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FEATURES

Six, Count 'em, Six New **Crackers**

By **LESLIE HAINES**, Hart Energy

If the United States has been called the Saudi Arabia of NGL, then the center of the action is the Marcellus-Utica Shale where burgeoning natural gas and liquids production keeps midstream operators hopping.



Source: Hart Energy

Jim Crews, vice president of business development for MarkWest Energy Partners LP, speaks at Hart Energy's recent Marcellus-Utica Midstream Conference.

"The marketing opportunities are phenomenal if we get the right infrastructure in place," said Jim Crews,



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vice president of business development for MarkWest Energy Partners LP, speaking at Hart Energy's recent Marcellus-Utica Midstream Conference.

The panel speakers agreed there will be so much ethane production in the region that it could accommodate possibly as many as six ethane crackers, in addition to the one Shell is building in southwest Pennsylvania.

It's been a little over a year since Marathon Petroleum Corp.'s midstream master limited partnership, MPLX, acquired MarkWest. The deal combined Appalachian

NGL marketing infrastructure with growing supply and a lower cost of capital. Even in the midst of a downturn, the companies have been expanding. Half a dozen new or expanded projects, including a new fractionator and de-ethanizer, are coming onstream in 2017 in the Marcellus region.

Fractionation volumes are expected to rise 15% to 20% this year. The partners have contracts with 14 Marcellus and 10 Utica producers. The opportunity exists to spend \$500 million to \$1 billion in ethane recovery See CRACKERS, Page 3.

ENERGY:







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units over the next five years.

"Our processing supports over 20 producers and some 8 million acres are dedicated to that in the tri-state region. We are making 20% of all U.S. NGLs right here in this Marcellus region," Crews said.

MarkWest employs 850 people in Ohio, West Virginia and Kentucky.

Crews' counterpart reiterated that in 2016 when many companies were pulling back and deferring projects, Marathon was not. "We've committed over \$500 million in new construction," said Shawn M. Lyon, vice president of operations for Marathon Pipe Line LLC. "We're excited about a lot of projects we have in progress in 2017."

Already online is MPLX's Cornerstone Pipeline, the first Utica line dedicated to liquids; it moves NGL from eastern Ohio's Utica production to points west. Completed in October 2016, it's moving condensate and liquids to storage terminals and to Marathon Petroleum's refinery in Canton at the rate of 180,000 bbl/d. It was upsized to 16 inches diameter to accommodate anticipated production growth in the region.

Shale Drives A North American Petrochem Manufacturing Boom

North American ethylene producers are shifting to light NGL feedstock, and it's a massive and marketaltering shift. That was the message imparted by Greg Haas, director, Stratas Advisors, to attendees at Hart Energy's Marcellus-Utica Midstream Conference in Pittsburgh in late January.



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Worldwide demand for ethylene/propylene was 204 million tonnes in 2015; Stratas Advisors forecasts that annual demand will grow to 253 million tonnes by 2030. And a bevy of new projects in the U.S. and Canada are aiming to satisfy that growing demand.

Stratas Advisors forecasts that some 12 million tonnes of new capacity will come online in North America between now and 2021. The first wave of expansion is

focused on the Gulf Coast, where more than 90% of the new capacity is planned.

A second wave of petrochemical expansions—totaling nearly 8 million tonnes a year—could follow the first wave. If all the first- and second-wave projects come to fruition, 20 million tonnes per year of new capacity would be added in North America alone. —**PEGGY WILLIAMS**, Hart Energy

Without Delays, DAPL Financial Deals Fall Into Place

With challenges to construction of the Dakota Access Pipeline for the most part overcome, financial pieces are falling into place for the project which, along with the Energy Transfer Crude Oil Pipeline, is known as the Bakken Pipeline System.

• Financing: Energy Transfer Partners LP (NYSE: ETP) and Sunoco Logistics Partners LP (NYSE:



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SXL) completed about \$3.4 billion of committed debt and equity transactions, including financing for the system.

• Partner: MPLX LP (NYSE: MPLX) closed on its previously announced transaction to acquire a 36.75% indirect equity interest in the Bakken Pipeline system from Energy Transfer Partners and Sunoco Logistics Partners. The \$2 billion deal, through a joint venture (JV) with Enbridge Energy Partners LP (NYSE: EEP), entails

MPLX contributing \$500 million. MPLX holds, through a subsidiary, a 25% interest in the JV, which equates to an approximate 9.2% indirect equity interest in the Bakken Pipeline system.

 Deal complete: Enbridge Inc. (ENB) and Enbridge Energy Partners LP (EEP) completed their transaction to acquire an effective 27.6% interest in the system. —JOSEPH MARKMAN, Hart Energy

FRAC SPREAD

Don't Look Now But Peak Oil Is Back ... Not

By JOSEPH MARKMAN, Hart Energy

Remember peak oil?

No, not M. King Hubbert's pre-Shale Boom theory of terminal decline. Think back to November 2016 to the statement by Simon Henry, CFO of Royal Dutch Shell Plc. (NYSE: RDS.A).

"We've long been of the opinion that demand will peak before supply," he said on a conference call with

FEBRUARY 17, 2017	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	23.23		25.72	
Shrink	19.43		19.29	
Margin	3.80	1.16%	6.43	7.42%
Propane	69.83		81.15	
Shrink	26.84		26.65	
Margin	42.99	-20.65%	54.50	-7.62%
Normal Butane	109.37		121.06	
Shrink	30.38		30.18	
Margin	78.99	-12.62%	90.88	-5.34%
Isobutane	114.10		108.08	
Shrink	29.18		28.98	
Margin	84.92	-13.20%	79.10	-14.20%
Pentane+	121.62		120.80	
Shrink	32.49		32.27	
Margin	89.13	3.84%	88.53	2.58%
NGL \$/Bbl	29.16	-7.37%	31.05	-3.40%
Shrink	10.70		10.63	
Margin	18.45	-9.99%	20.42	-4.38%
Gas (\$/mmBtu)	2.93	-2.48%	2.91	-1.45%
Gross Bbl Margin (in cents/gal)	41.92	-10.94%	47.42	-4.70%
NGL Va	lue in \$/mmBtu	(Basket Value)		
Ethane	1.28	-1.90%	1.42	0.63%
Propane	2.42	-14.53%	2.82	-5.68%
Normal Butane	1.18	-10.02%	1.31	-4.40%
Isobutane	0.71	-10.68%	0.67	-11.12%
Pentane+	1.57	2.07%	1.56	1.47%
Total Barrel Value in \$/mmbtu	7.16	-7.98%	7.77	-3.51%
Margin	4.23	-11.45%	4.86	-4.70%

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.

3.4%), and Conway, Kan. (-7.4%), hubs.

The barrels were brought down by sharp declines in propane and butanes.

Propane at Mont Belvieu declined 5.7%, with Conway propane down 14.5% to fall below 50 cents per gallon (gal) for the first time since early January. En*Vantage noted that "domestic fuel demand for propane has been exceptionally strong despite winter weather being relatively mild."

analysts. "And that peak may be somewhere between five and 15 years hence, and it will be driven by efficiency and substitution, more than offsetting the new demand for transport."

Nothing drives up the price like scarcity, but even a pronouncement from mighty Shell doesn't necessarily make it so. While others in the industry have lined up behind Shell's philosophy, Nicole Leonard of S&P Global Platts does not.

"I'm going to give you an alternative narrative," she told attendees at the recent S&P Global Midstream Energy and Oil & Gas Breakfast Forum in Houston. "Rather than seeing peak demand, I argue that we will see

demand shift up the barrel."

Leonard, who managed to say "bottom of the barrel" in a non-derogatory



this story online.

way, described developing countries' need for products like asphalt, bunker fuel and fuel oil for power generation. As countries develop, their demand for distillates, octane and diesel grows.

"As a country develops, you start to demand more of those luxury items like Tupperware and plastic bags," she said. "The demand for the barrel is just going to get lighter. You need less of the bottom and more of the top."

That's good long-term news for NGL, even if the hypothetical NGL barrel dropped in the past week at both the Mont Belvieu, Texas (-

PODCAST

US-Mexico Trade: 'Quite A Bit Of Opportunity'

This episode of *Political Sidetrack*, which explores politics from an energy perspective, examines U.S. trade policy proposals and the possible benefits and detriments to the global oil and gas industry. In particular, we closely



examine the affects it may have on the oil and gas industry in both the U.S. and its neighbor to the south, Mexico.

From border taxes to the immigration policy, host **Len Vermillion** discusses ongoing tensions between the U.S. and Mexico in the wake of political rhetoric, the negotiating positions of both countries and the options for each going forward. In addition, Len discusses global trade policy and natural gas exports from the U.S. to points around the world.

Featured on this episode:

Regina Mayor serves as KPMG's global sector head and the U.S. national sector leader of energy and natural resources. In both capacities, she helps determine the firm's strategy to better serve the industry as well as optimize the delivery of KPMG's services nationally and globally.

TOP STORIES

Growth In A Down LNG Market

Following a precipitous drop that began several years ago, spot LNG prices in Asia and Europe are still mired in a deep slump. Some of the gains made in delivered Asian prices over the past several months were surrendered back this month, as prices for March delivery to the region fell to \$7.50/MMBtu, equaling prices at the NBP hub in the UK.

These record low prices have fallen dramatically from the highs of a few years ago, conceding nearly 75% compared to the peaks of 2012-2013.

In a number of regions, coal has historically been readily accessible and the most affordable option. With emissions concerns being a secondary or tertiary priority in many places, coal has enjoyed the lion's share of the energy mix.

In Thailand, PTT has announced plans to rapidly increase its LNG import capacity to meet growing demand and offset diminishing domestic reserves. The company is planning to increase capacity at the only operational import facility at Map Ta Phud from 5.0 million tonnes to 11.5 million tonnes.

-STRATAS ADVISORS

 Jack Belcher consults energy and transportation clients on government relations, regulatory affairs, situational risk management, coalition building and stakeholder relations; he is also managing director of the National Ocean Policy Coalition.

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