RENERGEN

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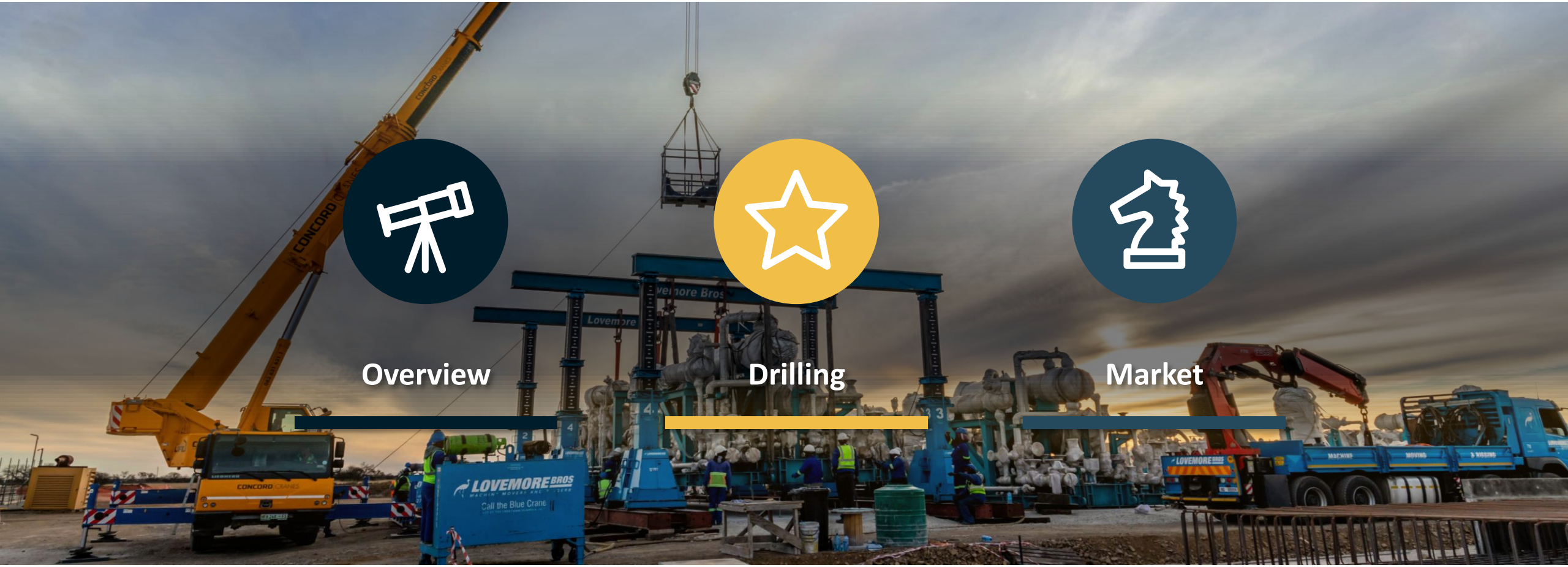
Virginia Gas Project Reserves & Resources Update

November 2021

View our Video of the Update:
https://www.renergen.co.za/virginia-gas-project-reserves-resources-update/

Agenda


Overview
Drilling
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Renergen

Emerging helium and domestic producer, rapidly advancing and developing flagship Virginia Gas Project, located in Free State in South Africa

World class helium reserves with exceptionally high helium concentrations and low extraction costs

Only Onshore petroleum production right holder. Have multiple offtake agreements already executed

To provide significant benefits our customers, by saving them money and **reducing their carbon footprint**

Pioneering cleaner energy source in energy starved country. Our vision is to ***"Do no Harm: To our people, to our world."***

Focused on **accelerating adoption of clean energy** by beneficiating our Virginia Gas Project resource into a refined commodity

Unique opportunity to develop and position Virginia to **supply into a growing and constrained helium market**

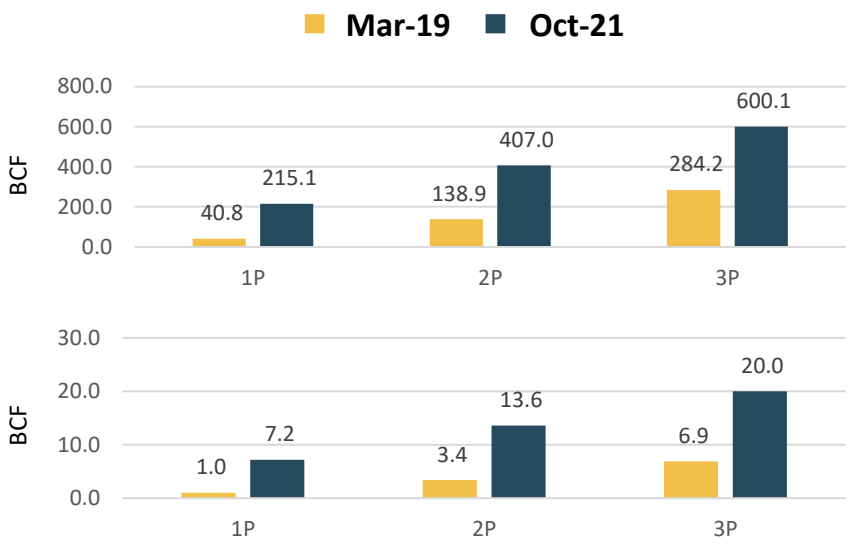
Commencement of **helium production by Q1 2022**

Significant Growth in Reserves Since 2019

Significant results delivered with 1P helium reserves having increased by 610% to 7.2Bcf and 1P methane reserves by 427% to 215.1Bcf

In Billion Cubic Feet

		Mar-19	Sep-21	% Change
Methane *Proven*	Phase - 1P	40.8	215.1	***427%***
	Phase - 2P	**138.9**	**407.0**	***193%***
	Phase - 3P	284.2	600.1	***111%***
Helium *Proven*	Phase - 1P	1.0	7.2	***610%***
	Phase - 2P	**3.4**	**13.6**	***298%***
	Phase - 3P	6.9	20.0	***192%***



Following successful drilling campaigns in 2021, Renergen engaged Sproule to estimate the methane and helium reserves and resources at the Virginia Gas Project

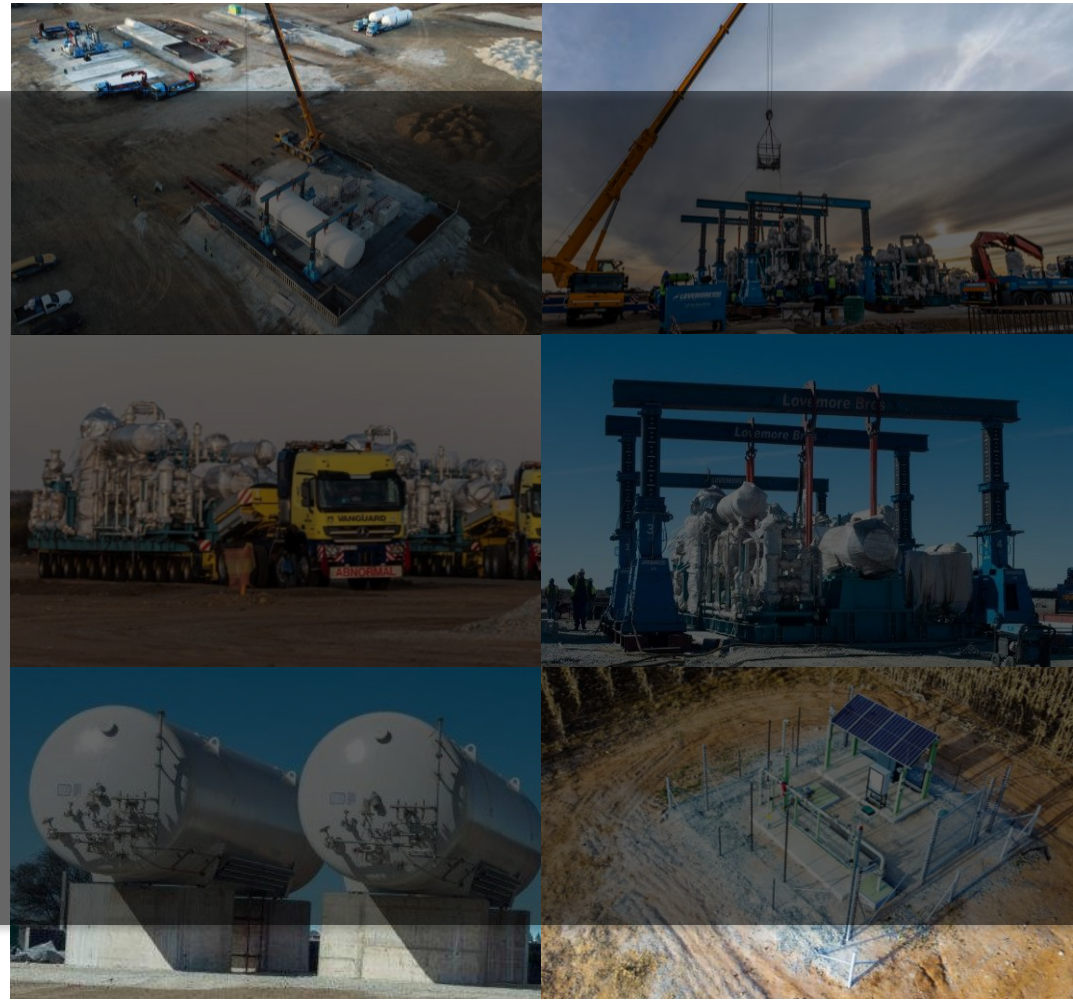
Source: Reserves and Resources - Sproule

Post-Dilution Net Present Value Per Share

Additionally issued shares in millions for the South African and Australian markets

ZAR/Share	+25m	+50m	+75m
2P 8%	436	374	327
2P 10%	347	297	259
2P 15%	208	178	156
1P 10%	179	153	134
1P 15%	103	88	77

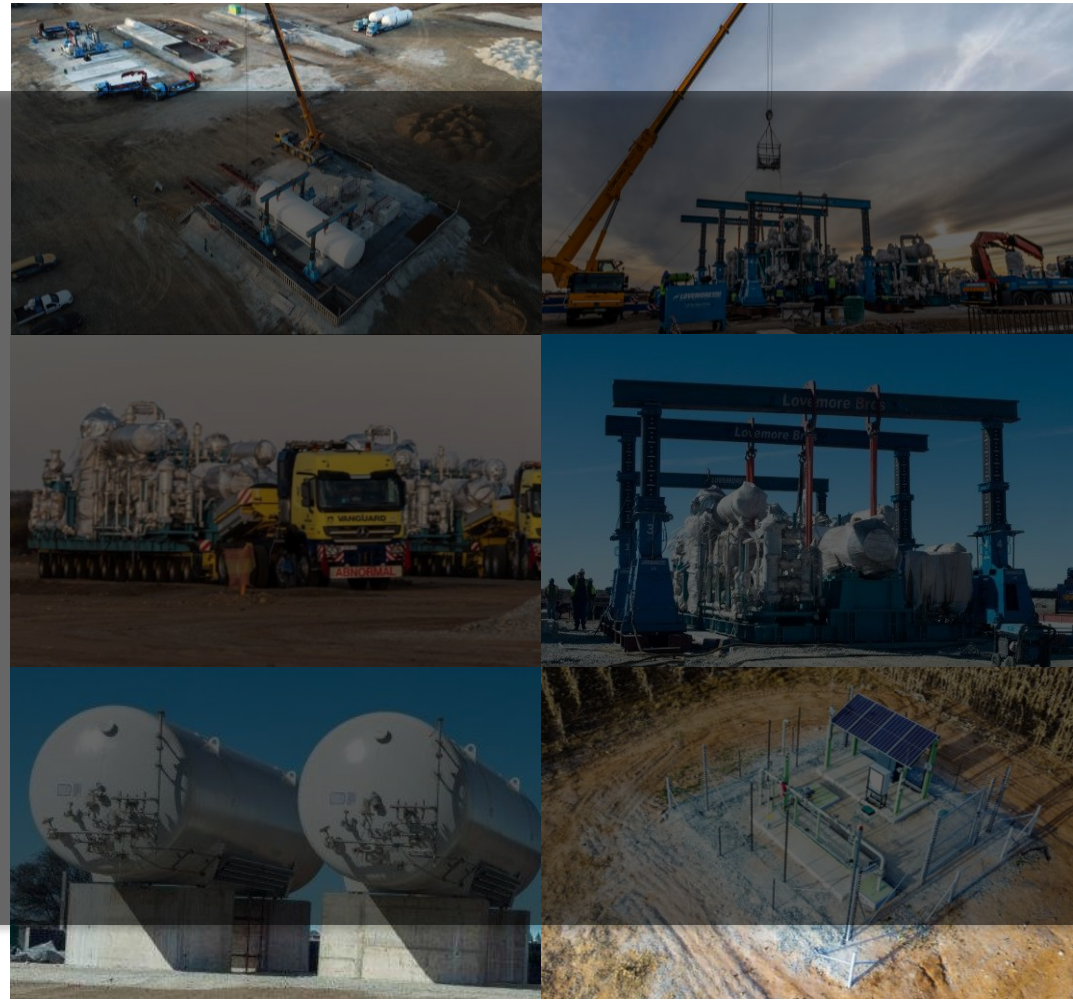
AUD/Share	+25m	+50m	+75m
2P 8%	40	34	30
2P 10%	32	27	24
2P 15%	19	16	14
1P 10%	16	14	12
1P 15%	9	8	7



Net Present Value

Realised excellent growth in NPV from March 2019 to September 2021

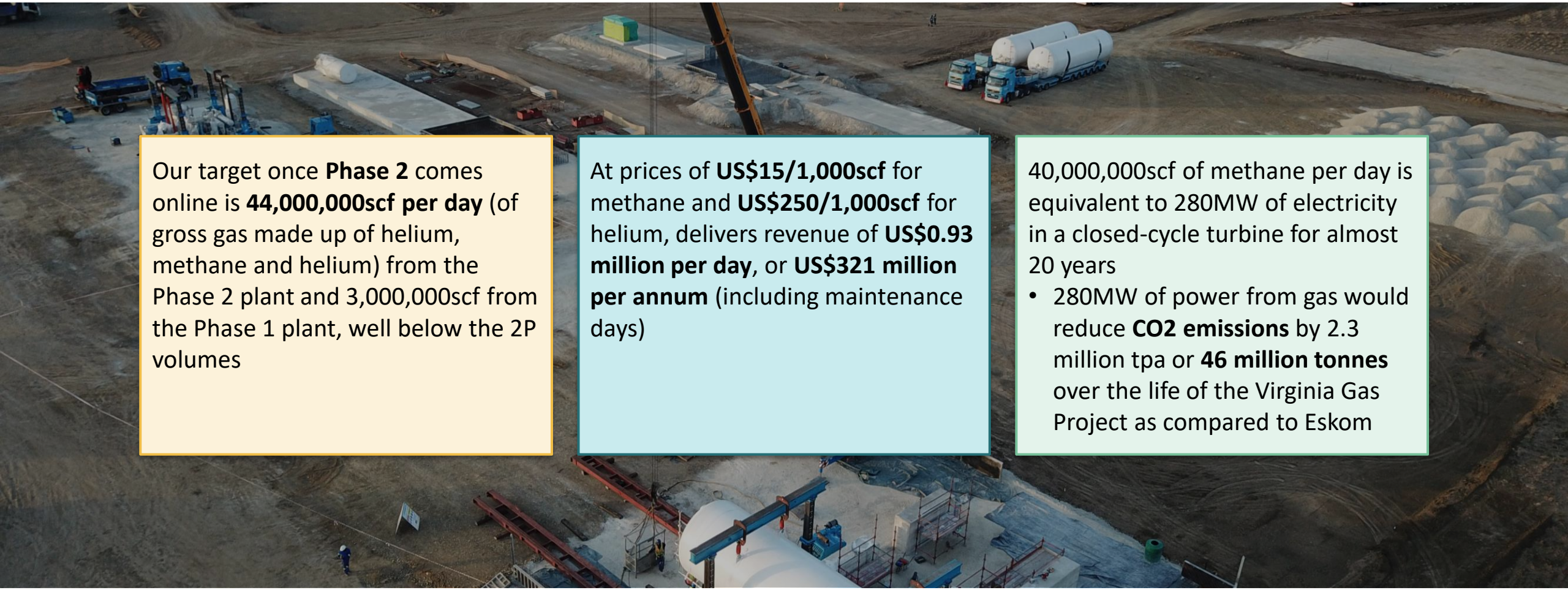
		Mar-19		Sep-21		% Change
		ZAR	AUD	ZAR	AUD	
Post CAPEX NPV *(Millions)*	**1P @ 10%**	4 541	404	26 561	2 364	***485%***
	1P @ 15%	2 878	256	15 225	1 355	***429%***
	2P @ 10%	15 375	1 368	51 511	4 584	***235%***
	2P @ 15%	9 788	871	30 953	2 755	***216%***



Source: Conversion - Financial Times (100 ZAR is equal to: 8.8962 AUD. Exchange rate: 0.089 on the 27th October 2021

But How Much Gas Is It?

2P total gas (methane plus helium) is equivalent to 65,000,000 standard cubic feet (“scf”) per day for the remainder of the license tenor



Our target once **Phase 2** comes online is **44,000,000scf per day** (of gross gas made up of helium, methane and helium) from the Phase 2 plant and 3,000,000scf from the Phase 1 plant, well below the 2P volumes

At prices of **US$15/1,000scf** for methane and **US$250/1,000scf** for helium, delivers revenue of **US$0.93 million per day**, or **US$321 million per annum** (including maintenance days)

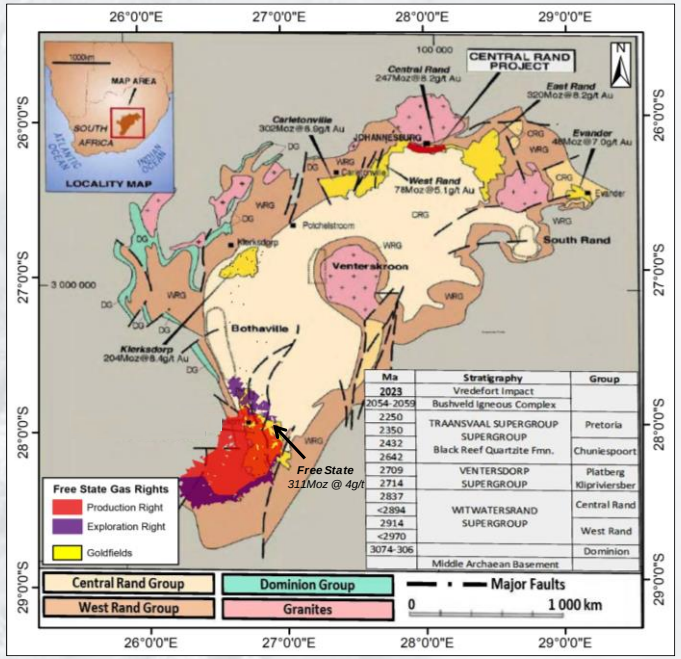
40,000,000scf of methane per day is equivalent to 280MW of electricity in a closed-cycle turbine for almost 20 years

- 280MW of power from gas would reduce **CO2 emissions** by 2.3 million tpa or **46 million tonnes** over the life of the Virginia Gas Project as compared to Eskom

How Did The Gas Get There?

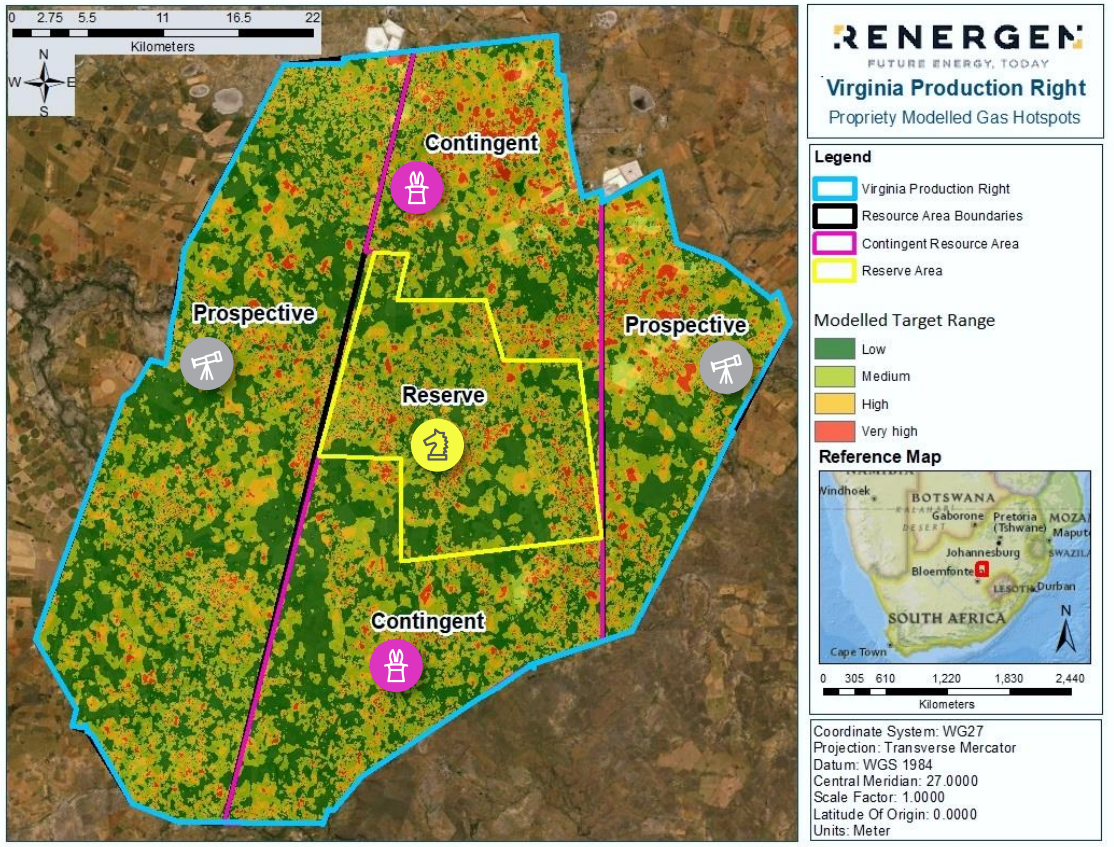
The Production Right is on the rim of the Vredefort Crater, formed by an asteroid strike 1.8 billion years ago, where natural Helium is produced owing to ultra-high uranium concentrations below

- Timing of the asteroid impact and conditions after impact, resulted in a bacteria known as Archaea adapting to the specific surroundings
- The bacteria evolved to use the energy from the radioactivity underground to metabolise carbon into methane, similar to chlorophyl using sunlight to metabolise CO2 into sugar and oxygen
- Helium gas is also produced as a by-product of radioactive decay so that the methane and helium are found together in this deposit



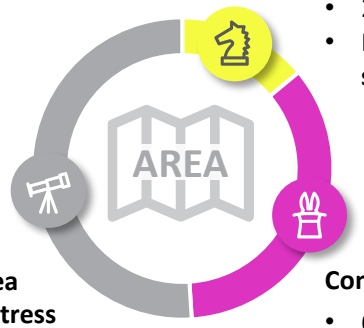
Drilling Target Modelling

The gas modelling depicts presence of high value resources in the Contingent and Prospective areas. These are areas that are yet to be explored and potentially have ***more*** resources than the Reserve area, with higher scores



Vegetation Stress Scorage

- 0 - 4.658823529
- 4.65882353 - 5.458823529
- 5.45882353 - 6.588235294
- 6.588235295 - 12



Reserve Area

- 28 218,77 ha, **14% of total area**
- Realised **average vegetation stress score of 5.01**

Prospective Area

- 101 053,4 ha, **51% of total area**
- Realised **average vegetation stress score of 5.04**

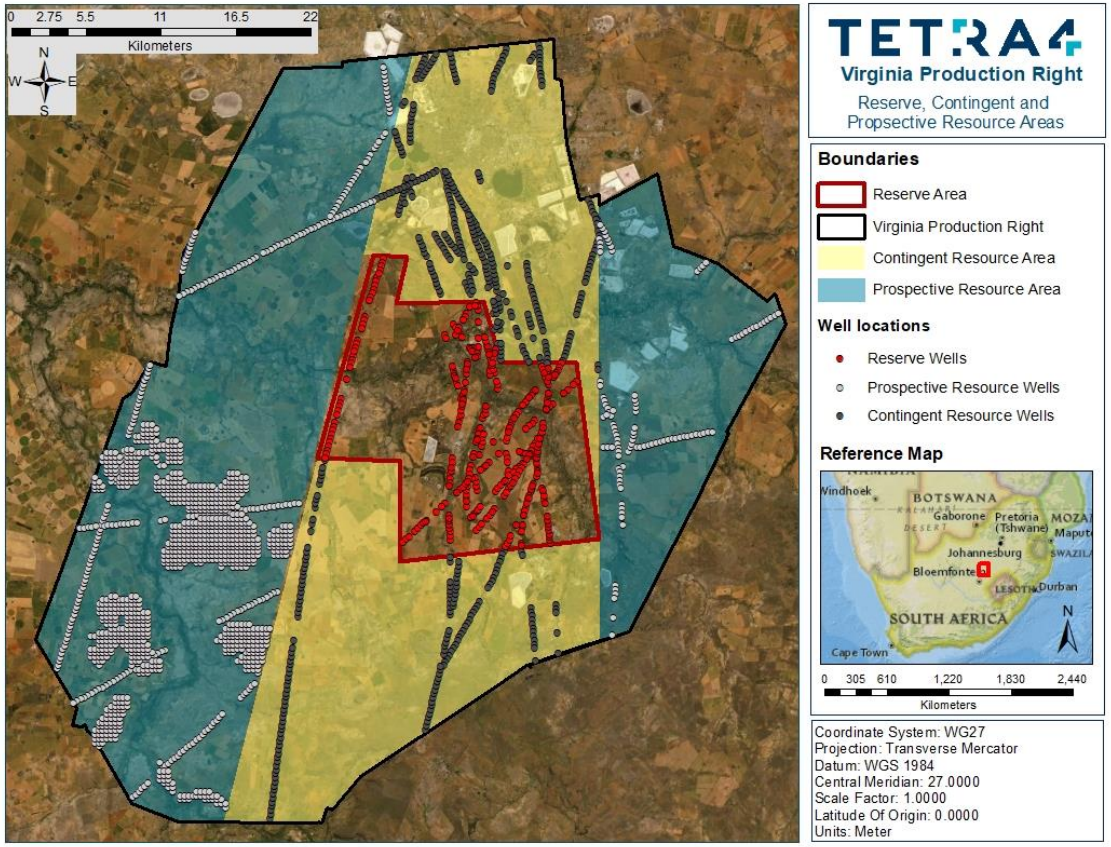
Contingent Area

- 69 324,9 ha, **35% of total area**
- Realised **average vegetation stress score of 5.12**

- Of the total area (198 597,09 ha), only 14% (28 218,77 ha) is allocated to Reserve. The remaining 86% (170378,3 ha) of area comprises of 35% (69 324,90 ha) allocated to Contingent and 51% (101 053,40 ha) allocated to Prospective.
- The vegetation score for **Contingent (average vegetation score = 5.12)** and **Prospective (average vegetation score = 5.04)** areas are higher than that of **Reserve (average vegetation score = 5.01)** area. The vegetation score is an indication of the potential resources available

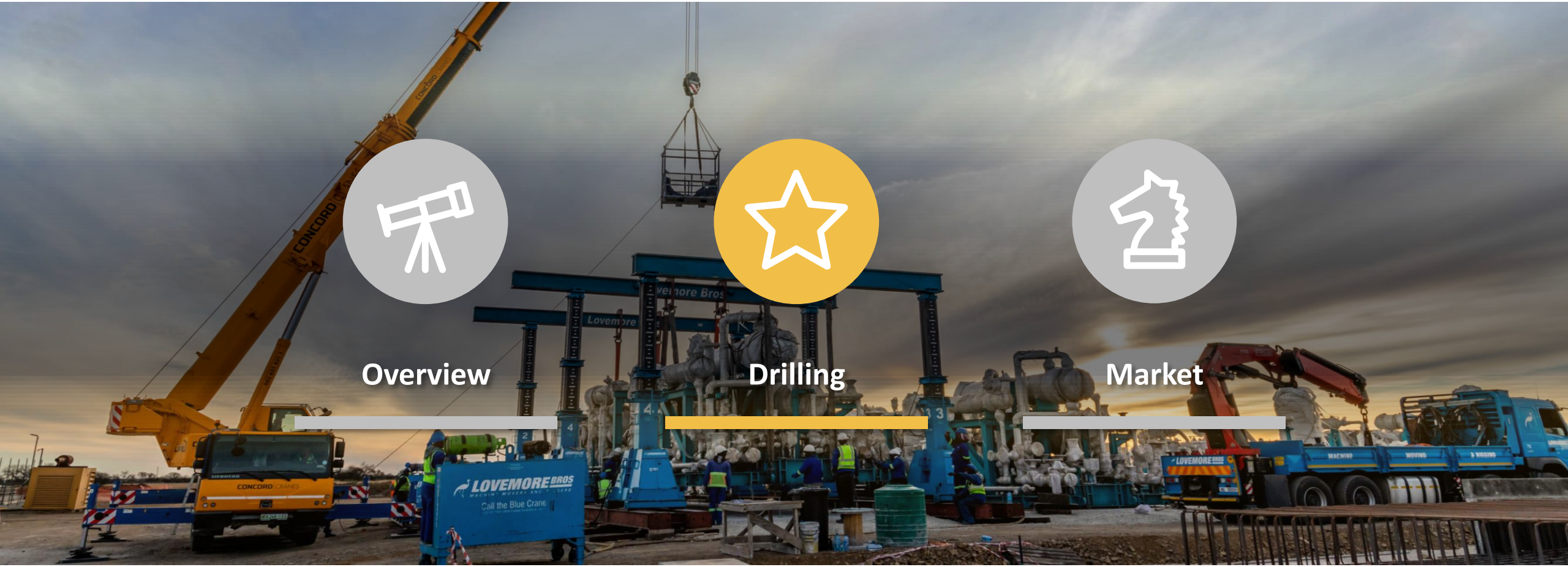
Production Right Layout

Significant upside potential exists as the Contingent and Prospective areas contained within the Production Right have yet to be adequately explored



- Proven Reserve area in the centre of Production Right is the most clearly defined by geological data
- Structures identified in the Reserve Area extend toward the outer perimeter of Production Right area

Agenda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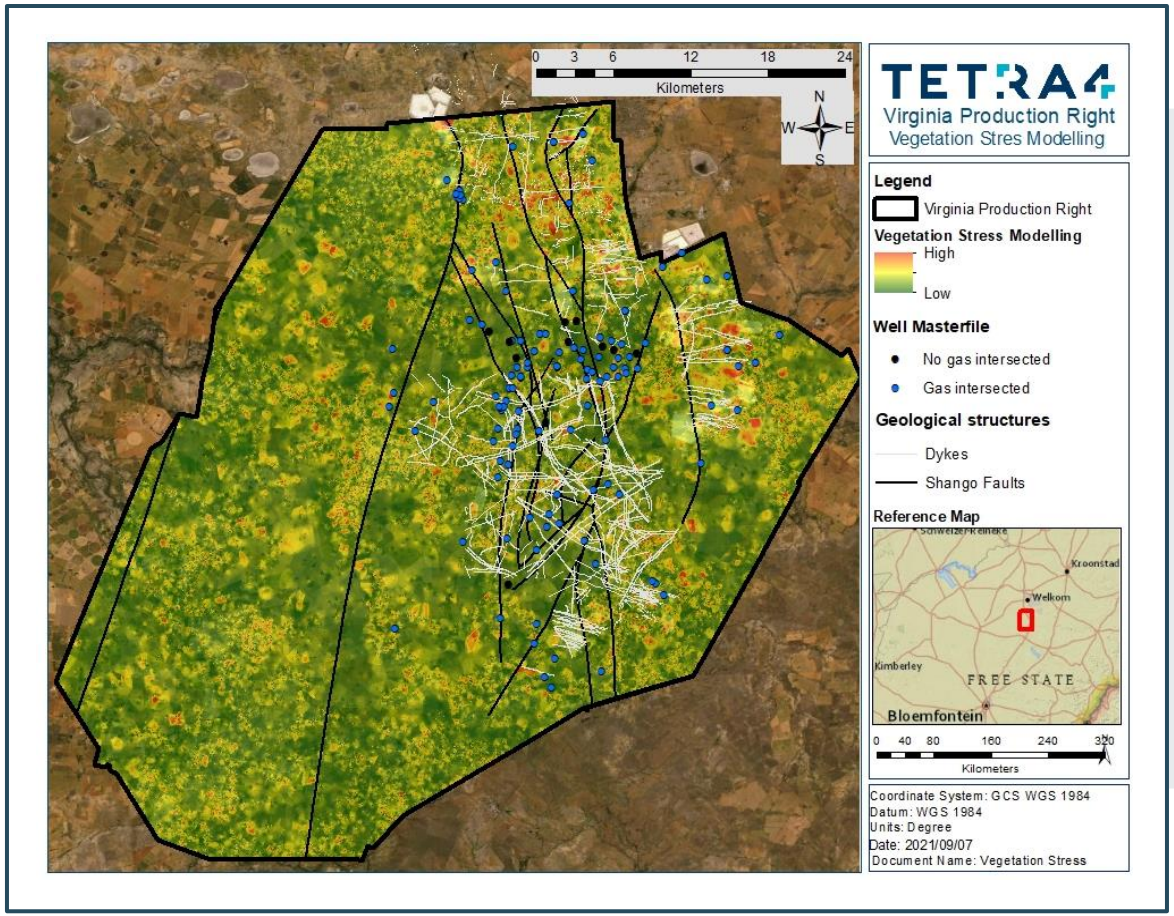
Where Do We Drill For It?

The insert shows the Production Right, with faults and fissures running north-south, and sills and dykes running west-east (“structures”)

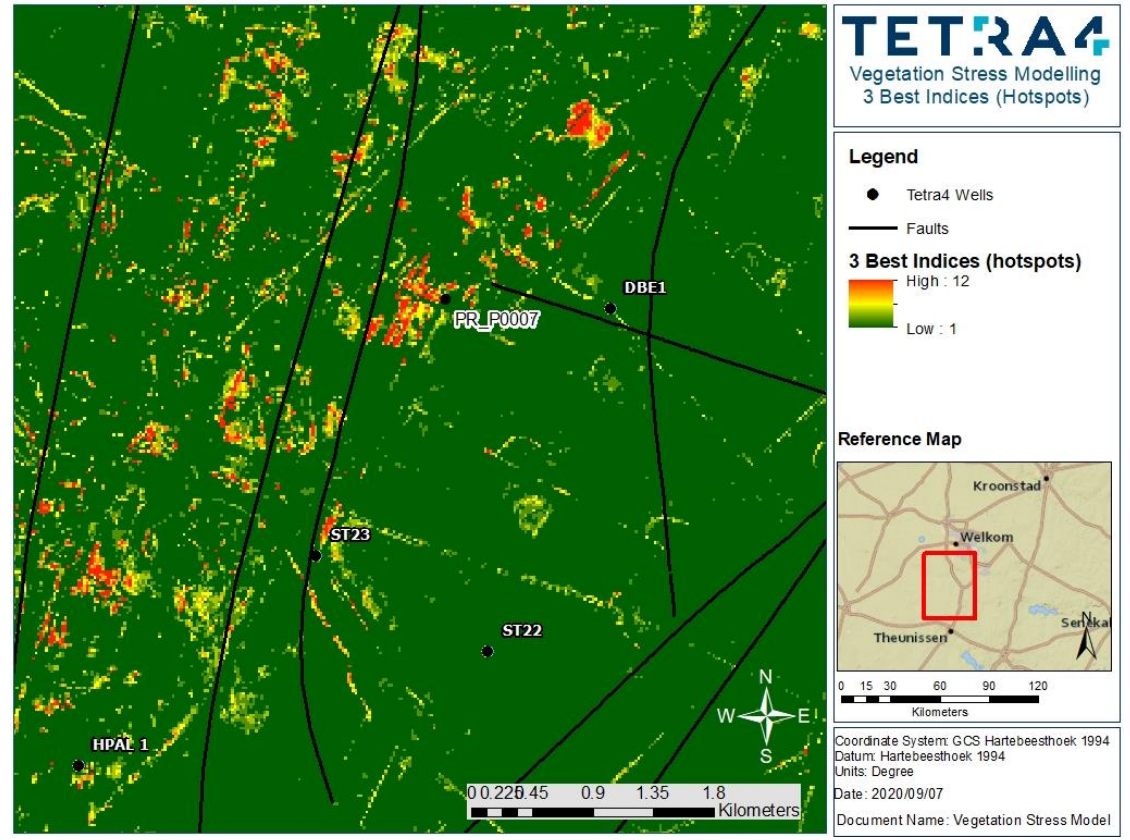


- Gas is generated at depths that exceed 5km and migrate to a depth of 300m from surface in these structures
- Gas is trapped in these structures by a dolerite cap
- Drilling into these structures creates a preferential pathway for the gas to migrate to surface
- The green in the image shows the least methane leakage and red the highest leakage to the surface

Drilling Accuracy

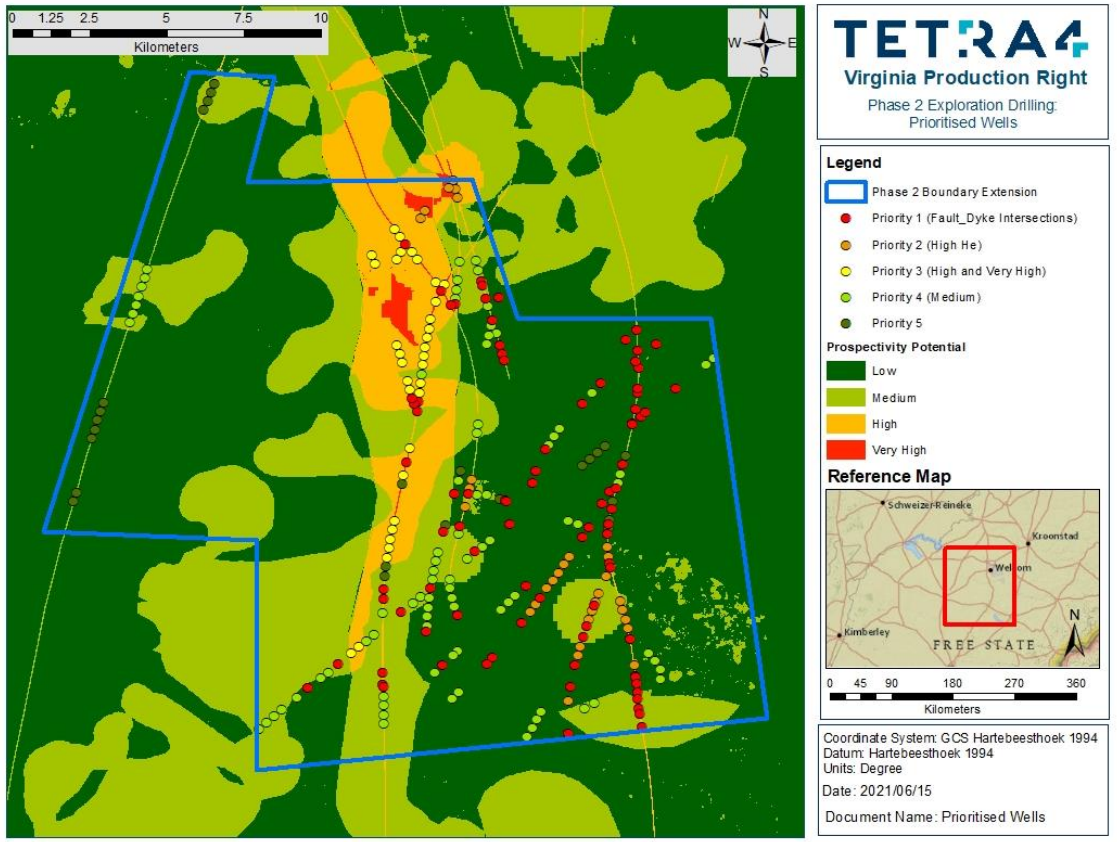
Renergen developed a sophisticated proprietary algorithm to pinpoint drilling locations to improve our drilling success ratio, using methane detection combined with several other biological markers

- Pictured is a close-up example of the algorithm
- The recent campaign increased drilling success to 83%, up from the previous rate of just over 50%
- ST23 (drilled in 1982) and PR007 (drilled in 2021) are amongst the 2 best blowers
- 007 was selected using the algorithm, with almost no human oversight



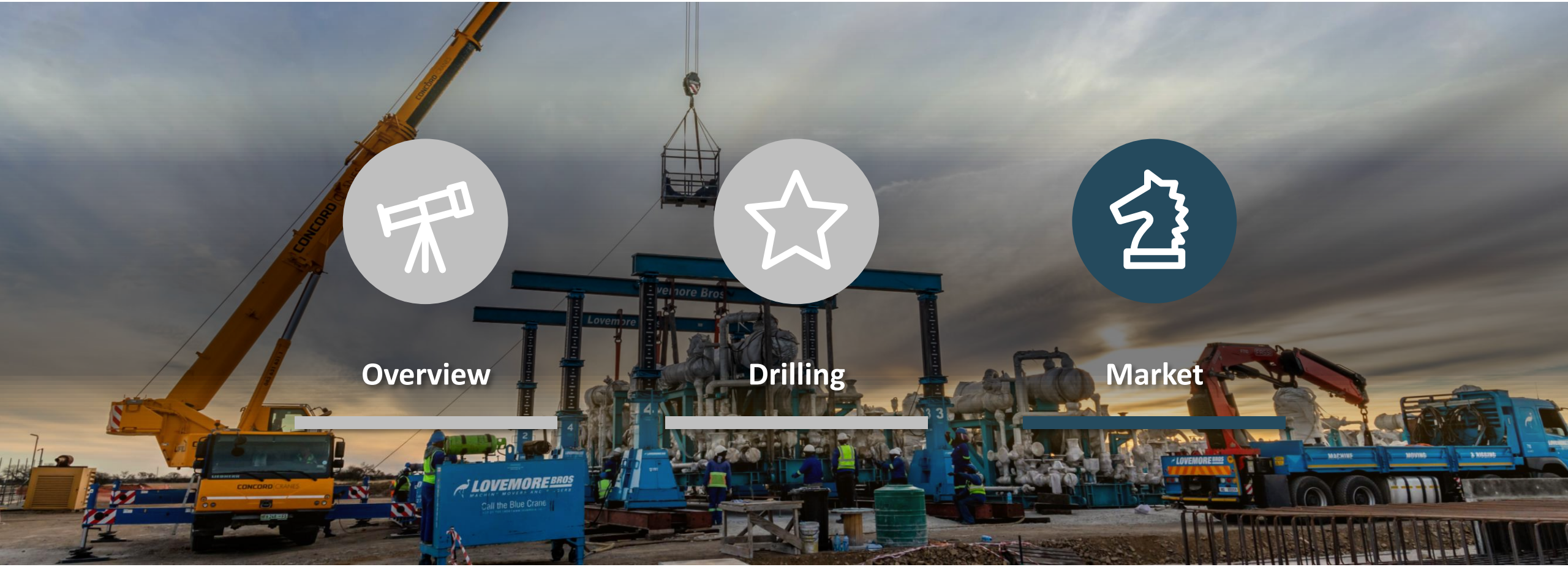
Phase 2 Drilling Plan

High level plan for Phase 2 drilling



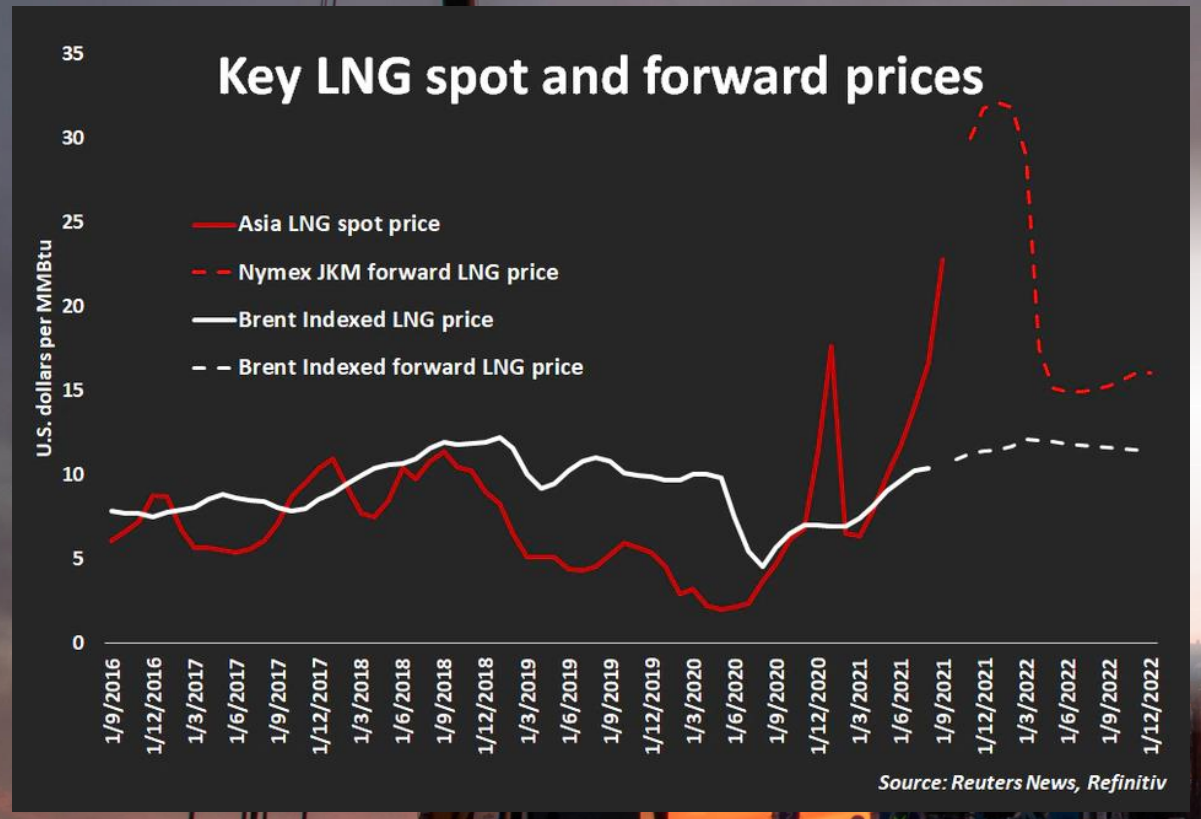
- Phase 2 drilling campaign will include 297 wells drilled along the primary identified faults and dykes, covering around 300km of gas bearing structures
- There are over 1,000km of identified gas prospective structures that have been identified thus far, and only half the Production Right has been properly explored

Agenda



LNG Prices

In recent months LNG prices in Asia have spiked from US$2/GJ to over US$34/GJ…. an increase of 1,700%

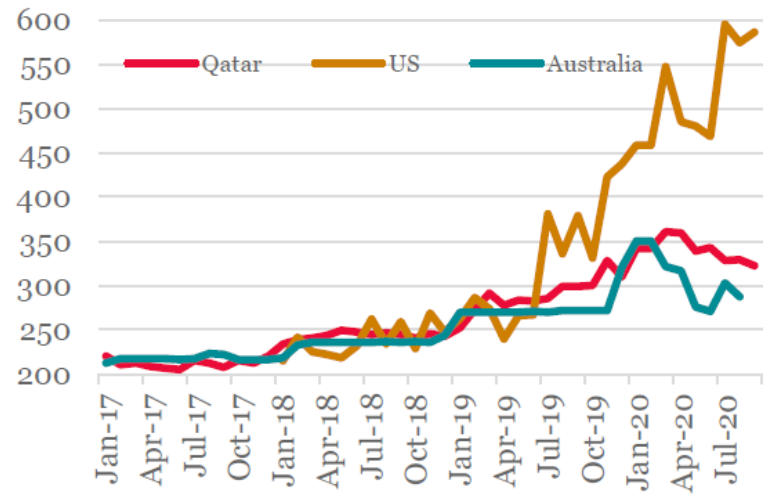


- European storage levels are at low levels, requiring restocking
- COVID-19 has prolonged LNG plant maintenance and continues to cause challenges
- Less wind in Europe is boosting gas consumption
  - Reduction in renewable energy output requiring more gas to supplement
- The US and Europe are pivoting away from new gas investment in a bid to reduce fossil fuel consumption. Reducing new supply which will lead to sustained higher prices in the long term

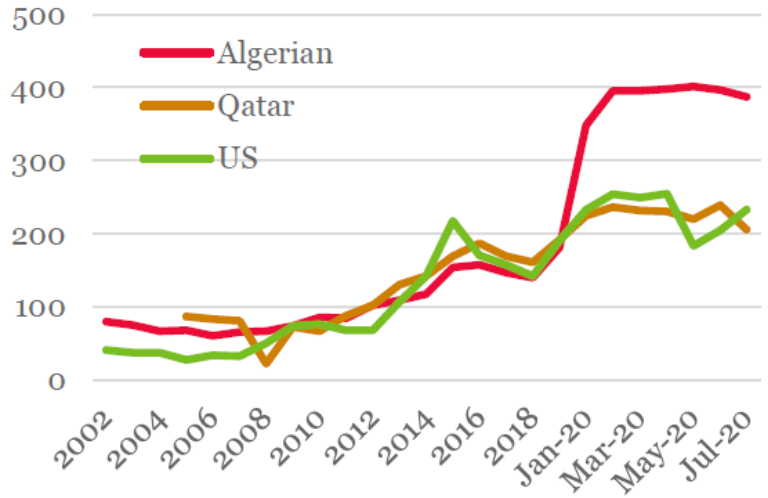
Helium Prices

Supply and demand remains constrained. It is estimated that over the short to medium term, helium supply may increase brining much needed stability to the market

Estimated Chinese helium import prices by region, $/mcf



Estimated European import pricing by region, €/mcf



Source: Chinese Customs Data, Eurostat, H&P estimates (2020 for January and February is averaged as only aggregate data reported)

However, toward the later part of this decade, there are concerns of significant supply reductions due to decreased upstream production of natural gas in favour of renewable energies

Continued Progress of Key Phase 2 Workstreams

A busy 12 months ahead with plant design, key exploration and development activities commencing

Artistic Impression

Design Stage

- Saipem and EPCM have completed FEED
- Reserve Update now completed

Drilling Target

- Will consist of 297 wells, drilled along the main faults and dykes throughout the Production Right
- Anticipated to build up to 44mmscf per day at full production
- Total estimated CAPEX of around US$800mn

Construction Timeline

- Anticipated turn on date in 2024
- 65% of Phase 2 anticipated production is pre sold to clients including Linde, Meser, Helium 24 and iSi

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