



NuStar Enters Permian With \$1.5 Billion Navigator Deal

By EMILY PATSY, Hart Energy

NuStar Energy LP (NYSE: NS) will spend nearly \$1.5 billion to make its entrance into the Permian Basin through an agreement to buy Navigator Energy Services LLC, NuStar said April 11.

NuStar, based in San Antonio, agreed to acquire Dallas' Navigator, which owns and operates crude oil transportation, pipeline gathering and storage assets, See NuSTAR, Page 3

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including the Big Spring Gateway System, located in the Midland Basin of West Texas.

The transaction is valued at \$1.475 billion, subject to closing adjustments. NuStar plans to fund a portion of a deal with a public equity offering of about 10.5 million common units.



Navigator's website says the Big Spring Gateway pipeline has a throughput capacity of 190,000 barrels-per day (bbl/d). The Big Spring system serves producers in Martin, Glasscock, Howard and Midland counties, Texas.

"We are excited about starting 2017 with a strategic acquisition, and the addition of Navigator's Permian assets marks NuStar's entry into one of the most prolific basins in the United States," Bradley C. Barron, NuStar president and CEO, said in a statement.

"We expect that the purchase price, when coupled with modest future growth capex to build out the system, will result in a high single digit multiple as volumes ramp over time."

SAP's McDermott: Technology Helps, But People Make Energy Work

SAN ANTONIO—The energy industry owes much of its recent success to advanced technology, but executives should remember that it's people—both inside and outside a company—who make a business work.

That was the keynote message of Bill McDermott, CEO of international software giant SAP SE, April 10 at the 96th annual convention of the GPA Midstream Association.



about customers," McDermott said of SAP management. Likewise, senior management should listen to its employees, give them a vision for the company's success and reward them accordingly, he added.



McDermott, the first non-European to head the German-based firm, credited his career success to a delicatessen he opened in Amityville, N.Y., while still a

"We never talk about the market and the stock price, we talk

teenager. He said he learned that listening to and identifying with customers brought business success.

"If you were a customer of mine, I knew your name, your childrens' names, the food you liked, the beer you drank and the cigarettes you smoked," he said. Talking to high school students, he learned they wanted to play video games so he moved in moved in some games. The kids played games and also bought lots of sandwiches, snacks and soft drinks.

He said his people skills got him past the receptionist and into the hiring manager for his first "real" job at Xerox. — PAUL HART, Hart Energy

LNG Trade Ramps Up, Sets Another Record In 2016

The launch of operations at Cheniere Energy Inc.'s (AMEX: LNG) Sabine Pass, La., export terminal helped push global LNG trade to a record in 2016, one that Oslo-based International Gas Union (IGU) expects to be



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broken repeatedly in the near future.

LNG volumes last year rose 5% to 258 million tons as a surge of production from Australia and increased output from Indonesia made Asia-Pacific the world's leading export region, replacing the Middle East. Asia-Pacific is also the leading import region, with Japan, South Korea, China, India and Taiwan leading the world in volumes purchased.

In its "2017 World LNG Report," the IGU cited the Paris Agreement as a driver of natural gas usage growth and noted that new markets have emerged in Egypt, Pakistan, Jamaica and Malta. Japan and South Korea, the world's leading importers of LNG, appear to be moving toward an all-of-the-above approach to power generation, with increased reliance on nuclear, coal and renewable sources. — JOSEPH MARKMAN, Hart Energy

FRAC SPREAD NGL Prices Spring Forward

By JOSEPH MARKMAN, Hart Energy

In the spring a young man's fancy lightly turns to thoughts of rising natural gas prices. At the risk of having my poetic license revoked, I have to ask: what's not to love about the annual spring

CURRENT FRAC SPREAD (CENTS/GAL)				
APRIL 14, 2017	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	21.82		24.25	
Shrink	20.41		21.21	
Margin	1.41	-275.99%	3.04	-3.57%
Propane	60.35		65.28	
Shrink	28.19		29.30	
Margin	32.16	12.07%	35.98	7.65%
Normal Butane	74.50		75.53	
Shrink	31.92		33.17	
Margin	42.58	6.73%	42.36	8.83%
lsobutane	83.95		78.60	
Shrink	30.66		31.86	
Margin	53.29	6.20%	46.74	5.49%
Pentane+	114.93		115.28	
Shrink	34.14		35.48	
Margin	80.79	1.47%	79.80	-2.11%
NGL \$/Bbl	24.71	5.63%	25.39	3.78%
Shrink	11.24		11.69	
Margin	13.47	8.75%	13.71	3.14%
Gas (\$/mmBtu)	3.08	2.12%	3.20	4.55%
Gross Bbl Margin (in cents/gal)	30.37	9.25%	31.60	3.47%
NGL Va	lue in \$/mmBtu	(Basket Value)		
Ethane	1.20	13.76%	1.34	3.46%
Propane	2.10	7.19%	2.27	6.23%
Normal Butane	0.80	4.71%	0.82	6.91%
Isobutane	0.52	4.68%	0.49	5.11%
Pentane+	1.48	1.66%	1.49	-0.16%
Total Barrel Value in \$/mmbtu	6.11	6.45%	6.39	4.10%
Margin	3.03	11.23%	3.19	3.65%

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

fourth quarter, when higher cracking and export demand kick in.

"By 2018, Mont Belvieu ethane frac spreads will need to increase to 20 cents/gal to drop ethane rejection west of the Marcellus/Utica to below 160,000 barrels per day [Mbbl/d] to meet growing ethane demand," the analysts say.

rally? Besides, consider these lines from "Locksley Hall:"

"Here about the beach I wander'd, nourishing a youth sublime With the fairy tales of science, and the long result of Time."

Seems like Lord Tennyson is clearly referring to fossil fuels ... or how long it takes to secure an environmental impact statement necessary to obtain a permit to build a pipeline.

Anyway, NGL prices rose almost

across the board last week, accompanied by a slew of widening frac spread margins.



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The hypothetical NGL barrel at Mont Belvieu, Texas, was up 3.8% and the corresponding barrel at Conway, Kan., rose 5.6%.

Not since mid-February have ethane prices cracked 24 cents per gallon (gal) at Mont Belvieu and 21 cents/gal at Conway. The spread moved into positive territory at both hubs and while rejection levels are still high, **En*Vantage Inc.** expects ethane inventories to drop over the next six months, reaching 43.2 million barrels by July. The estimate for January was 50.1 million barrels.

By En*Vantage's estimates, January's inventory supply of 42 days will diminish to less than 30 days by the

THE INTERVIEW

Building The Backbone With John Stupp

John Stupp manages a concreteweight coating plant on the Mississippi River a few miles from its Baton Rouge, La., campus to provide operators pipe for use in wet or marshy areas. The concrete



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or use in wet or marshy areas. The concrete provides mechanical protection against anchors and pulls while decreasing pipe buoyancy.

MIDSTREAM Your parent firm has more than a century of experience supporting

infrastructure development. How have you seen the business change in recent years?

STUPP The current company was started in 1856 by my great-greatgrandfather. He came over from Germany and really was, for lack of a better description, an artistic blacksmith. He could work iron into anything. He started making farm implements and then he got into things like jail cells and all sorts of other stuff. Then he brought his three sons into the business in the 1870s and 1880s. They got the company involved in bridge fabrication in the mid-1880s when the first federal highway program was started. Being located in St. Louis, we were kind of on the western edge, the industrial part of the country. So we actually supplied a lot of bridges for places west of St. Louis.

The company segued into paper mill, sugar mill and steel mill structures in the early 1900s. We got involved in the pipe business in 1952, first to supply some pipe for the Korean War effort. Then we moved our location to Baton Rouge, La., to be involved in the energy business. — PAUL HART, Hart Energy

TOP STORIES

Floating LNG Is Riding The Tide

Petronas marked an important milestone in the LNG industry in late March by shipping the first cargo from a floating liquefaction unit. While relatively small with an annual capacity of 1.2 mtpa compared to its gargantuan neighbors in Australia, Indonesia, and onshore Malaysia, the project, known as PFLNG *Satu*, represents a small but growing piece of the future of liquefaction.

PFLNG *Satu* began construction in mid-2013, shortly after Shell began construction on *Prelude* FLNG in late 2012. In the ensuing two years, Petronas took FID on a second FLNG, and Exmar agreed to provide the Western hemisphere's first unit, which would be moored offshore Colombia. Since then, other projects have been explored on both the east and west coasts of Africa as well as in Asia and Australia.

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