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# DRILLING CONTRACTOR

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## OFFSHORE DRILLING REPORT

*Shallow water remains strong; project delays dampen deepwater, but long term stays positive – p.20*

ALL DRILLING • ALL COMPLETIONS • ALL THE TIME

### THE BOOM DOWN UNDER

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### ONSHORE DRILLING BACK ON THE UPSWING

Permian draws increasing attention in the US; global markets resilient as Middle East, Russia, Europe seek modern, fit-for-purpose rigs – p.64



# Back on the upswing

Permian draws increasing attention in US; global markets resilient as Middle East, Russia, Europe seek modern, fit-for-purpose rigs

By JOANNE LIOU, ASSOCIATE EDITOR

**S**teadily high oil prices – WTI oil continues to hover around \$100/bbl – along with expanding opportunities around the world have drilling contractors, operators and analysts sharing a generally favorable outlook for the onshore drilling industry. In the eastern hemisphere, “it’s fair to say that there are more opportunities around the world than I have rigs to deploy,” **Andy Hendry**, **KCA Deutag** President of Land Operations, said. “Within the short, immediate term, it’s extremely encouraging.”

North America continues to lead the way in unconventional as further improvements in drilling efficiencies are realized. Although the Permian Basin was once a declining area, “it’s a very active and rapidly growing unconventional play,” **John Willis**, Chief of Drilling at **Occidental Petroleum** (Oxy), said. One of the operator’s “biggest activities is growing the unconventional developments in the Permian,” with plans to double its rig count in the Permian within the next three years, from 27 rigs in early 2014.

Activity in North America also continues to shift to development projects in horizontal plays and tight formations. While development wells vary based on geographical areas, **Latshaw Drilling** has drilled a maximum of approximately 10,000-ft vertical and 10,000-ft horizontal. In northern Oklahoma in the Mississippi Lime play, wells are averaging from 5,000 to 6,000-ft vertical and 4,000 to 6,000-ft horizontals. **Trent Latshaw**, President of Latshaw Drilling, said he has no doubt industry

## Onshore market highlights

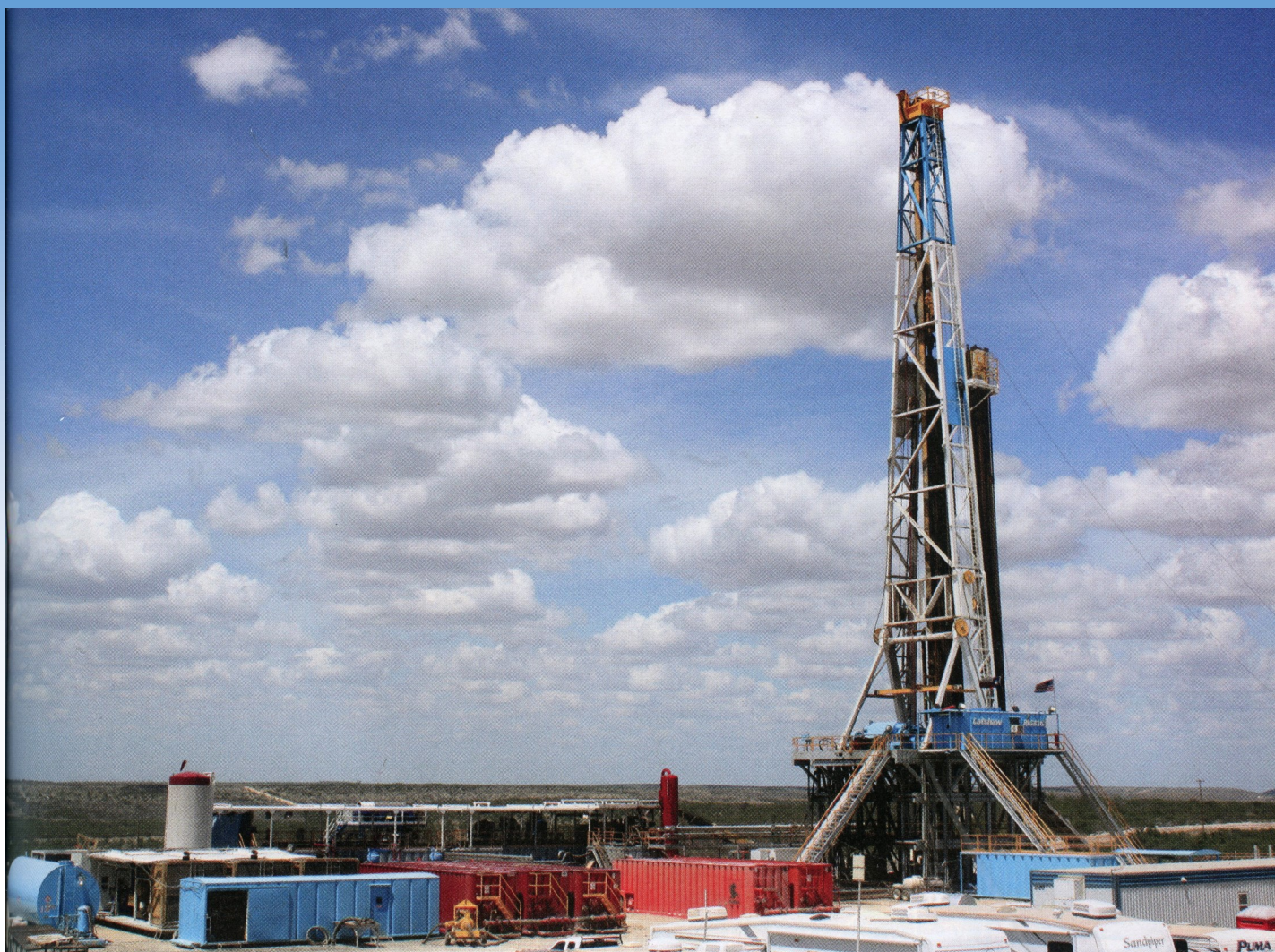
- Across the board, drilling contractors, operators and analysts share a positive outlook for the onshore drilling industry.
- North America continues to dominate the global unconventional market, while greater demand for modern drilling rigs is on the rise in other markets, such as Russia and Romania.
- Analysts expect to see greater shale output from China, which is targeting shale gas production of 6-10 bcf/day by 2020.

will push those numbers higher. From North America to Russia, markets around the globe are at various stages of maturity, presenting room for growth and efficiency improvements.

## ■ MAKING THE HORIZONTAL SHIFT

Latshaw Drilling is one of the largest privately owned drilling contractors in the US, with a fleet of 41 rigs spread between the





Permian and Anadarko basins, all of which are drilling for oil. "We've been putting some of our additional rigs that had been laid down back to work," Mr Latshaw said, noting that his fleet utilization will reach 95% in Q2. "Pretty soon, we're going to be out of rigs."

Latshaw Drilling acquired **Keen Energy Services** in October 2012, "just as everybody ran out of budget money and had to shut rigs down. We got caught up in that because not all of our rigs were under term contracts," Mr Latshaw explained. "In 2013, we were working through that, and people had new budget money, and oil prices actually stayed quite a bit higher than most people were anticipating throughout the year." Activity started to pick up by late 2013, and Mr Latshaw said that trend has continued into 2014. "It has some more running room. I don't think it's a rocket ship to the moon by any means, but I think there is still some room for increase in activity."

Dayrates are on the upside, as well. Mr Latshaw estimates dayrates have increased year over year by 10-15%. "They've been slowly increasing. For a 1,500-hp, top drive, walking rig, depending on the geographic area, the average we're seeing is in the \$21,500 to \$23,500 range."

In Q4 2013, Latshaw Drilling deployed two 1,500-hp newbuilds to the Permian Basin under one-year contracts. The SCR-powered Rig 19 is completing horizontal development work for **Energren**. Rig 42, an AC-powered rig, is drilling horizontal development wells for **Laredo Petroleum**. Both rigs are capable

of walking, and each features a top drive, which has become a key enabler for horizontal drilling. "Almost 100% of what we're doing is horizontal," Mr Latshaw noted. "Every rig we have running has a top drive."

Further, "the rig du jour is 1,500 hp," Mr Latshaw stated. His fleet includes some 1,000-hp rigs that are essentially drilling the same wells as a 1,500-hp rig would, and "we also have some 2,000-hp rigs doing the same, but ideally everybody wants a 1,500 hp," since the higher horsepower rigs typically have bigger – 1,600 hp – mud pumps, he explained. Another feature that operators are requesting is upgraded mud pumps, from 5,000 psi to 7,500 psi. The increasing use of downhole motors, rotary steerables and the wellbore hydraulics associated with horizontal drilling are driving the demand for this increase, he said.

Multiwell pad drilling also has made high mobility a necessity, not only for newbuilds but also for older rigs. This is true particularly for development drilling programs where there can be two to six wells per pad. "We've been retrofitting quite a few of our existing rigs to put walking systems on them," Mr Latshaw said. His company now has 13 rigs with walking systems and

**Above:** Latshaw Drilling's 2,000-hp Rig 16 is a Mid-Continent U-1220-EB rig capable of skidding. The SCR unit is currently working in the Permian Basin for Apache.





**Top:** Latshaw Drilling's Rig 19 features hydraulic "walking feet" (in yellow) on the substructure to allow the rig to walk for multiwell pad drilling. **Bottom:** Latshaw's Rig 8, a National 1320-UE rig, is operating in the Permian for Tall City Exploration. The 2,000-hp SCR rig also features a walking system.

18 with skidding systems. "There are a couple more rigs we are currently putting walking systems on. That covers the majority of our fleet."

Operators are also trending toward bifuel capabilities to make use of natural gas directly from the fields. "The operator, in most cases, is willing to pay to have the system put on rigs because it's to his benefit of fuel savings," Mr Latshaw said. For drilling contractors building new rigs, "it costs less than a couple hundred thousand dollars to put a (bifuel system) on a new rig that costs \$17-\$20 million," he stated. So far, Latshaw Drilling has seen bifuel systems to be most prevalent in areas with ample dry natural gas. Further, "people now are pushing LNG for these rigs because if you have a bifuel-capable rig in an area that doesn't have access to field dry gas, then they're proposing to truck in LNG and putting a tank by the rig." Four Latshaw rigs, including the two rigs that were deployed late last year, have bifuel engines, and the company plans to retrofit more.

“The beauty of drilling a horizontal oil well in East Texas is that there is infrastructure in place for services, for rigs and for production. The demand is just going to keep growing.”

**John Willis**  
Occidental Petroleum

### ■ OPERATIONS IN THE PERMIAN

The bustling West Texas market continues to keep rigs busy. Of the total 1,778 onshore rigs working in the US as of 11 April, 536 were operating in the Permian Basin, according to the **Baker Hughes** rig count. Almost all are drilling for oil or liquids. **Bandera Drilling** has five rigs – two AC and three mechanical – that are all working in the Permian region. **Ray Brazzel**, President of Bandera Drilling, said he sees potential for expanding his fleet there in the coming year.

The two AC-powered rigs, newbuilds that began operations in May 2009 and March 2012, were designed for horizontal drilling and feature mechanization equipment such as an Iron Derrickman and an Iron Roughneck. The 1,150-hp rigs are capable of drilling to 15,000 ft and are operated from a climate-controlled driller's cabin. Mr Brazzel said that, for any future newbuilds, he would likely continue to use technologies that remove people from the rig floor. He "would probably build a rig where no one was in the derrick, whether or not it be the Iron Derrickman or some other choices. The ultimate goal is to have no one in the derrick."

Bandera's mechanical rigs, which were built in 2006, are capable of drilling to 8,500 ft and have drilled horizontal wells to 13,500-ft measured depths, Mr Brazzel said. All five of Bandera's rigs are on multiwell, development drilling contracts targeting oil.

Concerns surrounding endangered species is one of the biggest issues affecting operations in the Permian Basin, he added. "We fought the lizard last year, fighting the chicken this year, and I think there's (more) coming down the pipe," Mr Brazzel said. Bandera has joined other contractors, service companies and operators in support of the Permian Basin Petroleum Association to fund studies and gather scientific information to help guide the US Fish and Wildlife Service (FWS) in its decision to list animals as endangered.

IADC, along with nine other industry organizations, issued a letter in March 2013 to the FWS regarding the listing of the lesser prairie chicken (LPC) as a threatened species. FWS extended the final listing determination to March this year and recently designated the LPC as a threatened species. Mr Brazzel said the effects of the ruling are not fully understood yet.

"While this broad-based industry effort did not prevail in keeping the LPC from being listed as a threatened species, the