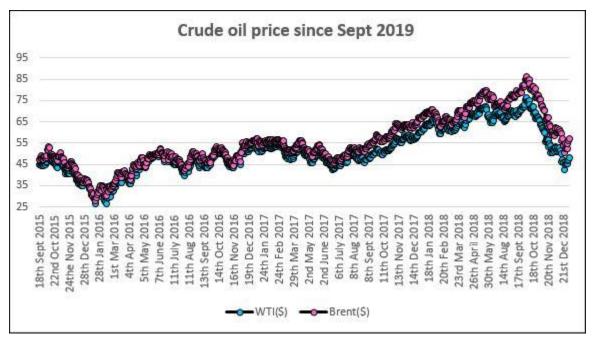
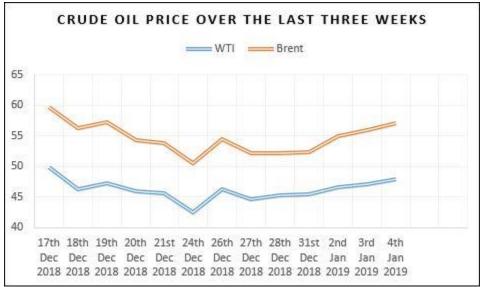
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• Even before the announced production cut by OPEC comes into force this month, Saudi Arabia trimmed its production last month. As a result, the overall OPEC production for Dec 2018 was 32.6 mb/d, which is down by 530,000 from the previous month. In anticipation of the China-US trade talks next week in China, the crude prices looked up, shaking off concerns of global growth.

- Despite the biggest quarterly drop in the oil prices since 2014, per Baker Hughes data, the
 US rig count rose by 2 to 885 in the US. This may slide down in the coming weeks due to
 the low prevailing oil prices and oil companies scale back their spending, but for the
 present the cativity is on a high.
- Per the EIA, US LNG export capacity will more than double and reach 8.9 Bcfd by the end of 2019, making it the world's third-largest behind Australia and Qatar. The current capacity is 3.6 Bcfd. This enhancement comes as two LNG export facilities are being commissioned, namely Cameron LNG in Louisiana and Freeport LNG in Texas, and will begin production by mid-2019. Another LNG export facility (Elba Island near Savannah, Georgia) is expected to become operational by end of 2019.

So much for the industry news this week.

For the lighter side this week

Drones or unmanned aerial vehicles (UAV) are aircrafts that can be navigated without human pilots. They have become a valuable commercial tool over the last few years.

The oil and gas industry assets are usually located in inaccessible areas. Examples are platforms in offshore areas, well sites, refining or production facilities, storage tanks, etc., or pipelines running for miles from one province to another, in difficult terrains or challenging environments. Besides aerial photography of such assets, inspections or surveys of such assets by drones can gather data or examine their conditions, without deploying any manpower.

Deployment of drones for visual inspection of pipeline infrastructure for leaks, or examination of platform setups for erosion can provide quick and convenient access to real time data that are relayed immediately. This helps improve operations, production, forecast breakdowns and address them in advance.

Oil companies have started leasing drone services for acquisition of data for monitoring of assets, and their post-flight processing in areas that have difficult accessibility. Not only are such services helping the oil companies save time and effort but are improving their efficiency and safety.

Drones provide a real-time, real definition stream and data transfer from remote areas, which is a faster and convenient/cost-effective way for inspection of pipelines which otherwise could take weeks or months deploying manpower, equipment and resources. Besides, they can monitor such assets regularly or as required for vegetative encroachment, theft and sabotage, for which appropriate action can be taken quickly, preventing disasters.

With the drones becoming affordable, and the data processing embracing machine learning techniques, more and more oil companies will be adopting drone deployments for efficient and enhance operations. Drones of the future could be equipped with robots that could repair

damages. Some experts opine that we will witness an explosive growth in the deployment of drones for various applications over the next decade.

Having said all this, it is important to mention that the drone flights will need to be regulated strictly so that they do not go out of hand. A recent incident of flight disruption occurred at London's Gatwick Airport and was all the over the TV news. Such incidents need to be avoided.

I hope you find these interesting.

So much for this week! Till the next post, stay safe and happy!