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AFRICA OIL AND GAS

BREAKING NEWS AND ANALYSIS FROM AFRICA

Total commercial on US $2 Bn Angolan GirRI

Total has shortlisted companies for commercial bids for its US $2 Bn deepwater **GirRI** project off Angola.

The French firm has given the firms until May to submit tenders for the development which will bring in another 130m bbl of crude to the existing **Girassol** FPSO in **Block 17** and increase production by 45,000 b/d. In total up to 20 new wells will be needed with up to a dozen oil producers and eight water injectors.

The contracts have been divided into drilling, modification to the topsides on the Girassol FPSO, subsea production system and subsea umbilical, riser and flowlines (SURF) contract including installation of subsea production system.

For the SURF contract Heerema, Saipem, Subsea 7/Acergy and Technip are understood to be shortlisted. For the modifications AOG understands that Acergy, Dynamic Industries and Petromar have been shortlisted with, as ever, French companies expected to stand a good chance.

Doris Engineering is believed to have worked on the front-end engineering and design.

The GirRI project (Girassol Resources Initiative) involves the development of a new satellite reservoir on the **Rosa** field along with the development of a new Miocene structure and infill drilling on both the Girassol and **Jasmim** fields. These will all be tied back to the existing Girassol FPSO which will be modified accordingly. Girassol already takes in crude from the Jasmim and Rosa tiebacks. Recovery will also be improved through new multiphase pumps on Rosa.

Back in 2002 Stolt, which also won Continued on page 3

New duo lead Chevron Angola shallow giant

The contest for the engineering design for Chevron's multi-billion dollar **Greater Vanza Longui Area** (GVLA) project in the shallows off the Angolan enclave of Cabinda is coming to a close with a new combination understood to be leading the pack.

Chevron has delayed making a recommendation on who should get the front-end engineering and design (FEED) for the multi-platform project which will enter full bidding later this year. The contest has been between Acergy, EDG, Technip and WorleyParsons and AOG now understands that EDG and Technip appear to have the upper hand.

If this is the final pairing Technip will work on the central platform while EDG will work on the wellhead platforms and pipelines and brownfield work.

Originally, sources suggested that Amec Paragon and EDG looked like snatching the work as the pair completed the same work on **Mafumeira Sul**, which is a very similar development. EDG also completed the pre-FEED for GVLA. However, Worley Parsons then managed to pull itself back into favour but now the EDG/Technip pairing is understood to be leading.

The recommendation for the FEED winner was originally supposed to be made by Chevron to Sonangol in December.

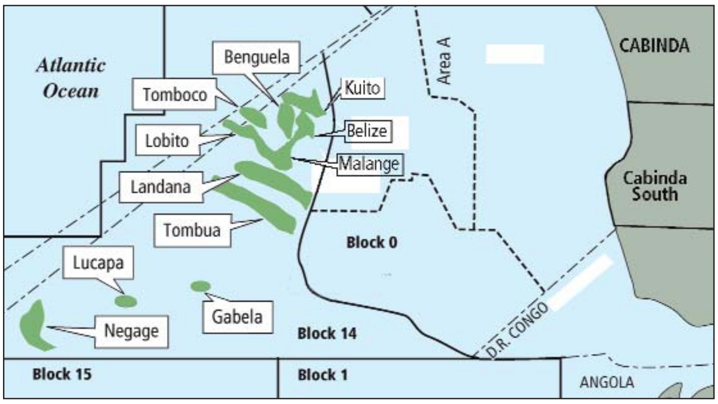
The project in **Area B** of **Block 0** Continued on page 4

Chevron adds another to Angolan project list

Chevron is looking at development options for yet another deepwater discovery off Angola.

The US major is investigating options for its **Malange** find in **Block 14**, with a subsea tie-back to existing infrastructure the likely solution.

Full front end engineering and design is unlikely to start before late this year for the field which will be the first Pinda development in the block.



Reserves are estimated at up to 150m boe and up to six wells are anticipated to bring the crude onstream. Sources say a conceptual development plan has already been submitted and a subsurface technical review is expected in the third quarter of this year.

Chevron drilled a successful Continued on page 5

INSIDE THIS WEEK

Apache enters East Africa offshore with Kenya splash...

Activity in East African acreage is continuing at a high level with Apache Corp making its first ever foray into the region and taking over a block offshore Kenya.

The purchase of a 50% stake in **Block L8** from Origin Energy is a major change for the US independent. In recent years in Africa it has restricted itself to onshore Egypt although it was once operator of the **Foxtrot** field off Côte d'Ivoire, selling up over a decade ago (see AOG 14 September 1999).

Apache will pay Origin historical costs of US $13.2m and Apache will also carry the Australian firm for some of the cost of an exploration well to be drilled in Block L8. This is likely to be on the **Mbawa** structure which has been covered by 3D seismic and which Origin believes could hold 2.8 Tcf of gas and 850m bbl of oil.

Origin's head of new ventures, Dr Rob Willink, said: "Origin is pleased to have secured this agreement with Apache which… will see the joint venture go forward and assume a commitment to drill. We also welcome Apache, as incoming operator, bringing to the joint venture its specialist drilling expertise".

Block L8 covers 5,123sq km with Mbawa being the most attractive structure with potential for both oil and gas at inferred Cretaceous and Jurassic reservoir levels. The block was originally held by Pancontinental Oil & Gas with Origin earning its stake by paying for seismic and a well.

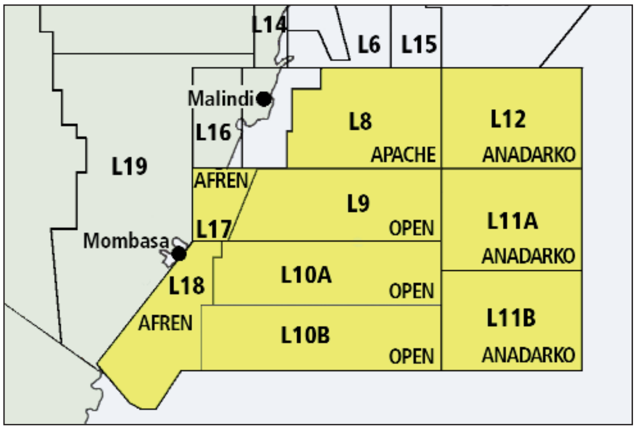
Subject to joint venture and government approval partners in the block will be: Apache (50%), Origin Energy (25%), Afrex (15%) and Pancontinental (10%).

...as BG/Dominion explore Kenya offshore trio

The Kenyan government is holding talks with BG Group and Dominion Petroleum over the award of three offshore blocks.

The government is in advanced talks with the firms and expects to issue licences by April, said Martin Mwaisakenyi Heya, the commissioner in charge of petroleum at the Energy Ministry.

"BG is interested in three blocks while Dominion is interested in one block," he said, adding that the offshore blocks in question are **Blocks L9**, **L10A** and **L10B** which range from shallow to ultra-deepwater. Only one well has been drilled in the acreage before – the unsuccessful **Simba-1** well, by Marathon back in 1982. Both companies are already involved in East Africa in Tanzania.



Anadarko currently holds the majority of the Kenyan ultra-deepwater offshore where it may drill its first well later this year – although 2012 appears more likely. Afren will also be drilling an offshore shallow water well in the second half of the year in its **Block L17/18** which neighbours the acreage where BG and Dominion are negotiating.

According to Heya, the discovery of oil in Uganda's Lake Albertine rift basin has spurred interest in Kenya's oil sector and more international companies continue to apply for exploration licences with 22 blocks currently awarded.

According to Heya, Kenya's Western Rift Valley has similar geological properties to the Uganda's Lake Albertine rift. "The Ugandan discovery has de-risked the entire East African rift which stretches through Kenya to Malawi," he added.

Total ready for DR Congo foray

Total will farm into Democratic Republic of Congo acreage bordering Uganda while it is also negotiating to operate a neighbouring block, Oil Minister Celestin Mbuyu said.

The French company will buy into **Block 3** which is currently controlled by South African firms SacOil Holding and Divine Inspiration Group.

Congo is in the process of allocating dozens of oil blocks across the country, which is about the size of Western Europe. The central African nation currently produces about 25,000 b/d but is benefiting from a series of discoveries made by Heritage and Tullow across the border in Uganda. Total is currently waiting for government approval permitting it to farm into this Tullow acreage.

Total is also negotiating for rights to **Block 4**, the last available oil block along Congo's border with Uganda, Mbuyu said. Eni and 11 other companies are also interested in the area, he said, with an award expected in the middle of the year. Domestic firm Polar Petroleum had been negotiating on this block while UK firms SOCO International and Dominion Petroleum hold **Block 5** along Lake Edward.

Confidence in the legal situation in the DR Congo took a hit last year when two companies owned by the nephew of South African President Jacob Zuma won **Blocks 1** and **2** in the east of the country that Tullow Oil believed it held.

Congo had signed contracts with different companies for the blocks. Tullow signed a US $500,000 contract in 2006 but never received a presidential decree. Divine Inspiration Group signed a competing $2.5m contract for Block 1 in 2008.

Aminex ups Tanzania stake ahead of exploration

Aminex has taken over the majority of the stake held by a partner in a block in Tanzania ahead of drilling in April.

The UK independent will take a total of 15% of the 20% stake held by Key Petroleum in the **Nyuni** block and will fund the full 20% of costs if the planned well is dry.

The additional 15% being acquired by Aminex includes 15% of the tested **Kiliwani North** gas discovery and of the logged but not tested gas discovery in Albian-Aptian sands in the **Nyuni-1** well, drilled in 2004.

Nyuni-2 is due to be spudded in April and a rig contract is in the final stages of negotiations. Nyuni-2 will be drilled from Nyuni Island at an angle of approximately 30° from vertical to target a large gas prospect in Lower Cretaceous sandstones.

A commercial discovery could be tied back via a 20km subsea pipeline to the producing **Songo-Songo** field.

Total goes commercial on US $2 Bn Angolan GirRI

Continued from page 1 the subsea contract on the original Girassol project, was awarded the contract for the 240m bbl Jasmim tiebacks. It then subcontracted the subsea trees to FMC Kongsberg. The major contract was seen as an extension to the Girassol deal and did not involve a fully competitive tender.

In 2004 Saipem won the $440m SURF contract on the original 350m bbl Rosa project which is about 15km from Girassol. FMC won the $120m subsea production system. Pride won the drilling contract while Acergy, Ponticelli and Heerema won other contracts.

Total lists project hopefuls and focuses on riskier exploration

Total has listed a series of major projects it will develop in Africa in the next few years and announced a focus on quick development of projects and a return to frontier exploration.

Capex will be lifted 8% to US $16 Bn this year as it aims to launch 12 major new projects, including four in Africa. These are **Ofon Phase 2** and **Egina** in Nigeria, **Ahnet** in Algeria and **Moho Nord** in Congo Brazzaville.

The first of these will bring in extra production of around 70,000 boe/d by 2014 involving reserves of around 250m bbl. While bidding for Egina is ongoing (see story page 5), Moho Nord bidding is likely to start within months (see AOG 3 February). The tension leg platform/floating production unit project will take in around 320m bbl of crude with peak production of 100,000 b/d and startup in 2016.

This will be closely followed by first oil from the **Block 32 CSE** (now **Kaombo**) project in Angola (see story page 5). As revealed last year (see AOG 14 October) Total is now definitely targeting two smaller FPSOs rather than one large one.

The French operator and design house Doris Engineering were originally looking at one large 200,000 b/d vessel for the Block 32 development along the lines of Total's other projects in the region. However, national oil company Sonangol has been arguing for two smaller vessels, saying this was required because of the high number of wells. Total has now confirmed it is looking at two smaller vessels with production capacity of around 100,000 b/d each.

First oil from these will be preceded by shallow water projects in Nigeria, **Ikike** in **OML 99** and **Ima** in **OML 112**. The OML 99 project is near the existing **Amenam** complex with production of around 55,000 boe/d expected in 2014. Ima is likely to come onstream around 2016 with production at 60,000 boe/d. In 2006 Total farmed into the Amni acreage and one year later drilled a successful appraisal well on the field which is believed to hold reserves of up to 1.8 Tcf. The block is in the eastern part of the Niger Delta, about 20km from the Nigeria LNG plant.

Total boss Christophe de Margerie said that the company had a new emphasis on developing projects quickly to lock in costs.

"When you decide a project you quickly start developing it before everything gets changed. We are still in a world that is not crystal clear. A lot of people were saying a few years ago that they see the cost of projects declining, well they were probably a bit more optimistic than they should be. There are a lot of projects still and a lot of additional requests in terms of security and environment that are making them a little more expensive, so each time you can, do it," he said.

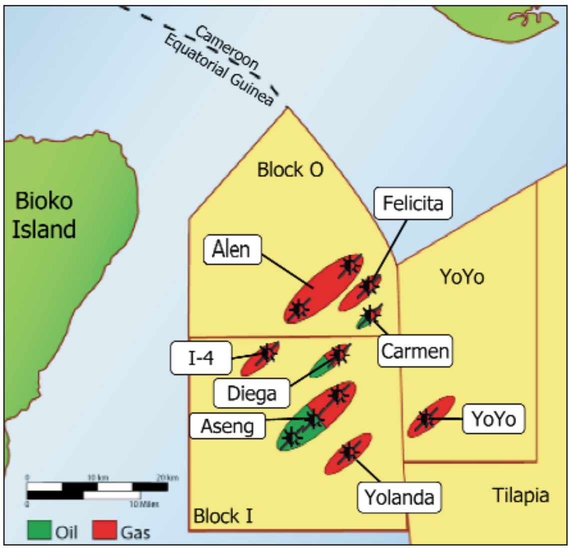
Total also used last week's strategy presentation to stress that it aims to adopt a riskier attitude to exploration. It said it wanted to reinvigorate its exploration work towards bigger discoveries and that its recent acquisition of three pre-salt blocks in Angola was a major part of this.

"Angola pre-salt we had access to three new blocks. It's not Brazil, it might not be as good but if you don't take risks you won't get it. It really looks like Brazil and it's part of something that might become a new hub. It's exploration but it's true… you need to drill more than one or two frontier wells a year to be successful," de Margerie added.

The company expects to spend $2.1 Bn on exploration this year compared to $1.8 Bn last year and $1.5 Bn five years ago.

Noble prepares for new E Guinea sanction

Noble Energy is hoping to sanction the development of two more fields off Equatorial Guinea in the middle of this year after another appraisal well.



The **Diega** and **Carmen** fields lie between the **Alen** field for which McDermott was recently awarded the platform and the **Aseng** FPSO to which all the projects will be tied back.

Noble plans two to three wells in West Africa this year with the first being an appraisal well in the Carmen-Diega area in the second quarter.

The Diega oil, gas and condensate discovery was made in **Block I** in 2008. The well is around 15km from Aseng. The discovery well encountered 38ft (12m) of net gas-condensate pay in the primary drilling zone. A deeper, previously untested, feature was also discovered and found to contain 30ft (9m) of net gas-condensate pay underlain by 37ft (11m) of net oil pay.

The Carmen well was the first oil discovery on **Block O**. It encountered approximately 26ft (8m) of net oil pay, along with 13ft (4m) of net gas pay. Located in approximately 150ft (46m) of water, the well was drilled to a total depth of 11,550ft (3,520m) to test a lower Miocene reservoir.

Noble has yet to finalise where it will drill the other wells, though at least one may be on its acreage in Cameroon where it has completed the acquisition of 3D seismic and where it has the **YoYo** discovery in **Block PH-77** (see AOG 18 October 2007). Net reserves here are put at 88m boe in 1,732ft (528m) of water. First production from this was previously anticipated in 2014 at a rate of 30,000 boe/d via two wells.

A full gas monetisation programme for the Equatorial Guinea gas is expected to be sanctioned in early 2012 with production in early 2015. This will involve a 36km pipeline to shore, theoretically for the anticipated second train of the Equatorial Guinea LNG plant.

New duo lead Chevron Angola shallow giant

Continued from page 1 will take in hydrocarbons from the **Vanza** and **Longui** reservoirs in the Pinda formation. In total they will bring in production of up to 75,000 b/d of oil, 450 MMcf/d of gas and 15,000 b/d of condensate. Reserves in the area are put at 200m bbl of liquids and 1.5 Tcf of gas following extra exploration and appraisal wells over the last few years.

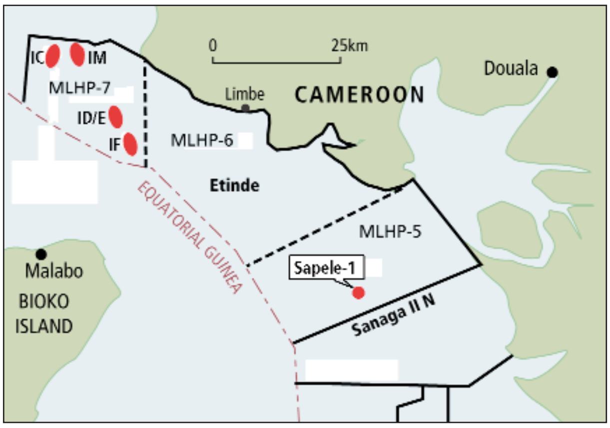
There will be a wellhead platform over Longui at a water depth of around 400ft (122m) and another over Vanza in a water depth of 350ft (107m). The central production and compression platform will also be situated at Vanza along with the quarters platform. The last three platforms will be connected by bridges. The project is being designed as a hub for future tie-backs of other fields in the area.

The liquids will be exported around 10km to an existing pipeline while the gas will end up at the **Angola LNG** plant via a new 25km pipeline to the planned **Sanha Auxiliary** platform.

Bowleven looking at two stage approach for Cameroon treasures

The development of Bowleven's latest find in Cameroon is likely to follow a two stage plan similar to Noble Energy's nearby projects.

Bowleven is now fast-tracking exploration and appraisal with a second rig on its acreage after encountering a new "significant" hydrocarbon column at its **Sapele-1** well in **MLHP-5**. It had already encountered several oil, gas and condensate reservoirs in more common Tertiary reservoirs in the Douala Basin. However, drilling was halted due to a rapid influx of very high pressure gas in the Cretaceous at 15,530ft (4,733m). Appraisal has now begun on the Tertiary reservoirs to decide whether it should be a stand-alone development or a tie-back to Bowleven's existing fields two blocks away on **MLHP-7**.



If a stand-alone, it is likely to see a two staged approach with an FPSO project first producing oil and the gas later being used if and when it is needed for an LNG plant. This is exactly the same method as Noble Energy has been using for its string of discoveries in the same basin across the border in Equatorial Guinea.

The Bowleven drilling programme this year will involve at least one appraisal well on MLHP-7. This is likely to be on the **IE** field where an appraisal well was drilled last year resulting in a gas condensate flow rate of 22,909 boe/d (see AOG 2 September). It is also looking at an appraisal well on the **IF** field where new 3D seismic is being processed and where the company believes reserves in place stand at 225m bbl.

Bowleven has been looking at an FPSO development for the fields for some time but this could now also involve a tie-back from MLHP-5. The company is looking at capex of up to US $600m for the FPSO, a minimum facilities platform on the IE field and a tarpon type wellhead structure on the IF field.

The latest Sapele well results come from the Cretaceous geology which has become the exciting buzzword round the coast of Africa.

"Based on an initial analysis of the major step change in pressure encountered and the interpretation of the seismic, it is considered that the well may have encountered a significant hydrocarbon column in the Cretaceous," Bowleven said.

The company is now accelerating appraisal of the Tertiary as well as new Cretaceous exploration and has contracted the Vantage *Sapphire Driller* jack-up which is expected to be mobilised from Gabon towards the end of this month. The contract contains a programme of three firm wells plus one contingent well at a day rate of US $120,000.

The wells will start with a sidetrack and testing of the Tertiary at Sapele before up to three more Tertiary wells on MLHP-5. There will also be another Cretaceous well on MLPH-5 and the appraisal well on **MLHP-7**.

Saipem expects offshore boost to add to bumper year

Saipem reported bumper results for 2010 and said it only expects things to get better, with the offshore sector in particular predicted to improve.

"Oil industry spending is expected to increase in 2011, underpinning expectations of improved market prospects for the oil services industry. Specifically, onshore sector spending is expected to experience similar high levels of investment as in 2010, whilst the offshore sector spending is expected to increase," the company said.

"This should allow for a continued positive trend in the onshore market and a gradual recovery in the offshore market, a sector that has remained weak over the last two years. In the drilling sectors, good demand is expected to lead to a gradual recovery of both utilisation levels and daily rates," it added.

Adjusted net profit for 2010 reached a record level of US $1,115m, a 13.1% increase compared to 2009. Net profit amounted to $1,137m. The net profit for the fourth quarter of 2010 amounted to $319m, a 26.1% increase compared to the fourth quarter of 2009.

New contracts won in 2010 amounted to $17,419m ($13,354m in 2009), while the backlog at 31 December 2010 stood at a record $27,612m ($25,222m the year before).

The management outlook for 2011 is for a further increase in revenues and adjusted net profit of around 5%.

In offshore engineering and construction, revenues rose 3.3% for the year to $6,040m, mainly due to higher levels of activity in West Africa and Kazakhstan.

Contracts awarded in the fourth quarter included the **Critical Crude Pipeline Replacement** project in Nigeria for ExxonMobil involving fabrication, transportation, installation and testing of six replacement pipelines connecting six platforms.

Onshore revenues for 2010 amounted to $7,050m, representing an 8.4% increase compared to 2009, attributable to higher levels of activity in North and West Africa.

Chevron adds another to Angolan project list

Continued from page 1 appraisal well on the find in 2009 and shortly afterwards started reviewing possibilities. There were originally suggestions that the discovery was large enough to warrant yet another standalone project on the block but it is also relatively close to the producing **Benguela/Belize** and **Lobito/Tomboco** projects and a tie-back to one of these is most likely.

The discovery well, **Malange-1**, was drilled in 873ft (266m) of water in 2007 to a total vertical depth of 15,562ft (4,743m) and encountered around 212 net ft (65m) of reservoir full of oil.

The well was tested and flowed high-quality crude at a rate of 7,669 b/d. Malange-1 was the 11th exploration discovery made in Block 14 since 1997. However, it was the first discovery made in the Pinda formation.

The company is forming a long list of projects for development in Angola including **Lianzi**, **Lucapa**, **Mafumeira Sul**, **Greater Vanza Longui** and **South N'Dola**.

Big guns line up for Total Egina shortlist but delays add doubts

The major contenders are now waiting for news on those shortlisted to tender for the massive FPSO for Total's **Egina** project off Nigeria after clarification meetings in Paris last week.

Hyundai Heavy Industries/Doris appears to remain the consortium to beat with the Technip/Crestech Engineering grouping providing the main competition. Samsung Heavy Industries has teamed up with a Chinese yard but it is believed to be the Korean firm's first time as the lead contractor on a job of this size. Little known Chinese firm Tianjin Energy Resources is the fourth contender in an alliance with a Chinese yard and some observers are surprised that it reached this stage and expect it to drop off the list.

HHI and Technip have a mixed history in Total FPSOs for Nigeria. The South Korean firm snatched the giant FPSO for Total's **Akpo** field at the last minute from a consortium involving Technip while the pair jointly won the contract for the vessel for the French firm's **Usan** field.

The major problems facing all of the bidders are the new more stringent local content requirements, which are likely to significantly affect price and schedule, and the presidential elections in April, which could seriously affect contract approval. Currently contract award is pencilled in for June but this appears extremely optimistic and there are suggestions it could even be delayed as far as early 2012 as final issues over local content are ironed out.

The shortlist for the subsea umbilical, riser and flowline contract is likely to contain the usual contenders of Acergy/Subsea 7, Saipem and Technip but once again local content demands have played their part. Local firms Nestoil and West African Ventures have been involved but they are expected to fall by the wayside, with the opportunity to reappear in a smaller role after contracts have been awarded.

Because of the delays, bidding is likely to become mixed up with Total's two other current giant projects in West Africa - **Kaombo** (formerly CSE) in **Block 32** in Angola (see AOG 14 October 2010) and **Moho Nord** in Congo (see AOG 9 December 2010). The former will involve two newbuild FPSOs with prequalification currently expected to start in mid-April. The Congo project involves a tension leg platform and floating production unit and prequalification for a shortlist for the TLP is now expected in May. This could put pressure on some bidders who are unable to cope with more than one major job at the same time.

Egina, in **OML 130**, has recoverable reserves of around 500m bbl and the FPSO will have production capacity of around 210,000 b/d via 39 wells and storage capacity of 2m bbl. First oil is expected in 2015. The water depth is around 4,920ft (1,500m).

Technip optimistic on 2011

Technip painted an optimistic picture in its outlook for the year ahead but warned that there could be a return to some cost inflation because of raw material prices.

While announcing an improved profit and backlog for 2011 this morning chief executive Thierry Pilenko said: "Looking ahead to 2011, we are positive about the outlook for our industry. Oil prices and input costs are at levels which make most projects worldwide economically viable, allowing our clients to focus on growing production."

However, he added a cautious note, saying: "Nonetheless, competition remains intense. Although we see no overall significant inflation of project costs, given inflation in some underlying raw materials this is more of a risk - for the industry and for our clients - than a year ago."

Revenue for 2010 was down at US $8,213m from $8,720m but net income jumped to $565m from $230m with the fourth quarter in particular showing a marked turnaround.

The company's backlog at the end of 2010 grew to $12,465m, up 15% on the year before and nearly the same level as 2007. Offshore doubled to account for 12% of the backlog with onshore down 2% at 54% and subsea down 4% at 34%. The Middle East still accounts for the majority of the backlog at 32% with Africa at 18%. Of the total, 25% is in shallow water, 21% in deepwater and 11% in gas and LNG.

The company is targeting group revenue of between $8,780 and $9,050 in 2011, a subsea operating margin of above 15% and an onshore/offshore margin of between 6% and 6.5%.

EXPLORATION

Circle goes with the flow in Morocco

Circle Oil has successfully tested a gas discovery in Morocco.

The **DRJ-6** exploration well was drilled last year in the **Sebou** permit but has only now been successfully tested due to local logistical problems at the time of drilling.

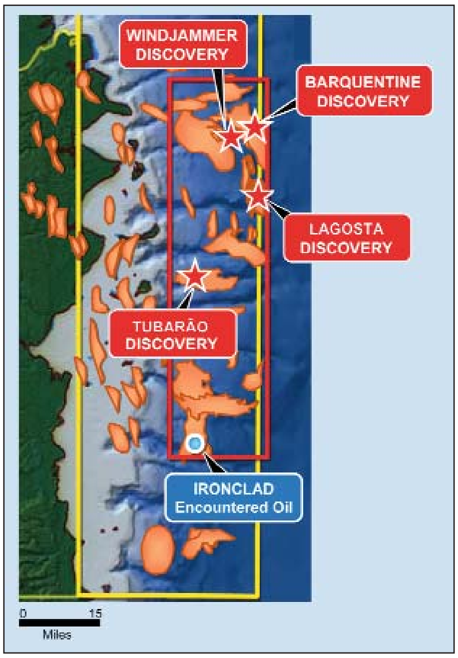
The well tested gas at a sustained rate of 5.36 MMcf/d with a net pay of 15ft (4.5m). The well is being completed as a potential producer.

The drilling rig will be stored for a few weeks due to bad weather before being moved to the fifth and final well of this campaign, the **KSR-11** exploration well. All the wells drilled in the current campaign so far have been successful.

Mixed feelings for Anadarko after new Mozambique gas find

Anadarko has finished its initial deepwater exploration campaign off Mozambique with another discovery, although this caused mixed emotions as it was gas rather than the hoped for oil.

The **Tubarao** well in **Offshore Block 1** encountered more than 110 net ft (34m) of natural gas pay and no water in an Eocene-age reservoir that is separate and distinct from the hydrocarbon accumulations in Anadarko's three previous discoveries in the block.



The rig will now start a campaign to firm up reserves on the previous discoveries, starting with a coring programme followed by appraisal drilling in the **Windjammer**, **Barquentine and Lagosta** complex. This will be followed by a new exploration campaign, potentially involving a second rig, later this year.

Anadarko had believed that the prospects in the south of the block would be more oil prone than the previous gas finds in the north. Before drilling it had hoped that Tubarao, in the middle of the acreage, would lean more towards oil.

"The discovery at the Tubarao prospect opens an entirely new play style, which has additional opportunities in Mozambique's Offshore Area 1," Anadarko senior VP worldwide exploration, Bob Daniels, said.

"This is our fourth significant discovery in the offshore Rovuma Basin and further strengthens our confidence in our geologic and geophysical models of the basin. Our seismic imaging indicates Tubarao's areal extent could cover about 15,000 acres that will be better defined with appraisal drilling. In addition, we continue to safely enhance our drilling efficiencies, procedures and methodology in Mozambique, as we drilled this well in half the time of our first exploration wells."

The Tubarao well was drilled to a total depth of approximately 13,900ft (4,237m) in water depths of approximately 2,950ft (898m), approximately 29km off the Mozambique coast. The partnership plans to preserve the wellbore at Tubarao for potential utilisation in future testing.

John Craven, CEO of partner Cove, said: "Our joint venture has already commenced detailed studies and appraisal planning for an LNG development… In addition to the hydrocarbons discovered so far, there is further significant oil and gas potential remaining in the block and several prospects and leads have already been identified, consequently a return to exploration drilling is planned later this year continuing through 2012."

Hyperdynamics invites rig for Guinea wildcat double

Hyperdynamics Corp has finally issued an invitation to tender for a two well programme off Guinea later this year.

The US minnow has persevered through many years of setbacks and failing negotiations, most recently with Noble Energy, but now hopes to spud the first well with partner Dana Petroleum in the final quarter of the year.

The tender covers the drilling of two wells plus an optional third well.

"This is the next major step in the preparations for our 2011 drilling campaign," said Ray Leonard, Hyperdynamics president. "Tendering for a moored semisubmersible rig will allow us to test identified prospects in various water depths with a single rig, which will result in greater economic and operational efficiency."

The closing date for tenders is 23 February and a contract is expected to be awarded by early April.

Arcadia prepares for 2011 Namibia deep wildcat

Arcadia now hopes to drill a deepwater wildcat off Namibia in the fourth quarter of the year.

The minnow is operator of **Licence 0010** and partner Tower Resources said that it "...has accelerated its programme to put in place funding and to contract a deepwater drilling rig with a view to drilling in the final quarter of 2011. This timing now has a high priority but is subject to timing of rig availability."

Processing of 3D seismic has been completed and interpretation is expected by the end of March. Arcadia is expected to try to farm-down its stake over the next few months but drilling may not be dependent on this.

The first well to be drilled by Arcadia currently appears to be likely on the **Delta** structure which showed up on 2D and will test for approximately 6 Bn bbl of oil.

DNO keeps the faith with latest Mozambique wildcat

DNO spudded its latest well onshore Mozambique earlier this week.

The **Inhaminga High-1** well is being drilled on the onshore **Inhaminga** block after DNO took up an option for a second wildcat following last month's **Chite-1** duster on the same block.

The new well is east of the Chite-1 well which reached target depth of 11,485ft (3,500m) without encountering hydrocarbons. It was the first well ever to be drilled in the Urema Graben in Mozambique, a potential new play fairway that DNO is testing for source rocks, reservoir rocks and potential hydrocarbon trapping mechanisms.

The Norwegian firm has previously drilled three dry wells on the block and is currently negotiating on the 19,181sq km **Lower Zambesi** block to the north of Inhaminga.

Statoil ready to taste Egyptian Kiwi

Statoil is hoping for results before the end of the month from its first "high impact" deepwater wildcat off Egypt.

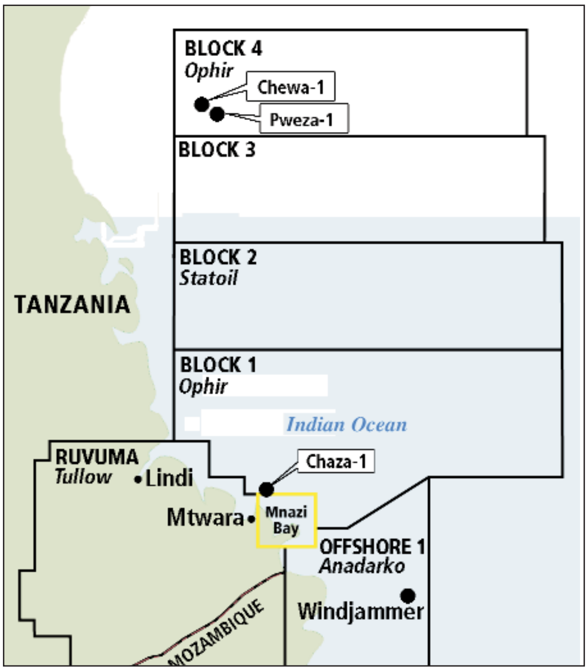
Transocean's *Discoverer Americas* drillship has been in the Mediterranean, west of the Nile Delta, in the **El Dabaa Offshore** (**Block 9**) acreage since late November drilling the **Kiwi-1** well.

The well is located approximately 140km north of El Dabaa district and 170km northwest of Abu Qir with a water depth of 8,875ft (2,705m) and a planned total depth of 17,388ft (5,300m).

The company is also operator of **Ras El Hekma Offshore** (**Block 10**). It fulfilled its work commitment in this licence, which includes the acquisition of 2D and 3D seismic surveys. Initial processing was completed in early 2009 and further processing is ongoing.

BG mulls new Tanzania deep double

BG is looking to drill another two deepwater wells off Tanzania this year as the third and final wildcat in its current programme heads towards completion with positive early indications.



The UK company will take over operatorship of **Blocks 1**, **3** and **4** as soon as the current **Chaza-1** well in Block 1 is completed towards the end of this month. The well has been delayed by problems with the blow out preventer on Odfjell Drilling's *Deepsea Stavanger* semisub but is now understood to have hit gas in its secondary target.

BG said it is now looking at potentially drilling another two wells on the acreage before the end of the year and that it will shoot 4,000sq km of new 3D seismic.

The company currently believes that nearly 20% of its global prospect inventory lies in these three Tanzanian blocks and that following the completion of Chaza the next step is "...to test potential prospects in Block 1, with a focus on aggregating sufficient quantities of gas in near-juxtaposed discoveries," company boss Frank Chapman said at last week's strategy presentation.

"Our first two wells are significant gas discoveries in high-quality reservoirs. These are encouraging early indications from an area with a wide range of play concepts to be explored. What I would say to you is there are a wide variety of concepts that we need to explore there. OK, so this is just the beginning in a relatively straightforward setting. So this is not going to be something that we understand the whole story next year," he cautioned.

The two previous wells were **Pweza-1** in 4,595ft (1,400m) of water and **Chewa-1** in 4,315ft (1,315m) of water in Block 4 (see AOG 28 October 2010 and 9 December 2010 respectively for results).

Kosmos harvests Ghanaian Teak

Kosmos Energy is ready to appraise last week's new discovery in its acreage in Ghana that could potentially open up a new fairway.

The **Teak-1** exploration well in the **West Cape Three Points** licence discovered approximately 240ft (73m) of net hydrocarbons in two Campanian and three Turonian-aged reservoirs. The well was located 4.6 km northeast of the **Mahogany-2** well, 2.7 km outside the **Jubilee** unit boundary. It was drilled in 2,847ft (868m) of water to a total depth of 10,398ft (3,1709m).

The Campanian trap is potentially 50sq km in area and the *Atwood Hunger* semisub will immediately move to drill the **Teak-2** well which is targeting Turonian reservoirs in a fault block between the Teak discovery and Jubilee field.

The well hit oil or gas in all five zones with a total of 108ft (33m) of gas and 69ft (21m) of oil in the Campanian and 46ft (14m) of gas condensate and 16ft (5m) of oil in the deeper Turonian reservoirs.

The well was designed to evaluate potential objectives at these multiple horizons with appraisal located to test the thickest and potentially most developed portions of each reservoir.

"The Teak-1 well potentially opens a new exploration play fairway in the Mid-to-Lower Campanian interval in the **Tano** Basin. Hydrocarbon-bearing reservoirs of this age have not been present in Kosmos' previously drilled wells," the company said.

Songa sees activity soar 50%

Songa Offshore said it is getting ever more optimistic about the drilling market with a resurgence in activity in the fourth quarter of last year.

"Bidding and prequalification activity continues to increase, with active leads handled during the period at levels 50% higher than any of the three preceding quarters. With this increase in activity, the number of prospects and bids outstanding continues to grow and we expect operators to start issuing contracts during the next quarters," the Norwegian company said.

"We continue to discuss additional contract opportunities with regards to all rigs with an ever increasing field of operators. Our confidence in the market recovery continues to grow and we expect to see longer term programmes coming up as operators look to benefit from current market conditions," it added.

The company has been trying to rejuvenate its fleet in recent times and to grow in the ultra-deepwater segment: "The industry sentiment towards this sector has improved greatly the last quarters in an environment of strengthening crude prices and continued signs of recovery in the global economy," it said.

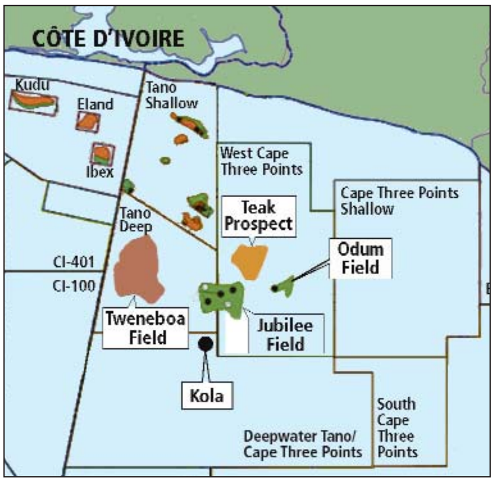
The company's net income nearly doubled to US $110m in the final quarter but this was helped by a $66m gain on the sale of the *Songa Saturn* drillship.

Mixed Mauritanian message as rig moves to Ghana deep

Hess will shortly spud a deepwater well in Ghana as the rig moves on after drilling a duster for Petronas off Mauritania.

The *Maersk Deliverer* semisub has plugged and abandoned the **Gharabi-1** well in **Block 6**. It was drilled in a water depth of 5,865ft (1,787m) to a total depth of 14,545ft (4,433m) and intersected poorly developed water-bearing reservoirs.

Partner Tullow said: "Gharabi-1 was drilled by the operator Petronas to meet a commitment on the block and the result has no impact on Tullow's future plans for its Mauritanian acreage."



Tullow recently said the **Sidewinder** prospect will also be drilled later this year on the same block. Sidewinder is said to be similar to **Owo** in Ghana and relatively high risk.

The current drilling campaign has once again sent out mixed messages over Mauritania's potential as earlier this year the semisub completed the successful **Cormoran-1** well in **Block 7** for Dana (see AOG 20 January). The Dana well was in safer, more conventional geological target.

The *Maersk Deliverer* now moves to Ghana where Hess will be drilling the **Kola** prospect on its 100% owned **Deepwater Tano Cape Three Points** block. The well is in the far north of Hess' block, directly south of the **Jubilee** field, where it shot 1,620sq km of new 3D seismic last year. CEO John Hess previously said they were "cautiously optimistic" about the drilling.

Hess drilled a well back in late 2008. The **Ankobra-1** well did not encounter commercially significant hydrocarbons. The well was drilled to a depth of 13,000ft (3,962m) in 5,682ft (1,731m) of water in the south of the block.

Statoil ready for East Africa drilling

Statoil confirmed it will drill at least one deepwater wildcat in Mozambique this year in acreage neighbouring the highly successful block where Anadarko is drilling.

The Norwegian company is operator of **Blocks 2** and **5** in Mozambique which it signed up for back in 2006. It quickly acquired 3,000km of 2D seismic and shot 1,000sq km of 3D after signing up for the second exploration phase in late 2008. The block abuts Anadarko's **Block 1** where a series of gas finds have been made (see separate story pg 6).

Statoil has now committed to drill a well later this year in the blocks in water depths of around 985-8,200ft (300-2,500m).

Eni was also planning to drill on its **Block 4** in Mozambique this year using the *Belford Dolphin* drillship that has been with Anadarko. However, the US company decided to keep the rig and Eni has been seeking a replacement.

Statoil also acquired 3D seismic in 2008 for its deepwater **Block 2** in neighbouring Tanzania. ExxonMobil farmed into this block last year (see AOG 8 April) and it is possible that drilling might start late this year. It neighbours **Block 1** in Tanzania where Ophir and BG are currently drilling the **Chaza-1** well (see story pg 7). This block is directly next to Block 1 in Mozambique.

Editor: **Mark Dixon**

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E-mail: subs@africaoilandgas.com
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