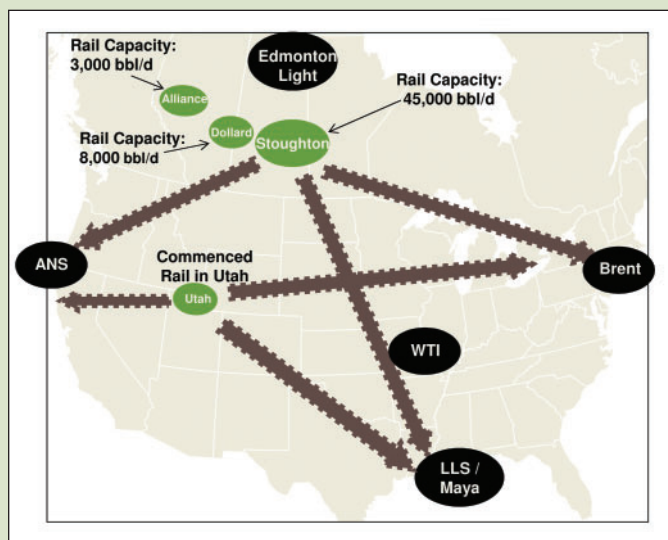




page 6 Hess splits top jobs, posts new letter from Kevin Meyers, others

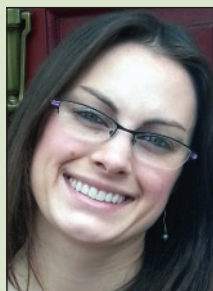
Crescent Point bullish on rail



Intermediate producer uses rail to move one-third of production and estimates net benefits at C\$5-C\$6 per barrel better than pipe; also hikes capital spending and production guidance for 2013. See page 3.

EPRINC's Trisha Curtis: getting crude to the right markets

In a May 1 presentation at the 21st annual Williston Basin Petroleum Conference held in Regina, Saskatchewan, Trisha Curtis, a senior research analyst with the Energy Policy Research Foundation Inc., or EPRINC, gave an assessment of current and projected U.S. and Canadian crude oil production. Curtis also discussed how the transportation and refining infrastructure is determining and will continue to determine the premium refining markets for the various types of crude oil produced in the two countries. EPRINC is a non-profit, Washington, D.C., energy research group that focuses on oil.



TRISHA CURTIS

In what she refers to as a "petroleum renaissance," Curtis said the U.S. currently produces more than 7 million barrels of oil per day, Canada produces 3.3 million bopd and production in both continues to rise steadily. Combined, U.S. and Canadian oil production has grown by 2.7 million bopd since

see **PRODUCTION FORECAST** page 14

Ron Ness: How industry fared in ND legislative session

For North Dakota Petroleum Council President Ron Ness and his staff, legislative sessions can be long and difficult, not only because of all of the oil and gas-related legislation he and his staff track throughout the session, but also because



RON NESS



of all the committee hearings in which the council testifies on behalf of its members. The recently adjourned 63rd North Dakota legislative session was no exception, with the NDPC tracking some 150 individual bills and testifying more than 60 times during the 85-day session which ended in the early morning hours of May 4. In a May 13 interview, Ness shared his thoughts with Petroleum News Bakken on some of the oil and gas-related issues that North Dakota legislators dealt with.

Biggest issues?

Petroleum News Bakken: Literally scores of oil and gas- see **NESS Q&A** page 13

COMPANY UPDATE

Pushing margins

CLR continues successfully testing Three Forks benches and downspacing

By MIKE ELLERD

For Petroleum News Bakken

Not only did Continental Resources set another production record in the first quarter of 2013, the company also ran successful tests of the second and third benches of the Three Forks, saw positive results from downspacing in 320-acre and 160-acre pilot spacing units, continued to reduce drilling costs to the extent it is planning to drop two of its Bakken drill rigs in the year, and continues to be an industry leader on flaring reduction.



HAROLD HAMM



RICK BOTT

Going forward in 2013, Continental plans to continue both its development of the Williston Basin Bakken petroleum system, and also plans to continue its exploration of the system.

"In the Bakken, even as we're transitioning into full development mode, we're exploring the depths of the play, expanding production in the Lower Three Forks benches and pushing out the Bakken's geo-

see **PUSHING MARGINS** page 7

GOVERNMENT

Output beats weather

ND's March oil production up, albeit slightly; rail exports holding at 71%

By MIKE ELLERD

For Petroleum News Bakken

Despite worse weather in March than February, including three major winter storms, daily oil and gas production in North Dakota actually increased in March, although the increase in oil output was minimal. However, given the adverse weather in March, Lynn Helms, director of the North Dakota Industrial Commission's Department of Mineral Resources, was actually expecting a decline in March production, and views the slight increase as very positive.



LYNN HELMS

"It's a little bit ho-hum, only about a 4,000 barrel a day increase," Helms said in a May 15 con-

ference call. "But considering what the weather was like in March, we're actually really pleased that the oil production rose instead of declined."

Daily oil production in the state in March reached a record high of 782,812 barrels of oil per day, although that output was only a 0.5 percent increase over the 779,050 bopd produced in February. The number of producing wells in the state increased by 142 to 8,634, also a record high. However, the number of wells awaiting completion also went up in March.

see **MARCH OUTPUT** page 5

LAND & LEASING

BLM gets bids on only 8%

MT leases reoffered due to lack of payment; Richland tract brings \$3,900 per acre

By MIKE ELLERD

For Petroleum News Bakken

Of the 93,731 acres offered in the Montana/Dakota Bureau of Land Management's May 7 oil and gas lease auction a mere 7,349, or approximately 8 percent, received bids. Of the remaining 86,382 acres that did not receive bids, 73,699 were in McCone County, Mont., and had been previously let by BLM in an October 2012 auction. But the high bidder on those leases, San Antonio-based Donco Inc., did not pay for them. BLM rules require the agency to re-offer the leases for auction.

The other acreage that did not receive bids in the May BLM lease sale was in Garfield and Prairie counties.

Auction results

Of the 7,349 acres leased, 5,928 were in Montana and 1,421 in North Dakota. Of the 5,928 Montana acres that were leased in the May auction, most were in McCone County which received bids on 5,231 acres. The remaining acreage was in Daniels, Garfield, Richland and Roosevelt counties.

The Montana leases averaged \$67.03 per acre. The highest bid was \$3,900 paid by Irish Oil and Gas Inc. of Bismarck for a 72-acre parcel in Richland County.

All of the remaining bids on Montana tracts ranged from \$2 to \$575 per acre.

NovaNRG of Sugar Land, Texas, picked up leases on nine tracts totaling 123 acres in Richland

see **MAY LEASE AUCTION** page 15



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EPRINC's Trisha Curtis: getting crude to the right markets

In a May 1 presentation at the 21st annual Williston Basin Petroleum Conference held in Regina, Saskatchewan, Trisha Curtis, a senior research analyst with the Energy Policy Research Foundation Inc., or EPRINC, gave an assessment of current and projected U.S. and Canadian crude oil production. Curtis also discussed how the transportation and refining infrastructure is determining and will continue to determine the premium refining markets for the various types of crude oil produced in the two countries. EPRINC is a non-profit, Washington, D.C., energy research group that focuses on oil.

In what she refers to as a "petroleum renaissance," Curtis said the U.S. currently produces more than 7 million barrels of oil per day, Canada produces 3.3 million bopd and production in both continues to rise steadily. Combined, U.S. and Canadian oil production has grown by 2.7 million bopd since January of 2008, and the growth is expected to continue. EPRINC looked at oil production forecasts over the last couple of years and Curtis said those forecasts suggest that major unconventional plays could add 4 million bopd to U.S. output by 2020, and that Canadian output could increase by 2 million bopd by 2020.

The U.S. is still a net importer of crude oil, but Canada is a net exporter and the U.S. is currently importing nearly 3 million barrels of Canadian crude per day, a volume which Curtis described as "huge." Furthermore, Curtis noted that since 2008, Canadian crude imports to the U.S. have seen an increase of approximately 800,000 barrels of oil per day, a trend she said, which is set to continue.

Although oil consumption in both countries is expected to increase in coming years, Curtis said those increases are expected to be moderate and forecasts reveal

consumption curves essentially flattening through 2020 for both counties.

So for the U.S. it means the country will continue to meet more of its domestic oil demand, but for Canada, Curtis said, it means that every incremental barrel of oil must be exported, and “the only place for Canada to export that oil right now is the U.S.”

While much of U.S. domestic oil production in recent years consists of light, sweet crude, the imported Canadian oil is predominantly heavy crude in the form of diluted bitumen, but also includes some synthetic crude. Consequently, there are increasing volumes of these two very different types of crude oil in the U.S. “So it means we basically have a lot of light, sweet crude, and we have a lot of heavy crude in the U.S. right now,” Curtis said. Her presentation focused on how the U.S. will be able to transport and refine those two very different crude oils.

Where are the premium markets?

Curtis said there is sufficient refining capacity in the U.S., but refineries differ in the type of crude oil they process, and the issue, she said, is getting crude oil to the right refineries. The entire central portion of the U.S. and Canada, she said, is saturated with U.S. domestic and Canadian crude, and those crude oils need to start going to refineries on U.S. coasts. “The places that you need to put Canadian crude, and the places that you need to put U.S. domestic crude are the coasts. We do not need to build more refineries, but we do need to get the crude that we have to those refineries.”

Nearly all of the imported crude oil going to the Midwest states that comprise Petroleum Administration Defense District II or PADD II comes from Canada, and all of the imports into the Rocky Mountain States that comprise PADD IV are also from Canada. The West Coast region, PADD V, is receiving some imported Canadian crude, but the Gulf Coast, PADD III, where most of the coking capacity lies, is getting essentially no Canadian crude.

“PADD III is one of the most sophisticated, complex refining districts in the entire world,” she said, adding that the Gulf Coast is “well suited to refine the heavy crude. It wants this crude and has built the refineries to take it, and as the imports from Mexico and Venezuela are declining, it really does need this Canadian crude.” Refineries on the West Coast, she said, are not necessarily as complex as on the Gulf Coast, but West Coast refineries do have the capacity to refine the heavy and synthetic crude oil.

Bakken needs to go to coasts

Curtis went on to say that light, sweet domestic crude, such as Bakken crude, needs to go the east and west coasts. The East Coast has a disadvantage in regard to heavy crude in that there is only one coker unit in the East Coast PADD I region. As a result, she said, PADD I imports expensive light, sweet crude, and that’s why the East Coast is such a “natural” home for Bakken crude because “these are simple refineries that are geared to refine light, sweet crude.”

Because of the limited capacity to get Canadian crude oil to the East Coast, Midwest refineries are upgrading to handle the heavy Canadian crude. The problem with that, Curtis said, is that absorbing more Canadian crude into the Midwest refining market will push out the light, sweet crude from the Bakken.

“There are several refineries that, over the course of the next several years, will be gearing up, and as they put in more upgraders to refine heavier crude, they’ll be pushing out the light, which just means that the light, sweet crude has to find another home ... and the only homes for that crude are the west and east coasts.”

The Gulf Coast PADD III, Curtis said, was basically the first region to take Bakken crude, where it was first shipped via rail to St. James where refiners like it and where it has found a good home. At the beginning of 2012, the East Coast, PADD I, began taking Bakken crude, but the West Coast continued to lag behind on taking Bakken crude. “PADD V is definitely late to the party,” Curtis said. However, she said Washington State is gearing up to take more Bakken crude, although California is having permit delays with regard to building inbound rail facilities at refineries.

Blending options

Another option for Canadian crude oil, Curtis believes, is that Canadian synthetic crude could play an important role in the U.S. because of its use in blending with other crudes to produce more desirable feedstocks. Refiners like synthetic crude because it is very flexible in the refinery.

The majority of the crude oils that the U.S. is importing, Curtis said, are the heavy, medium, medium sour and light sour crudes. The U.S. demand for heavy crude should be met by Canada, and over the coming years, more imports into the U.S. will be pushed out as refiners blend light, sweet U.S. crude, such as Bakken crude, to meet specifications. Blending light and heavy crudes to meet medium crude specifications, Curtis added, will help displace imports of medium crude oils. And while blending is not new to the industry, Curtis said it’s going to become a significant component of the ability of refineries to accept larger volumes of both light, sweet crude and heavy crudes in the coming years.

Transportation logistics

Getting the right crude oil to the right refinery, however, can be problematic, primarily due to pipeline logistics. Those logistics include the availability of pipelines from the source to the destination. For example, while the east and west coasts are premium markets for Bakken crude, pipeline access for that crude to those coasts is very limited because pipelines in the U.S., Curtis said, are concentrated in the central parts of the country.

Another logistical problem with pipelines is choke points that occur in such places as Cushing, Okla. Adding to the problems at Cushing is that Cushing was originally part of a system designed to bring crude oil imports into the Gulf Coast and then north into

the U.S., instead of the other way around.

Rails come to play

So with the limitations associated with pipeline transport, railroads are playing an increasingly important role in crude transportation in both the U.S. and Canada with more than 2 million barrels per day of crude oil and petroleum products moving each day over rails. Based on recent North Dakota Pipeline Authority records, more than 600,000 barrels of crude oil representing more than 70 percent of monthly production are being exported from the state via rail every day. Curtis added that recently there were an estimated 300,000 bopd of spare pipeline capacity in crude pipelines out of North Dakota.

Rail is getting Bakken crude to all five PADDs, she said, which means that Bakken crude is making it to all three U.S. coasts via rail. And Canadian heavy oil sands crude is reaching the one East Coast refinery with coking capability via rail. She added that major companies such as Statoil, ExxonMobil and Valero are aggressively leasing rail cars, and she noted that Phillips 66 recently signed an “unprecedented” five-year contract with Global Partners to transport Bakken crude to an East Coast refinery via rail. “Why does rail work? It hits the new markets,” she said. “You have a lot of optionality.” Rail, she added, goes to the right markets that pipelines cannot reach.

In addition, she said, rail provides for neat or unmixed barrels which refiners like because they don't necessarily like all of their crude being batched. They like knowing exactly what the crude is. Curtis said rail is both nimble and quickly adjustable. “Your rail is going to get to places pipelines can't, and more importantly I think, where pipelines won't,” she added.

Curtis also believes that while the sources of crude oil for rail transport will remain steady, the destinations may change. “I think your origins are going to stay the same, I mean you're going to be railing out Canadian crude, you're going to be railing out Bakken crude, and maybe some Niobrara crude. What will change are the destinations. Probably not by much, but as the spread narrows and things change, your destination facilities will change and the market will adapt to that.”

Pricing

So how do all of these logistics affect pricing? The price spread between Brent and West Texas Intermediation has been narrowing, Curtis said. In addition, Flint Hills' North Dakota light sweet crude prices have been rising against both Brent and WTI.

On the other hand, Canadian crude prices in the U.S. have been declining and Western Canadian Select or WCS is trading well below WTI. She added that the U.S. production surge and a lack of adequate outbound capacity to refining centers have “hammered” Canadian crude import prices. Curtis said Canadian synthetic crude should trade at a premium because when it goes through an upgrader it turns into “wonderful” light, sweet crude, and it is also very flexible in a refinery.

Curtis also noted that crude oil in the interior of the U.S. is generally discounted relative to WTI, but she said what really should be evaluated from the producing regions of the country are the prices seen on the coasts, which are higher than WTI. “So really what we should be looking at from the producing regions is the price to the coasts.”

On refinery acquisition crude oil costs, i.e., the price that a refinery pays for a barrel of crude, the East Coast, PADD I, has the highest acquisition costs while the Rocky Mountain, PADD IV, and Midwest, PADD II, have the lowest acquisition costs.

Conclusions

“This is a petroleum renaissance,” Curtis said. “We’ve been increasing production for the past several years. The U.S. is now the largest producer of natural gas in the world. We are becoming one of the lowest cost energy producers in the world.”

Bakken light, sweet crude needs to get to the East Coast as well as the West Coast. Only so much light, sweet crude can be sent into Cushing and only so much can be sent to the Gulf, she added.

For U.S. producers distanced from refining centers, rail transport is a serious option, and could be an alternative shipping method for oil sands producers as they look to diversify options and secure stable prices. Heavy crude needs to get from Canada to the Gulf Coast and potentially to the West Coast, she said.

Rail is going to be here in the long-term, but, Curtis said, the questions are at what price and how much will be shipped via rail, and will pipeline construction be delayed because so much crude is moving by rail.

And finally, she said, refineries are vital. “The other thing is that refineries are going to play a very significant role in this, where they’re blending the crude and taking it. They are a significant piece of this puzzle because they’re the ones that have to accept and refine this crude.”

—Mike Ellerd

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