OAK Securities
90 Jermyn Street | London | SW1Y 6JD

Predator Oil & Gas

PRD-GB | **Target**
10p | **148p**

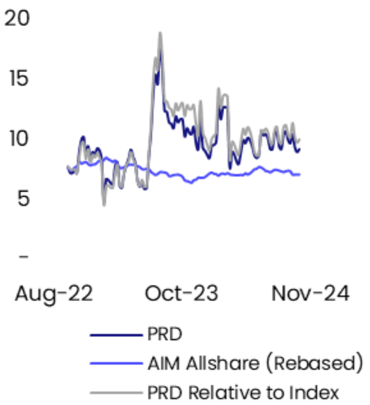
Focus on MOU-5 Morocco

04 October 2024

NAV:	**$mm**
Core	0
Dev. & Appraisal	0
Exploration	1,243
Total	**1,243**
Per Share	148p
From Current Price	1480%

Stock Data

Market Cap:		£63.2m
EV:		£58.8m
Shares in Issue		632m
Change:	1m	2.6%
	3m	11.1%
	12m	-10.1%



With this report we are solely focusing on the exciting potential of the MOU-5 exploration well in the Guercif licence, onshore Morocco. This well is targeting a 5.9 TCF gas prospect with the potential of additional value added from helium being present. Using a RENAV we derive a value of 111 p/share from the natural gas and 36p/share from the helium. This gives combined value and target price of 148 p/share.

MOU-5 Natural gas

With this note we are concentrating on the drilling of the MOU-5 exploration well in Q1 2025 with a target spud in January. This is probing a very significant structure with potential P50 recoverable resources of approximately 5.9 TCF of gas. The well is only 3 km from the Maghreb Europe Gas trunkline (where there is significant spare capacity) and so should prove to be a much simplified and less costly development to bring on stream.

Helium upside

From a gas sample taken at the MOU-3 well it is believed that there is the potential of the natural gas containing helium which would become a very valuable biproduct given its high sales price (of over US$400/mcf) compared to natural gas. Helium concentrations could be in the range of 0.11% - 4.06% based on global averages. By example, the Hassi R'Mel gas field in Algeria has concentrations of helium of 0.19%. Using a global average concentration of approximately 1.3%, this would imply 76.5 BCF of gross recoverable helium resources in the P50 upside case.

Valuation

For this note we are looking at the valuation of the MOU-5 structure (with the helium potential). This is done through a RENAV (Risked Exploration Net Asset Value). Using a US$7/mcf gas price and a chance of success of 12% (which is below Predator's internal risking) we derive a value 111 p/share. On top of this, the helium would add a further 36 p/share. There is a small adjustment to reflect the net cash. These combined would imply a price target of 148 p/share. Investors should be aware that this is a relatively high risk well.

Financials

The company is in a stable financial position. At the interim results released on 25 September, Predator had cash balances of approximately GBP 4.4 million with no debt. Management believes that this cash is sufficient for its committed work programme over the next twelve months.

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Focus Note

Contents

NOTE: "m" denotes thousands & "mm" millions

Summary & Conclusion

Predator Oil & Gas is looking at game changing exploration in Morocco. Management has announced that it is looking to start a follow-up work programme on the onshore Guercif licence where it has a 75% working interest with ONHYM (Office National des Hydrocarbures et des Mines), the state oil company having the remaining 25% and is carried through the exploration phase.

MOU-5

With this note we are concentrating on the drilling of the MOU-5 exploration well which is expected to spud in January 2025. This is probing a very significant structure with potential P50 gross recoverable gross resources of approximately 5.9 TCF of gas (4.4 TCF net to Predator). The well is only 3 km from the Maghreb Europe Gas trunkline (where there is significant spare capacity) and so should be a much simplified and less costly development than many gas fields. The fiscal regime in Morocco is benign meaning that any gas found with have high unit value. (For more details please see page 5).

Helium upside

From a gas sample taken at the MOU-3 well it is believed that there is the potential of the natural gas containing some helium which would become a very valuable biproduct given its high sales price (of over US$400/mcf) compared to natural gas. We are assuming that the gas concentrations are comparable to global averages of approximately 1.3% MOU-3 is the closest helium data point to the MOU-5 structure. The Hassi R'Mel gas field in Algeria which has low concentrations of helium of a modest 0.19%. Although this is low for a standalone helium project, being a byproduct to the natural gas makes this a valuable commodity. Using the global average concentration, this would imply 76.5 BCF (57.4 BCF net to Predator) of gross recoverable helium resources. (For more details please see page 6).

Financials

The company is in a stable financial position (even without allowing for potential production revenues from its Trinidad operations over the next 12 months). At the interim results for the six months ending June 2024, released on 25 September, Predator, had cash balances of approximately GBP 4.4 million with no debt. Management believes that this cash is sufficient for its committed work programme over the next twelve months. The well on MOU-5 is expected to cost US$3.5m to drill with additional costs if testing was done.

Valuation

For this note we are looking at the valuation of the MOU-5 (with the helium potential). This is done through a RENAV (Risked Exploration Net Asset Value). Using a US$7/mcf natural gas price and a chance of success of 12% (which is below Predator's internal risking) we derive a value 111 p/share. On top of this, the helium would add a further 36 p/share. There is a small adjustment to reflect the net cash. These combined would imply a price target of 148 p/share. We have provided investors with a sensitivity analysis should they prefer to use differing gas prices, discount rate and helium concentrations. Investors should be aware that this is a relatively high risk well and that the drilling of this exploration well is likely to have a material impact on our valuation. (For more details please see page 9).

Other

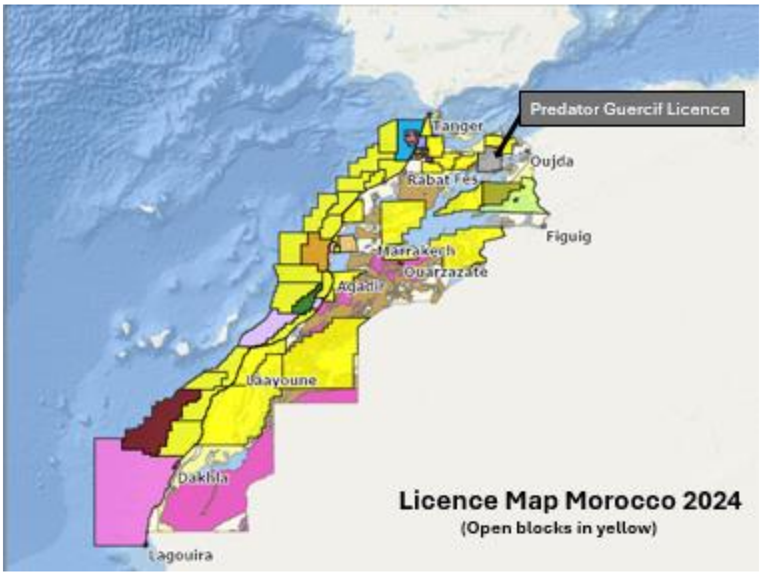
Predator Oil & Gas has other assets in Trinidad (where it is establishing and growing production over the next 12 months), Republic of Ireland and additional work in Morocco. This note is concentrating on the MOU-5 well and, as such we are not going to look at the potential or the valuation of these assets at this time and will be covered in subsequent research notes.

Mou-5

Predator Oil & Gas is looking at game changing exploration in Morocco. Management has announced that it is looking to start a follow-up work programme on the onshore Guercif licence where it has a 75% working interest, with ONHYM having the remaining 25%. This exploration programme is looking to find significant quantities of natural gas which could provide a very significant boost to shareholder value. There is the potential of finding helium which would prove to be a valuable biproduct. The Guercif licence was located in the shallow margin on the Tethys Ocean in Jurassic times. Much of this section has become the current Mediterranean Sea and there have been significant gas discoveries made in the shallow margins.

Figure 1 Predator Oil & Gas

Location of Guercif licence



Source: Company

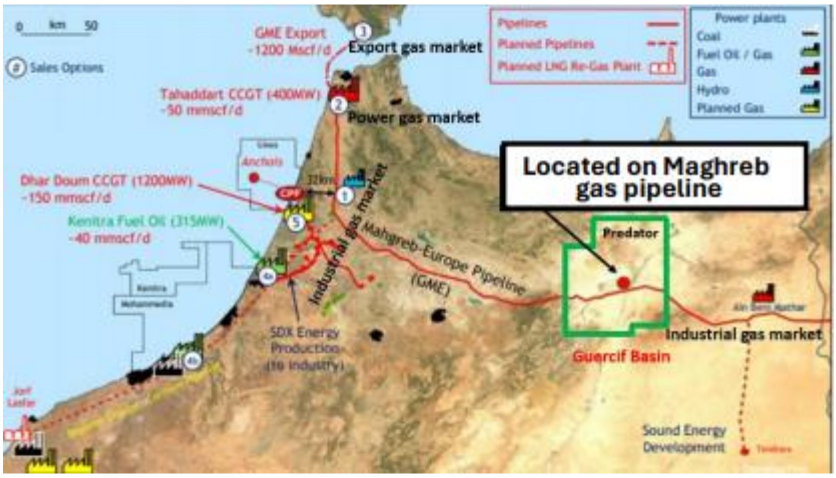
MOU-5, A natural gas giant?

The group is also preparing to drill the huge Jurassic Titanosaurus prospect on the licence. According to the ITR (Independent Technical Report) by Scorpion Geoscience, the structure could contain P50 gross recoverable prospective resources of approximately 5.9 TCF of gas on the Upside scenario. Scorpion Geoscience also looked at a very conservative play which has P50 gross recoverable prospective resources of 186 BCF of natural gas. Predator has entered the First Extension Period of the Guercif Petroleum Agreement as a result of which all existing contractual drilling commitments with the regulatory authorities have been satisfied.

If natural gas was found in this well, then it would probably have to be passed through the adjacent Maghreb Europe gas pipeline due to the volumes that are likely to be produced. We believe that on the P50 scenario, peak production could be in excess of 1 BCF/day. Through selling into the main gas trunkline, the company is likely to see a lower price that could be achieved through selling into the local industrial markets since these markets could not cope with the supply. Morocco is a major importer of gas from Spain. In 2023 Morocco imported 29 BCF of gas which can easily be met from a successful discovery and allow natural gas flows to be reversed and Morocco start exporting into Spain – potentially allowing a higher realisable gas price. Additionally, some of this gas could be used to substitute out domestic Moroccan LPG (Liquefied Petroleum Gas) where the country is a large user and the state provides large subsidies. The proposed well is approximately 3km from Maghreb Europe Gas trunkline making it very cheap and easy to build a spur line from any potential development. Assuming the gas is of good quality dry gas then the only major equipment required would be compressors.

Figure 2 Predator Oil & Gas

Guercif licence with MEG pipeline



Source: Company

Should smaller volumes be discovered, management would look to develop these through CNG (Compressed Natural Gas). We would envisage a similar style development to that proposed by Chariot Energy which found gas (yet to be tested) at its onshore Loukos licence. Here Chariot has partnered with Vivo Energy to produce CNG (subject to testing) into a gas plant to be built and operated by VIVO. Predator is partnered by Afriquia Gaz (the largest downstream distributor of hydrocarbons in Morocco) and it is envisaged that Afriquia Gaz would buy Predator's gas at the wellhead. The price of CNG is significantly higher than could be achieved from sale into the main trunk pipeline, we believe that Predator could achieve a sales price of US$12/mcf to industrial buyers.

Helium upside?

Recent studies have indicated that helium is present in the Moulouya Fan penetrated by the MOU-3 well. This is a radiogenic formation. Although at this stage it is uncertain if the MOU-5 well will find natural gas and if it were discovered then if helium was also present. However, if it were then this would prove to be a valuable biproduct. Even if it was found to be present in modest amounts, similar to the Hassi R'Mel field in Algeria, the economics of the natural gas would enable this to be developed profitably. Hassi R'Mel has commercial concentrations of helium of 0.19%. The company believes that in the P50 upside case, helium concentrations could be approximately 1.3% which would imply that Titanosaurus could contain P50 gross recoverable Helium resources of 76.5 BCF.

The helium market is currently very tight and this has led to very high prices of up to US$500/mcf - although prices tend to be dictated by the local markets. Demand for the gas is rising on the back of increased use in areas such as chip manufacture. Many commentators are looking at growth of 4% - 6% per annum. There is additional supply expected from Qatar and Russia but, in contrast, some of the main producers such as USA and Australia, are in decline. The market will therefore remain balanced although the political risk of the supply is clearly rising.

The extraction of helium from natural gas is relatively high cost given the level of purity (99.999% purity is what some buyers require) that is required. The process for many producers is estimated to be over US$200/mcf. For Predator, this could vary significantly dependent on the concentration of helium and other gases found but a large dry gas accumulation at MOU-5 would underpin the helium processing costs.

Other

Predator has further ongoing operations in Morocco, Trinidad and Republic of Ireland that are moving ahead. We will discuss these in more detail in subsequent notes.

Morocco

Predator is currently involved in an ongoing and extensive rigless testing programme at the MOU-3 well (in the Guercif licence) based on biogenic dry gas being discovered during the drilling of the well. The rigless testing programme involves several phases of testing involving the application of different technologies to address the ability to overcome formation damage whilst drilling due to the very high mud weights being required to effect drilling progress. The entire testing programme will take several more months but is important as it will define the way forward to use the existing wells drilled by Predator as potential gas producers and to extend the current well inventory to potentially develop a larger material biogenic gas play covering a core area of at least 68km2. All the current 2023 and 2024 drilling and testing data are currently being incorporated by management in a coordinated study to ensure that future appraisal and development wells are designed to overcome difficult drilling as well as targeting shallower over-pressured gas that could not be safely tested in MOU-3 due to the original well design. The gas could be monetised through the CNG as discussed earlier.

Trinidad

In Trinidad, the group currently owns an 100% interest in the Cory Moruga licence, onshore Trinidad which contains the undeveloped Snowcap oil discovery and additional well workover opportunities. Management is intending to reinvigorate production using a patented chemical wax treatment never used in Trinidad before to start generating and ramping up production and cashflows over the next 12 months. The operation is economically attractive since the group has inherited significant historic tax losses of US$ 55 million that can be offset against Petroleum Profit Tax.

Ireland

In Ireland, Predator has one offshore exploration licence close to the Corrib gas field which is the subject of an application for a successor authorisation. The Company has received a farm-in proposal from one of the Corrib gas field participants to be enacted upon the award of a successor authorisation. A General Election is forecast to occur in late 2024 in Ireland which will potentially unlock the award of Corrib South in the context of Ireland's security of energy supply. Corrib South contains a Corrib gas field lookalike structure. The area of Corrib South was originally reserved by Shell when developing the Corrib gas field.

Valuation

Main scenario (natural gas)

We derive a valuation for MOU-5 through a RENAV (Risked Exploration Net Asset Value). In our main scenario, we are looking at the potential of the main P50 scenario of 5.9 TCF of gross recoverable natural gas resources. The chance of success that we are using is Scorpion Geoscience's estimate which is looking at a chance of success of 12%. It should be noted that Predator believe that the risking is lower and have an internal chance of success of 50% which is driven by a more optimistic view of reservoir risk. For the gas price we are assuming a long-term flat gas price of US$7/mcf which we believe is conservative given prices achieved by other companies. We achieve a RENAV for this of 111p/share. However, we are aware that investors will have differing views on pricing and we have therefore added a section on the potential value under a range of gas prices. We derive a value of 111p/share. Investors should be aware that this is from undrilled exploration and the potential resources. Investors should see this as high risk.

Conservative scenario

We have also looked at a valuation of the conservative P50 prospective resources of 186 BCF which is developed We derive a value of 6p/share. Investors should be aware that this is from undrilled exploration and the potential resources. Investors should see this as high risk.

Helium valuation

We have also looked at the potential of the value of the helium – although the risk of this will prove to be high. We have assumed a helium price of US$400/mcf and a cost of extraction of US$200/mcf which we believe is conservative. Our main scenario is the P50 Upside scenario, using the global average concentration of approximately 1.3%, which gives potential helium recoverable resources of 76.5BCF. We are halving the risk element from the one assumed earlier – to reflect the uncertainty of the concentration rather than geological risk. We derive a value of 36p/share.

Overview

As stated above, when the natural gas and helium are combine, we achieve a RENAV for the group of 148p/share. The is a small adjustment of 1p/share to reflect the cash balances of the company.

Table Predator Oil & Gas

RENAV of MOU-5 (Main upside scenario)

	Unrisked, *US$m*	**Risking,** *%*	**Risked,** *US$m*	**P/share**
Natural Gas	**7,809**	**12%**	**937**	**111**
Helium	**5,100**	**6%**	**306**	**36**
Cash	**6**	**100%**	**6**	**1**
Total	**12,915**		**1,249**	**148**

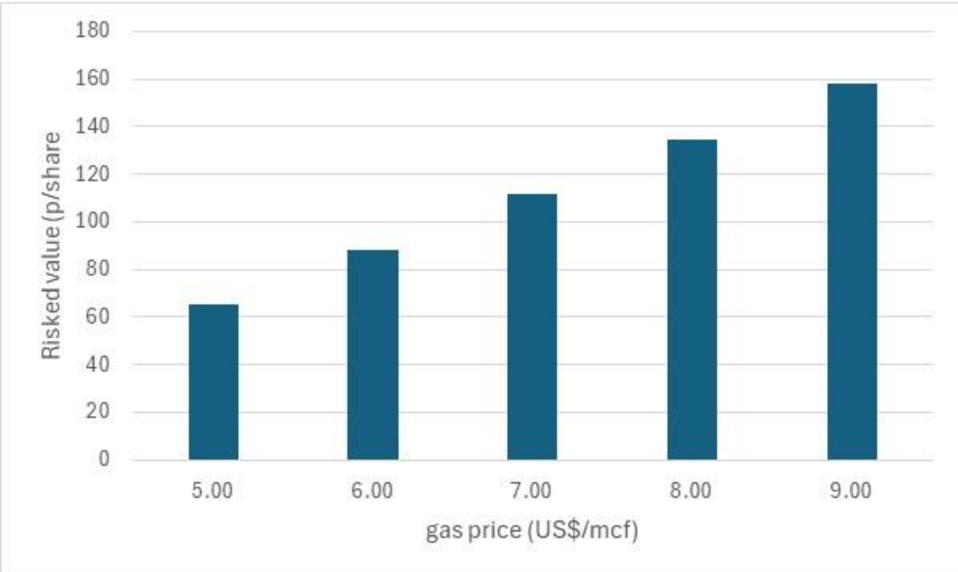
Source: Oak Securities estimates

Sensitivities

As alluded to earlier, we are providing investors with the sensitivities to allow them to make their own assumption of value. The following chart shows the impact of differing gas prices on the value of the main scenario. This is shown as a risked value in GBP pence/share.

Figure 3 Predator Oil & Gas

Impact of changes in gas prices on risked valuation (p/share)

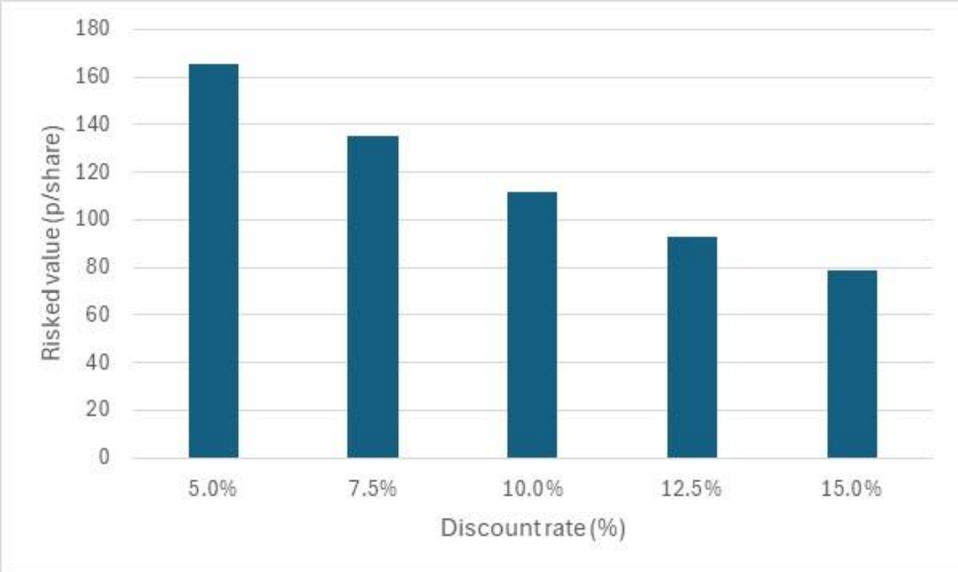


Source: Oak Securities estimates

We have also shown the impact that discount rates have on the main scenario under a US$7/mcf gas price. The impact is not as dramatic as many developments given that the capital costs are modest compared to the potential recoverable reserves.

Figure 4 Predator Oil & Gas

Impact of changes in discount rate on risked valuation (p/share)

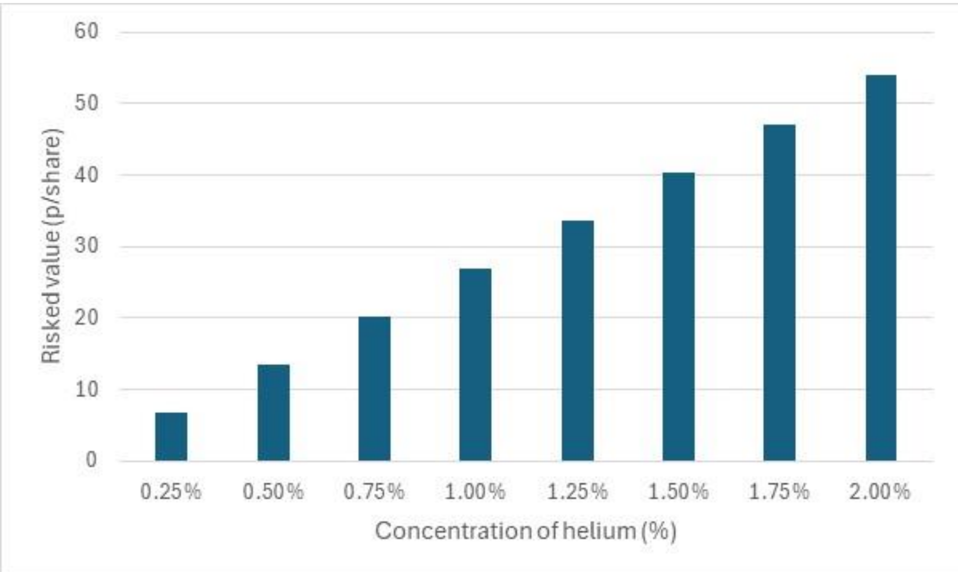


Source: Oak Securities estimates

We have also looked at the impact of differing helium concentrations. As mentioned earlier we have assumed that the concentration will be similar to the global average (1.3%) but this can change dramatically over the structure. We therefore have provided investors with the potential value of differing concentrations.

Figure 5 Predator Oil & Gas

Impact of helium concentration on risked valuation (p/share)



Source: Company and Oak Securities data

Finances

The company is in a stable financial position (even without allowing for potential production revenues from its Trinidad operations over the next 12 months). At the interim results released on 25 September, Predator had cash balances of approximately GBP 4.4 million with no debt. Management believes that this cash is sufficient for its committed work programme over the next twelve months.

However, the company believes that a well drilled to 1,140 metres would cost approximately US$3.5 million. There would be additional costs if the well was successful and required testing and suspending. However, the proposed logging programme for MOU-5 would allow testing to be subject to any requirement to generate a production profile for a gas sales process which at that time would require appraisal and pre-development drilling anyway. Cash from production in Trinidad will potentially ramp up over the next 12 months.

Research Analyst Disclosures

Peter Hitchens Bsc Eng (Hons.)

Peter has in excess of 35 years' experience in oil & gas equity research with a bias towards the Exploration & Production companies. Having trained as a chemical engineer, Peter was lured by the glamour of the city in 1986. He has worked for many forms including Lehman Brother, Williams de Broe, Panmure Gordon and HSBC. He has been rate on many occasions by Extel and Starmine. Peter Has witnessed many cycles in oil prices and investors sentiment through his long career.

Although his main focus has been equity research, he has also worked with corporate finance and been the broker for many companies such as Enterprise Oil, Faroe Petroleum and Broders & Southern.

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