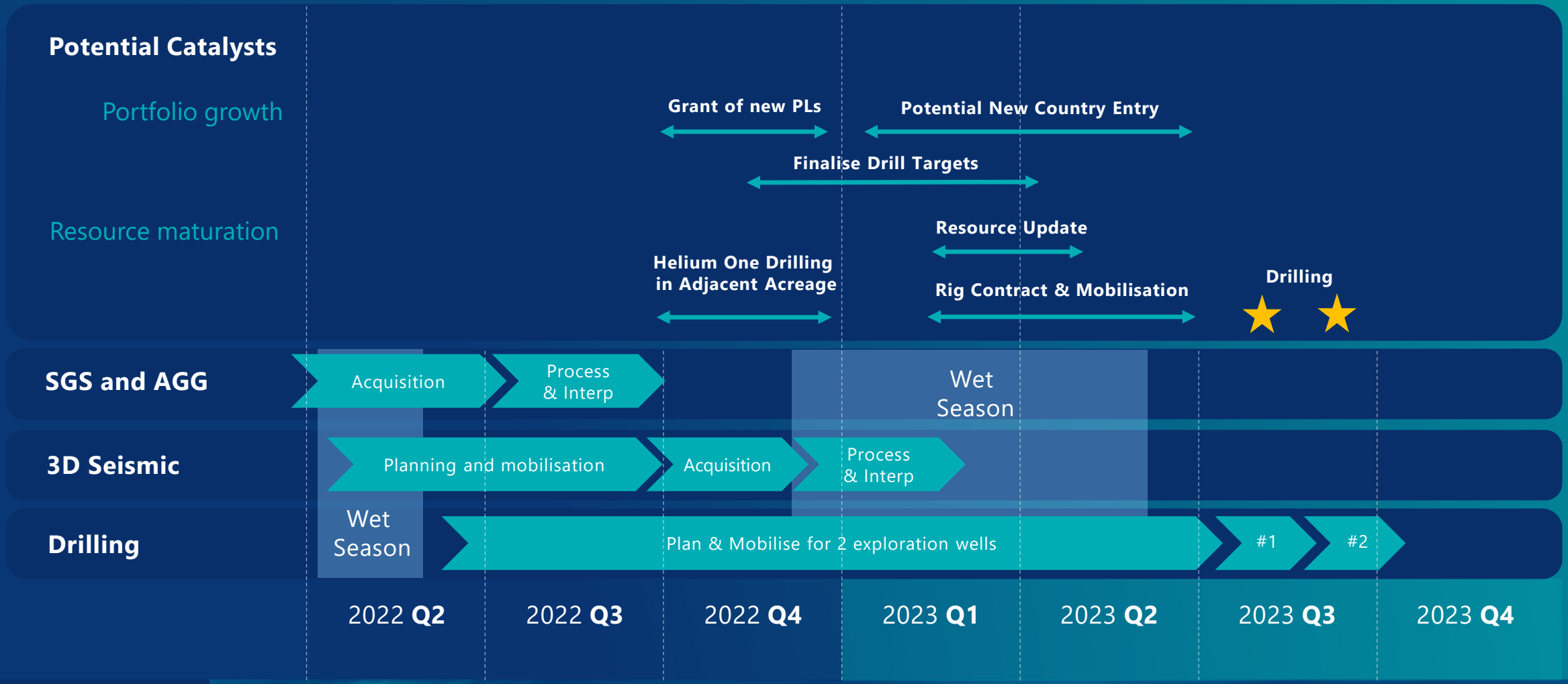


Eyasi and Manyara Projects

- Nine prospecting licences either awarded or in process of award across the projects
- Eyasi – 9 PL's for 1,138km^2
- Manyara – 4 PL's for 855km^2
- The tectonic setting of the Eyasi and Manyara Basins is similar to that of the Rukwa
- Each basin has hot springs with measured helium concentrations. **Up to 5.7% in the Eyasi Basin**
- Quality infrastructure with good road access to both projects



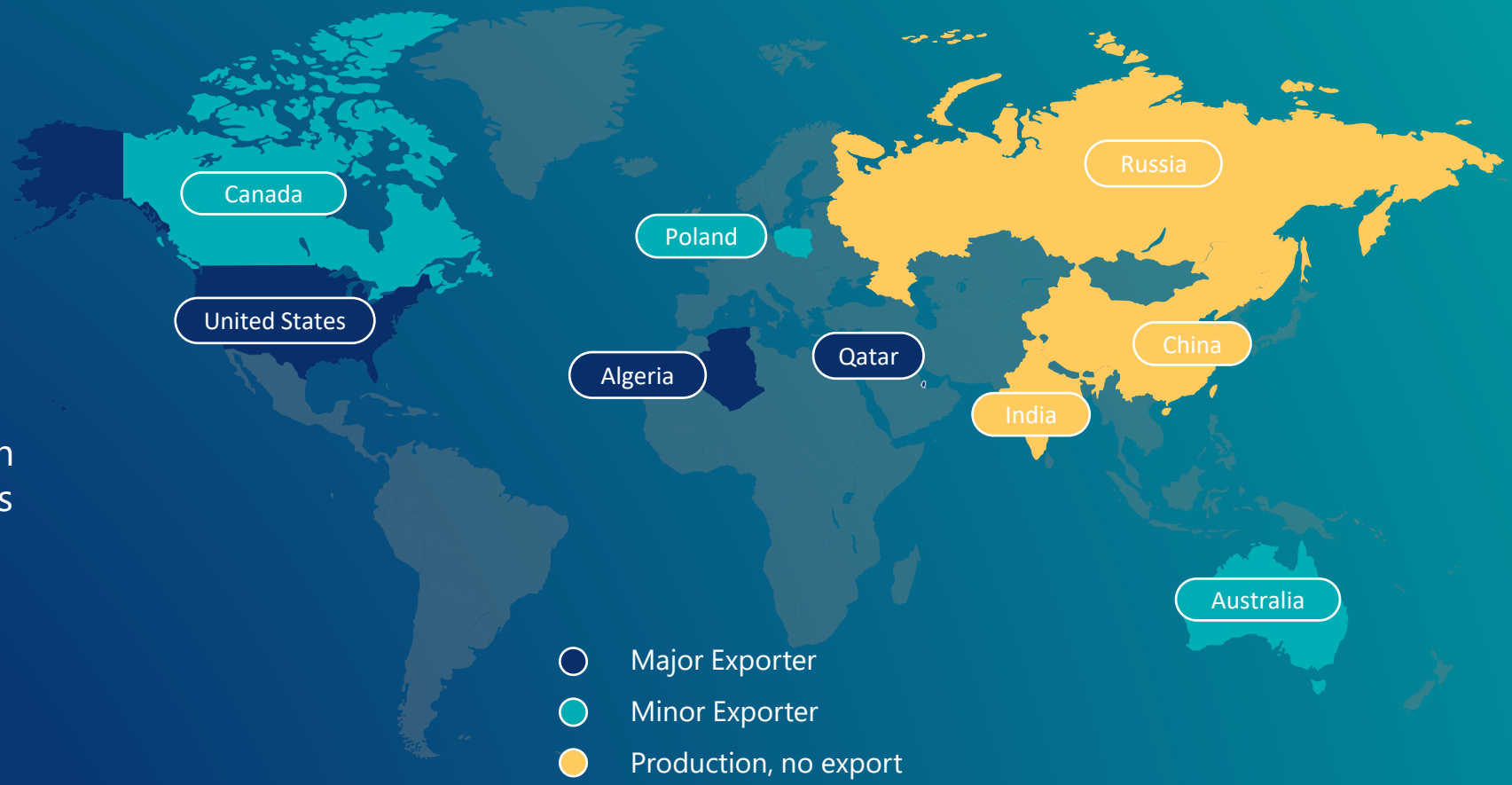
Upcoming Exploration Activities



Exclusive Helium Atlas

Global Helium Database to Drive Asset Expansion

- Exclusive 5-year agreement with global helium experts for access to world first helium Atlas.
- Will facilitate identification of additional prospective areas to target for diversification.
- Uniquely positions Noble Helium as world's leading primary helium explorer



Dr Jon Gluyas

- Chair in Geoenergy Carbon Capture and storage Durham University, UK
- Leading authority in helium geology

Dr Chris Ballentine

- Chair of Geochemistry University of Oxford UK
- Leading authority helium geology

Corporate Snapshot

MARKET CAP
$36.6M*
Share Price: $0.20

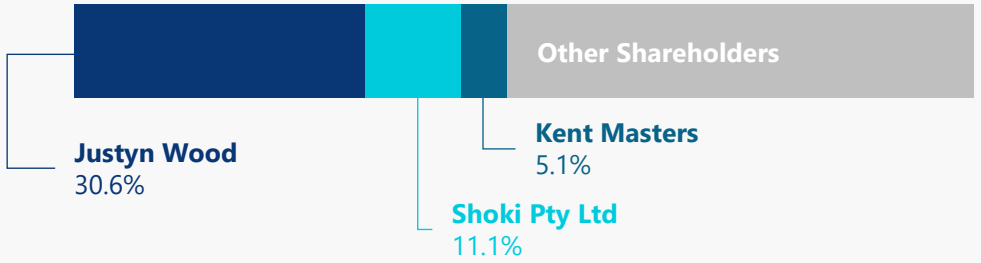
CASH
$8.5M
June 30 2022

TOTAL SHARES
183.2M
106.5M escrowed

TOTAL OPTIONS
45.5M
37.4M escrowed

ENTERPRISE VALUE
$28.1M

MAJOR SHAREHOLDERS FULLY DILUTED



Noble Helium Share Price and Volume

*As at 1 September

Board and Management

BOARD OF DIRECTORS

Shaun Scott
Chairman

Shaun Scott is a highly experienced independent non-executive director on publicly listed and private company boards. Shaun is currently a non-executive director of ASX listed Comet Ridge Ltd.

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

Justyn Wood
Managing Director

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.

As a petroleum geophysicist and explorer, Justyn made key contributions to the first oil discoveries in the East African Rift and the Guyana margin, South America, both now major oil and gas provinces.

Professor Andrew Garnett
Non-Executive Director

A former senior executive with Shell and Schlumberger, 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.

The Centre aims to be a leading provider of a wide range of technical and social science research services in this unconventional sector. He is also research Director of the University's Carbon Capture Utilisation and Storage Program.

Eddie King
Non-Executive Director

Mr King is an executive and non-executive board member of a number of ASX-listed resources companies.

Mr King holds a Bachelor of Commerce and Bachelor of Engineering (Mining Systems) from the University of Western Australia. His experience includes manager for an investment banking firm, where he specialised in the technical and financial analysis of bulk commodity and other resource projects for investment and acquisition.

Craig McNab
Company Secretary

Craig McNab is a Chartered Accountant and Chartered Secretary with over 12 years' experience in the resource industry and accounting profession in Australia, New Zealand and the UK.

Craig initially qualified as an auditor at PricewaterhouseCoopers and his experience includes senior finance positions held at the De Beers Group and various corporate roles at Anglo American plc in London.

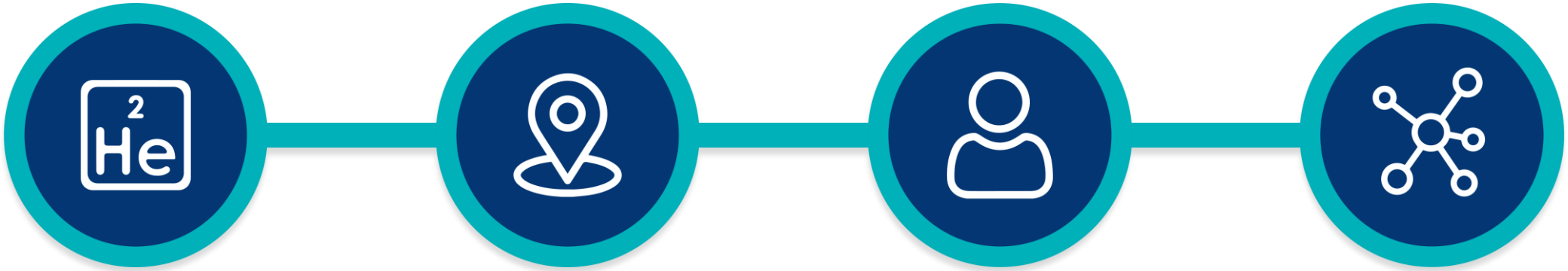
KEY PERSONNEL

Joseph Uisso
Country Manager – Tanzania

Ashley Howlett
Exploration Manager

Kent Masters
Anchor Investor
Chairman, CEO and President of Albermarle
Former Chairman of Afrox (Linde Africa)

Why Invest in Noble Helium?



STRATEGIC COMMODITY

Helium is a noble gas with significant supply problems

SUBSTANTIAL LANDHOLDING

3,926km^2 of premium green helium acreage in Tanzania

EXPERIENCED TEAM

Proven success and global network in the helium business

HELIUM ATLAS

Exclusive access to unique global helium database

Contact Us

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APPENDIX

Regulatory, Fiscal and Licensing Environment

- **Ministry of Minerals established January 2018 after separation from Ministry of Energy and Minerals (MEM).**
  - Mining Commission established June 2018 to manage sector, including licencing.
  - Helium exploration, development and production is primarily governed by The Mining Act (2010) and associated Mining Regulations, last amended February 2018.
- **Tax and Royalty Fiscal Regime:**
  - Corporate Tax 30%.
  - Industrial Mineral Export Levy 3%.
  - Govt. free carry in Mining Projects: 16% (introduced 2018).
- **Licence Types:**
  - Prospecting Licence – 4-year initial term, 2nd Term of 4 years, 3rd Term of 3 years (11 years total).
  - Retention Licence – 5-year initial term, 2nd Term of 5 years (10 years total).
  - Mining Licence – 10-year initial term, renewable for additional 10-year terms as required (no limit).

APPENDIX

NSAI Prospective Helium Volume Ranges for Noble Helium North Rukwa PLs

Lead/Reservoir	Undiscovered OGIP[1] (BCF) Low Estimate	Best Estimate	High Estimate	Mean	Unrisked Gross (100%) Prospective Helium Volumes (BCF) Low Estimate	Best Estimate	High Estimate	Mean	P_g (%)
Chilichili									
Upper Lake Beds	12.9	40.2	127.1	60.0	0.2	1.3	5.5	2.3	16
Lower Lake Beds	10.9	33.0	102.7	48.3	0.2	1.0	4.1	1.8	16
Galula	10.0	33.8	115.2	53.5	0.2	1.0	4.6	2.0	16
Karoo	19.2	68.9	264.3	118.9	0.4	2.1	10.2	4.4	18
Dagaa									
Galula	4.3	16.2	62.9	28.0	0.1	0.5	2.5	1.1	10
Gege									
Upper Lake Beds	259.9	685.4	1,760.4	891.4	4.3	21.1	75.0	33.2	13
Lower Lake Beds	224.9	572.4	1,448.9	744.4	3.9	18.0	61.4	27.1	13
Galula	144.5	437.7	1,321.3	620.9	2.6	13.2	53.8	23.1	12
Karoo	21.9	68.1	219.9	102.5	0.4	2.1	8.9	3.8	13
Kachinga									
Upper Lake Beds	21.7	62.4	182.6	88.2	0.4	1.9	7.4	3.3	13
Lower Lake Beds	15.5	46.4	136.3	66.6	0.3	1.4	5.7	2.4	13
Galula	19.8	47.4	108.4	58.4	0.3	1.5	5.0	2.2	12
Kalawi									
Upper Lake Beds	13.2	52.3	211.4	93.5	0.3	1.6	8.2	3.4	13
Lower Lake Beds	1.9	9.3	44.3	20.3	0.0	0.3	1.7	0.8	13
Galula	4.5	22.4	100.9	44.0	0.1	0.7	3.8	1.6	12
Karoo	18.7	70.4	259.1	118.3	0.4	2.1	10.4	4.4	13
Kambale									
Upper Lake Beds	32.0	109.6	379.3	174.6	0.6	3.3	15.0	6.5	16
Lower Lake Beds	28.2	96.7	346.3	155.5	0.5	3.0	13.2	5.6	16
Galula	22.4	75.3	253.1	117.7	0.4	2.3	10.2	4.3	16
Karoo	24.1	79.8	253.4	119.1	0.4	2.3	10.2	4.3	18
Katanta									
Upper Lake Beds	31.6	124.2	485.8	221.9	0.6	3.7	19.5	8.3	13
Lower Lake Beds	34.0	106.6	335.5	160.8	0.6	3.4	14.2	6.0	13
Galula	50.3	160.9	514.0	244.4	0.9	4.8	21.1	8.9	12
Mbale									
Lower Lake Beds	3.1	7.9	19.8	10.2	0.1	0.3	0.8	0.4	11
Galula	0.6	2.9	15.0	6.6	0.0	0.1	0.6	0.2	8
Karoo	25.2	77.0	233.2	111.5	0.5	2.3	9.6	4.1	11
Mbelele									
Upper Lake Beds	17.2	56.6	185.1	87.2	0.3	1.7	7.6	3.2	16
Lower Lake Beds	5.4	22.1	87.7	38.9	0.1	0.7	3.5	1.5	16
Galula	31.7	89.5	251.2	122.9	0.5	2.7	10.2	4.5	16
Karoo	2.2	10.3	48.3	20.9	0.0	0.3	1.8	0.8	18
Total[2]	1,111.8	3,285.7	9,873.4	4,749.4	19.6	100.7	405.7	175.5	

(1) Undiscovered OGIP is inclusive of helium, hydrocarbon, nitrogen, CO_2, and other gases.
(2) Totals are the arithmetic sum of multiple probability distributions and may not add because of rounding.

APPENDIX

2019 USGS World Helium Reserves and Resources

Country	Reserves Bcf	Resources Bcf			Total Bcf
		Probable	Possible	Speculative	
US (excl Cliffside)	138	188	209	180	716
Qatar	0	357	0	0	357
Rukwa Basin (estimated summed Pmean*)				354	**354**
Algeria	64	290	0	0	353
Russia	60	240	0	0	300
Canada	0	71	0	0	71
China	0	39	0	0	39
Poland	1	0	0	0	1