AFRICA OIL AND GAS
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AFRICA'S 21ST CENTURY SCRAMBLE

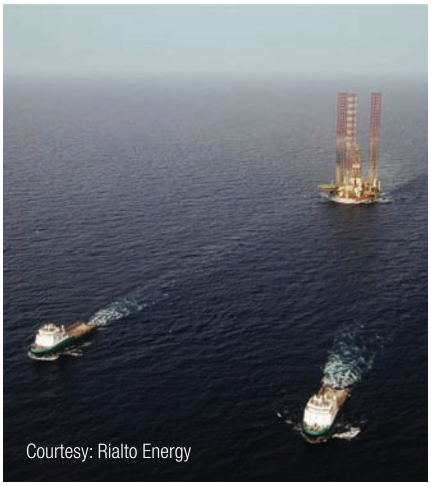
Take a map of Africa, stick a pin in it at random, and the chances are you'll hit an emerging oil and gas province. Until relatively recently, "Africa's oil industry" meant Nigeria and Angola and the producers in North Africa such as Algeria and Libya, but now it's hard to keep up with the number of new plays emerging across the continent – at all points of the compass.

In the west, Ghana's Jubilee oil discovery has been turned into a major producing field in just a few years and other West African countries are hoping to follow suit, with oil discoveries already made in Côte d'Ivoire, Sierra Leone and Liberia. They are also attracting big names – Lukoil and Chevron both have substantial acreage offshore West Africa – showing that this frontier exploration is no longer the reserve of small independents hoping to strike it lucky.

On the other side of the continent, the huge gas finds offshore Mozambique and Tanzania are set to transform the countries' economies, turning them into key LNG exporters by the end of the decade. The majors have started moving in to East Africa in search of oil too. In Uganda, Total and CNOOC have spent a small fortune gaining access to the new oil province, buying equal stakes in three major blocks from the UK's Tullow Oil. And the likes of Statoil and ExxonMobil are also active in Tanzania, while BG Group has already made big finds in the country's offshore.

Further up the coast, interest is growing in some of the more unlikely potential oil-producing countries such as Kenya, Ethiopia, Eritrea and Somalia, while down at the foot of the continent, South Africa is also set for an unprecedented boom in offshore oil and gas exploration, with record levels of licenses now in place and a first deepwater well being lined up, potentially for next year.

But while oil and gas discoveries present huge opportunities for African countries there are considerable hurdles to monetizing these finds. One of the region's main developmental challenges remains a shortage of infrastructure.


Courtesy: Rialto Energy

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Countries along the East African coastline have a distinct advantage with direct links to Asia and plans to build an LNG terminal in Mozambique mean exports to the Asian market could begin by 2018. But serious investment in infrastructure is needed to develop the fields and move the gas to global markets.

Security issues, such as cross-border conflicts and piracy, can also deter investment. It is an issue that continues to dog Nigeria's long-established oil industry, while Libya, despite the rapid recovery in oil production following the civil war, remains politically volatile. And unless the fragile peace between the two Sudans can hold, international oil companies are unlikely to resume exploration work there.

In addition, across the continent governments tend to be less trusted than in many other parts of the world. Corruption Watch's Corruption Perceptions Index 2011 shows Africa as a sea of red, indicating relatively high levels of corruption (rather than a possession of the British Empire, as it used to do in the old days). Somalia ranked last out of 182 countries, while the vast majority of African nations were placed in the bottom half of the index.

On top of that, companies often have to contend with archaic regulations, contract delays, and the shifting of fiscal and licensing terms. Uganda's energy industry has already been dogged by protracted negotiations and delays in the production timetable. Kenya has yet to establish a gas policy and has requested help from the World Bank in drafting the rules.

Further delays in implementing favorable policies could see oil companies' patience wearing thin. What they want is commitment from governments that their projects are high priority. They are getting this to varying degrees, and whatever happens it seems that Africa – which contributed about 10% of world oil production and just 6% of natural gas output in 2011 – is destined to take a more prominent role in the global industry over the coming years and decades.

Here Insight takes a closer look at one of the so far less-heralded emerging provinces, Namibia. ▶

SEARCHING FOR DIAMONDS IN THE ROUGH

Once forgotten by the upstream oil industry, Namibia's offshore has been attracting an increasing number of players recently, including some of the biggest such as BP and Repsol, and despite the disappointment of two dry wells being drilled this year exploration is still expected to gather pace over the next few years.

The vast but sparsely populated country – a former German colony in the southwest corner of Africa that only finally gained independence from South Africa in 1990 – is well known for its diamonds, uranium, copper, zinc and gold. But in the last two years, there has been a surge in the number of licenses awarded for both onshore and offshore areas to local and international oil and gas players. This can be put down to various factors including Namibia's stable democracy, flexible licensing system, attractive legal and fiscal framework, and aggressive promotion of its hydrocarbon potential.

But the real attraction is the potential for a huge find. Experts say Namibia's coastal shelf shares the same geological characteristics as Brazil's, some 4,600 miles away now but adjacent in prehistoric times before the opening of the Atlantic Ocean, where majors including Petrobras and BG Group have led a drilling campaign targeting the giant sub-salt oil reserves. Many believe that a field similar to Tupi – discovered in 2006 and estimated to hold over 8 billion barrels – may lurk beneath Namibian waters.

South America and Africa were once connected

The oil riches of its northern neighbor Angola also bode well, but until now there has been no concerted attempt to develop Namibia's upstream industry. Many of Angola's producing assets are in shallow water blocks, at depths of less than 500 meters. The depths at which Namibia's prospective resources lie – targets in the Walvis and Orange basins are at more than 2,000 meters below sea level – present a different kind of technical challenge, and with it far greater costs and risks.

The country saw a first offshore exploration phase in the late 1960s and early 1970s when one well was drilled, Kudu 9A-1, the discovery well for the giant Kudu gas field. But following that there was no further exploration by international operators until after independence, which was only achieved after nearly a quarter of century of guerilla war against its apartheid neighbor.

The development of Kudu itself has failed to get off the ground for nearly 35 years for various reasons, partly uncertainties over what to do with the gas and the different ways it could be brought to the market, as well as problems securing investment funds and political wrangles. However, the UK's Tullow, now the main foreign partner to state-owned Namcor, said this year the project is ready to go ahead as soon as commercial agreements are in place for the power plant it is intended to feed.

A first post-independence exploration licensing round was held in 1991-1992 with five licenses awarded, including to Chevron and Shell. This was followed by a second round in 1995 when two new licenses were awarded, both to Shell, and a third in 1998-99 that garnered no applications.

From 1999 the government adopted an open licensing system that allowed companies to apply for acreage at any time. As of October this year, 41 exploration licenses had been issued, although in September the Ministry of Mines and Energy's petroleum commissioner, Immanuel Mulunga, said the government would stop issuing licenses towards the end of the year in order to focus on the current work programs.

On the radar

One of the key smaller players at the vanguard in the country's offshore is Chariot Oil & Gas, which has hailed the country as "one of the last frontiers for oil and gas exploration."

Chariot saw 2012 as potentially a breakthrough year. It has been largely disappointed. The explorer's first wildcat exploration attempt, the Tapir South prospect in the Northern Block, penetrated "excellent reservoirs" but ended in failure in May, and in September its disappointment was compounded when the Kabeljou well, which was targeting the Nimrod prospect in the Southern Block 2714A of the Orange basin, also had to be plugged and abandoned as a dry hole.

The Nimrod prospect – in which Brazil's Petrobras and UK major BP are partners – was Chariot's largest target in the south and although there are still other areas of interest in this license, the miss was a material blow to Chariot's story in Namibia. Investors in Chariot, which is listed on London's AIM, reacted very unfavorably to the news.

But the company's CEO Paul Welch says that Chariot, with four licenses covering eight blocks in three of Namibia's four basins, is still well positioned for its planned four-to-five well drilling campaign, and points to the growing interest of bigger companies to back up his continued optimism.

"While Namibia is still relatively underexplored, this interest from major companies serves to highlight the country's potential and now it is very much on the radar of these larger corporations," Welch says. "With the acquisition of 3-D seismic data sets providing more detailed interpretation further interest has been sparked in Namibia."

Chariot's northern blocks are in the underexplored Luderitz and Walvis basins, where only four wells have been drilled to date in an area similar in size to the UK North Sea Central Graben, and the Orange basin where the Kudu gas field was discovered.

At the end of October, Chariot got the nod from the government to renew all its licenses for another two years, and in November Welch confirmed the company plans to drill a third well, though he said there was no firm timeline for securing a contract for a rig.

The large costs involved in deepwater drilling – Chariot estimates the well on its Tapir prospect cost some $65 million, more than its market capitalization following the recent plunge in its shares – mean that deep pockets are needed. With oil prices seemingly settled at their current historically high prices and with the easier to access territories so thoroughly explored, there is genuine appetite for riskier and more costly prospects, but for smaller players, bringing on board the financial muscle of a major can be crucial.

Brazilian explorer HRT, something of a sub-salt specialist and the largest asset holder in Namibia with nearly 69,000 square kilometers, is evaluating offers to buy a third of its interest in its 12 Namibian blocks after more than 20 companies studied the data. ExxonMobil, Shell, Petrobras, Anadarko and Murphy are among the companies that have studied the data.

A successful sale is likely to bring in another major to help bankroll HRT's planned drilling campaign. It plans to drill four wells in 2013, a record for Namibia in terms of the number of wells drilled in a single year, and has already secured a rig.

Elsewhere, Repsol, with UK partner Tower Resources, will drill the first well in the Delta prospect in license 0010, which is estimated to hold approximately 9.3 billion barrels of recoverable oil and 14.5 Tcf of gas, in 2013.

BP, already involved with Chariot, expanded its interest in March 2012 by buying into Serica Energy's 0047 exploration license, which covers four blocks in the deep water central Luderitz basin. It agreed to fully fund a 3-D seismic survey covering up to 1,602 sq km in return for a 30% stake in the license, and has the option to acquire an additional 37.5% interest in the license by drilling and testing a well. Serica finance director Chris Hearne said the survey, one of the largest undertaken offshore, is 75% complete and data acquired so far has been of good quality.

Among others championing the cause for the potential of Namibian oil waters is Gil Holzman, CEO of Eco Oil & Gas, a Canadian company with plans to drill its first wells in 2015.

Holzman says the company has identified seven leads in licenses 2111B and 2211A, collectively known as the Guy block. An independent study carried out by Gustavon Associates put Eco's total best estimate prospective resources in the offshore acreage at around 18 billion barrels. The company also holds two onshore licenses covering 30,0000 sq km and is in talks with potential partners to share the risk of exploring these blocks.

NAMIBIA'S OFFSHORE OIL AND GAS EXPLORATION

Source: Ministry of Mines and Energy, Namibia

Canada's Energulf is also looking to bring in a co-venture partner and accelerate the exploration efforts over block 1711 close to the maritime boundary with Angola with a mean estimate of 3.166 billion barrels of potentially recoverable oil. The company's CEO Jeff Greenblum says the data room has attracted interest from various companies including majors. "We are looking to end up with an investor who is a large industry player," he said.

Following the appointment of a new operator, a 3D seismic survey will be conducted over the Hartmann area in the southern portion of the block to determine the best drill targets scheduled for 2013.It is estimated that the next phase of the work program on the blocks, which includes more geological and geophysical evaluation, could cost $12-15 million. "We have a good shot at major discovery," Greenblum said.

Pancontinental's CEO Barry Rushworth says the Australian company is chasing an oil prospect in its EL 0037 license, covering some 17, 295 sq km in the Walvis basin. To support a potential oil find, a "bulls-eye" of interpreted naturally occurring oil slicks has been seen in the license.

New entrant African International Energy has committed a $10 million exploration budget for blocks 2715 A and B, northeast of Kudu. AIE's CEO Aldworth Mbalati believes the blocks have a strong gas or condensate potential rather than oil.

Industry experts say the substantial costs involved in deepwater drilling are one of the main reasons Namibia has been overlooked until now. Onshore and shallow water drilling is perceived as a safer bet.

But despite what has ultimately been a disappointing year for Namibia in terms of solid hits, with eight wells planned in 2013 and 12 more slated for 2014-16, it's clear that Namibia's position in the global market is moving out of the shadows as operators bet on rewards from higher-risk ventures. ■