

MIDSTREAM

Monitor

MAY 27, 2016 | VOLUME 34 | ISSUE 21

FEATURES

Midstream Gears Up For Permian Flow

As E&Ps become more efficient at finding ways to grow production, the midstream sector is getting ready to handle what comes its way when commodity prices rise by improving infrastructure.

By **VELDA ADDISON**, Hart Energy



For midstream companies, such as Navitas, opportunities lie in greenfield sites and acquisitions, even if the assets are in need of repair.

Navitas Midstream Partners is not afraid of fixer uppers as long as it is in the right neighborhood, according to Bryan Neskora, the company's COO and founding partner.

The Permian Basin is apparently the place to be.

The region has wells with 7,500-foot laterals with more frack stages than he has ever seen being drilled and completed for around \$4.5 million. The Permian has "incredible" stacked pay, costs have fallen and E&Ps are producing wells with significant results—even at sub-\$50 oil.

"A lot of people are starting to look at the potential of the Permian Basin not in terms of years but in terms of generations," Neskora told a full house at Hart Energy's **DUG Permian** midstream pre-conference. "If we see a significant increase in commodity prices, I think you'll see even more activity return."

Poised to grow along with partners such as Encana Corp. (NYSE: [ECA](#)) and Apache Corp. (NYSE: [APA](#)), the midstream sector is better preparing itself for what heads its way. For Navitas, opportunities lie in greenfield sites and acquisitions, even if the assets are in need of repair.

The two-year-old company acquired natural gas gathering and processing assets—including about 1,000 miles of low and high pressure



Continued on Page 3

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Permian from Page 1

natural gas gathering pipelines and two cryogenic processing plants with a combined capacity of 65 million cubic feet per day (MMcf/d)—from DCP Midstream (NYSE: [DPM](#)) in September 2015.

Spraberry ‘fixer upper’

Neskora likened its Midland Basin Spraberry system, which serves the Martin, Midland and Glasscock counties, to a fixer upper in a good location. The company found 192 leaks, Neskora said. At least 70% of them have been repaired as the company targets an August project completion, having already seen a reduction in lost and unaccounted for gas.

In addition, “We’re replacing and doing engine swings on all of our compressor stations,” Neskora said, noting the company added 11,000 horsepower of new compression at its existing stations and expects its new station in Northeast Martin County to come online in the next couple of weeks.

“New compression, keeping field pressures low and keeping compression on is one of the key things that we’re trying to do to make our systems more reliable. In addition to that, we’re also replacing our high pressure trunk lines. So we are really building a new spine on the Spraberry,” he said.

Works in progress include:

- Looping a portion of its existing Spraberry system mainline with a new 20-inch high-pressure pipeline. The project is expected to be complete in late 2016 or early 2017.
- Working with Encana in Howard County, Navitas will gather gas into a new system of low-pressure gathering lines, compression stations and a 16-inch pipeline into Big Spring.
- Constructing a new 60 MMcf/d cryogenic processing plant, Newberry, near its existing Spraberry complex to accommodate gas producers, boosting its processing capacity to about 155 MMcf/d and adding carbon dioxide treating and nitrogen rejection capabilities.
- At the Spraberry plant, compressors are being overhauled, control systems upgraded and analyzers installed.
- Enhancing the [Crane system it purchased from Apache](#) in December by adding a 200 gallon per minute amine treater and expanding the plant with a new high pressure pipeline.

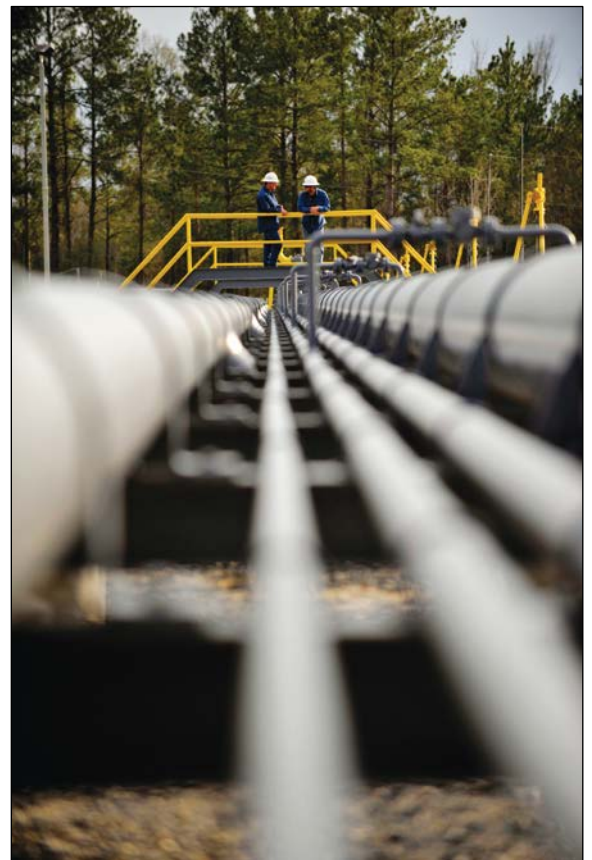
“We’re making a lot of hay getting ready for the return of drilling,” Neskora said.

Navitas isn’t the only one. EnLink Midstream (NYSE: [ENLC](#)) is also busy expanding compression options and improving infrastructure as it eyes producers’ successes in fields.

PRODUCER PARTNERSHIPS

EnLink has invested more than \$1.1 billion in the Permian Basin over the last 18 months, including acquiring midstream assets from producers. Among the latest was EnLink’s [2015 acquisition of Matador Resources](#) (NYSE: [MTDR](#)) gathering and processing assets in the Delaware Basin for about \$143 million and [acquiring a 50% ownership interest in the Deadwood natural gas processing facility](#) from a subsidiary of Apache for about \$40 million.

As prices improve, the midstream sector must be prepared to handle growing production with an infrastructure investment,



Keeping field pressures low and keeping compression on is one of the keys to making systems more reliable.

said Andrew Deck, senior vice president, Permian Basin, for EnLink Midstream. He referred to IP rates of 800 to 1,600 boe/d, encouraging spacing tests, break-evens that have dropped from \$80-\$90 to \$30-\$40, technology improvements and inventory of drilled but uncompleted wells.

“Over the last 18-24 months, producers have drilled wells twice as fast, they drilled wells at half the cost and wells generally have about twice the reserves as they used to have,” Deck said. That’s about four times the reserves for the same capital investment.

“As the challenging conditions are showing signs of improvement, I’m confident we will emerge smarter and stronger,” Deck said. “The infrastructure requirements are going to grow significantly, and this growth is best accomplished through partnering relationships between midstream and producing companies.”

He recalled in 2011-2012 when the first wave of incremental production came on and outstretched existing infrastructure in the Permian. “We all watched a lot of gas being flared and we wondered if our plans associated with growing a successful business was going to be derailed by lagging midstream infrastructure,” he said. ■

Permian Remains Driving Force In Trucking

By **JOSEPH MARKMAN**, Hart Energy

The primary drivers of the crude-hauling business are the producers of crude and the truck drivers themselves, and the vaunted Permian Basin is the preferred venue for both.

“The supply of crude and the continued supply out of the basin remains relatively strong compared to other basins,” Tom Ramsey, CEO of Centurion Midstream LLC, said May 23 as part of a trucking roundtable discussion at Hart Energy’s DUG Permian midstream pre-conference.

“Obviously, driver demand is fairly high. The Permian’s been producing for so long we’ve got a long lineage of drivers; getting drivers in the new basins was somewhat difficult.”

Attracting and retaining drivers is no small task even during an industry downturn. In the Permian’s core areas, production remains strong, but the number of experienced crude-hauling drivers, like its population, is small.

“It’s kind of a no-man’s land out there when you’re talking about the volume of just people—there’s not a lot out there to draw from,” Jake Thigpen, general manager and COO of Reynolds Energy Transportation, said.

“Your cost of doing business out there is so much higher, not only to get the employee out there but the housing. Any costs that you have of doing business, period, are multiplied in the Permian for the fact that nobody lives there.”

And hiring a truck driver is not the same as adding an accountant to your team at the home office. The mindset is different.

“The thing about truck drivers is that they’re a rare breed,” Mark Thibaut, vice president of crude oil acquisitions at GulfMark Energy Inc., said.





Source: Hart Energy

At the DUG Permian midstream pre-conference Midstream Business Editor-in-Chief Paul Hart (far left) hosted a trucking roundtable with (from left) Tom Ramsey, Centurian Midstream; Jake Thigpen, Reynolds Transportation; and Mark Thibaut, GulfMark Energy.

“They’re kind of loners and independent. A lot of them—it’s not that they have an unstable work history; it’s just that they shop around to see who’s got the best pay package.”

The three panelists were proud of their companies’ ability to retain the bulk of their experienced driver workforce. Among the incentives they offer:

- Higher compensation, including pay, insurance and vacation time;
- Rotating schedules; and
- Safety bonuses.

GulfMark also conducts a year-end drawing in each of its operating districts, in which one driver will be given a \$6,000 bonus.

“That’s on top of other incentives that we provide, so our turnover actually, in the last 18 to 24 months, has been quite low,” Thibaut said. “We’re very proud that we’ve been able to retain a lot of true professionals out there driving for us.”

Among the advantages that the Permian boasts is its longevity. Unconventional production is relatively new, but hydrocarbons have been extracted from the basin for more than a century.

For Thigpen, that means more experienced producers who know how to work with haulers. For Ramsey, it means more stations and fewer longer hauls.

All three panelists lauded how pipeline locations in the Permian Basin have been moved closer to production fields, leading to shorter hauls and higher takeaway of product.

“That’s a really, really good thing for the Permian,” Thibaut said, citing EnLink and other midstream operators. “They’re putting in stations that are close to the production and that really helps with takeaway.” ■



Reliably Variable

Simulations and modeling help LNG shippers account for the weather

By **STEVE HELMSLEY**, Special To Hart Energy

Wildfire in Indonesia. Floods in East Africa. Active hurricanes in the eastern Pacific. A subdued monsoon season in India. All these events, and more, are being attributed to the 2015- 2016 edition of El Niño, likely to be one of the three strongest ever recorded.

When El Niño produces such extreme and varied effects worldwide, it inevitably grabs the headlines. But for industries with global supply chains, tight margins, complex logistics and a heavy reliance on international shipping, El Niño is just one extreme example of the day-to-day challenges that the weather presents.

This is certainly true of the worldwide LNG industry, whose global trade passed 241 million tonnes in 2014 (an increase of 4.3 million tonnes over 2013 levels). New LNG frontiers have emerged on the Gulf Coast and in Canada, the deepwater basins of East Africa and in the brownfield projects of Asia Pacific, among others. In this growing, dynamic and interconnected value chain, the weather is a key external factor, affecting output and squeezing margins.

Even a small storm or particularly thick fog can have a debilitating effect on profits and partnerships. Adverse weather conditions can strongly affect trade routes and common shipping lanes. Journeys that are hastened or slowed by intense winds, high waves or restricted visibility can cause bottlenecks at ports, leading to extra costs for delays and penalties for unscheduled delivery.

Further effects can be felt in broken lending and borrowing arrangements, shortage or excess of supply, breached contracts, unplanned boil-off and inefficient operation of vessels and use of bunker fuel.

And because LNG operations are akin to a finely tuned machine, any disruption to one part of the operation will have a knock-oneffect somewhere else—often further exaggerating the problem.

Missing a slot

For example, a ship delayed by unexpectedly heavy fog in the Gulf of Mexico misses its scheduled slot to transit the canal. Instead it finds itself holed up for days before another appropriate time can be found, thereby missing its scheduled delivery and loading times at its eventual destination in the northeast of Asia, with all the operational costs and loss of business that this delay entails.

The Panama Canal, for all the advantages it opens up, also emphasizes the need to understand and account for weather variability.

Naturally, LNG operators make allowances for the normal uncertainty of seasonal variations: winter demand and typical winter weather can be “baked in” to delivery schedules. Even the arrival of an El Niño itself is fairly predictable—it takes place every two to seven years and is indicated by warming of Pacific waters. Vessel operators know to make adjustments to trans-Pacific journeys as a result.

What is much harder to forecast is the duration and intensity of the event, and the effect it will have on normal seasonal variations. As little as 18 months ago, there was some doubt among meteorologists about how severe this most recent El Niño would be. Like any other weather conditions, predicting the outcome of El Niño is very much a question of probabilities rather than certainties.

Models and simulations

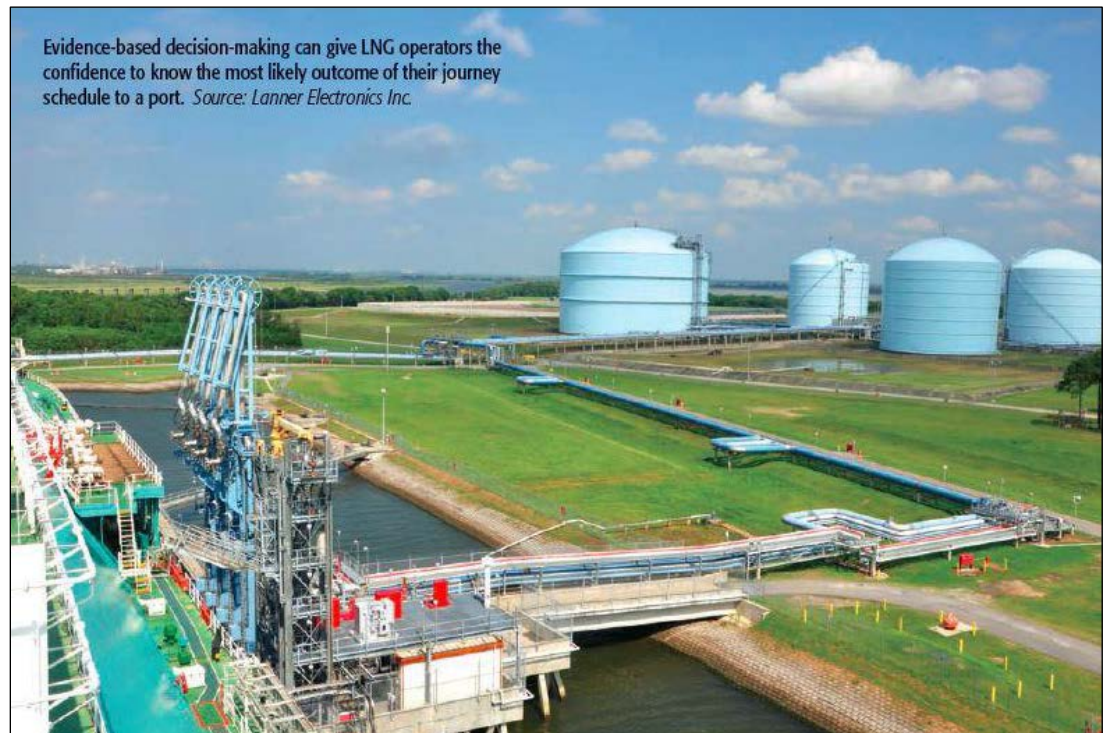
This is where advanced modeling and simulation comes into play. The sheer number of variables created by even normal weather conditions is huge: far too large for anything but the most advanced computational techniques to make sense of. What simulation can do is make clear the most likely outcomes in any number of given scenarios, enabling evidence-based decision-making and giving LNG operators the confidence of knowing what the outcome of their journey scheduling is most likely to be.

By using advanced modeling techniques—and visualizations to give clarity to the results—operators can plan routes more effectively, choose the size and capacity of ships, schedule berthing and docking more efficiently and ensure that supply matches demand.

Protecting Investments

However, the value of simulation can be seen far earlier in the LNG value chain. El Niño year or not, the weather will always be a major external factor on commodity businesses in general and LNG in particular. Understanding its impact before investing in major infrastructure and equipment is critical, particularly as the industry grows and becomes more competitive.

This is exactly what is happening in the U.S., where new LNG players are looking at their plans for liquefaction and



storage facilities on the Gulf Coast. The decision on how much equipment is needed is not just a factor of how much gas is available: it is also a factor of how much gas can be transported out of the site, the navigability of the local waterways and the location of potential customers.

The weather affects all of these. Consider again that fog in the Gulf of Mexico. Not only does it affect journeys from existing operations, it is also a consideration for any organization attempting to work out planning liquefaction, storage or transport facilities in Texas and southern Louisiana.

For example, a producer may decide to commit to shipping more than 12 million tonnes per annum (mtpa) based on theoretical transport capacity and estimated demand. It invests in the necessary liquefaction and storage infrastructure and enters into consortiums with various shipping partners to ensure that 12 million tonnes are distributed each year.

But if it turns out that it can only deliver 11.5 mtpa, then it has invested too much and is over-paying its shipping partners. Similarly, if it turns out that it could have delivered 14 mtpa, it is seriously out of the money. Either way, the producer gains a sub-optimal return on its investment.

On the other side of the contract, the shippers need to be confident that they are able to supply the right ships at the right time, with the right tonnage and capacity to deliver the agreed volumes—all while allowing for boil-off and bunker fuel. They therefore need to be confident that, allowing for weather, their ships can arrive, load, depart and deliver in a consistent fashion.

Will typical wind speeds knock their vessels off their moorings? How often and how far does that infamous fog affect visibility and maneuverability? Will unusual delays at pilot boarding stations compound channel traffic bottlenecks? Failure in any one of these areas opens the consortium up to bloated contingencies and costly mitigations. ■

Changes Ahead For LNG Market

By **FRANK NIETO**, Hart Energy

The LNG market is set to continue to grow substantially as new export terminals are scheduled to come online in the coming years in order to match the considerable natural gas production growth in the U.S. and Australia.

LNG traded globally has quadrupled in the past two decades and is expected to double in the next two decades, according to a recent Deloitte Center for Energy Solutions report, titled “LNG at the crossroads: Identifying key drivers and questions for an industry in flux.” In fact, growth could cause the market to reach critical mass and cause widespread changes in the LNG market.

The report observed seven key factors to helping the market reach its full potential including global economic growth:

- **Global economic growth** –the LNG market is highly dependent on expansions in Europe and Southeast Asia. Any slowdown in those economies would have major impacts on the sector;
- **Energy efficiency** – Deloitte also noted the amount of LNG in demand could be impacted as energy efficiency technologies improve;
- **Excess capacity** –there are also concerns that the market could be oversaturated by the amount of projects coming online out of the U.S. and Australia with as few as one in 20 of announced projects being needed to meet demand through 2035;



- **Shipping costs** –the widening of the Panama Canal and shortening trading distances may result in lower costs and improved gas price differentials;
- **New end users** – LNG has typically been used as a power generation fuel, but as its use as a transportation fuel increases, it will result in greater demand, and;
- **Market liquidity** – the number of changes sweeping the sector has seen several countries building both import and export terminals, which may result in further changes to the industry, including a shift from a contract dependent market to one focused on flexible spot markets.

These factors will help determine the direction of the global LNG market in the next 20 years, but despite several headwinds, Deloitte forecast that supply growth will continue over the next five years at an average of just under 8% each to 2020. There is the possibility of more supply coming into the market in the years between 2020 and 2035 from Iran, Canada and East Africa.

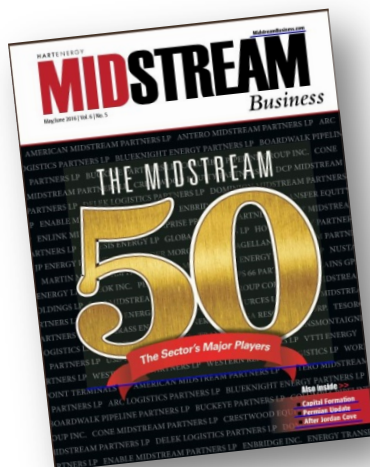
Demand growth is also expected to grow at a similar rate that will see supply and demand largely balanced over the next 10 to 20 years. However, Deloitte warned that these forecasts are heavily reliant on strong economic growth in Asia and Europe and demand could lag.

“While expectations of power generation growth in the developed and developing world differ, natural gas consumption growth will hinge on increasing underlying economic growth. The International Monetary Fund downgraded its 2015 global GDP growth outlook to 3.3% in July, a 0.2% reduction from its January outlook. While it is expected to accelerate in the near term, downward revisions notably in several of the BRICs (Brazil, Russia, India, China and South Africa) countries increase the risk of underperformance. With that said, the strong forecast LNG demand growth may need to be tempered, extending the current glut into next decade,” the report said.

Even with some murkiness in the near-term and short-term outlook, Deloitte stated that the long-term prospects for LNG are sound with growing supply and demand along with reduced costs for both supplies and technology.

The biggest uncertainty is how the market will shift with changing market dynamics with the possibility of an increased focus on liquefaction and transport at a fixed-fee with returns similar to those found in the utility sector or a more robust and liquid spot market created by increased supplies and flexible transport options.

“The long-term growth of the LNG industry will be dependent on deepening existing relationships with existing customers and expanding into new sectors, as well as finding more efficient ways to deliver products to wider markets at lower costs, all while attempting to keep supply and demand level,” the report said. ■



The Midstream 50: Our Ranking Of The Sector's Major Players

The Midstream 50 is the first-of-its-kind published ranking of the top publicly owned players in the sector. With the help of experts at Barclays Capital Inc., we dug into the hard, cold data of Form 10-K annual reports filed with the U.S. Securities and Exchange Commission to ascertain who was at the top of the midstream pile, how they got there and whether they are likely to stay.

Get the list **online** or in the **May/June issue** of *Midstream Business*.

Mark Papa Is Bullish On Oil, Bearish On Natural Gas

By **LESLIE HAINES**, Hart Energy

For commodity producers in North America, it's all about balance. Oil markets will rebalance in the near term, but natural gas imbalances will be much longer-term, said Mark G. Papa, a senior adviser and partner at private-equity firm Riverstone Holdings, which he joined upon retiring from EOG Resources Inc. (NYSE: [EOG](#)) in 2015, where he was chairman and CEO.

The Houston-based executive, who was ranked one of the top 100 U.S. CEOs by Harvard Business School while he was chairman of EOG, told the Houston Producers Forum that North American gas “is not a pretty picture for producers.

However, oil paints a different picture, he said. As global oil production declines in the face of a drilling slowdown and deepwater project deferrals, oil markets should rebalance in 2018.

“It’s the pig that’s not in the python—down the road we are going to be looking for the oil that is not being drilled for today,” he said. “At the bottom line, world oil demand is going up by 1 million barrels per day [MMbbl/d] per year, per year, per year. Yet at \$45, it’s uneconomic to develop new oil anywhere in the world except for the Middle East.”

‘Goldilocks’ price

As a result, Papa said he thinks oil prices will rise in six to 18 months and reach “a stable equilibrium price in the range of \$60 to \$75 per barrel, what I call a ‘Goldilocks’ price.” He said \$90/bbl to \$100/bbl is unlikely—while a long-term price below \$45/bbl is equally unlikely.

He is quite pessimistic about natural gas. “The amount of shale gas that has been found relative to demand is enormous and it has created a big imbalance, in my opinion,” he said. “The Marcellus, Utica and Haynesville are low-cost shales that will conspire to keep gas prices lower than people expect, and for a long time.”

Papa said that by 2018, the Marcellus and Utica will likely be producing up to 23 billion cubic feet per day (Bcf/d), or 33% of the U.S. total.

“That’s about as dramatic a change as you can think of, and in an amazingly short time,” he said, adding that the Haynesville is a “supply sleeper” that will come on strong when better gas prices make it economic again.

“You start getting 20 million cubic feet per day out of there and similar finding and development costs to the Marcellus and Utica, and you’ll have three large supply pools with roughly the same F&D costs. At a gas price of \$2.50 or if you’re lucky, \$3, your IRR on individual wells is going to be quite attractive. This is going to back up all the gas in the Rockies and in Canada.”

Papa said he thinks sub-\$2 will fade in the rearview mirror and a more reasonable band of \$2.50 to \$3 will be seen in 2017.

Papa said we’ll be in a similar oversupply situation for NGL as well.

“Now on oil, we have a totally different macro picture,” he said. “Everyone is pretty much reaching consensus,” that the world market will be tighter next year, based on lower production and rising demand. Full-year U.S. output is estimated to fall by 600,000 barrels per day this year, and other non-OPEC production by 350,000, while global demand is estimated to rise by 1 or 1.2 MMbbl/d.

“If you started the year 2016 with an oversupply of 1.5 MMbbl/d, you’ll be back in balance [except for storage]. It’s almost certain the U.S. will decline again in 2017; the only question is by how much. However, if prices hit \$60 or more, the rebound will occur in 2018.” ■



FRAC SPREAD



NGL Prices Are Sunshine On A Downcycle Day

By **JOSEPH MARKMAN**, Hart Energy

The sentiment in Fort Worth, Texas, at this week's DUG Permian Basin conference was one of cautious pessimism. This downcycle has lasted so much longer than expected that even the recent rally in prices was viewed skeptically.

Sure, West Texas Intermediate (WTI) crude oil is almost double what it was in February, but doesn't that mean that the next plunge into the \$20s is around the corner?

**'Barrel' reaches highest point
in year for second week in a
row, led by pentanes plus.**

Actually, no, it doesn't. What it means is that the price of WTI is almost double what it was at its low point and that from here, it will either go up or down, depending on how traders react on a given day.

That might not sit well with devotees of certain contrarian analysts, but the crowd in Fort Worth elected to depart the conference on a cheery bounce, fueled by a dose of go-get-'em optimism endemic to this business.

And not to ruin anyone's rainy parade with a burst of sunshine, but the price of the hypothetical NGL barrel climbed again this week, reaching a 12-month high for the second week in a row and surpassing \$20 in consecutive weeks for the first time since mid-October. The Mont Belvieu, Texas, barrel's price of \$21.74 was 5.5% higher than it was a year ago.

CURRENT FRAC SPREAD (CENTS/GAL)				
MAY 27, 2016	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	16.40		20.45	
Shrink	12.40		12.40	
Margin	4.00	19.41%	8.05	5.02%
Propane	50.70		54.03	
Shrink	17.13		17.13	
Margin	33.57	0.76%	36.90	1.64%
Normal Butane	66.40		65.48	
Shrink	19.39		19.39	
Margin	47.01	5.33%	46.09	2.23%
Isobutane	72.80		69.50	
Shrink	18.63		18.63	
Margin	54.17	2.84%	50.87	3.39%
Pentane+	105.45		101.18	
Shrink	20.74		20.74	
Margin	84.71	4.04%	80.44	4.26%
NGL \$/Bbl	21.31	1.07%	21.74	1.42%
Shrink	6.83		6.83	
Margin	14.48	3.71%	14.91	3.11%
Gas (\$/mmBtu)	1.95	0.00%	1.91	0.00%
Gross Bbl Margin (in cents/gal)	31.73	0.00%	33.48	0.00%
NGL Value 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.

cents/gal at Mont Belvieu, its highest point since its weekly average was just shy of 72 cents/gal during the week of Feb. 25-March 3, 2015. At Conway, isobutane neared 73 cents/gal, its highest mark since mid-March of last year. Year over year, Mont Belvieu's price was up 25.7% and Conway's up 33.3%.

All five components rose this week at Mont Belvieu, led by a 2.9% increase in C₅₊, and all but propane were up at the Conway, Kan., hub. Propane leveled off this week after last week's double-digit climbs at both hubs. However, propane's price is up 30% at Mont Belvieu over the same week of 2015 and up 34.7% at Conway.

Ethane inched upward at less than 1% at both Mont Belvieu and Conway for the week, but prices were still up 8.7% over the same time last year at Mont Belvieu and 9.3% at Conway.

The weekly change in butane, though it cracked 65 cents per gallon (/gal) at Mont Belvieu, was also nothing to write online about, but its 21.8% lift from the same time frame last year and 38.2% increase at Conway show just how far the recovery has come. Mont Belvieu's price was its highest since the week of April 15-21, 2015, but even that was an anomaly, a return to its glory of late February and early March of last year. Conway's price last reached this level in late February 2015, as well, but did not enjoy as sharp a bounce last April.

Isobutane eclipsed 69

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 18 - May 24, '16	20.45	54.03	65.48	69.50	101.18	\$21.74
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 '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 20- May 26, '15	18.81	41.58	53.74	55.30	124.60	\$20.60
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 18 - May 24, '16	16.40	50.70	66.40	72.80	105.45	\$21.31
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 '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 20- May 26, '15	15.00	37.64	48.04	54.60	119.84	\$19.06

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

RESIN PRICES – MARKET UPDATE – MAY 27, 2016

TOTAL OFFERS: 16,739,656 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Copolymer - Inj	3,788,440	0.54	0.68	0.52	0.56
HPDP - Blow Mold	1,379,024	0.49	0.58	0.51	0.55
HDPE - Inj	498,644	0.55	0.585	0.51	0.55
LDPE - Film	3,581,152	0.55	0.69	0.6	0.64
LLDPE - Inj	933,196	0.53	0.64	0.58	0.62
PP Homopolymer - Inj	4,272,808	0.51	0.61	0.5	0.54
LLDPE - Film	1,335,288	0.555	0.65	0.53	0.57
LDPE - Inj	466,092	0.6	0.63	0.59	0.63
HMWPE - Film	485,012	0.555	0.585	0.525	0.565

Source: Plastics Exchange – www.theplasticsexchange.com

Pentanes plus crossed the \$1/gal mark at Mont Belvieu for the first time since November. Although down 18.8% compared to the price last year at this time, it is still 56.7% above its low for the year of 64.58 cents/gal of mid-February. At Conway, C₅₊ rose 2.3% for the week, though it was off 12% compared to the same time last year. The Conway price is 59.6% its low point for the year, also in mid-February.

U.S. natural gas storage rose 71 billion cubic feet (Bcf) or about 2.6% during the week ending May 20, to 2.825 trillion cubic feet (Tcf). The U.S. Energy Information Administration reported storage as 36.5% above the 2.069 Tcf level of a year ago and 37.4% over the five-year average of 2.056 Tcf from 2011 to 2015.



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Storage concerns

The topping off of storage tanks was a concern shared by upstream players at DUG Permian Basin. In his presentation on the outlook for the basin, Rick Lester, CEO of Opal Resources LLC, questioned not whether the downcycle was complete (he believed it was) but how strong the next upcycle would be.

The very high storage levels of crude oil constitute a major headwind, Lester said: “We have to get storage down to a level that we’ve seen in the past.” ■

TOP STORIES

Brent crude price surpasses \$50/bbl for first time in nearly seven months

Brent and then West Texas Intermediate (WTI) oil prices both flew up to \$50 per barrel (bbl) in trading May 26, the first time spot prices have climbed that high since July 2015.

For much of the afternoon afterward, the price was just below the \$50 mark.

Qatar LNG Venture Expects Exports By 2021

Qatar expects exports from its Golden Pass joint venture in Texas to begin in 2021, an advisor to the government said May 25.

State run Qatar Petroleum (QP) owns a 70% stake in an LNG receiving terminal in Texas that is backed by ExxonMobil and ConocoPhillips.

With prices down and competition increasing, Qatar is looking to diversify its energy business.

Golden Pass is seeking U.S. government approval to repurpose the facility so that it can export 15.6 mtpa of U.S. gas.

—REUTERS

The prompt-month WTI contract traded above \$50/bbl for the first time since October 2015, primarily due to geopolitical events in Kuwait, the United Arab Emirates (UAE) and wildfires in Canada. Continuing supply disruptions in Nigeria may also cut the nation's production to a 20-year low, industry observers and other experts said.

Nigeria routinely has unplanned outages ranging from 200,000 barrels per day (Mbbbl/d) to 300 Mbbbl/d, but in the past they have reached 500 Mbbbl/d.

In February the market reached its low point at about \$27. The fundamental difference since then is about 1 MMbbl/d more oil being stored in tanks, pipelines or ships around the world, said Andrew Fletcher, senior vice president, commodity derivatives, at KeyBank National Association.

"Lately we have seen the prompt rally, and I think for a number of reasons," Fletcher told Hart Energy. "Firstly, I think the market was overdone to the downside. Secondly, short covering from financial players has helped support the market. Finally the outages have helped support the front of the curve."

—DARREN BARBEE

Oil Tankers Backed Up At Southern French Port

Nearly two dozen vessels were queued outside the French oil import terminal in Fos, southern France, on May 27, held up by a strike organized by the hardline CGT and FO unions over planned labor reforms.

A spokeswoman for the port of Marseille told *Reuters* that on May 25, 29 oil, LNG and chemicals vessels were waiting between the wharf and harbor. During normal busy operations, about five vessels would be waiting, the port authority said.

The stoppages hitting the power, fuel and transport sectors are aimed at forcing the government to withdraw the planned labor reform bill.

—REUTERS

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