



**News Tracker:**

-Natural gas spot prices increased at virtually all spot market locations this Report Week (Wednesday, March 9, to Wednesday, March 16). The Henry Hub spot price rose during the Report Week from \$1.57 per million British thermal unit (MMBtu) on March 9 to \$1.74 on March 16.

-At the New York Mercantile Exchange (Nymex), the price of the near-month (April 2016) natural gas futures contract rose from \$1.752/MMBtu to start the Report Week to \$1.868/MMBtu to end the Report Week. The price of the 12-month strip (the average price of the 12 contracts between April 2016 and March 2017) rose from \$2.240/MMBtu last Wednesday to \$2.361/MMBtu yesterday.

-Net natural gas withdrawals from storage totaled 1 billion cubic feet (Bcf) for the week ending March 11, compared with the five-year average withdrawal of 81 Bcf and the year-ago value of 88 Bcf for the week. This is the seventh week in a row that net withdrawals have fallen below the five-year average. Working gas stocks are 2,478 Bcf -- 67.4% and 48.3% above the year-ago and five-year (2011-15) average levels, respectively.

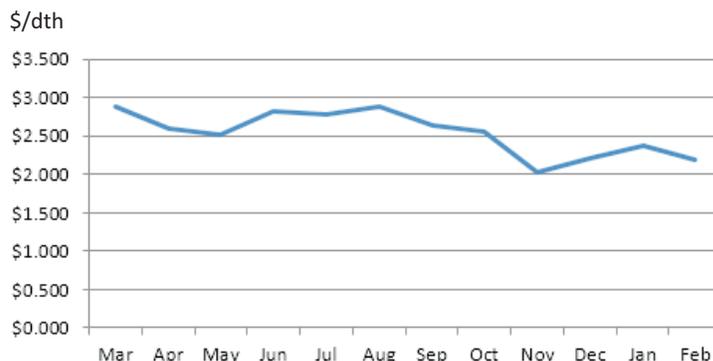
-The Baker Hughes rotary rig count fell for the twelfth week in a row. For the week ending March 11, gas-directed rigs decreased by 3 to 94, and oil-directed rigs decreased by 6 to 386. The total rig count fell by a total of 9, and now stands at 480.

-The natural gas plant liquids (NGPL) composite price at Mont Belvieu, Texas, increased by 41¢ to \$4.58/MMBtu for the week ending Friday, March 11. The spot prices of all natural gas liquids at Mont Belvieu increased this week, with ethane rising by 19.1%, propane rising by 9.6%, butane rising by 4.4%, isobutane rising by 5.9%, and natural gasoline rising by 7.7%. These increases likely stem from the recent rise in the price of crude oil.

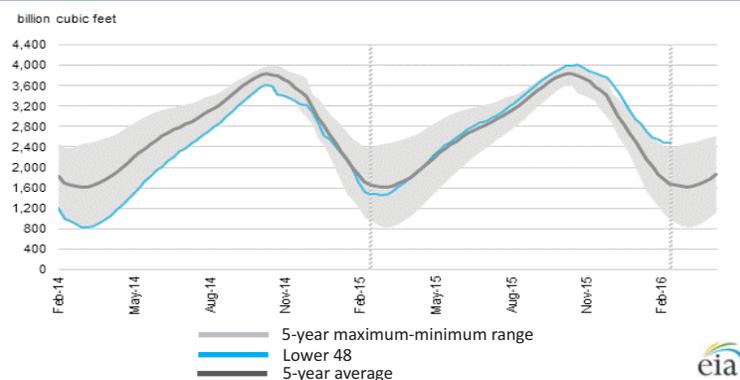
- Late last week, FERC issued a ruling denying authorization for the Jordan Cove LNG export project on the Oregon coast, as well as the connecting pipeline, the Pacific Connector. FERC cited the lack of committed purchases on the Pacific Connector, and Jordan Cove's dependence on the Pacific Connector for feedgas. As mentioned in the FERC docket, this project has faced significant opposition from local and environmental groups.

Excerpted from eia

**Monthly NYMEX Natural Gas Settle Price: Apr 2015 - Mar 2016:**



**Working nat. gas in underground storage as of March 11, 2016**

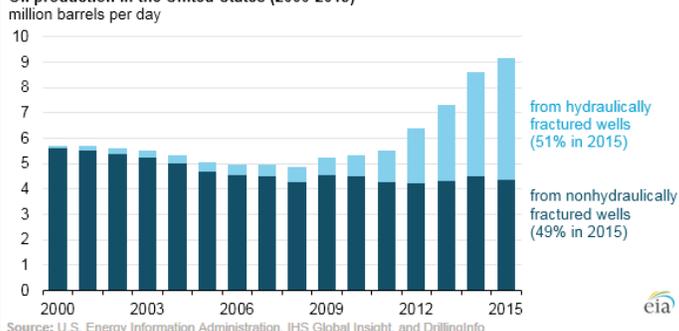


**Forward 12-month NYMEX natural gas strip price - Apr16-Mar17:**

Process Load-weighted \$2.361/dth (w/w = +\$0.121)  
 Typical Heat Load-weighted \$2.486/dth (w/w = +\$0.119)

**Hydraulic fracturing accounts for about half of current U.S. Crude oil production:**

Oil production in the United States (2000-2015)



Even though hydraulic fracturing has been in use for more than six decades, it has only recently been used to produce a significant portion of crude oil in the United States. The U.S. Energy Information Administration (EIA) estimates that oil production from hydraulically fractured wells now makes up about half of total U.S. crude oil production. Hydraulic fracturing involves forcing a liquid (primarily water) under high pressure from a wellbore against a rock formation until it fractures. The fracture lengthens as the high-pressure liquid in the wellbore flows into the formation. This injected liquid contains a proppant, or small, solid particles (usually sand or a manmade granular solid of similar size) that fills the expanding fracture. When the injection is stopped and the high pressure is reduced, the formation attempts to settle back into its original configuration, but the proppant keeps the fracture open. This allows hydrocarbons such as crude oil and natural gas to flow from the rock formation back to the wellbore and then to the surface. Using well completion and production data from DrillingInfo and IHS Global Insight, EIA created a profile of oil production in the U.S. In 2000, approximately 23,000 hydraulically fractured wells produced 102,000 barrels per day (b/d) of oil in the U.S., making up less than 2% of the national total. By 2015, the number of hydraulically fractured wells grew to an estimated 300,000, and production from those wells had grown to more than 4.3 million b/d, making up about 50% of the total oil output of the U.S. These results may vary from other sources because of the types of wells included in the analysis and update schedules of source databases. The use of hydraulic fracturing is not limited to certain oil-containing formations such as shales or source rocks, nor is its use limited to only horizontal wells. Hydraulic fracturing has been successfully used in directional and vertical wells, both natural gas and oil wells, in tight formations and reservoirs, and in offshore crude oil production.

“Anyone who likes to play with toys has got to like science, because scientists have the world’s best toys.” -Bert Vogelstein<sup>1</sup>