



Investor Update

Energy & Helium for the 21st Century

May 2024

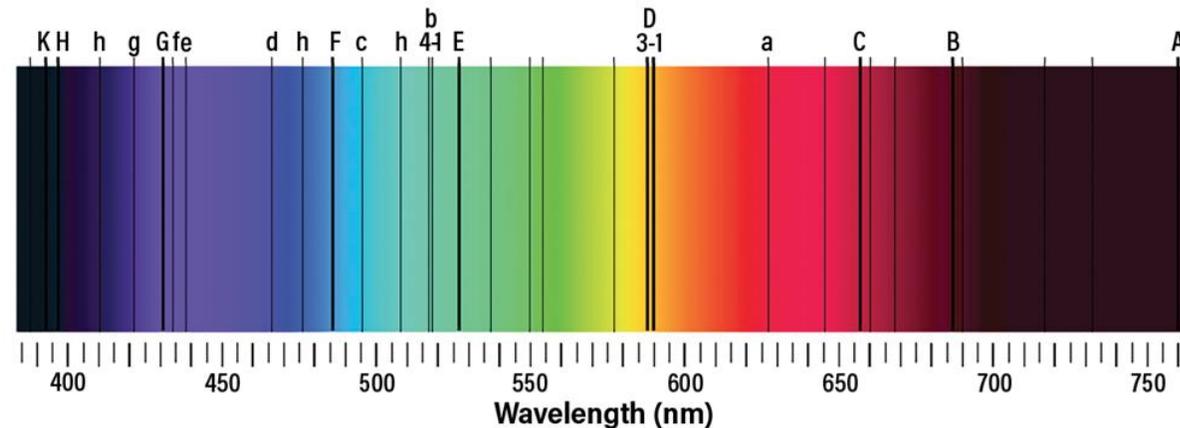
What's in a name?



- Why D3 Energy?

- **“D3”** First evidence of Helium was obtained in August 1868 when French Astronomer, Jules Jansen observed a solar eclipse through a prism, where he noticed a bright yellow spectral line emanating from the chromosphere of the sun – at the time this was thought to be sodium since it was proximate to the D1 and D2 Fraunhofer lines
- Later that year, English astronomer Norman Lockyer observed a yellow line in the solar spectrum (which he named the **D3 Fraunhofer Line**) which he concluded was caused by an unknown element in the sun. This element was named helios after the Greek name for sun. Helium was subsequently not seen on Earth until 1895
- **“Energy”** because we are fundamentally a natural gas exploration Company. Gas is badly needed in South Africa to provide energy supply security and is a major focus for the South African Government as part of the country's energy transition

THE SUN'S SPECTRUM



Breaking down the Sun's light by wavelength allows astronomers to identify the elements it contains. This portion of the solar spectrum shows fingerprints of several Elements including hydrogen, helium, sodium iron and calcium

Corporate Snapshot



Corporate structure

(as of 27th May 2024)

120.8m Shares on issue	\$0.20 Share price (@ 13 May 2024)
\$24.2m Market Cap	\$10.2m Cash (13 May 2023)

Enterprise Value (EV) \$14.0M

Shares	
Tradeable	79,475,006
Escrowed	41,320,000
Total Shares (undiluted)	120,795,006
Vendor Performance Rights	2,500,000
Advisor Options (\$0.30 May 2028)	4,000,000
Management & Consultant Options (\$0.30 May 2027)	6,225,000
Management & Consultant Performance Rights	8,820,000
Total Shares (fully diluted)	142,340,006

Board & Management	Holding %
Greg Columbus Non-Executive Chairman	3.38
David Casey Managing Director & CEO	5.15
Matthew Worner Executive Director	4.14
John Zetzman Technical Manager	4.82
TOTAL	17.48

Top 5 Shareholders (excl Board & Mgt)	Holding %
NOVO Resources Pty Ltd	11.39
Holdrey Pty Ltd	6.36
Tamlib Investments Pty Ltd	4.82
Mr Simon Clarkson	3.34
Kevin Rathbun	3.21
TOTAL	29.12
TOP 20	66.51

(ASX: D3E)

Investment Highlights



Proven helium and methane province in South Africa with world class helium concentrations as high as 9%



Methane (natural gas) demand significantly exceeds supply in energy starved South Africa



Major D3 shareholder is gas retailer in South Africa



Helium is regarded as a "Critical Mineral" with global demand exceeding supply



Helium prices at record levels and predicted to continue to increase



Very large acreage position and one of very few juniors with certified 2C Contingent Methane and Helium Resource of 475 BCF and 22.4BCF respectively



Initial drilling programme very successful with follow up well drilled in 6-8 weeks - **appraisal not exploration**



Shallow low-cost wells - cheap development



Experienced team with proven track record of building companies from the ground up



Portfolio



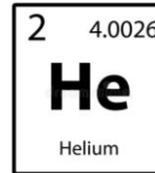
Assets



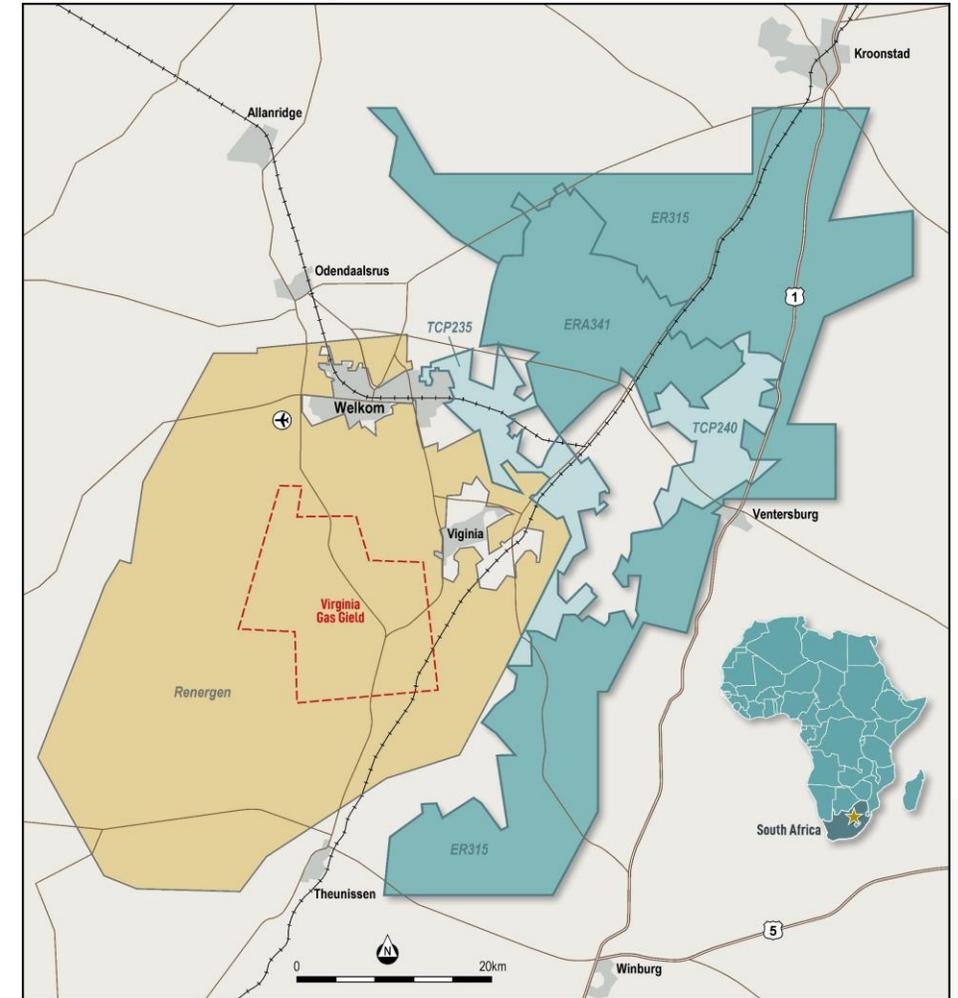
- Four permit areas totalling 442,750 acres in the Free State South Africa



Permit	Area (acres)
ER315	294,986
ERA341	81,535
TCP235	36,843
TCP240	29,386



- Prospective for both natural gas (methane) and helium
- Confirmed **free flowing** gas production rates from historical gold exploration boreholes
 - 9 boreholes currently flowing with 3 wells at measurable rates
 - Bloemskraal boreholes have potentially been flowing gas at these rates since the early to mid 1980's
- World class helium concentrations averaging over **4% but as high as 9%**
- Methane concentrations of 80% to 90% (higher after He removal) can be used for onsite power generation and CNG/LNG operations in energy starved South Africa
- Adjacent to ASX Listed Renergen which has an operational cryogenic helium and LNG plant (~20km to west)



Map of D3 Energy current acreage and application areas (100% D3 Energy)

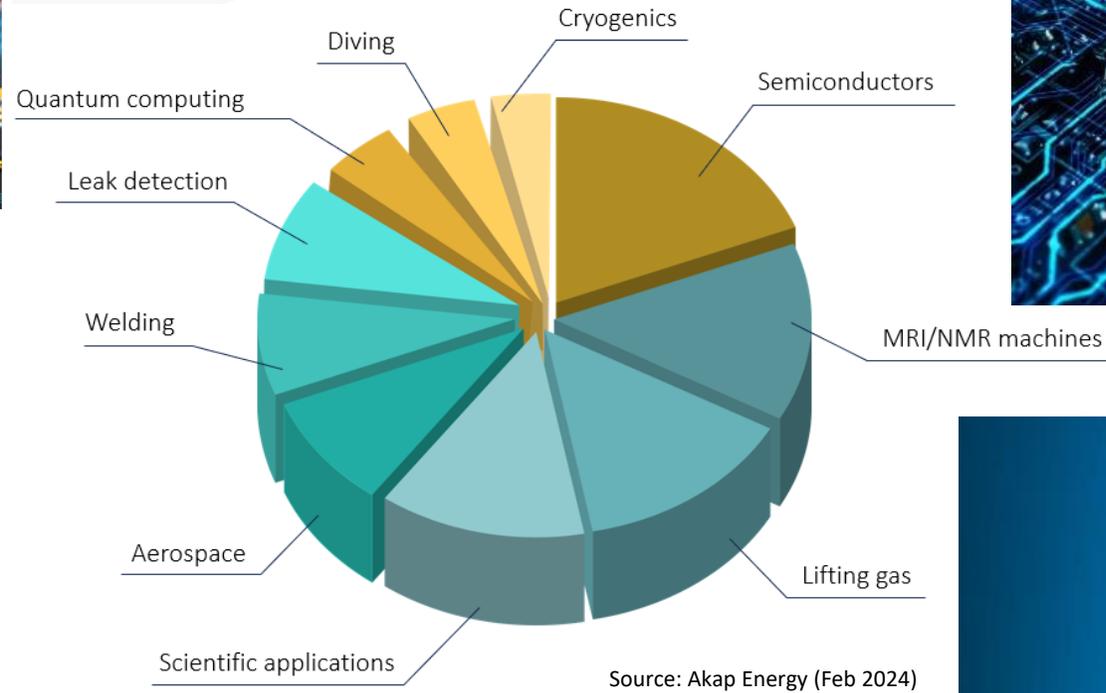
This is appraisal NOT exploration!



What is Helium & what's it used for?



Helium – What's it used for?



Helium is a critical resource for the 21st Century



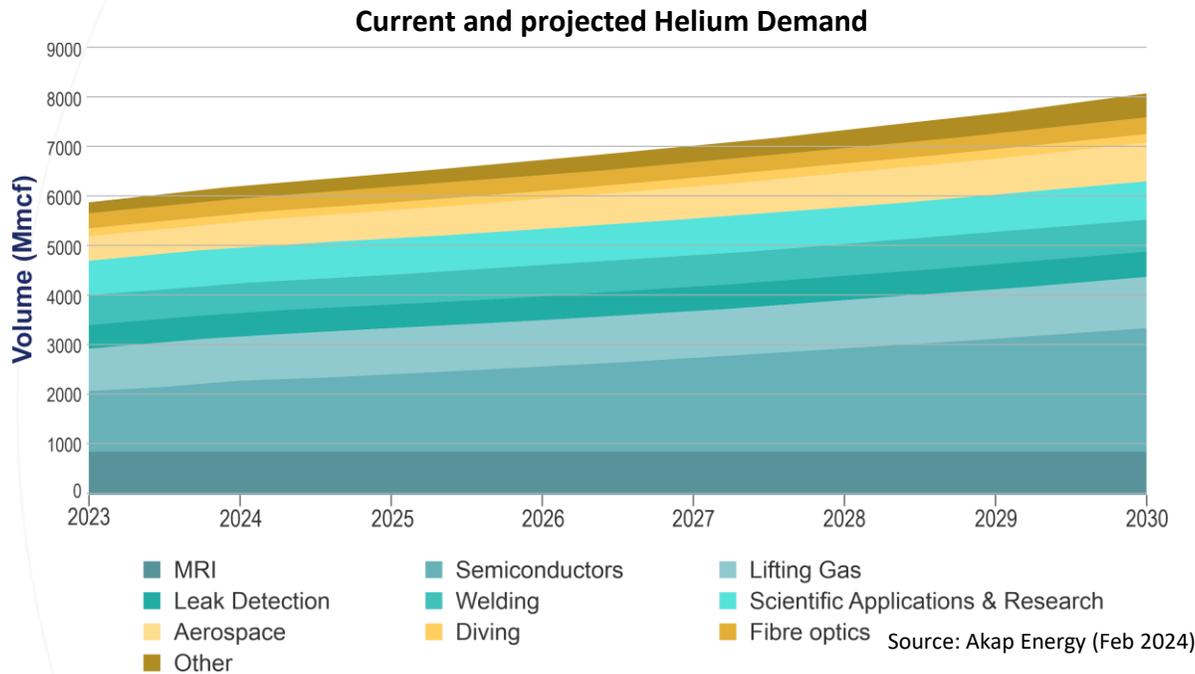
How much do we use?



Global Helium supply and demand



- **Classic case of demand outstripping supply**
- Current demand growth of around 5-6% is **double** expected supply growth
- Total market expected to grow from 6BCF to just over 8BCF in 2030
- Tightening supply will have an obvious effect on price



The world is running out of helium. Here's why doctors are worried.

Liquid helium, the coldest element on Earth, is needed to keep the magnets in MRI machines running. Without it, doctors would lose a critical medical tool.

Jan. 26, 2024, 9:03 AM AEDT



Helium is critical for our hi-tech world...



So what's its worth?



Helium pricing



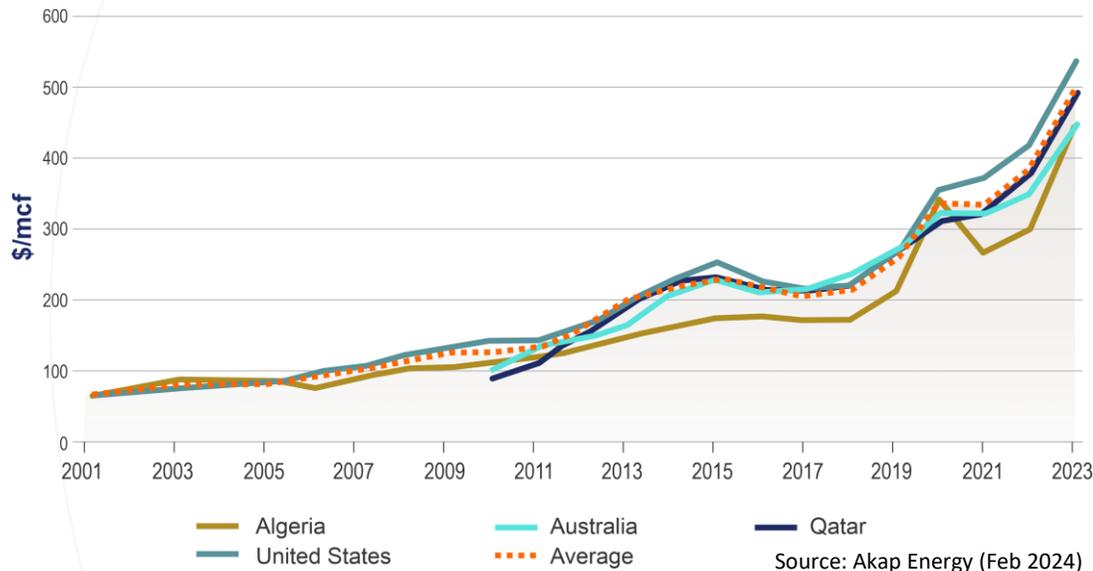
- The cost of helium is at record levels and is predicted to continue to increase
- Prices over last 5 years have increased at 18% p.a
- US spot pricing was between US\$1,000 and \$2500/mcf in 2022

PR Newswire®

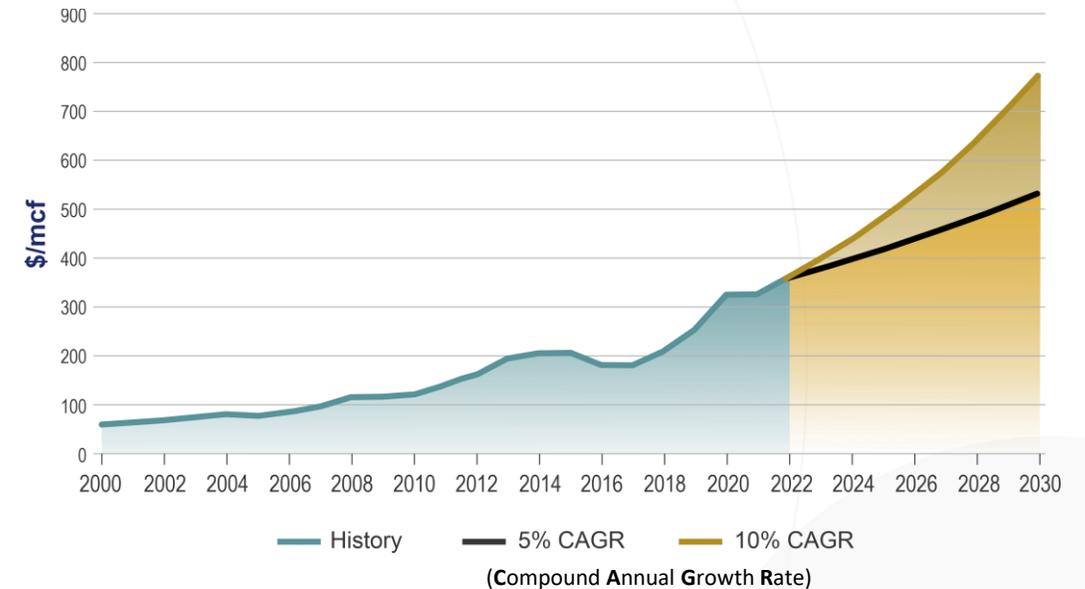
Helium Prices Are Set To Soar As Supply Shortage Looms

NEWS PROVIDED BY
[Oilprice.com](https://www.oilprice.com) →
 16 Feb, 2022, 08:00 ET

Global Helium Export Prices by Region (US\$/mcf)



Estimated Helium Import Pricing (US\$/mcf)



A 15% CAGR would see a US\$1,150/mcf price in 2030 more in line with current spot gas prices



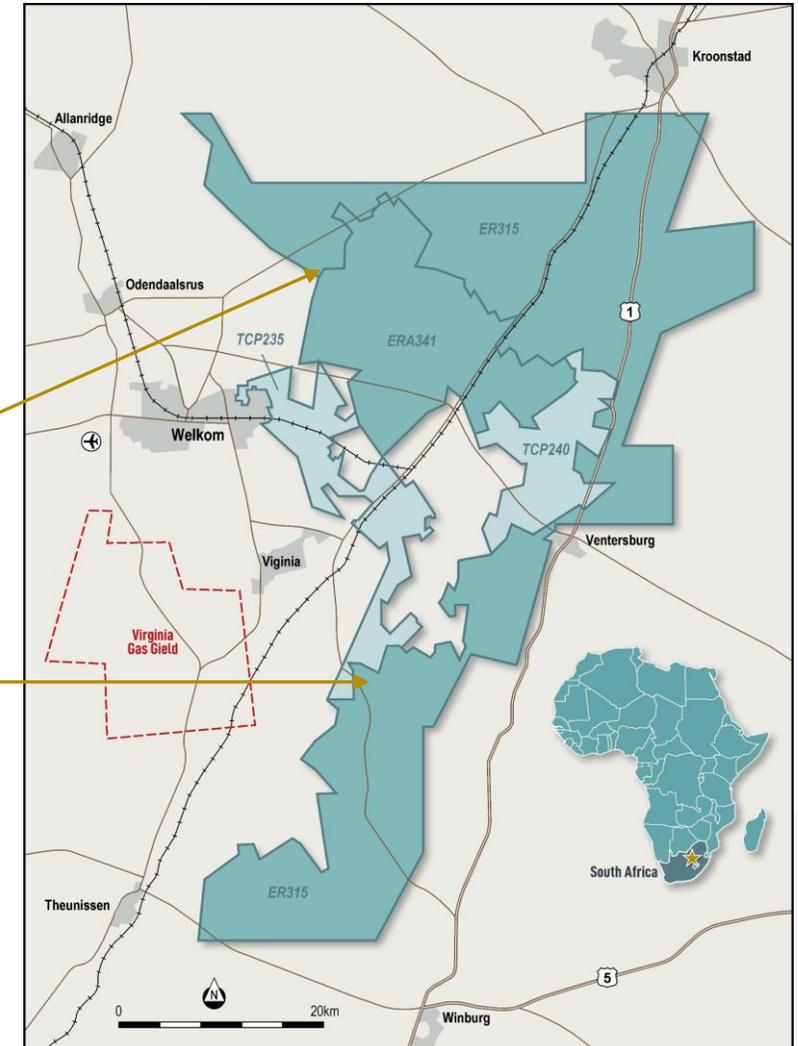
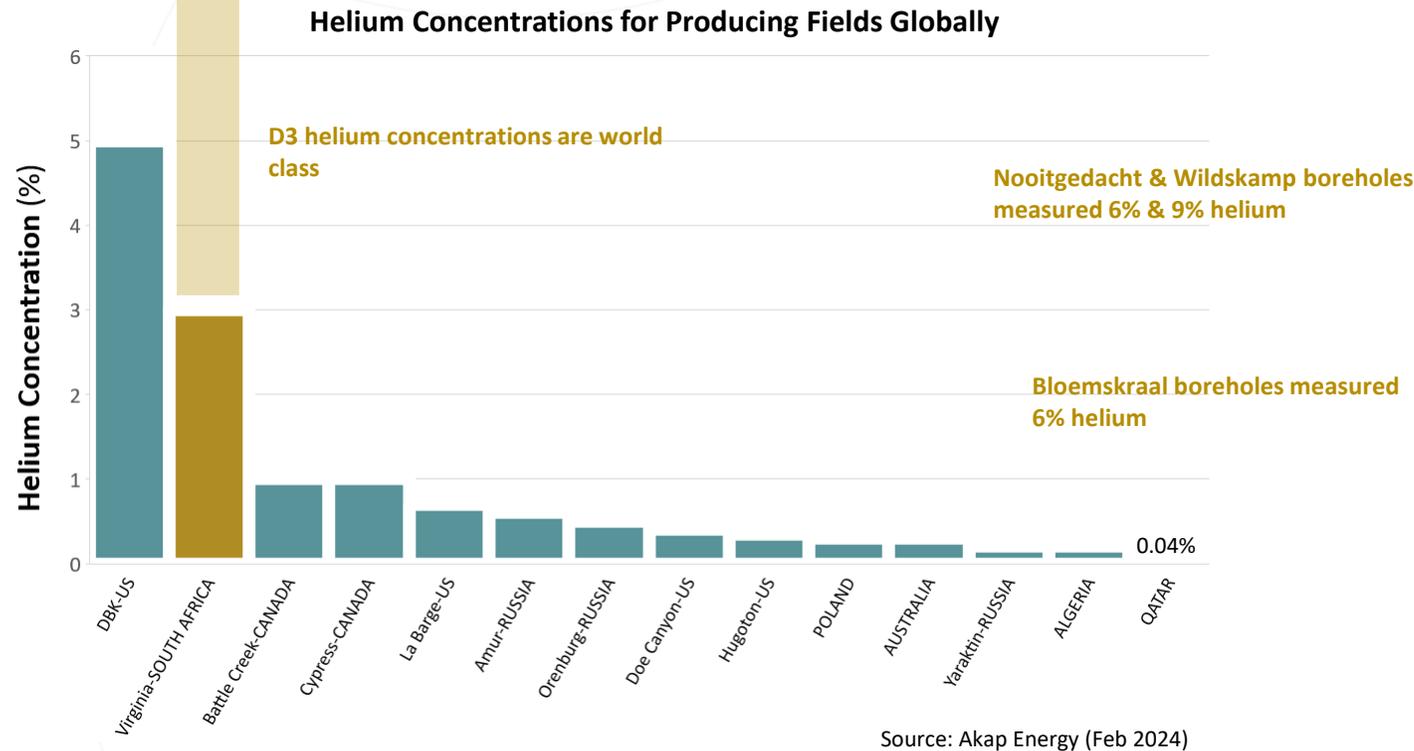
Exploration Right 315 (ER315)



ER315 - Helium



- ER315 alone covers an area of close to 295,000 acres which dwarfs many north American projects
- ER315 helium concentrations also compare very favourably to main producing fields globally



Map of D3 Energy current acreage and application areas (100% D3 Energy)

ER315 has some of the best helium concentrations in the world



ER315 - Independently Certified Resource

- D3 Energy engaged Sproule to review and independently certify both a Prospective Resource and Contingent Resource for ER315
- Sproule has undertaken the Reserve and Resource reporting for Renergen’s Virginia Gas Project
- **Initial exploration work undertaken by D3 Energy has produced outstanding Contingent and Prospective Resource estimates on a shoestring budget**
- Next step beyond listing will be to upgrade Contingent Resource to Reserves and Prospective Resource to Contingent Resource

Contingent Resource (BCF)	1C	2C	3C
Recoverable Gas Resource	336.65	547.45	858.03
Recoverable Methane	291.88	474.64	743.91
Recoverable Helium	13.803	22.445	35.179

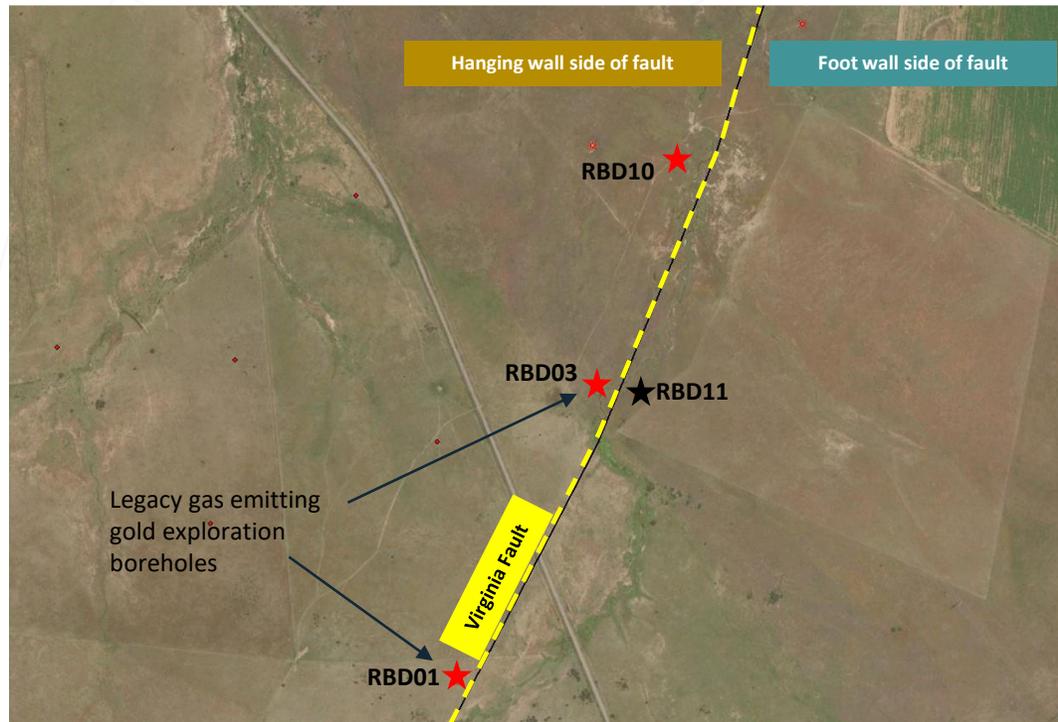
Prospective Resource (BCF)	1U	2U	3U
Recoverable Gas Resource	228.44	661.32	1875.35
Recoverable Methane	198.06	573.36	1625.93
Recoverable Helium	9.366	27.114	76.889

Resource volumes as stated from the Sproule independent evaluation of ER315 with an effective date of February 12, 2024.

- **Numbers compare positively to Renergen at similar stage of development and Contingent Resource category dwarfs other ASX listed Helium players**

ER315 – drilling programme

- Outstanding results from D3E’s first two wells, RBD10 and RBD11
- Drilling and testing programme completed safely on time and on budget
- RBD10 and RBD11 were low-cost wells; lessons learned will allow RBD12 and future wells to be even lower cost



- World class helium concentrations in both RBD10 & RBD11 of **5.0% and 5.1%** respectively, with measured Methane concentrations of 85%
- RBD10 flowed gas at a stabilised flow rate of 126 Mscfd for a 36-hour period with no evidence of decline; this is on trend with legacy gold exploration boreholes drilled in 1984 that are still emitting gas at measurable rates (RBD01 and RBD03)
- RBD11’s lower flow rate supports the “hanging wall” geological model, allowing for better targeting of future wells kicking off with RBD12 in the next 6 to 8 weeks

RBD12 will also be drilled on the same western (hanging wall) side of the Virginia Fault as RBD10 and legacy gold exploration boreholes providing a valuable additional production reference for longer term testing



An analogue next door...



Success story right next door



- D3 Energy's project is adjacent to the Renergen (RLT) Production Right, which was the first Production Right of this kind to be issued in South Africa
- RLT is producing both LNG and helium at its Virginia Gas Project
- **Members of D3 were intricately involved and were instrumental in identifying opportunity for Renergen's predecessor**
- ER315 shares many important geological features and conditions with RLT's project providing increased confidence for D3 Energy
- D3 Energy drilling cost estimates of ~A\$250,000 per well appear achievable based current drilling programme



Renergen Limited together with Mahlako Gas Energy Propriety Limited (MGE) is pleased to announce the conclusion of an investment in Tetra4 Proprietary Limited (Tetra4). The investment will provide an injection of R550 million into the Company and its subsidiaries within 20 business days from conclusion of the procedural conditions precedent, which funds will contribute to the further development of the Virginia Gas Project, and in return MGE will own 5.5% of the equity in Tetra4 once all the investment proceeds have been fully invested for the development of Phase 2.



Renergen helium and LNG project wins 'Strategic' status

By Anthony Wright on Dec 14, 2022 | 0 | Translate

NEWS | HELIUM

South African gas exploration company Renergen has seen Phase 2 of its Virginia Gas Project reach 'Strategic' status after it was designated a Strategic Integrated Project (SIP) by the South African government.



World / Africa

A company bought gas rights to this land for \$1. Helium means it could be worth billions

By Neil Lewis, CNN

© 5 minute read · Published 4:07 AM EST, Thu January 4, 2024

Mahlako paid ~A\$45M for a 5.5% stake in Renergen representing a significant premium to current valuations for both RLT and D3 Energy...



D3 Energy is not just
about Helium!



It's not just Helium...and South Africa needs it

- ER315 and adjacent permits also have significant prospectivity for:

- deep basin biogenic gas (methane)
- coal seam methane
- conventional sandstone reservoirs



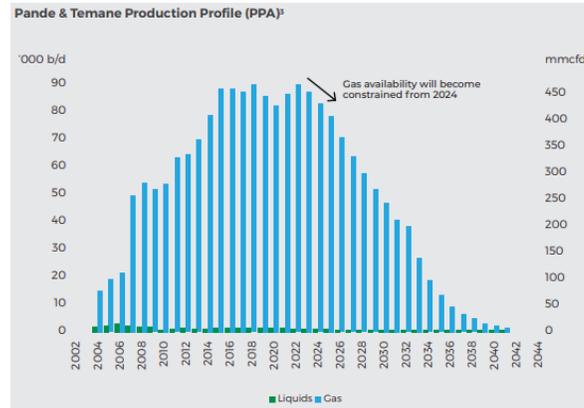
- South Africa currently imports gas via pipeline from the Pande & Temane fields in Mozambique with significant and growing shortfalls expected from 2024



There is an increased reliance on gas energy in South Africa. IGUA-SA now estimates that gas demand in 2030 will be 718PJ/a. This represents an increase of 20% compared to IGUA-SA's estimate a year ago that set gas demand in 2030 at 595PJ/a – an overall increase in gas demand of 123PJ.

Source: Annual Report IGUA-SA (2023)

Current gas availability will become constrained from around 2024. Sasol and various sources indicate, on the assumption that no further progress can be made on the various projects, that gas supply will reduce from mid-2024 by some 15% per annum. This will be due to the expected drop in pressure at Sasol's Pande and Temane fields.



Source: Annual Report IGUA-SA (2020)

South Africa has a gas demand that significantly outstrips supply due to failed energy policies.

GAS SUPPLY SINCE 2015



190PJ/a

Supply remained unchanged with no additional molecules becoming available in South Africa

GAS DEMAND IN 2022



350PJ/a

Demand at present from the power conversion, private power, industrial, petrochemical and logistics sectors.

Source: Annual Report IGUA-SA (2021/2022)

Gas demand and growth vastly exceeds current dwindling supply of approximately 185PJ/a...

- D3 Energy is ideally placed to not only meet this shortfall but to help South Africa transition more broadly to a more balanced, cleaner and lower emissions energy market



D3 has established
strategic partnerships



NOVO Energy – www.novoenergy.co.za



- NOVO Energy (**NOVO**) is an integrated energy and technology company and licensed gas trader and **major D3 Energy shareholder**. NOVO has a focus on:
 - Procurement and development of methane rich gas sources
 - Establishment and ownership of gas infrastructure (CNG/LNG/Pipelines)
 - Provision of turnkey customer solutions (industrial, NGV, power generation and feedstock)



D3 and NOVO are working towards initial offtake agreements



Timelines



The next 12 months...



ACTIVITY	2024									2025					
	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
Drilling RBD12			■												
Production testing RBD12				■											
Production testing RBD03				■											
Production testing RBD01					■										
Long term production testing						■	■	■	■						
Seismic planning and approvals		■	■	■	■	■	■	■							
Seismic acquisition & interpretation						■	■	■	■	■	■	■	■		
Drilling Nooitgedacht well						■	■								
Phase 2 drilling & testing programme (5 wells)										■	■	■	■	■	



D3 Energy Team



D3 Energy team



Board & Key Personnel

Greg Columbus Non-Executive Chairman	Greg has over 30 years business experience in delivering large complex Oil & Gas projects. He has along the course of his career developed a reputation for strong strategic vision and has been involved in numerous M&A activities. He is currently a Director of Clarke Energy, Galilee Energy (ASX:GLL) and was Non-executive Chairman of Warrego Energy (ASX:WGO) until its recent acquisition by Hancock Group for around \$440 million.
David Casey Managing Director & CEO	David has over 30 years experience in the management and evaluation of all aspects of the energy business. He was the Managing Director and CEO of Eastern Star Gas Limited (ESG) growing the company from modest beginnings (~\$40M) to an ASX 200 company until it was ultimately taken over by Santos Limited for A\$924 million. David was formerly the Managing Director of Galilee Energy (ASX:GLL) and Talon Energy (TPD), and CEO Australia and Asia Pacific at Warrego Energy Limited (WGO).
Matt Worner Executive Director	Matt is a former lawyer with a long history of work in the oil and gas industry in legal, commercial and board roles. He has worked extensively around Africa over the course of his career. Matt was a Director of Talon Energy (ASX:TPD) and alongside David Casey helped with Talon's growth from a market cap of around \$2mm to around \$130mm over the last 2 years.
John Zetzman	John has over 30 years experience working in the energy exploration sector. Alongside Peter Price, John was among the first to identify the shale potential in South Africa. In 2008 they submitted the first application for a large scale exploration right focussed on shale. He was integral to the identification and application for the exploration right now held by Renergen, which is now the first onshore Production Right in South Africa.
Marek Ranoszek	Mr Ranoszek is an experienced leader in the oil and gas exploration and production sectors. He has over 30 years' experience having served as Managing Director and Country Manager for several large US independent oil and gas production companies in South Africa, including Anadarko, Pioneer Natural Resources as well as Asset Manager and Services Manager for Total Energies EP in South Africa.
Paul Young	Paul is an experienced geoscientist with over 35 years in the exploration industry. Over the course of his career, Paul has been involved in oil and gas exploration the world over and was instrumental in some of the most significant hydrocarbon discoveries in the UK North Sea this century and the resultant creation of significant shareholder value.



Use of Funds



Indicative use of funds



Indicative use of funds	Cost (AU\$)
Exploration and feasibility costs – ER315	7,000,000*
Environmental and Desktop Studies - ERA341, TCP235 & TCP240	397,408
New Project Generation & Acquisition	1,000,000
Working Capital	1,800,000
TOTAL	10,200,000

* Significant work already undertaken on permitting and approvals, data collection and interpretation, field work including borehole production testing and gas sampling, magnetotellurics and aeromag, an independent resource certification and commencement of a 2 well drilling programme



Disclaimers



D3 Energy Limited



This document provides summary information about D3 Energy Limited (ACN 649 276 808) (**D3 Energy** or the **Company**) current as at the date of this presentation. This document has been prepared for information purposes only

This document is not, and should not be considered as, an offer or an invitation to acquire securities in D3 Energy or any other financial products and neither this document nor any of its contents will form the basis of, or act as an inducement to enter into, any contract or commitment. This document is not a prospectus, product disclosure statement or other offering under Australian law or any other law and does not contain all of the information which would be required to be contained in a prospectus, product disclosure statement or other offering under Australian law or any other law.

The contents of this document are confidential. This document is being provided to recipients on the condition that recipients do not reproduce or communicate them or disclose them to, or discuss them with, any other person without the prior written consent of the Company

Neither D3 Energy nor any of its officers, employees, related bodies corporate, affiliates, agents or advisers guarantees or makes any representations or warranties, express or implied, as to, or takes responsibility for, the accuracy or reliability of the information contained in this document. D3 Energy does not represent or warrant that this document is complete or that it contains all material information about D3 Energy or which a prospective investor or purchaser may require in evaluating a possible investment in D3 Energy or acquisition of D3 Energy securities. Nothing contained in this document, nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee, whether as to the past, present or the future. D3 Energy has not carried out due diligence investigations in connection with the preparation of this document. You must conduct your own independent investigations and enquiries as you deem fit. The information set out in this document does not constitute or purport to be a recommendation by D3 Energy or its officers, employees, agents or advisers and has been prepared without taking into account the objectives, financial situation or needs of individuals. The information in this document does not constitute financial product advice (nor investment, taxation or legal advice).

To the maximum extent permitted by law, D3 Energy and its related bodies corporate and each of their respective directors, employees, officers, affiliates, agents and advisers expressly disclaim any and all liability (including without limitation for negligence) for representations or warranties or in relation to the accuracy or completeness of the information, statements, opinions or matters, express or implied, contained in, arising out of or derived from, or for omissions from, this document including, without limitation, any historical financial information, any estimates or projections and any other financial information derived therefrom. In particular, this document does not constitute, and shall not be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of D3 Energy.

This document contains certain forward-looking statements and opinion which are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties and other factors, many of which are outside the control of D3 Energy. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. D3 Energy does not undertake any obligation to update or revise any information or any of any forward-looking statements in this document or any changes in events, conditions or circumstance on which any such forward looking statement is based. You are cautioned not to place undue reliance on forward looking statements as actual outcomes may differ materially from forward looking statements. Any forward-looking statements, opinions and estimates provided in this presentation necessarily involve uncertainties, assumptions, contingencies and other factors, and unknown risks may arise, many of which are outside the control of the Company. Such statements may cause the actual results or performance of the Company to be materially different from any future results or performance expressed or implied by such forward looking statements. Forward looking statements including, without limitation, guidance on future plans, are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Such forward looking statements speak only as of the date of this presentation.

The information in this presentation is current as at the date on the cover of the presentation and remains subject to change without notice. In particular the Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. By attending or receiving this presentation you acknowledge, accept and agree to the matters set out above.

Resource Information

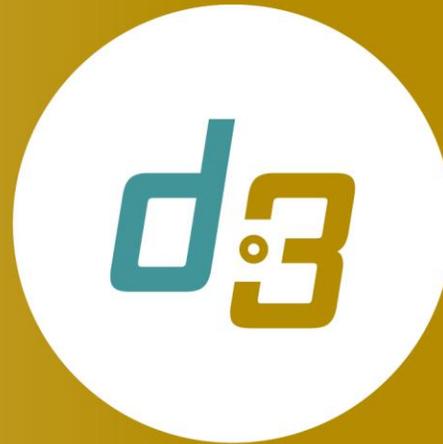
Please refer to the D3 Energy Limited Prospectus dated 5 March 2024 (as supplemented by a supplementary prospectus dated 10 April 2024 and a second supplementary prospectus dated 17 April 2024) for Contingent Resources and Prospective Resources presented in this announcement. D3 Energy confirms that it is not aware of any new information or data that materially effects the information contained in the Prospectus and that all material assumptions and technical parameters underpinning the estimates contained in the Prospectus have not materially changed.

Competent Person's Statement

The Contingent and Prospective Resource Statement in this announcement is based on and fairly represents information and supporting documentation prepared by independent consultants Sproule with an effective dated 12 February 2024 and which forms part of the Company's Prospectus dated 5 March 2024 (as supplemented by supplementary prospectus dated 10 April 2024 and a second supplementary prospectus dated 17 April 2024). The Contingent and Prospective Resource Statement has been included in this announcement under the approval of Mr David Casey, Managing Director/CEO of D3 Energy Limited, who is a member of the Australasian Institute of Mining & Metallurgy (AusImm) and a lifetime member of the Society of Petroleum Engineers (SPE) with over 30 years' experience in the energy industry. Mr Casey confirms that as at the date of this announcement, there is not change to information or additional information, since the date of 12 February 2024, that would materially change the estimates of Contingent and Prospective Resources quoted.

Prospective Resources

The estimated quantities of petroleum that may be recovered by the application of a future development project(s) relate to undiscovered accumulations. Those estimates have both a risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.



d3energy.com.au

Tel: +61 2 8072 1400

Email: admin@d3energy.com.au

Web: www.d3energy.com.au