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FEATURES



Source: Mieko Mahi, Special to Hart Energy

Pumpjacks belonging to Lufkin Industries Inc., a subsidiary of GE Oil & Gas, work at a four-well Whiting Petroleum Corp. pad near Williston, N.D.

EIA: Oil Recovery Will Propel Bakken

By JOSEPH MARKMAN, Hart Energy

s oil prices recover, the Bakken Shale will surpass the Eagle Ford in crude production by 2019 and U.S. tight oil output will reach 7.08 million barrels per day (MMbbl/d) by 2040, the U.S. Energy Information Administration (EIA) projected in its "Annual Energy Outlook 2016" Report. Tight oil production accounted for 4.89 MMbbl/d in 2015, or 52% of total U.S. crude output. The EIA expects that figure to decline by 700 Mbbl/d in the 2015-2017 time frame as low oil prices hamper investment by E&Ps.

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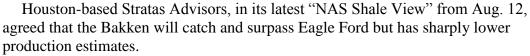
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BAKKEN from Page 1

An expected recovery will benefit the Bakken Shale in North Dakota and Montana, with production projected to reach 1.3 MMbbl/d in 2019, allowing it to pass the Eagle Ford as the most prolific tight-oil producing formation in the U.S.



to read more of this story online.



The Stratas forecast shows a shallower three-year decline for the Bakken, from 1.2 MMbbl/d in 2015 to 1.03 MMbbl/d in 2018, which will allow the play to overtake the Eagle Ford a year earlier. The Texas play will not regain its edge until 2029, when its

production returns to 1.28 MMbbl/d, near its 2015 level.



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Mexico Is Open For Business

Mexico's energy reforms offer significant opportunities to U.S. energy firms and investors as the nation sorts out the consequences of its vast legal changes. Longterm, upstream prospects are excellent—assuming crude oil



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prices improve —while midstrea m and downstre



am business prospects look better in the near term.

Those were points emphasized in a wide-ranging panel discussion on Mexico's energy future, featured at EnerCom's 21st Oil and Gas Conference in Denver.

"The 2013 constitutional changes were born out of necessity," Ricardo García Moreno, a partner in the Houston office of Haynes and Boone LLP, said to open the Aug. 16 discussion. "The Mexican government is very dependent on energy" for revenue and had to act. —PAUL HART, Hart Energy

Leading LNG Importers Ease Up On The Gas

Cooler temperatures and cooling economies are cited as reasons behind a sharp slowdown in LNG purchases by Japan, South Korea and China, the world's leading importers, the U.S. Energy Information Administration (EIA) reported on Aug. 24.

Ex-Williams Director Launches Proxy Fight

Former Williams Cos. Inc. (WMB) board member Keith Meister, who resigned at the end of June, plans to nominate a slate of as many as 10 directors in a proxy fight for the natural gas pipeline giant.

Meister, whose New York-based Corvex Management LP manages a portfolio of more than \$6 billion, told CNBC on Aug. 22 that his employees would hold the seats until he was able to recruit permanent independent directors.

"So our slate will get elected, appoint the new slate and resign," he said on the network's "Fast Money: Halftime Report" show.

Corvex owns about 4.1% of Williams stock

—JOSEPH MARKMAN, Hart Energy



The three countries combined to import an

average of 18.2 billion cubic feet per day in 2015, the EIA said, or 5% less than the average in 2014.



Sluggish economic growth in 2015 diminished demand for natural gas in the power sector of those countries, leading to lower consumption of LNG. Lower temperatures attributed to El Niño also led to reduced consumption of electricity.

Some of the decline was offset by increased imports by other Asian countries, including India and Taiwan, which rank fourth and fifth in LNG consumption.

However, the emerging Asian markets of Malaysia, Singapore, Thailand and Pakistan accounted for most of the region's increase.

—JOSEPH MARKMAN, Hart Energy

FRAC SPREAD

Lots Of Little Things Impact NGL Movements

By JOSEPH MARKMAN, Hart Energy

Fast-forward to 2020: resurgent Asian economies are pushing global E&Ps to their limits to meet demand, ethane-laden ships are clogging the Panama Canal and customers from South America to Europe are bidding up the price of U.S.-produced NGL on a daily basis.

In other news, the Sierra Club demands that pipeline construction in the Northeast be accelerated and the general population wonders if the Chicago Cubs can pull off a fifth straight World Series title.

CURRENT FRAC SPREAD (CENTS/GAL)				
AUGUST 26, 2016	Conway	Change from Start of Week	Mont Belvieu	Last Wee
Ethane	16.48		17.46	
Shrink	17.57		17.90	
Margin	-1.09	-9.65%	-0.44	-36.04%
Propane	40.30		45.69	
Shrink	24.27		24.73	
Margin	16.03	25.36%	20.96	7.33%
Normal Butane	55.95		58.89	
Shrink	27.48		28.00	
Margin	28.47	11.18%	30.89	8.58%
Isobutane	66.20		64.33	
Shrink	26.39		26.89	
Margin	39.81	5.15%	37.44	-1.39%
Pentane+	107.40		106.14	
Shrink	29.39		29.94	
Margin	78.01	18.50%	76.20	5.17%
NGL \$/Bbl	19.50	7.72%	20.14	3.92%
Shrink	9.68		9.86	
Margin	9.82	17.11%	10.28	5.95%
Gas (\$/mmBtu)	2.65	-0.38%	2.70	1.89%
Gross Bbl Margin (in cents/gal)	21.51	17.84%	23.18	6.05%
NGL Val	lue in \$/mmBtu	(Basket Value)		
Ethane	0.91	0.30%	0.96	3.44%
Propane	1.40	8.48%	1.59	4.32%
Normal Butane	0.60	5.19%	0.64	5.29%
Isobutane	0.41	2.87%	0.40	-0.05%
Pentane+	1.38	12.66%	1.37	4.22%
Total Barrel Value in \$/mmbtu	4.71	7.03%	4.95	3.88%
Margin	2.06	18.35%	2.25	6.36%

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on Midwest region, Mont Belvieu based on Houston region. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Upshot: we're not there yet. Infrastructure initiatives like ONEOK Partners LP's (NYSE: **OKS**) in the Bakken, Enterprise Products Partners LP's (NYSE: **EPD**) terminals on the Houston Ship Channel and Shell's planned Pennsylvania cracker are meaningful, but not sufficient individually to pull that ethane price trigger.

"They are ramping it up," Rob Wilson, East Daley Capital Advisors Inc.'s director of research, told Hart Energy in reference to Enterprise's activity in particular. "That is a big deal as far as the capacity coming online, but that's going to be a gradual ramp."

But what about the sincedelayed late-2016 recovery, promised in mid-2015? East Daley addressed it this way: Where is the point when outside influences push prices



so that it becomes worthwhile to bring on that marginal barrel of oil and pump up that incremental supply?

"We take a slightly more bearish view than E&P folks may take," Justin Carlson, East Daley's vice president and managing director for research, told Hart Energy. "When prices move up, there are producers that have the capability to move in and push those prices down, whether a large producer or just many small ones. There are many producers who are not feeling that they impact the price, but they are the marginal barrel and in the aggregate, they really do push the price pretty drastically."

This week, the bounce is a positive one. The hypothetical 42-gallon NGL barrel rose above \$20 at Mont Belvieu, Texas, and above \$19 at Conway, Kan., for the first time in six weeks. Since the start of the year, Mont Belvieu's price is up 20.2%, though it remains 8.3% under its weekly peak of \$21.96 for 2016, set in late June.

East Daley's view is borne out in the ethane segment. Prices inched up at both hubs this week and are 23% higher now at Mont Belvieu and almost 50% higher at Conway than they were at the start of the year. But at the start of the year they were really, *really* low, and the term "rejection" will continue to frequently follow the word "ethane" for some time to come.

TOP STORIES

Nord Stream 2 Pipeline 'Bad Deal' For Europe, Biden Says

U.S. Vice President Joe Biden said on Aug. 25 the United States believed the Nord Stream 2 pipeline involving Russia and several European energy companies was a "bad deal" for Europe.

Russia's Gazprom and its European partners agreed to the project, which will run across the Baltic Sea to Germany, last year.

But many eastern European countries and the U.S. have said the pipeline could limit supply routes and the energy security of the European Union, which gets a third of its gas from Russia. —REUTERS

Celebrities Join Native American Protest Of Bakken Shale Pipeline

Actors Susan Sarandon, Riley Keough and Shailene Woodley joined members of North Dakota's Standing Rock Sioux Tribe outside a courthouse in Washington, D.C., on Aug. 24 to protest against construction of a pipeline they say would pollute water and desecrate sacred land.



to read more of this story online.

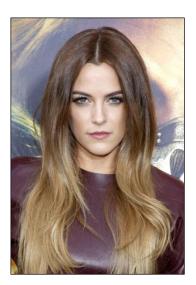
About 100 members of the Native American group demonstrated outside the U.S. District Court for the District of Columbia.

The 1,100 mile (1770.28 km) pipeline, being built by a group of firms led by Energy Transfer Partners LP (NYSE: ETP), would be the first to bring Bakken

Shale from North Dakota directly to refineries in the U.S. Gulf Coast.

The group behind the pipeline, called Dakota Access, had planned to start operations in the fourth quarter of this year, but construction has been dogged since April by protests in North Dakota, and some work has been halted.

A Dakota Access spokeswoman said earlier this week that the company has "temporarily deferred grading activities" across a short section of the right-of-way, while "law enforcement works to contain the unlawful protests." —REUTERS



Riley Keough

Emerson Will Acquire Pentair's Valves And Controls Business

Emerson signed an agreement to purchase Pentair's valves and controls business, which provides valve solutions for customers, Emerson said Aug. 18.

The acquisition will support Emerson's operations in control, isolation, pressure relief valves and actuation as part of a larger strategy to build a broader automation portfolio.

The Switzerland-based Pentair valves and controls business has nearly 7,500 employees around the world for chemical, petrochemical, oil and gas, power, mining and other process industries.

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