

FEATURES

Still Blazing After All These Fears

Commodity price woes have stung even the Permian Basin, but superior economics in the play's sweet spot keep the midstream buildout humming.

By JOSEPH MARKMAN, Hart Energy

n the West Texas counties of Martin. Midland and Howard—aka, the land that the downcycle forgot-midstream operators are furiously planting steel in the ground and building storage tanks to the sky.



Source: ONEOK Partners LP This trencher opens one spread for the Roadrunner Gas Transmission system that will move Permian gas south to Mexican consumers.

Close your eyes and it's almost as though 2015 never happened and we're still clapping along to the catchy



Join us on Monday, May 23 in Fort Worth, Texas for the conference's Midstream program.

beat of "Happy" by Pharrell Williams.

"We are just as busy today as we have ever been," Matt Vining, chief commercial officer and co-founder of Dallas-based Navigator Energy Services LLC, told *Midstream Business*. "By the end of the third quarter, we will have installed over 450 miles of pipe and are now looking at building in excess of 600,000 barrels (bbl) of crude storage. We're in full operation and moving a lot of crude."

Vining's company, which has grown from a group of four industry veterans with big dreams in 2012 to a staff of 60 to execute those dreams in 2016, is not alone. Brett Wiggs, CEO of Midland, Texas-based Oryx Midstream Services LLC, has his team working at full throttle as well in the Permian.

"We have about 175 miles of pipe in the ground," Wiggs told Midstream **Continued on Page 3**

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Permian from Page 1

Business. "By the end of this year, we're expecting to have between 300 and 350 miles of pipe in the ground. We are a purely focused Permian Basin team."

Location, as expected

While the experience of these two companies might stand out like an anomaly—finding that producing port in a storm of cutbacks, delays and uncertainty—it actually reinforces a common prediction as this downcycle began to shift into gear.

The numbers bear that out. Look at the map below and stick your finger smack dab in the middle of the play over Midland and Odessa, Texas. Navigator operates in four counties northeast of your finger (Midland, Martin, Glasscock and Howard) and Oryx is in six counties to the southwest (Midland, Reeves, Ward, Crane, Upton and Pecos).

Monthly oil production in Navigator's three counties, from January 2015 to January 2016 as measured by the Texas Railroad Commission, was up around 1.16 MMbbl, or 15.4%. In Oryx's area, monthly production rose by more than 550,000 bbl. to around 13.25 MMbbl.

Drilling efficiencies are a big part of this story, but not the whole story. Producers in the Eagle Ford Shale in South Texas have access to the same technology and techniques, yet have suffered a Januaryto-January drop in production of 19.7%, the U.S. Energy Information Administration (EIA) has reported. There's a reason why producers have retreated in the Eagle Ford and pumped up overall production in the Permian, and the reason is the rock.

'Hot spots'

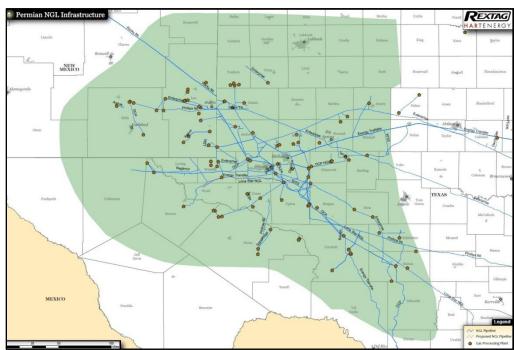
"It's the underlying resource," said Wiggs,

explaining what gives the basin its competitive edge. "The Permian, compared to other resource plays, has multiple benches and multiple opportunities with significant recoverable hydrocarbons in place. Depending on where you look at the core opportunities, you'll see anywhere from five to seven to eight potential horizons for development vs. many of the other shale plays in the U.S. The Permian provides multiple opportunities in the same acreage position to create some of the most compelling economics in the U.S."

Jessica Pair, upstream manager for Stratas Advisors, sees it, too.

"These counties—Howard, Mitchell, Glasscock, Martin—those areas are just great areas geologically," she told *Midstream Business*. "We see some similarities in counties in the Delaware Basin as well; mainly Midland, Reeves and Loving, Ward and Culberson are also hot spots. I expect us to see a lot more activity move into these areas as people try to home in on the core of the core, if you will."

Read the complete story online.



Williams, ETE Gripped By Merger That May Not Be

By JOSEPH MARKMAN, Hart Energy

The filing of its recent lawsuit appears to make it clear, at least on the surface, that The Williams Cos. Inc. is intent on forcing Energy Transfer Equity LP to complete its merger, which is essentially the acquisition of Williams.

Less clear is why the company so strongly desires the deal to go through, or whether the suit is a bargaining tactic.

"The Williams board is unanimously committed to enforcing Williams' rights under the merger agreement entered into with ETE on Sept. 28, 2015, and to delivering the benefits of the merger agreement to Williams' stockholders," the company said in a statement. "This action was filed with that goal in mind. The Williams



board has not changed its recommendation 'for' the merger agreement executed on Sept.28, 2015."

Fair enough; a deal's a deal. But is it still a good deal for Williams and its shareholders?

Baird Energy Research analysts expressed doubts in a research note released on May 16. They pointed out that "arbitrage now sits at [about] 29% ... with arbitrageurs already having fled the trade and the stocks trading as if the merger is dead."

The Williams lawsuit, filed on May 13, asks the Delaware Court of Chancery to issue a declaratory judgment and ensure

that Energy Transfer completes the transaction by keeping it from walking away after the current "outside date" of June 28 or by using the lack of a Section 721(a) tax opinion from its counsel, Latham & Watkins LLP.

Baird doesn't see that happening.

"We think it's unlikely that a judge would force ETE to ignore a key and *per se* provision of the merger agreement," it wrote, "and equally unlikely that a judge would force a law firm to render a legal opinion to satisfy such a provision."

Both Williams and Energy Transfer agreed to use Latham to render an opinion on whether certain elements of the transaction would be subject to taxes. Since the deal was struck last September, the sharp decline in Energy Transfer's unit price has complicated matters, making it more difficult for Latham to issue an opinion that, based on federal law, the acquisition would be tax-free.

Energy Transfer issued a statement of its own, insisting that "before this suit was filed, we were making progress towards clearing all SEC [Securities and Exchange Commission] comments and believe we were close to finalizing the proxy statement/prospectus for the Williams stockholder meeting to vote on the merger."

The result is the spectacle of the corporate equivalent of an engaged couple in the midst of a loud, public argument and calling in lawyers ... while insisting that they want the marriage to take place.

"The relationship has turned very acrimonious, suggesting an integration of the two companies would be difficult and questioning the value in taking extraordinary steps to force the merger closure," wrote Mark Holder of Tulsa, Okla.-based Stone Fox Capital in a note published on the Seeking Alpha website.

Holder believes Williams executives are trying to wrangle a better deal or a fee from Energy Transfer for walking away. He doubts Williams can deliver benefits to shareholders, though.



As Market Rebalances, New Rules Emerge

By VELDA ADDISON, Hart Energy

The International Energy Agency projects demand could catch up to supply in the second half of 2016, rebalancing the market, assuming OPEC production remains relatively flat at first-quarter 2016 levels.

But that may not be enough to end the oil and gas industry's problems, according to Chuck Davidson, venture partner for Quantum Energy Partners and former CEO of Noble Energy (NYSE: NBL).

"We have a massive amount of oil in inventory," Davidson said, pointing to about 540 million barrels of oil in storage, excluding the Strategic Petroleum Reserve, in the U.S. alone. "At some point, we've got to pull storage down and that may drag things out a bit."

The drilled but uncompleted wells (DUCs) could be another overhang on the market. Speaking during the Mayer Brown Global Energy Conference on May 17, Davidson said the U.S. has about 4,000 DUCs, including about 1,400 in the Eagle Ford. Completing these wells could bring on between 500,000 and 1 million barrels of per day of production, Davidson said.

"That might be good if there is a sudden price increase and we need to increase supply," he added. But considering the abundant inventory, "it might be a damper on the markets."

Hope of a turnaround remains as the industry watches production and stockpile levels fall in the U.S. and disruptions brought by Canadian wildfires and political unrest in Nigeria drive up oil prices, which was about \$48.44 per barrel (/bbl) at 3 p.m. (CT) May 17. Since OPEC decided in November 2014 to maintain production levels, oil prices have plummeted from highs of more than \$75/bbl. Natural gas prices have tumbled from more than \$4 /MMbtu to about \$2/MMbtu today.

Waning profits have pushed oil and gas companies to technology and better ways of operating. How the industry "gets out of this mess," as Davidson put it in his presentation, will require addressing financial issues, but opportunities still remain.

New day, new norm

"We're seeing companies trying to deal with the burdens of debt, trying to adjust their programs so they get a balanced cash-in versus cash-out," Davidson said. "Unfortunately the impact was so great that a number of companies are unable to do it without having to go through some serious restructuring."

Each week has brought another round of bankruptcies. Penn Virginia Corp., Linn Energy LLC, SandRidge Energy Inc. and Breitburn Energy Partners are among the latest.

"Business models have to be re-examined. What worked in 2013 won't work today," he said, noting

"Business models have to be

re-examined. What worked in

2013 won't work today."

 Chuck Davidson, venture partner for Quantum Energy Partners companies are to review spending models, ask whether the business is sustainable and pinpoint core areas. "In some instances you see companies selling off assets that are now viewed as noncore," and not sustainable in today's market conditions.

Many companies have been forced to change their business models—moved not only by market conditions but also by banks becoming more restrictive on what they will loan, he said. Although companies are becoming more disciplined, don't expect all of them to avoid picking up rigs if oil prices rise by \$5.

"This industry loves to develop oil and gas. That's actually good and bad news," he said.

Still, "as you go forward, we have to have global supply equal demand." That would come as the supply comes down via reduced drilling, inventories bleed off

and demand growth.

The U.S. Energy Information Administration forecasts energy consumption will rise 48% by 2040. Most of the oil consumption growth is expected to happen in non-OECD countries, particularly Asia.

Gains, 'good rock'

The downturn has led to positives, including efficiency gains.

Davidson referred to drilling productivity gains in the Marcellus and the Eagle Ford, where drilling rigs are eight times more productive in terms of production per rig month than six years ago.

Strides have also been made in lowering costs, but "not without pain because many of those cost improvements were a result of reductions in service costs that flow to the service providers."

Even at today's low prices, there are still areas that are commercial because of efficiencies, he added, eyeing the bright light near the end of this tunnel. The industry "has trimmed itself down and gotten its fiscal house better in order. But we're not quite at the end of the tunnel."

In the meantime, there are still opportunities to strengthen portfolios.

With capital available for private equity, "there is no lack of opportunity," Davidson said, adding Quantum is staying busy as some work to acquire noncore assets and others, specifically distressed companies, approach wanting an injection of equity. In some instances, the bid-ask spread remains.

"We're investing in both natural gas and oil," he added, speaking favorably of the Scoop and Stack in Oklahoma as well as both the Delaware and Midland basins in the Permian. "We tend to go into good rock. It's more expensive to invest in good rock, but good rock seems to be more resilient," he said

But he warned that investors still have to be careful on how capital is allocated.

HARTENERGY

Fires Hurt Already Weak Rail Traffic

By PAUL HART, Hart Energy

The crude by rail (CBR) business continues to sag from its peaks in 2013 and early 2014, according to the Association of American Railroads (AAR). A new RBN Energy study projects the trend will continue in the near future, although a few markets with a unique blend of circumstances will see better unit train business.

The AAR reported that carload crude oil shipments fell to 63,000 loads in the first quarter—a 25% drop from the final quarter of 2015 and a 44% decline from first-quarter 2015.

For the second week of May, U.S. crude oil and petroleum product rail traffic was down 19% from the year-earlier week. However, it was up by a modest 3% from the previous week, AAR found.

A big part of the weakness in the May numbers stems from the massive fire in Canada that shut in

production from Alberta's oil sands, according to a Seaport Global Securities research report. "The disruptions from the wildfires ... are contributing to weaker numbers across other important activities," Seaport said. "Canada railcar volumes are down 18.6%, compared to a decline of 11.4% for the U.S."

However, the fires could actually cause a temporary rebound in U.S. CBR traffic, Seaport added. "There is a moderate chance for a slight uptick in U.S. railcar action due to the Alberta wildfires. U.S. producers and midstream operators may have to work harder to move crude oil from typical regional movements, toward hungry refiners in the Midwest district, in the coming weeks," the report said.

RBN noted that the price-sensitive Bakken play has dominated rail-shipped crude due to the region's comparative lack of pipeline capacity.

"But all is not gloom and doom," RBN added. "Volumes on some CBR shipping corridors are holding up, and a few terminals continue to be built. Also, it seems likely that the inherent advantages of CBR—destination flexibility, optionality and speed-to-market—will always play a role in continually evolving crude oil markets."

It said shipments from the Bakken to the East Coast have actually increased slightly in recent weeks, mostly to fulfill existing refiners' contract obligations. Bakken-to-West Coast volumes have remained somewhat strong as well. Shipments out of the region to the Gulf Coast, and from the Permian to various markets, have been particularly weak.

"It turns out that considering CBR's economics, rationale and outlook on a local basis is critical," RBN said. "Each production/loading area and each CBR destination has its own set of unique characteristics and its own dynamics that together will help to determine whether moving crude by rail—a practice that dates to the earliest years of the oil industry but then fell from favor-will be a short-lived phenomenon or a continuing fixture in the midstream landscape."





NextDecade Applies For Brownsville LNG Terminal

By FRANK NIETO, Hart Energy

NextDecade LLC filed an application with the U.S. Federal Energy Regulatory Commission (FERC) to build and operate its proposed 27-million-metric-



Artist's rendering of an aerial view of NextDecade's proposed LNG export facility in Brownsville, Texas.

ton-per-year (mt/year) Rio Grande LNG export terminal at the Port of Brownsville in Texas. The company said that the project could cost up to \$20 billion.

The project, which includes the 137-mile Rio Bravo pipeline to provide feed gas to the facility, is the third company seeking to export LNG from the port, including Texas LNG and Annova LNG. If it receives FERC approval and proceeds with construction, NextDecade anticipates exports to begin from the terminal by the end of 2020.

"After a productive pre-filing with the FERC and extensive consultation and cooperation with the reviewing agencies and local communities, we are proud to have achieved this major accomplishment," Kathleen Eisbrenner, NextDecade's CEO, was quoted as saying. "Despite recent low oil and gas prices, we have found robust appetite for U.S. LNG on a long-term basis all around the world. This interest reaffirms the price competitiveness of U.S. LNG for customers looking to diversify their gas supply on a global level."

Siluria Celebrates First Successful Year Of Disruptive Ethylene Technology

By BRANDY JULES, Hart Energy

Siluria Technologies recently announced it has proven the commercial viability of its oxidative coupling of methane-to-ethylene (OCM) technology after a successful first year of operations at its demonstration plant in La Porte, Texas.

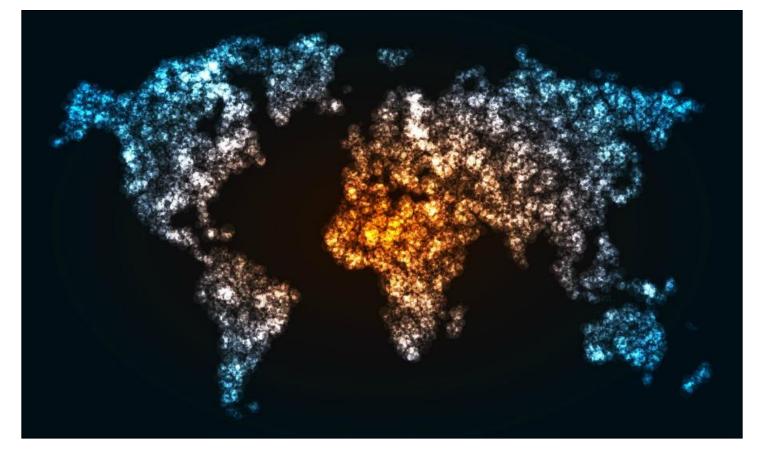
The OCM technology is the first commercial process to directly convert natural gas into ethylene, according to Siluria. Ethylene is a key feedstock used in the petrochemicals industry worldwide. The OCM process converts methane into ethane and ethylene (C_2 hydrocarbons). In the OCM reaction, methane (CH_4) is activated on the catalyst surface, forming methyl free radicals (CH_3), which then couple in the gas phase to form ethane (C_2H_6). The ethane subsequently undergoes dehydrogenation to form ethylene and water.

Wholly owned by Siluria, the plant is co-located with a polymer plant operated by Braskem America Inc. The company is also working jointly with Linde Engineering to deliver the breakthrough technology to the marketplace. According to the company, the demonstration plant is the final pre-commercial scale-up of Siluria's OCM process technology.

"Braskem's world-class operations team has worked closely with Siluria and has been key in making this demonstration facility a success," said Gary Koehler, vice president of operations, in a statement.

HARTENERGY

FRAC SPREAD



Propane Powers NGL 'Barrel' To Highest Price In A Year

By JOSEPH MARKMAN, Hart Energy

Propelled by robust price increases for propane, butane and C_{5+} , the hypothetical NGL barrel hit 12-month highs for the week ending May 17 at both the Mont Belvieu, Texas, and Conway, Kan., hubs. Propane rose 10.2% over last week's average price to 53.8 cents per gallon (cents/gal) at Mont Belvieu and

Robust exports, along with reduced production of propane, propels hypothetical NGL barrel to highest price since early May 2015. 10.6% to 51.2 cents at Conway. It was the first time the weekly average Mont Belvieu propane price had cracked 50 cents/gal since the week of May 6-12, 2015. Conway's propane price last saw 50 cents/gal the week of March 4-10, 2015.

The sudden price hike for propane could derive from the recent spring in the export step. Midstream consultants EnVantage Inc. noted that propane exports surpassed 1 million barrels per day (MMbbl/d) for the second week in a row.

Positive outlook

But the outlook for NGL prices in general has quickly become positive, U.S. Capital Advisors noted in a report analyzing first-quarter midstream earnings. The analysts attribute the sudden cheeriness to the scheduled opening in the third quarter of Enterprise Products Partners' Morgan's Point ethane export facility on the Houston Ship Channel and new ethane crackers on tap to become operational in the next year or so.

HARTENERGY

MAY 20, 2016	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	16.28		20.33	
Shrink	12.93		12.66	
Margin	3.35	66.96%	7.67	17.45%
Propane	51.18		53.80	
Shrink	17.86		17.50	
Margin	33.32	20.17%	36.30	17.00%
Normal Butane	64.85		64.89	
Shrink	20.22		19.81	
Margin	44.63	18.06%	45.08	15.03%
lsobutane	72.10		68.23	
Shrink	19.42		19.02	
Margin	52.68	7.99%	49.21	14.12%
Pentane+	103.05		98.34	
Shrink	21.63		21.18	
Margin	81.42	13.17%	77.16	13.68%
NGL \$/Bbl	21.09	8.93%	21.44	9.14%
Shrink	7.12		6.98	
Margin	13.96	16.57%	14.46	15.17%
Gas (\$/mmBtu)	1.95	-3.47%	1.91	-1.55%
Gross Bbl Margin (in cents/gal)	31.73	17.09%	33.48	15.36%
	ue in \$/mmBtu	(Basket Value)		
Ethane	0.90	5.71%	1.12	4.85%
Propane	1.78	10.71%	1.87	10.25%
Normal Butane	0.70	10.38%	0.70	9.41%
Isobutane	0.45	4.64%	0.42	9.27%
Pentane+	1.33	9.22%	1.27	10.01%
Total Barrel Value in \$/mmbtu	5.15	8.84%	5.38	8.84%
Margin	3.20	18.00%	3.47	15.55%

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 NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Then there is propane's performance over the past winter. Despite record inventories and a very warm season, propane stocks were rapidly reduced.

"Our view has been that there is not going to be enough propane to supply all the export facilities near term," U.S. Capital Advisors wrote.

Exports to Asia

For the moment, at least, a lot of propane is on the move and much of it is headed toward Asia, where netbacks are healthiest, EnVantage said. Export margins are narrow, it noted, so continued shipments at this level are not a certainty.

"No word of contract cancellations, but it is possible that the Asian markets may get a bit saturated and we will eventually see lower exports by June or July," read the EnVantage report.

In its review of first-quarter midstream earnings, U.S. Capital Advisors pointed out two changes from its January outlook. Lower natural gas production combined with a lower rate of increase in the propane yield resulted in a propane production cut of 50,000 to 60,000 barrels per day (bbl/d); and warm weather was responsible for reduced domestic use.

Higher demand on way

That means that there will be

less propane available for export as these new facilities come online and demand increases. By the end of the year, available propane/butane export capacity should hit 1.3 MMbbl/d, but there is only 125,000 bbl/d of butane available for export.

The upshot, in the view of U.S. Capital Advisors, is that propane storage should be reduced to normal levels by the end of the year. Assuming global demand remains strong, propane should enjoy an extended rally in the second half of this year.

		NGL PI	RICES			
Mont Belvieu	Eth	Pro	Norm	lso	Pen+	NGL Bbl
May 11 - May 17, '16	20.33	53.80	64.89	68.23	98.34	\$21.44
May 4 - May 10, '16	19.39	48.80	59.31	62.44	89.39	\$19.64
April 27 - May 3, '16	20.28	49.32	59.89	62.53	95.74	\$20.30
April 20 - 26, '16	20.36	46.66	56.48	59.08	93.92	\$19.61
April '16	19.18	45.59	55.10	57.43	92.03	\$19.05
March '16	17.68	45.26	53.27	55.05	86.68	\$18.26
February '16	14.83	37.42	53.83	53.80	69.04	\$15.68
1st Qtr '16	15.90	39.03	52.22	52.84	76.84	\$16.46
4th Qtr '15	17.50	42.15	60.09	60.57	97.59	\$19.11
3rd Qtr '15	18.26	40.99	54.16	55.19	100.10	\$18.80
2nd Qtr '15	17.93	46.30	58.11	59.66	126.14	\$21.48
May 13- May 19, '15	19.28	48.34	58.74	61.04	131.48	\$22.36
Conway, Group 140	Eth	Pro	Norm	lso	Pen+	NGL Bbl
May 11 - May 17, '16	16.28	51.18	64.85	72.10	103.05	\$21.09
April 27 - May 3, '16	16.78	47.35	59.13	69.10	98.60	\$20.03
April 20 - 26, '16	16.90	44.76	55.76	66.90	96.52	\$19.37
April 13 - 19, '16	16.43	42.78	53.24	64.58	92.42	\$18.58
April '16	15.57	42.79	53.34	64.69	93.42	\$18.52
March '16	13.18	40.87	49.35	57.65	85.03	\$16.93
February '16	13.09	33.72	48.44	60.06	69.16	\$15.00
1st Qtr '16	13.45	35.23	48.14	57.05	76.01	\$15.61
4th Qtr '15	14.90	38.06	57.31	64.04	95.84	\$18.20
3rd Qtr '15	15.47	36.28	48.59	54.34	99.10	\$17.59
2nd Qtr '15	15.50	40.55	52.40	56.80	121.50	\$19.89
May 13- May 19, '15	15.20	42.50	52.64	60.58	125.60	\$20.46

Data Provided by Bloomberg. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons.

RESIN PRICES – MARKET UPDATE – MAY 20, 2016								
TOTAL OFFERS: 12,435,216 lbs		SPOT		CONTRACT				
Resin	Total lbs	Low	High	Bid	Offer			
PP Copolymer - Inj	2,821,336	0.54	0.68	0.55	0.59			
HPDP - Blow Mold	1,618,932	0.5	0.58	0.51	0.55			
HDPE - Inj	1,264,024	0.525	0.585	0.51	0.55			
LDPE - Film	2,377,036	0.535	0.69	0.6	0.64			
LLDPE - Inj	973,104	0.53	0.64	0.58	0.62			
PP Homopolymer - Inj	1,794,576	0.51	0.56	0.53	0.57			
LLDPE - Film	1,065,472	0.555	0.59	0.52	0.56			
LDPE - Inj	88,184	0.635	0.635	0.59	0.63			
HMWPE - Film	432,552	0.545	0.555	0.525	0.565			

Source: Plastics Exchange - www.theplasticsexchange.com

MORE TOP STORIES

Oryx Trans Permian Pipeline System Open Season Begins

Oryx Southern Delaware Oil Gathering and Transport LLC began an additional open season for the extension of the Oryx Trans Permian Pipeline system, parent company Oryx Midstream Services LLC said May 18, the day the open season began.

Volume commitments and/or acreage dedications will be taken through the open season until June 17, when it closes.

The 16-inch pipeline system runs about 112 miles across Reeves, Ward, Pecos, Crane, Upton and Midland counties, Texas, providing access to two interconnects, an active connection to Magellan Midstream Partners LP's Longhorn Pipeline near Crane, Texas, and a future connection to Enterprise Products Partners' Midland Terminal. This connection will be completed in August, the company said.

The system also has low-pressure gathering and transportation assets, and three storage terminals near Pecos, Crane and Midland, Texas.

Oryx Midstream Services LLC is based in Midland, Texas.

Other components of the NGL barrel were strong, too. Butane was up 9.4% to 64.89 cents/gal for the week at Mont Belvieu and 10.4% to 64.85 cents/gal at Conway. The price of C_{5+} increased 10.0% at Mont Belvieu to 98.34 cents/gal and 9.2% to \$1.03 at Conway.

Ethane rose 4.8% to 20.33 cents/gal at Mont Belvieu and 5.7% to 16.28 cents/gal at Conway.

U.S. natural gas storage rose 73 billion cubic feet (Bcf) or 2.7% during the week, to 2.754 trillion cubic feet (Tcf). The U.S. Energy Information Administration reported storage as 40.3% above the 1.963 Tcf level of a year ago and 40.6% over the five-year average of 2011 to 2015.

Canada Regulator OKs KMI Pipeline With Conditions

Canada's energy regulator on May 19 recommended the approval of Kinder Morgan Inc.'s plan to expand its Trans Mountain oil pipeline, subject to 157 conditions, clearing a major hurdle for the proposed trebling of capacity to serve lucrative Asian markets.

The National Energy Board (NEB) said it found the C\$6.8 billion (US\$5.19 billion) project, which would boost capacity from 300,000 barrels per day (bbl/d) to 890,000 bbl/d, would not cause significant harm to the environment.

The decision prompted immediate outcry from critics, who called on Canadian Prime Minister Justin Trudeau to block the twinning of the existing pipeline, which carries oil from Alberta to a port in Metro Vancouver.

Trudeau's cabinet has until December to review the NEB's 533page report and make its final decision. If approved, legal experts say protests and a flood of lawsuits from aboriginal groups will likely follow.

Aboriginals in British Columbia never signed treaties and have been granted "consent" rights by the courts, sometimes interpreted as a veto. But Trudeau told *Reuters* on Thursday that while community consultation was vital, aboriginal groups do not have a veto over pipeline development.

The NEB said it had determined the "considerable benefits" of the Trans Mountain expansion outweighed the "residual burdens." It also found that with mitigation measures and its conditions, the project "would not likely cause significant adverse environmental effects."

The agency did note that there would be significant effects related to the increase in oil tanker traffic, though marine shipping is not regulated by the NEB.

-REUTERS

MORE TOP STORIES

Report: Market Dynamics, Not Russia Will Determine US LNG

LNG exports have been viewed as a panacea to the troubles facing U.S. natural gas markets, but challenges to the segment will continue as more export terminals are scheduled to begin operations in the next five years, according to a report from Wood Mackenzie.

There has been speculation that the greatest threat to U.S. LNG exports penetrating the European market in a large capacity will come from Russia; similar to how Saudi Arabia has undercut U.S. crude oil prices even before volumes were allowed to be exported



into the global market. However, there are more important factors that will determine the amount of U.S. LNG that will be exported.

"Our analysis shows that while Russia's export strategy is important, ultimately U.S. LNG export utilization will be influenced more by the price of other commodities: of U.S. gas, oil and, particularly, of coal, which will determine European spot prices through coal-gas switching in the power sector," Stephen O'Rourke, research director of global gas supply at Wood Mackenzie, said in a release.

Buyers' choice

The research firm states that customer choice rather than a Russian response to U.S. supplies gaining market share in Western Europe would be more important to determining the amount of U.S. LNG imported into Europe.

"Should oil prices remain low, Russian oil-indexed contract

gas will remain cheap and buyers will maximize their offtake of Russian gas. At low oil prices, customer choice rather than strategic Russian decision making would allow Russia to retain over 30% of the circa 490 billion cubic meters European market and threaten U.S. LNG export volumes. If coal prices also remain low, monthly European gas prices could fall to \$3.85 per million Btu [British thermal units], and utilization of U.S. LNG export capacity could average 85% between 2017 to 2020," O'Rourke said.

Russia should maintain a strong portion of the European gas market even if oil prices improve as Wood Mackenzie forecast that its market share would only drop to 25%. Russia could even increase market share by selling piped gas at spot prices rather than at prices linked to the oil index.

While this would limit U.S. LNG export utilization to 40%, the investment firm said this was unlikely though since this would push European spot prices to low levels for a sustained period.

Wood Mackenzie forecasts U.S. LNG export capacity utilization to vary between 54% and 100% from 2017 to 2020 with higher coal prices and U.S. gas prices remaining low.

CCH Closes \$1.25 Billion Offering

Cheniere Corpus Christi Holdings LLC (CCH) closed the offering of \$1.25 billion in 7.00% senior secured notes due 2024, parent company Cheniere Energy Inc. said May 18.

CCH will use the net proceeds to prepay a portion of the principal amounts currently outstanding under its credit facility, and to pay fees and expenses related to this offering and the prepayment.

The notes will be secured by a first priority security interest in substantially all of the assets of CCH and its subsidiaries, and by a pledge of all of the equity interests in CCH.

Plains All American Pipeline Indicted In Santa Barbara Oil Spill

Plains All American Pipeline Co. and one of its employees have been indicted in California on criminal charges stemming from a petroleum spill last year near Santa Barbara, Calif., the company said on May 17. The company's Line 901 Pipeline leaked oil.

The 46-count indictment includes 10 related to the release of crude oil or the reporting of the pipeline rupture, and 36 related to wildlife losses blamed on the spill, the company said in a press release.

An estimated 1,700 to 2,500 barrels (bbl) of crude petroleum gushed onto Refugio State Beach and into the Pacific Ocean, about 20 miles west of Santa Barbara, when the underground pipeline burst along a coastal highway on May 19, 2015.

The spill occurred at the edge of a national marine sanctuary and state-designated underwater preserve teeming with whales, dolphins and sea lions, along with about 60 species of sea birds and more than 500 species of fish.

The surrounding waters are also shared by nearly two dozen offshore oil platforms.

After the spill, federal inspectors determined that the failed section of the pipeline, owned by Houston-based Plains, had been badly corroded, degrading to a thickness of just 1/16th of an inch (1.6 milimeters).

Environmental activists and local officials have said the rupture ranks as the largest oil spill to hit the ecologically sensitive coastline northwest of Los Angeles since a massive 1969 offshore blowout dumped up to 100 Mbbl into the Santa Barbara Channel.

The criminal charges are unwarranted, Plains All American said, adding that "Plains believes that neither the company nor any of its employees engaged in any criminal behavior at any time in connection with this accident."

-REUTERS

Incident At Exxon Terminal Tests Nigeria's Foundering Oil Output

Nigeria's oil production showed further signs of strain on May 19 as intruders blocked access to ExxonMobil's terminal exporting Qua Iboe, the country's largest crude stream.

ExxonMobil said the terminal continued to operate even as the intruders blocked staff from gaining access from early morning hours. The incident is the latest in a string of attacks and other problems at the oil infrastructure in Africa's largest crude producer.

"Some unknown persons obstructed access to the bridge leading to [the terminal], thereby preventing our personnel and the public from conducting their legitimate businesses," a spokesman said in an email.

"A peaceful removal of the obstructions is ongoing," after intervention from government, security agencies and community leaders, the spokesman said, adding that Exxon "condemns this criminality."

-REUTERS

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