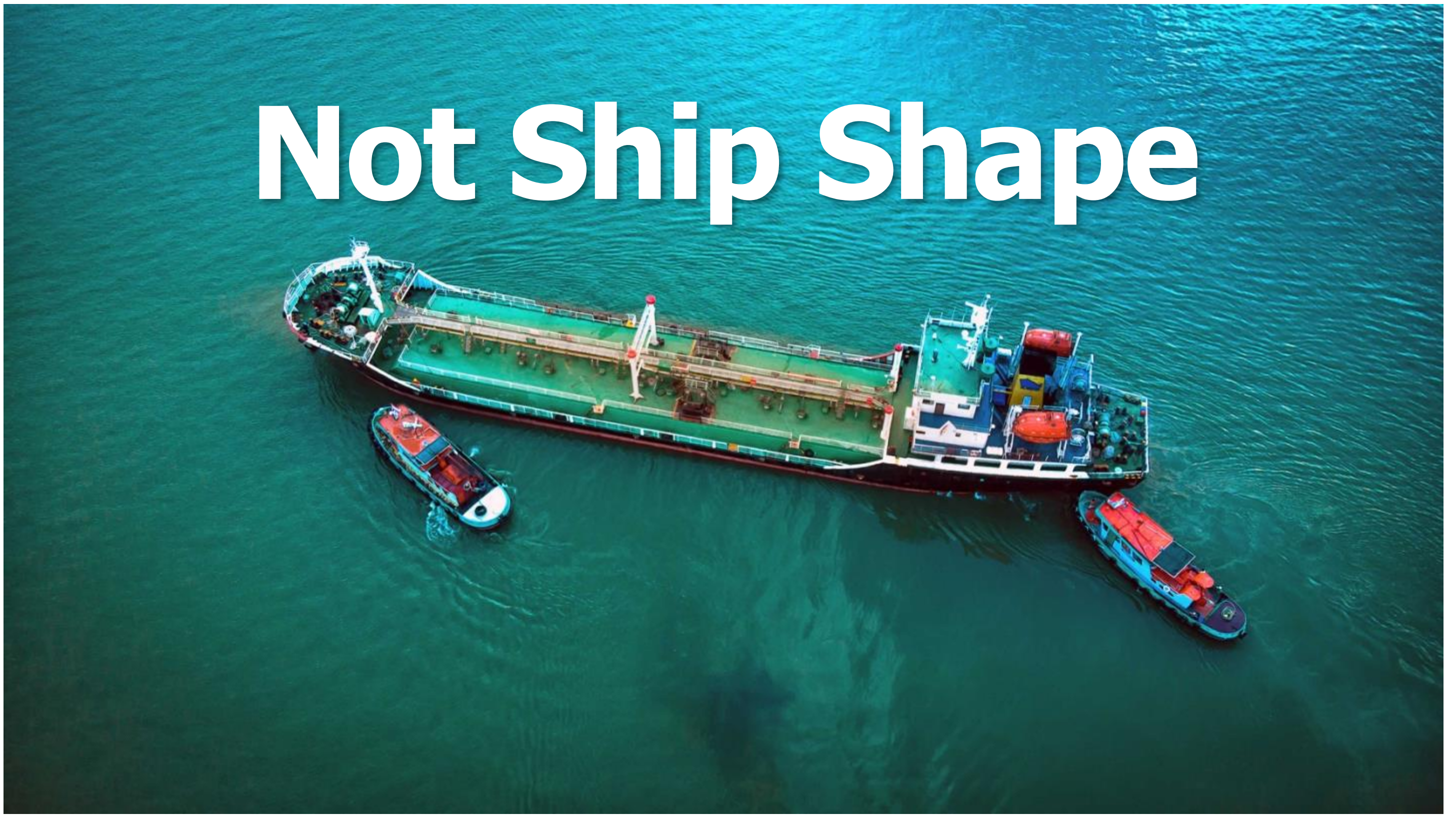
MIDSTREAM Monitor

MAY 25, 2018 | VOLUME 36 | ISSUE 21

FEATURES



The U.S. lacks enough ports deep enough for larger ships to enter.

TERRANCE HARRIS
HART ENERGY

A lack of ports capable of handling the largest oil tankers is hampering the economics of U.S. crude exports as global demand increases.

Most ports along the U.S. Gulf Coast lack sufficient water depth to allow Very Large Crude Carriers (VLCCs) to enter. That places an export ceiling of about 2 million barrels per day (MMbbl/d) and makes shipping crude to marginal markets like Asia less efficient.

To work around depth restrictions, onshore U.S. ports on the Gulf Coast that actively trade petroleum often have to rely on partial loads or lightering, also known as ship-to-ship transfers. The Louisiana Offshore Oil Port (LOOP), offshore in the southern part of the state in the Gulf of Mexico, is the only facility in the U.S. able to accommodate a fully loaded

See PORTS, Page 2

PORTS from Page 1

VLCC.

"You want to be more efficient in your exports of crude oil, you use larger ships, but right now you don't ports deep enough or infrastructure to be able to do that except for LOOP," said Mason Hamilton, a diesel price analyst with the U.S. Energy Information Administration (EIA). "So you do the math and say, it's fine, I will just pay. I will take that inefficiency, I will absorb that cost. Or it's, I can make proper investment, I can deepen my port, I can make a terminal that can load a VLCC and then I can capture that difference."

But a recent EIA report indicated that it is unlikely that new ports in the Gulf with enough depth to handle the larger vessels will be built. The U.S. Maritime Administration (MARAD), which issues permits for deepwater offshore ports, has no pending applications for more facilities like LOOP.

Most analysts believe the likely crude oil export projects with the intention to fully load VLCCs will be located at the Port of Corpus Christi, Texas.

Hamilton declined to define the lack of deepwater ports as problematic for exports. He said the EIA's only purpose in issuing the report was to point out facts.

The inefficiency in the export process seems without question. U.S. crude oil exports averaged 1.1 MMbbl/d to 37 different destinations in 2017 and is averaging 1.6 MMbbl/d so far this year, way up from the 500,000 bbl/d in 2016.

Currently, the majority of U.S. Gulf Coast petroleum ports are capable of handling vessels with capacities of about 500,000 bbl of crude oil. The number of ports that can even accept vessels with capacities of 900,000 to 1 million bbl is relatively limited. Either way, it would require multiple vessels to move what one VLCC could export from the port.

The benefit of using a larger vessel is greater when traveling a longer distance like to Asia.

"It's a math and economics problem," Hamilton said. "It's up to somebody to figure out, do I spend a bunch of money and try to make investments so that I can get my crude all the way around the world to the marginal market for like 50 cents a barrel but I have to spend all of this money in making these investments, or that number doesn't really matter to me, I'm just going to use a greater number of smaller vessels."

VIDEO

Overcoming Challenges In The Northeast Buildout

Securing state water and air permits has proven to be a challenge for Enbridge Inc. as it builds out natural gas pipeline capacity to the Northeast U.S., a company executive told Hart Energy.

Erin Petkovich, Enbridge's director of Northeast business development, sat down with Hart Energy's Jessica Morales at the Marcellus-Utica Midstream Conference in Pittsburgh to discuss how opposition to pipelines in the region adds uncertainty to the construction process, not just to Enbridge but to the company's customers.

Another challenge facing the company is a public that is not well-educated to the value that fossil fuels bring to their lives.

"Natural gas can provide clean, reliable, affordable, abundant and domestic energy and it can support renewable infrastructure so that it can be a backup to electricity generation," she said. **—JESSICA MORALES | HART ENERGY**

FRAC SPREAD

NGL 'Barrel' Rallies To 43-Month High

JOSEPH MARKMAN | HART ENERGY

It was a good week to be an NGL molecule.

Your output was high enough, your demand was strong enough and, doggone it, energy traders liked you.

CURRENT FRAC SPREAD (CENTS/GAL)

MAY 25, 2018	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	7.93		24.83	
Shrink	16.63		18.88	
Margin	-8.70	16.14%	5.95	-3.10%
Propane	78.08		95.11	
Shrink	22.97		26.09	
Margin	55.11	11.24%	69.02	7.62%
Normal Butane	87.38		101.18	
Shrink	26.01		29.53	
Margin	61.37	8.06%	71.65	6.03%
Isobutane	108.43		140.88	
Shrink	24.98		28.36	
Margin	83.45	4.60%	112.52	22.74%
Pentane+	145.60		162.91	
Shrink	27.81		31.58	
Margin	117.79	-2.24%	131.33	0.04%
NGL $/Bbl	27.96	2.77%	35.28	4.37%
Shrink	9.16		10.40	
Margin	18.80	3.42%	24.88	5.65%
Gas ($/mmBtu)	2.51	1.46%	2.85	1.45%
Gross Bbl Margin (in cents/gal)	43.24	4.05%	57.90	5.93%
NGL Value in $/mmBtu (Basket Value)				
Ethane	0.44	-10.90%	1.37	0.32%
Propane	2.71	8.17%	3.30	5.85%
Normal Butane	0.94	6.01%	1.09	4.65%
Isobutane	0.67	3.86%	0.88	17.76%
Pentane+	1.88	-1.56%	2.10	0.31%
Total Barrel Value in $/mmbtu	6.64	3.11%	8.74	4.48%
Margin	4.14	4.14%	5.89	6.00%

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.

Except for you, ethane. You endured more of a compare-and-despair week.

The hypothetical NGL barrel at Mont Belvieu, Texas, climbed above $35 last week to its highest mark since mid-October 2014—a 43-month stretch. Isobutane was exceptionally strong, leaping 17.8% to $1.41 per gallon (gal), its highest price since mid-February 2015, or 51 months.

Eight of 10 prices at Mont Belvieu and Conway, Kan., experienced price hikes in the past week. Ethane, though, struggled. Its Mont Belvieu price remained static while the price of natural gas rose slightly, squeezing its margin by 3.1% and pulling it below 6 cents/gal. This despite the restart of the Mariner East 1 pipeline that connects to Marcus Hook, Pa. An ethane-laden tanker departed the terminal, **En*Vantage Inc.** noted in its weekly report.

CLICK HERE
TO READ MORE ONLINE

Traders are skittish about ethane demand, in part because Chevron Phillips Chemical Co. LP, experiencing an ethane surplus, announced that it would idle its Sweeny #22 cracker. By itself, it's not a big deal but it symbolizes the malaise surrounding ethane.

"The ethylene surplus that Chevron Phillips is facing is emblematic of the industry-wide surplus of ethylene facing many U.S. petrochemical producers," En*Vantage wrote in its report.

Sweeny #22 is the smallest and highest cracker that Chevron Phillips operates, but its closing means that ethane cracking demand is diminished at a time when low natural gas prices are spurring higher ethane extraction in the Permian Basin, Rockies and Midcontinent, En*Vantage said.

Given that other ethane crackers are running full tilt and ethane exports from Morgan's Point on the Houston Ship Channel are strong, the drop in prices signals a market overreaction, the analysts concluded. Traders are also not taking the near-term demand boost from Exxon Mobil Corp.'s 3.3 billion pound-per-year ethane cracker in Baytown, Texas, which is on track to be operational by mid-year.

FERC Ruling Quickened, Didn't Cause Consolidations

The Federal Energy Regulatory Commission's (FERC) tax ruling on March 15 removed certain benefits for MLPs but it is more likely that the decision merely sped up the recent **consolidations** of Enbridge Inc. (NYSE: **ENB**) and The Williams Cos. (NYSE: **WMB**), an analyst told Hart Energy.

CLICK HERE
TO READ MORE ONLINE

Michael Underhill, chief investment officer of Pewaukee, Wis.-based **Capital Innovations LLC**, sees the May 17 announcements as part of a continuing trend.

"The FERC ruling accelerated the consolidations," Underhill said. "When Kinder Morgan departed the MLP space on Aug. 10, 2014, this was viewed as an anomaly—I was quoted as stating that this was a precursor of things to come. Recently, Kinder Morgan was joined by ONEOK Inc. [NYSE: **OKE**] and Targa Resources Corp. [NYSE: **TRGP**] as they have bought in their MLPs."

FERC based its decision on a decision by the U.S. Court of Appeals for the D.C. Circuit in July 2016. The commission said that the court had ruled that its tax policy constituted a "double recovery" of income tax costs for MLPs and eliminated that benefit.

Trade associations, including INGAA, expressed disappointment with the policy shift, but whether the ruling forced the consolidation issue did not seem to matter much to analysts. They were pleased that the companies chose to move toward simpler structures. **—JOSEPH MARKMAN | HART ENERGY**

Contact Information:

JOSEPH MARKMAN Senior Editor
jmarkman@hartenergy.com

Contributing Editors: Velda Addison, Darren Barbee, Nissa Darbonne, Brandy Fidler, Leslie Haines, Terrance Harris, Paul Hart, Mary Holcomb, Jessica Morales, Emily Patsy, Erin Pedigo, Larry Prado, Jennifer Presley, Chris Sheehan, Steve Toon, Len Vermillion, Brian Walzel, Alexa West, Peggy Williams

ORDER TODAY!
Call: 1-713-260-4630 | Fax: 1-713-840-1449

HARTENERGY
1616 S. Voss, Suite 1000 • Houston TX 77057-2627 • USA