

# MIDSTREAM

## Monitor

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### FEATURE

## 10 Safety Success Steps For Pipeline Operators

*By Theresa Ward, Hart Energy*



**Mary Campos, vice president, exp Energy Services Inc., a pipeline consultancy.**

FORT WORTH, Texas—After a pipeline rupture in 2010 spilled more than 26,000 barrels of oil from a creek flowing into the Kalamazoo River in Michigan, the National Transportation Safety Board (NTSB) recommended that the American Petroleum Institute (API), in coordination with the Pipeline and Hazardous Materials Safety Administration (PHMSA), industry leaders and the public, form a stakeholder

group. The result: Recommended Practice (RP) 1173. Its main goal is to provide guidance to pipeline operators for developing and maintaining a pipeline safety management system.

API RP 1173 is expected to be finalized by the end of May and “builds upon and augments existing requirements and is not intended to duplicate requirements of any other consensus standards or regulations,” according to the API.

Mary Campos, vice president, exp Energy Services Inc., a pipeline consultancy, presented 10 steps to achieve a safety management system (SMS) incorporating RP 1173 practices in the session titled “Getting Ready For The New Order” for attendees of the Midstream Program of Hart Energy’s DUG Permian Basin Conference and Exhibition on May 19.

Campos’ background is in environmental biology, permitting, compliance and management. She has been working with the pipeline industry for more than 18 years in providing life-cycle pipeline management services, including the permitting, environmental management and operational compliance of key infrastructure projects throughout North America.

“The key program elements of RP 1173 are what everyone does every day. It is not new,” said Campos. She explained that the programs that feed into it are part of the compliance that operators manage daily.

She articulated the 10 steps to a successful SMS along with how to build a roadmap to help operators further refine and grow programs and build upon them.

**Leadership and management commitment:** This defines who is responsible, who is accountable, who to call when things go wrong and when things go right.

**Stakeholder engagement:** Defining all the internal staff that will make your program stronger and manage your pipeline. “It’s important that companies identify these stakeholders so they know what their job needs to be every day,” Campos said. This also means to look externally and beyond emergency responders. This includes schools and residents who may be impacted by the pipeline being in their backyard. Again, she emphasized, it’s part of what pipeline operators do each day—public awareness programs.

**Risk management:** Campos explained that it’s more than third-party damage and incident response; it’s about a more holistic approach to defining risk. It’s understanding operator risk that ties to training. “Understanding the who, what and why of how the pipeline is managed as well as the workers who are around the pipeline, not just the staff workers but the contractors who are hired, as well as the environmental aspect of risk management. It’s about taking those risks, combining them, to make the program stronger.”

**Incident investigation:** There has been a lot of focus on incident investigation, evaluation and lessons learned over the years, Campos explained. This step takes it to the next level. “If an incident occurred, why did it occur? And did those same conditions exist elsewhere on the pipeline that you can take and

learn from to correct and mitigate before it becomes another incident,” she noted. It’s taking the information, building on it and making the program stronger as a result of it.

**Safety assurance:** A critical tool in safety assurance is audits. Whether third-party or internal, audits help to identify potential areas of improvement, she explained. They help to make programs stronger by building on what is already there.

**Management review and continuous improvement:** It’s taking those areas of improvement and communicating them to your stakeholders so that you’re learning and the program is getting stronger.

**Emergency preparedness and response:** This involves data integration to build stronger programs. Taking the current programs and getting them to talk. “A good example is an integrity management program that has critical high-consequence elements to it. Taking that information and combining it with an emergency plan could be so powerful because now the programs are talking together. It’s not just about identifying the high consequence areas (HCAs), but it’s working with the emergency response side to understand where the HCAs are to protect it first in the event of an incident.”

**Competence, awareness and training:** This is a key element we’ve heard about again and again. Understanding who the stakeholders are and what makes them qualified to be performing the different elements of pipeline management and communicating that out. It ensures the right people are in the right roles.

**Documentation and record-keeping:** The importance of keeping pipeline records, the history of spill records and the incident reports associated with that. The qualifications in training: Ensuring that the people working on the different elements associated with the safe operation of your pipeline are the right people to be doing that.

**Management of change:** Campos said there is so much consolidation in the industry with acquisitions and newbuilds that it’s important to manage systems change and elements change. “How is that information taken from the person who made the change straight to the top of the other programs that it relies on, like the emergency management staff?” Taking that information and managing that change is critical to its success. Maintaining the physical, technical and procedural organizational elements that make a program successful are key to the process being successful, she said.

“The action that PHMSA has taken on this occasion [API RP 1173] is to say, ‘the NTSB developed these recommendations, and we need it to come off with a recommended practice or industry standard focused on safety management systems. But we’re not going to promulgate this, we are going to put this in place because it’s the right thing to do, and it’s building on what operators already have.”

### **Developing A Roadmap**

Campos explained that a third-party audit process can help build a roadmap because it helps companies see areas of improvement. “By making the building blocks of the program stronger, the overall safety management system becomes stronger,” she said.

Campos last focused on The-Plan-Do-Check-Act (PDCA), a four-step model that focuses on some of the critical elements that have been discussed over and over again. Risk management in your planning process and understanding what the risks are, identifying them and coming up with the “do” part—is it emergency response, operator controls, training? What elements are going to make it stronger? And then checking and acting to ensure the overall program is a success because it focuses on continuous improvement and management review, and there is commitment from the top up, top down and bottom up that will make the program strong.

## EXCLUSIVES

# Outrigger Energy Pushes 2 Permian Projects

*By Chris Sheehan, Hart Energy*



**Dave Keanini, president of Outrigger Energy**

FORT WORTH, Texas—Outrigger Energy LLC is pushing ahead with two new gathering and processing projects in the Permian, one in the Midland Basin and another in the Delaware Basin, adding to its already extensive midstream operations in the Bakken, Powder River Basin, DJ Basin/Niobrara, Green River Basin and Uintah Basin.

In the Midland Basin, Outrigger Energy’s operations are focused on Howard, Borden and Martin counties, according to Dave Keanini, president of Outrigger Energy, who recently spoke at DUG Permian.

The company plans to open its Midland office in June, he added.

A crude gathering system with an initial capacity of 30,000 barrels per day (bbl/d) is scheduled to go into service in this year’s fourth quarter. The system would be “easily expandable” to up to 50,000 bbl/d,

said Keanini. In addition, work is underway on a gas-gathering system and a cryo plant, with a capacity of 70 million cubic feet per day (MMcf/d) that is due to be in service in the third quarter. Residue gas from the Martin County plant will be connected to the ONEOK line, he said, while NGLs will flow into Enterprise's Chaparral system.

Also under consideration are plans for an 80-mile crude transportation line from the Midland Basin gathering system to Colorado City, Texas. Outrigger Energy expects to announce an open season that will be held in June, Keanini said.

Outrigger Energy's operations in the Delaware Basin are now focused on Winkler and Loving counties, with plans to expand into Reeves and Ward counties, and into Lea County, N.M., according to Keanini. Plans call for a crude gathering system with an initial design capacity of as much as 50,000 bbl/d. The system is scheduled to be in service in the third quarter.

Gas gathering and processing operations are also projected to begin in the third quarter. As in the Midland Basin, the cryo processing facility in Loving County will have an initial capacity of 70 MMcf/d, Keanini said. Residue gas will connect to the Transwestern line, while NGLs will be delivered to the Lonestar system.

Keanini cited several reasons for the choice of the Permian for the two projects, including the local appreciation of the oil and gas industry, the multiple target zones offered by the geology of the basin, and what has been only a relatively recent transition from vertical to horizontal drilling, offering future growth potential in the basin that was "quite staggering."

Oil-in-place estimates for the Permian also reflect the multiplicity and greater thickness of target intervals in the basin. For the Permian, Keanini cited estimates of 80-200 million barrels per section vs. 30-90 million barrels per section for the Eagle Ford and 10-20 million barrels per section for the Bakken. While recovery factors in the Permian were uncertain, one large producer in the Permian estimated 50 billion barrels were recoverable from just the Wolfcamp and Spraberry zones, he noted.

With the completion of several major crude pipelines, takeaway out of the basin appeared to be adequate on the oil side for "the next few years," another positive cited by Keanini. On the natural gas side, takeaway out of the Permian now totaled 3.9 billion cubic feet per day (bcf/d) to California and the Southwest, 1.3 bcf/d to the Midwest and 4.0 bcf/d to Eastern markets, as well as a proposed 3.4 bcf/d to Mexico—for a potential total of 12.6 bcf/d.

## **Green Plains Eyes \$200 Million IPO Raise For MLP Subsidiary**

*By Bryan Sims, Hart Energy*

Omaha, Neb.-based ethanol producer and marketer Green Plains Inc. recently announced the public filing of an S-1 registration statement with the U.S. Securities and Exchange Commission (SEC) for an IPO

seeking \$200 million to form a midstream MLP spinoff of its downstream ethanol transportation and storage assets throughout the Midwest and Southeast.

The newly formed MLP company, Green Plains Partners LP, intends “to own, operate and expand the downstream logistics assets required to support its [parent company Green Plains’] approximately 1.2 billion gallons per year ethanol marketing and distribution business because our assets are the principal method of storing and delivering the ethanol our parent produces for its customers,” according to the SEC filing.

“Our parent believes that this vertical integration will enable it to further expand its downstream logistics activities and better capture the economic value of these operations within the ethanol value chain.

“We generate a substantial portion of our revenues by charging fixed fees to Green Plains Trade for receiving, storing, transferring and transporting ethanol and other fuels. We do not take ownership of, or receive any payments based on the value of, the ethanol or fuel we handle; as a result, we will not have any direct exposure to fluctuations in commodity prices,” the filing noted.



The filing didn’t disclose how many units it plans to offer or an anticipated price range for the units, according to the prospectus filed with the SEC. The units are expected to trade on NASDAQ under the symbol “GPP.” The deal is underwritten by Bank of America Merrill Lynch and Barclays.

In March, Green Plains filed a confidential draft S-1 registration statement with the SEC for the IPO raise for its midstream MLP.

Currently, Green Plains Partners owns 27 ethanol storage facilities located at or near Green Plains’ 12 ethanol production plants in Indiana, Iowa, Michigan, Minnesota, Nebraska and Tennessee, for a combined annual production capacity of 1 billion gallons.

“Our ethanol storage assets currently have a combined storage capacity of approximately 26.6 million gallons and have the ability to efficiently and effectively store and load railcars and tanker trucks with all of the ethanol produced at our parent’s ethanol production plants,” according to the SEC filing.

Green Plains Partners also provides terminal services and logistics solutions through its fuel-terminal facilities that it owns and operates through its wholly owned subsidiary BlendStar LLC.

“These fuel-terminal facilities, at eight locations in seven south-central U.S. states, have fuel holding tanks and access to major rail lines for transporting ethanol or other fuels. Our fuel-terminal facilities have a current combined total storage capacity of approximately 7.4 million gallons and, for the year ended Dec. 31, 2014 and the three months ended March 31, 2015, had an aggregate throughput of approximately 324.8 million gallons and 80.4 million gallons, respectively,” according to the SEC filing.

Green Plains Partners doesn’t operate any ethanol pipelines; instead, it leases a fleet of about 2,200 tank cars to transport ethanol to market. The company also leases around 900 hopper cars to transport dried distiller’s grains with solubles, a byproduct of ethanol production used for livestock feed. Green Plains Partners also uses some of its rail car fleet to transport crude oil for third parties.

“We intend to seek opportunities to grow our business by pursuing organic projects and acquisitions of complementary assets from third parties in cooperation with our parent and on our own,” Green Plains Partners explained in the SEC filing.

“For example, our parent has announced that it is expanding production at its ethanol production plants by approximately 100 million gallons per year and will explore certain other expansion projects at its ethanol production plants in the future.

These expansion projects, when implemented, will enable us to utilize the strategic location and capacity of our assets and will increase annual throughput at our ethanol storage facilities with minimal capital.

“A substantial portion of our revenues and cash flows will initially be derived from commercial agreements with Green Plains Trade. At the closing of this offering, we will (1) enter into (i) a 10-year fee-based storage and throughput agreement, (ii) a six-year fee-based rail transportation services agreement, and (iii) a one-year fee-based trucking transportation services agreement and (2) assume (i) an approximately 2.5-year fee-based terminaling agreement for our Birmingham facility, which we refer to as our Birmingham terminaling agreement, and (ii) various other terminaling agreements for our other fuel terminal facilities, each with Green Plains Trade.

“Our storage and throughput agreement and certain of our terminaling agreements, including the Birmingham terminaling agreement, will be supported by minimum volume commitments, and our rail transportation services agreement will be supported by minimum rail car take-or-pay usage commitments. We believe that the nature of these agreements will provide stable and predictable cash flows over time,” according to the SEC filing.

# How To Best Build Out The Permian

*By Theresa Ward, Hart Energy*



FORT WORTH, TEXAS—Two panelists offered unique perspectives on the obstacles and challenges in completing the buildout in the Permian Basin. Aubrey Harper, vice president, business development for PLH Group Inc., presented an engineering and construction perspective, while Darrel Hagerman, vice president, business development, Permian Region for Crestwood Midstream Partners, offered a midstream operator’s view.

They were both part of a panel discussion on “Completing the Buildout” of the Permian Basin at the recent Hart Energy Midstream Program held during the DUG Permian Basin conference.

Harper began his presentation with the question: “When will the Permian be built out?” He first answered “who knows?” Read on to learn his real answer.

He explained to attendees that in order to build out efficiently, you need to know the costs and the current crude oil price needs to be factored in. “Many are saying the price of crude is going up to \$65 per barrel, and this morning Goldman Sachs announced that it’s going to go to \$45 per barrel by the fall. What we do know is the rig count is down,” Harper said.

Harper said the economic benefits of using unit pricing for the midstream company means a one-year contract with one contractor, which guarantees resources, offers efficient budget management and saves time from bidding contracts and contract negotiations.

“I’m not saying unit pricing is the absolute best way to go, but the alliance agreement you can create with contractors working together over a period of time can get the price down,” he said.

Aligning with PLH offers the advantage of working with other PLH-owned portfolio companies. “Our policy is that if we use a PLH-owned company, and we own 14 of them, we do not mark up services 15%.



If one of our companies gives me a quote for \$1 million dollars, I'll show that quote to you and invoice you that amount," he said.

Formed in 2009, PLH Group is now a \$1 billion dollar company with 3,000 employees and presence in almost all the major basins, including the Permian. The company has acquired companies in the pipeline and powerline sectors, including Tescos Energy Services and Sun Electric, both providing electrical services and located in the Permian.

Back to his original question about when the buildout will be completed. Here's his real answer: "When engineers and geologists figure out how to quit going into zones and doing things and bringing crude to the ground. So, it will never get built out. It will get built out to take care of what is here today. Think about it: producers don't even need to put a drillbit in the ground, they just have to complete the wells that were never completed, and we're going to be busier than we've ever been," Harper concluded.

### **Midstream Operator's Take**

Offering a midstream perspective, Crestwood's Hagerman is responsible for commercial activities in the Barnett, Granite Wash, Permian Basin, Haynesville, Fayetteville, and other emerging NGL-rich shale and unconventional plays. He noted for attendees a number of big-picture obstacles facing the Permian.

"Gas, NGL, crude oil [prices], they're all down 40% to 50%," he said. "Industrywide, we're all right-sizing our respective workforces. Our company went through it, and I'm sure your companies are going through it." Describing it as "limbo-land," Hagerman said there is a lot of disorganization in the midstream. "It's hard to figure out how big your pipeline system needs to be, how much horsepower you need if you don't know how many wells you're going to drill."

A concern for Hagerman is the quality of the crude coming out of the Basin. "We're starting to see more 50 degree + API gravity crudes, more than we've seen in the past." Noting that 50 degree API gravity crude is considered condensate and therefore eligible for export if it meets certain conditions, Hagerman referenced that Pioneer Natural Resources Co. (PXD) and Enterprise Products Partners LP received approval last year from the U.S. Department of Commerce to export minimally refined condensate.

"Whether they [the U.S. government] lift the ban or not [to export crude oil], lifting the ban will eliminate all the uncertainty associated with light condensate. There is a lot of it coming on, and we're seeing more of the batched pipelines being discussed in order to handle it so it can be exported," Hagerman said.

The availability of electrical power in the basin is a problem. "There are some places where there is no power at all," he said. Gen sets are required, and he warned, "power won't be coming for a long time."

Other obstacles Hagerman noted include government regulations, saltwater disposal, access to freshwater and right-of-way issues.

## Permian On A Roll

However, even in this downturn, investment continues in the Permian, he said. With its prolific infrastructure, expansions of mainly crude oil lines are announced every day, and they are big expansions, he said. He noted Sunoco Logistics' Permian II Pipeline will be completed in the second quarter, which will supply crude oil from West Texas to Midwest and Gulf Coast markets. "Everyone is looking at these batch crude pipelines to Midland then to the Gulf Coast ... to the infrastructure that has been taking care of Eagle Ford producers." This connectivity will provide a destination for the light condensate, where it can be processed and potentially exported, he explained.

Another export opportunity close to home is selling gas to Mexico. "Between 2010 and 2014, our gas exports to Mexico went from 900,000 million cubic feet per day to 2 billion cubic feet per day and exports are estimated to increase to 6 billion cubic feet per day by 2025," he said. "We need places to take our gas: LNG terminals and Mexico, and we're the ones [in the Permian] who should serve these markets," he said.

## What's Ahead

According to what Hagerman has heard in the field, Permian output of crude, gas and NGL will increase but level out if commodity prices remain at present levels for an extended period. In the meantime, "producers and midstream companies must communicate and align their interests" to avoid any missteps on any major infrastructure buildouts. And regardless of commodity prices, producers need to depend on good and additional new services from their midstream providers.

"Successful midstream providers must be nimble and have the capability to provide more services than in the past [all commodities and services], crude gathering, saltwater gathering and disposal, gas gathering, compression and processing," he concluded.

## FRAC SPREAD

# Propane Bottoming Out

By Frank Nieto, Hart Energy

NGL prices may be approaching a new bottom as several products hit their lowest level in years as supply continues to overwhelm demand. This is most notable in the case of propane, which fell by double-digit percentages at both Conway and Mont Belvieu to its lowest level in more than a decade.

Since Hart Energy has been tabulating NGL prices and frac spread margins, the only other period in which propane prices were as low as the 42 cents per gallon (/gal) at Mont Belvieu and 38 cents/gal at Conway was back in summer 2002.

Despite high LPG export levels, propane and butane prices continue to plunge due to record inventory levels. Though frac spread margins remain solid at both Conway and Mont Belvieu, other hubs are beginning to show troublesome signs. Last week, prices at the Edmonton, Canada, hub turned negative for a day before barely returning to profitability. Transportation constraints are also resulting in negative margins in the Marcellus-Utica. Most worrisome is that Mont Belvieu is quickly being overloaded by incoming supplies. If the nation's top midstream center can't handle these supplies, there is a real question about where supplies can and will be directed.

CURRENT FRAC SPREAD (CENTS/GAL)				
May 29, 2015	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	15.00		18.81	
Shrink	17.37		18.37	
<b>Margin</b>	-2.37	43.01%	0.44	-144.15%
Propane	37.64		41.58	
Shrink	24.00		25.37	
<b>Margin</b>	13.64	-13.41%	16.21	-20.20%
Normal Butane	48.04		53.74	
Shrink	27.17		28.72	
<b>Margin</b>	20.87	-6.66%	25.02	-7.38%
Isobutane	54.60		55.30	
Shrink	26.10		27.59	
<b>Margin</b>	28.50	-9.50%	27.71	-9.33%
Pentane+	119.84		124.60	
Shrink	29.06		30.72	
<b>Margin</b>	90.78	-2.61%	93.88	-3.62%
NGL \$/Bbl	19.06	-6.86%	20.60	-7.83%
Shrink	9.57		10.12	
<b>Margin</b>	9.49	-3.14%	10.49	-6.18%
Gas (\$/mmBtu)	2.62	-10.27%	2.77	-9.48%
Gross Bbl Margin (in cents/gal)	20.56	-3.38%	23.26	-6.73%
NGL Value in \$/mmBtu (Basket Value)				
Ethane	0.83	-1.32%	1.04	-2.44%
Propane	1.31	-11.44%	1.44	-13.98%
Normal Butane	0.52	-8.74%	0.58	-8.51%
Isobutane	0.34	-9.87%	0.34	-9.40%
Pentane+	1.55	-4.59%	1.61	-5.13%
Total Barrel Value in \$/mmbtu	4.54	-6.99%	5.01	-8.03%
<b>Margin</b>	1.92	-2.09%	2.24	-6.17%

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.

As previously noted, butane and isobutane prices fell at a similar rate to propane. However, supplies are not remarkably larger than in other years where demand dwindles in the spring and summer. LPG shipments currently consist of less than 20% butane, which is helping to increase supplies and push prices down. Pentanes-plus (C5+) fell 5% at both hubs due to the drop in West Texas Intermediate (WTI) below \$58.00 per barrel (/bbl).

Despite a recent improvement in WTI crude to more than \$60/bbl, it appears that more challenges still face the industry before crude can fully recover from its downturn this year. In a recent research note, Moody's Investors Services noted that oil demand is weakening as conservation and substitution are changing consumption behavior. In addition, the report stated that Saudi Arabia's decision to not cut back production is oversupplying the market. "Market conditions and Saudi Arabian behavior resemble circumstances in the mid-1980s, which led to a regime of persistently low prices. Absent a source of robust oil demand growth, history suggests that the current regime of sharply reduced oil prices could continue for a number of years," the report said.

<b>NGL PRICES</b>						
<b>Mont Belvieu</b>	<b>Eth</b>	<b>Pro</b>	<b>Norm</b>	<b>Iso</b>	<b>Pen+</b>	<b>NGL Bbl</b>
May 20 - 26, '15	18.81	41.58	53.74	55.30	124.60	<b>\$20.60</b>
May 13 - 19, '15	19.28	48.34	58.74	61.04	131.34	<b>\$22.35</b>
May 6 - 12, '15	18.94	50.04	61.40	63.16	129.26	<b>\$22.56</b>
April 29 - May 5, '15	18.11	54.28	65.32	66.58	131.62	<b>\$23.39</b>
April '15	17.06	54.84	64.36	66.38	127.64	<b>\$22.97</b>
March '15	18.15	54.72	64.30	65.48	119.85	<b>\$22.57</b>
4th Qtr '14	20.22	76.90	96.73	98.28	149.25	<b>\$30.10</b>
3rd Qtr '14	23.19	103.92	123.69	128.39	212.20	<b>\$40.27</b>
2nd Qtr '14	29.26	106.55	124.12	130.23	222.81	<b>\$42.31</b>
1st Qtr '14	34.50	129.51	137.62	141.49	212.60	<b>\$46.16</b>
May 21 - 27, '14	29.33	104.75	121.90	129.18	222.35	<b>\$41.93</b>
<b>Conway, Group 140</b>	<b>Eth</b>	<b>Pro</b>	<b>Norm</b>	<b>Iso</b>	<b>Pen+</b>	<b>NGL Bbl</b>
May 20 - 26, '15	15.00	37.64	48.04	54.60	119.84	<b>\$19.06</b>
May 13 - 19, '15	15.20	42.50	52.64	60.58	125.60	<b>\$20.46</b>
May 6 - 12, '15	14.90	43.10	54.08	61.06	124.64	<b>\$20.51</b>
April 29 - May 5, '15	15.93	46.74	58.54	61.70	124.12	<b>\$21.32</b>
April '15	15.75	48.18	59.30	63.67	119.72	<b>\$21.26</b>
March '15	17.81	49.99	61.09	72.97	110.31	<b>\$21.52</b>
4th Qtr '14	18.69	78.64	102.72	113.19	146.37	<b>\$30.77</b>
3rd Qtr '14	20.38	104.99	123.51	140.07	207.90	<b>\$40.18</b>
2nd Qtr '14	26.26	105.44	121.26	163.00	221.62	<b>\$42.62</b>
1st Qtr '14	25.46	169.48	132.08	147.10	216.86	<b>\$49.93</b>
May 21 - 27, '14	27.13	102.83	119.75	183.18	218.30	<b>\$42.69</b>

It wasn't all bad news for NGL prices as ethane was largely flat at both hubs as the combination of widespread rejection the past two years and increased cracking capacity is helping to reduce the storage overhang. Though prices are still low and margins are negative at Conway, and only theoretically positive at Mont Belvieu, there is light at the end of the tunnel. Though prices aren't expected to fully recover by 2018, there is a good possibility that they will improve throughout the summer.

Although natural gas prices fell this week, they are expected to increase in the coming weeks due to warmer-than-normal temperatures on the East Coast and increased exports to Mexico. These changes will lead to prices rising above \$3.00 per million BTU, according to Global Hunter Securities.

RESIN PRICES – MARKET UPDATE – MAY 29, 2015					
TOTAL OFFERS: 17,779,864 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
HDPE - Blow Mold	3,857,784	0.64	0.73	0.62	0.66
LLDPE - Film	3,804,164	0.65	0.75	0.64	0.68
HDPE - Inj	3,042,348	0.64	0.72	0.63	0.67
HMWPE - Film	2,035,472	0.605	0.74	0.65	0.69
LDPE - Film	1,716,392	0.68	0.78	0.66	0.7
LLDPE - Inj	1,248,208	0.635	0.76	0.64	0.68
PP Homopolymer - Inj	877,656	0.61	0.69	0.63	0.67
LDPE - Inj	705,472	0.68	0.77	0.66	0.7
PP Copolymer - Inj	492,368	0.64	0.73	0.65	0.69

Source: Plastics Exchange – [www.theplasticsexchange.com](http://www.theplasticsexchange.com)

Improved gas prices will help further support ethane gains, but could further hinder weakened frac spread margins. This week the most profitable NGL to make at both hubs was C5+ at 91 cents/gal at Conway and 94 cents/gal at Mont Belvieu. This was followed, in order, by isobutane at 29 cents/gal at Conway and 28 cents/gal at Mont Belvieu; butane at 21 cents/gal at Conway and 25 cents/gal at Mont Belvieu; propane at 14 cents/gal at Conway and 16 cents/gal at Mont Belvieu; and ethane at negative 2 cents/gal at Conway and nil at Mont Belvieu.

## NEWS

# Tall Oak Midstream Will Build New Stack Play Gathering, Transportation System

Tall Oak Midstream LLC is constructing a new crude oil gathering, storage and transportation system serving producers in Oklahoma's Stack play, which targets Woodford and Mississippian shales, the company said May 28.

Tall Oak is already gathering and processing natural gas on its Stack System for several customers, the company added. The new system's 20-mile pipeline will connect to several downstream pipelines headed to Cushing, Okla. The system is scheduled to be in service by 2015's fourth quarter.

The new system will have a storage and truck unloading facility east of Okarche, Okla.

The company plans to build a 210-mile gathering system that will provide wellhead service. Tall Oak contracted for a dedicated fleet of trucks to take crude from the wellhead to the terminal for customers while the system is being built.

The terminal will have an unloading capacity of 16,000 barrels per day (bbl/d) and storage capacity of 20Mbbbl. Storage could expand to 70Mbbbl.

The system is anchored by a long-term agreement with Felix Energy LLC, Tall Oak said.

“We are very excited to announce our crude system. It allows us to bring Tall Oak’s best-in-class service to both natural gas and crude oil producers. This expansion provides one-stop shopping and marketing flexibility to Felix Energy and many other customers we are working with in the Stack play,” said Ryan D. Lewellyn, president and CEO.

“Our existing operations and commitment to customer service have had an outstanding response from producers across the Stack. We are very pleased that our team’s hard work has resulted in an even greater ability to serve our customers.”

Tall Oak Midstream LLC is based in Oklahoma City.

## **Cequence Energy, Kanata Enter Gas Compression Agreements**

Cequence Energy Ltd. will sell a 50% interest in its Simonette gas compression and dehydration facilities and related infrastructure, the company said May 26. Cequence entered agreements with midstream infrastructure and service company Kanata Energy Group Ltd.

Cequence explores and produces oil and natural gas in western Canada.

The companies will jointly fund an enhancement of the 13-11-62-27W5M Simonette facility. A shallow cut refrigeration system and sales connection to TransCanada Corp.’s NGTL pipeline system will be added.

The new NGTL meter station and connection is underway, scheduled to be in service in 2016’s first quarter. The meter station will handle 200 million cubic feet per day (MMcf/d). It will be connected to both NGTL main trunk lines in the right-of-way.

The existing 120MMcf/d Alliance meter station and connection will continue providing Simonette, and customers, flow options on the two major gas infrastructure systems in Alberta.

The refrigeration plant will process 120 MMcf/d of liquids-rich natural gas. This amount will cover Cequence’s development drilling plans for several years, the company added.

Cequence will put \$17 million of full-year 2015 capex toward the shallow cut refrigeration system and NGTL sales connection. The project is anticipated to be completed in the first quarter of 2016. At closing, CA\$34 million in proceeds are expected for the sale of existing Simonette facilities and infrastructure. On March 31, Cequence had CA\$49 million in adjusted net debt.

Kanata will build and fund 50% of the expected \$40 million needed for the NGTL tie-in and refrigeration facility construction. The enhanced facility provides dual access capabilities to both the NGTL and Alliance transportation systems.

Shallow cut refrigeration will allow Cequence to directly recover an additional 15% of condensate volumes at Simonette for sale in the Alberta market.

Cequence will operate the facilities, and the companies might work together in the future under similar joint venture terms.

Cequence will retain priority rights and ownership privileges in the gas plant and gathering system with a 40MMcf/d minimum volume commitment. In 2016, the minimum volume commitment will rise to 42MMcf/d, the company added. Cequence will receive 50% of third-party processing revenues. In February and March, Cequence produced 50MMcf/d through the plant.

## **DOE Approves Pieridae Energy (USA) Request To Export Gas To Canada**

The U.S. Department of Energy (DOE) granted Pieridae Energy (USA) Ltd. long-term, multi-contract authorization to export natural gas to Canada, and to export LNG from that gas to Free Trade Agreement (FTA) countries, Pieridae said May 26. Pieridae Energy (USA) is a subsidiary of Pieridae (Canada) Ltd.

Pieridae Energy (USA) had applied to export up to 292 billion cubic feet (Bcf) of natural gas per year through the Maritimes Northeast U.S. and Canada pipelines. The DOE authorization was granted May 22.

Pieridae will purchase the natural gas exported to Canada, and will process it at the proposed Goldboro LNG liquefaction facility in Goldboro, Nova Scotia. The LNG will be shipped to FTA countries.

In June 2013, Pieridae entered into a 20-year sales agreement with Europe-based E.ON Global Commodities SE, a subsidiary of one of the world's largest investor-owned power and gas companies, to deliver about 5 million metric tonnes per year of Goldboro facility LNG.

Pieridae's application to the Canadian National Energy Board to import natural gas from the U.S., and to export the resulting LNG from Canada, is pending.

"We're pleased to have achieved this important milestone for the Goldboro LNG project. It's a significant step forward in the final investment decision process," said Alfred Sorensen, president and CEO of

Pieridae. "We look forward to continuing to work with the Department of Energy and the LNG community in the United States."

## Enable Midstream Completes Nesson Gathering System's First Phase

The first phase of the Nesson crude and produced water gathering system is operational, serving Bakken wells in Williams and Mountrail counties, N.D., Enable Midstream Partners LP said May 21.

Construction of the first segment of the Nesson system began in July 2014. Nesson serves XTO Energy Inc. and has a maximum throughput of 1,800 barrels per day (bbl/d). On May 7, crude oil was flowing into the downstream delivery pipeline system.

Phase two construction began in April 2015 and is expected to finish in 2015's fourth quarter. Maximum throughput for the entire system is expected to be 30Mbbbl/d. There will be more than 160 miles of pipeline and 69 origin points to gather crude oil and produced water.

"Our customers continue to have a need for the delivery of energy to key markets," said president and CEO Lynn Bourdon. "We have a proven track record of effectively and efficiently deploying capital to meet that need."

Enable Midstream Partners LP is based in Oklahoma City. – **BUSINESS WIRE**

## Twin Eagle Frack Sand Unit Train Placed Near Eagle Ford

Twin Eagle Sand Logistics LLC placed its first 130-car frack sand unit train at Mission Rail in Elmendorf, Texas. The city is in the core of the Eagle Ford Shale, parent company Twin Eagle Resource Management said.

Mission Rail is a 1,000-acre Union Pacific industrial rail terminal near San Antonio, on the edges of the Eagle Ford.

The extra long unit train is one of the largest frack sand trains used in the Eagle Ford, Twin Eagle Resource said. It was offloaded into Twin Eagle Sand's new, 60-million-pound frack sand silo system. The system can hold up to 300 rail cars' worth of frack sand, and can load a truck in under two minutes.

Twin Eagle Sand has terminals across major U.S. basins. A terminal is under development near Big Springs, Texas. Combined, the current terminals control more than 900 rail car spaces with about 50,000 tonnes of storage capacity.



"Longer laterals, more stages and closer spacing of wells are increasingly common in today's shale plays, which is why frack sand intensity per well continues its rise," Griff Jones, Twin Eagle Sand's CEO. "We believe that world-class terminal infrastructure like what we have developed at Mission Rail is necessary to reduce logistics costs of completing wells and improving our customers' breakeven costs of completion."

Houston-based Twin Eagle Resource Management LLC is a midstream service provider.

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