



Pipeline reclamation



VERN WHITTEN PHOTOGRAPHY

Trace of recently installed pipelines southeast of Mandaree in Dunn County, N.D.

Completions backlog increases as ND sets another output record

September was another month of oil and gas records for North Dakota with average daily oil production reaching 931,940 barrels per day and natural gas production reaching 1.06 million cubic feet, mmcf, per day.

Another record breaker was the number of wells awaiting completion, which was estimated to be 520 at the end of August, an increase of 90 over the number of backlogged wells at the end of August.

That increase comes despite a concurrent increase in well com-

see **MORE RECORDS** page 12

ND Land Board grants \$12.2M for oil area emergency services

The North Dakota Board of University and School Lands has awarded \$12.2 million in energy impact grant funds to help fund enhancements for emergency services and fire districts throughout the state's oil and gas counties, according to a release by the office of the governor.

"These grants are an important part of a larger state commitment to help the oil and gas region meet the challenges created by rapid growth," said Gov. Jack Dalrymple, chairman of the five-member state Land Board.

see **LAND BOARD** page 13

Oneok to build seventh Bakken natural gas processing facility, expand Bakken NGL capacity

Oneok Partners announced in both a press release and a press conference at the state capitol in Bismarck on Nov. 19 that it is planning to invest approximately \$650 million to \$780 million through the second quarter 2016 on a new gas processing plant and an expansion of the company's natural gas liquids transmission pipeline that exports NGLs out of the Williston Basin.

The Lonesome Creek processing plant, which will be Oneok's seventh Bakken gas processing plant,

see **ONEOK MOVES** page 16



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MOVING HYDROCARBONS

Back to the coasts

Williston Basin rail exports rise in response to widening price spreads

By **MIKE ELLERD**

Petroleum News Bakken

The price differential between Brent crude and West Texas Intermediation, also known as the Brent/WTI spread, widened from approximately \$5 in early October to approximately \$15 in mid-November, and Williston Basin crude oil export dynamics responded accordingly.

As the Brent/WTI spread narrowed through the spring and into the summer of 2013, pipelines reversed a 13-month trend and began taking back Williston Basin export market share in April, a trend that continued through August when pipelines accounted for 31 percent of basin



JUSTIN KRINGSTAD

exports and rail accounted for 61 percent. But after hitting parity in July, the Brent/WTI spread began widening again, and in September, Williston Basin crude exports responded with railroads winning back some market share increasing rail exports 2 percent from 61 to 63 percent (see charts).

The shift of some export share back to rail came as no surprise to Pipeline Authority Director Justin Kringstad, who said in a Nov. 15 press conference that the shift "was to be expected when we looked at what was happening with crude oil prices both in the Mid-Continent and the Brent or world oil price."

see **RAIL EXPORTS** page 15

MOVING HYDROCARBONS

AAR calls for safer cars

Calls for retrofitting entire fleet, phasing out older cars; estimated \$3B cost

By **GARY PARK**

For Petroleum News Bakken

Reacting to a spate of North American train derailments, fires and explosions over recent months, the American Association of Railroads has urged federal regulators to tighten safety requirements for new rail cars carrying crude oil and ethanol and require the retrofitting of the entire fleet.

In a filing to the U.S. Pipeline and Hazardous Materials Safety Administration, the organization representing U.S. freight rail operators called for the phasing out of most old tank cars and modifications to new ones — a proposal that carries an estimated cost of \$3 billion for the tank car industry.

The proposals go well beyond a petition filed in

AAR President Edward Hamberger said the time has come "for a thorough review of the U.S. tank car fleet that moves flammable liquids, particularly considering the recent increase in crude oil traffic."

March 2011 by the AAR on behalf of a coalition of rail interests, including rail car owners, manufacturers and shippers of hazardous materials.

But that petition, while recommending more stringent safety standards for new cars, did not suggest retrofitting the existing fleet, citing estimates

see **AAR PROPOSAL** page 14

MOVING HYDROCARBONS

A Bakken crude oil hub?

KLJ CEO: Johnsons Corner starting to look like a commodity trading center

By **MIKE ELLERD**

Petroleum News Bakken

During an Oct. 31 North Dakota interim legislative committee hearing, Niles Hushka, president and chief executive officer of Kadrmas, Lee and Jackson, KLJ, a leading North Dakota engineering and planning company, told legislators that he believes a crude oil trading hub could be emerging at Johnsons Corner in northeast McKenzie County.

As a true crude oil hub, Johnsons Corner would become a place where Bakken crude is actually traded, which means Bakken crude oil prices would be established within the Williston Basin at a location with access to multiple markets on all three coasts as well as the Mid-

"Johnsons Corner in McKenzie County is starting to look like a hub."

—KLJ CEO Niles Hushka

Continent.

Johnsons Corner lies at the intersection of state highways 23 and 73 approximately 13 miles east of Watford City. It is a terminal and storage center for a number of crude oil pipelines, including Bakken Link, Highland Partners, Four Bears, Targa and Tesoro. There is not a rail loading facility at Johnsons Corner, but there is rail facility access via pipeline.

With those storage and shipping capabilities,

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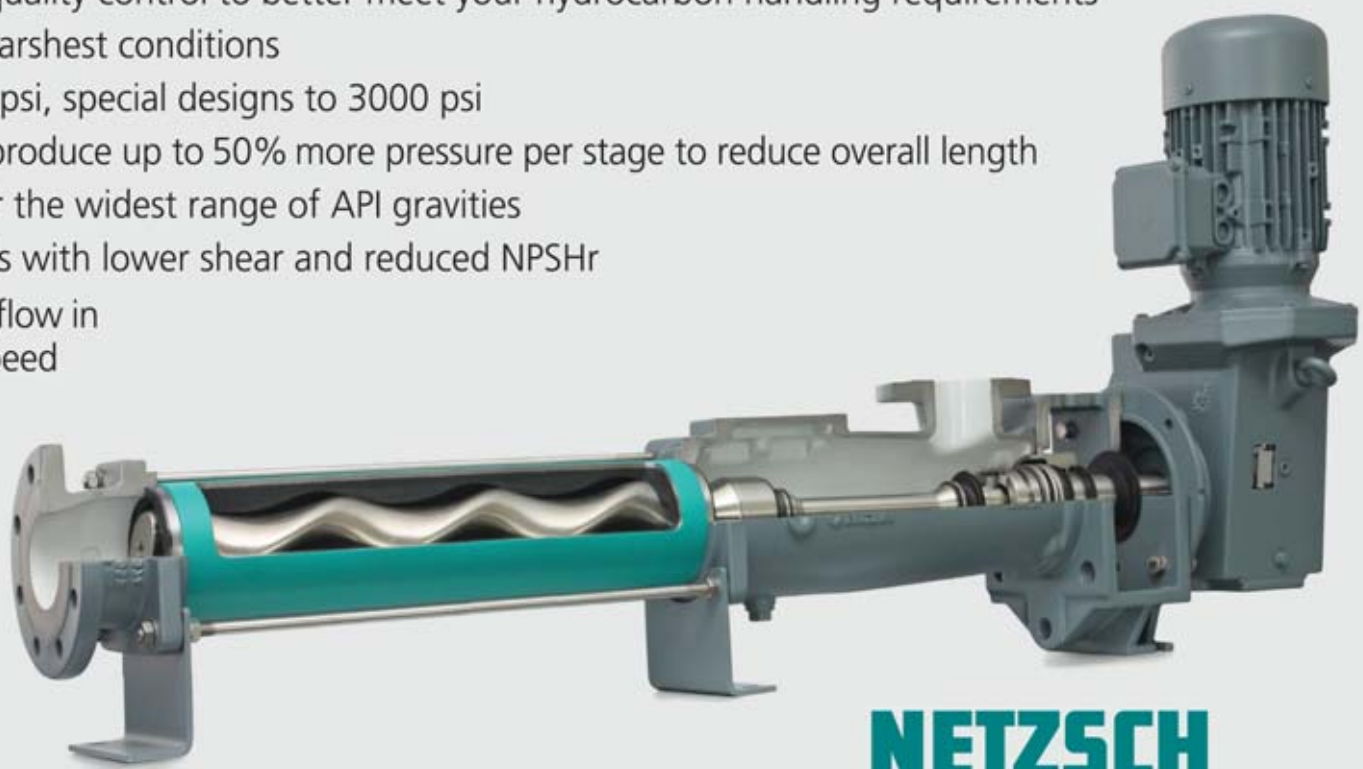
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● D O W N S T R E A M

Construction begins at Fort Berthold refinery

Transload facility first component to be built at Thunder Butte; one more ND refinery under construction, another in the works

By STEVE SUTHERLIN

For Petroleum News Bakken

Excavating crews have begun work on the transloading facility of the Thunder Butte Petroleum Services refinery, west of Makoti on the Fort Berthold Reservation in northwestern North Dakota.

The transload facility is the first phase of a \$450 million refinery project of the Three Affiliated Tribes' Thunder Butte Petroleum Services Inc. Refinery CEO Rich Mayer said it should be completed by June.

Thunder Butte said construction will be done in several phases over a two-year span. Grading work will take about five weeks.

Planning for the refinery has been under way for more than a decade. There has not been a new refinery built in the United States in more than 30 years, according to the U.S. Department of the Interior.

The refinery project started in 2002, planned originally for synthetic crude feedstock from the Canadian tar sands, the company said. In 2007, Bakken crude was adopted as the feed source and the project was expanded from 15,000 barrels per day to 20,000 bpd.

Thunder Butte Petroleum Services Inc. was established by the tribal business council of the MHA nation in November of 2011. It is a 100 percent tribally owned entity structured under a five-member corporate board.

The refinery will produce diesel fuel and other products. It is anticipated that the refinery will create 100 full-time jobs.

Thunder Butte selected a site in southwest Ward County, where the tribes own 469 acres of land. Some of the land will be used to grow feed for the tribes' bison.

Thunder Butte said it will rely on Enbridge Inc. pipeline infrastructure to provide feedstock to the refinery.

Canadian Pacific Railroad will work with Thunder Butte to develop spur line connections at the refinery site for up-loading and off-loading of products, the company said, adding that it expects to market its refined products to Tidal Marketing, Aux Sable and Cenex.

Groundbreaking celebrated

The tribes held a ceremonial groundbreaking in May.

In August 2009, a final environmental impact statement was issued, and the EPA issued a national discharge permit on Aug. 3, 2011, the company said. The EPA subsequently adjusted six effluent levels and opened a public comment period, which ended Jan. 26, 2012.

A Corval Group Refinery Capacity Study released in April 2010 found a need for refining capacity and listed diesel and naphtha as being high-demand products in the area, Thunder Butte said. The study, conducted for the State of North Dakota, was funded through a federal grant.

Planning for the refinery has been under way for more than a decade. There has not been a new refinery built in the United States in more than 30 years, according to the U.S. Department of the Interior.

ASRC Energy Services Inc., a subsidiary of the Arctic Slope Regional Corp., serves as the owner's engineer for the refinery project. Thunder Butte said it chose ASRC because of the company's experience running two refineries in Alaska.

"The Mandan, Hidatsa & Arikara Nation is where ASRC was more than 30 years ago, when oil was discovered at Prudhoe Bay," Jeff Kinneveauk, president and CEO of ASRC Energy Services Inc. said in a 2012 statement. "We're excited about sharing our decades of unique industry experience and tribal knowledge, and helping to responsibly bring this crude oil to market."

More N.D. refineries in works

North Dakota's lone existing oil refinery is the 60,000 bpd Tesoro Corp. facility at Mandan, though refinery projects are in the works near the western oil patch communities of Dickinson and Trenton.

MDU Resources Group Inc. and Indiana-based Calumet Specialty Products Partners L.P. formed a joint venture to own and operate the 20,000 bpd Dakota Prairie Refining facility. That facility will occupy a 318-acre site west of Dickinson in Stark County.

The refinery will produce diesel fuel, naphtha, atmospheric bottoms, and natural gas, the company said.

Construction of the Dakota Prairie refinery is in the earth moving stages and it is expected to be completed in late 2014.

Dakota Oil Processing LLC has announced a 20,000 bpd diesel refinery

16 miles southwest of Williston at Trenton in southwest Williams County near the Montana border, adjacent to the Burlington Northern Santa Fe railroad intersection with North Dakota State Highway 1804 known as Marley's Crossing.

The Trenton refinery construction cost is estimated at \$170 million inclusive of tank farm, loading racks, buildings, water

treatment and other features, the company said. The total project cost including startup expenses is \$215 million.

Dakota Oil Processing said the project is in the final rounds of financing and the site is ready for construction. The refinery is scheduled to go online in 2015. ●

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MERGERS & ACQUISITIONS

Canada's Parkland acquiring SPF

Parkland Fuel Corp., which has taken pride in its ability to seize emerging opportunities in the Canadian marketplace, is spreading its wings into the United States with a \$110 million purchase of SPF Energy to acquire a North Dakota fuel distribution business.

Based in Red Deer, central Alberta, Parkland said it is buying all the outstanding shares of SPF, the parent company of Farstad Oil and Superpumper, for \$89 million in cash and about \$21 million of its own common shares. The closure date for the deal is set for Jan. 1.

Parkland Chief Executive Officer Bob Espey said his company aims to grow in areas with strong future prospects where its supply capability can quickly add value.

He said the "strong economic growth" in the northwest U.S. fits with Parkland's strategy.

SPF, based in Minot, N.D., supplies 300 million gallons of refined petroleum products, including gasoline, distillates and lubricating oil throughout North Dakota, Montana, Minnesota, South Dakota and Wyoming, servicing more than 200 independent gasoline stations.

In addition, SPF has rail transloading facilities and 40,000 barrels of bulk storage in Minot.

SPF Chief Executive Officer Jeff Farstad said he is confident his company's employees will have opportunities to grow with Parkland.

—GARY PARK



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COMPANY UPDATE

Samson reports on Stockyard Creek wells

Samson Oil and Gas of Perth, Australia said Frontier Rig 24 has moved off of the Little Creature 1-15-14H well and is rigged up on the Blackdog 3-13-14H well, both of which are in the Stockyard Creek field and, per State of North Dakota records, operated by Slawson Exploration. Samson has a working interest of 25.03 percent in the Blackdog 3-13-14H.

Blow out preventers are being tested before the drill out of surface casing, which is set at 2,367 feet, the company said in an operational advisory issued from its Denver office Nov. 18.

Blackdog will be a Middle Bakken lateral and to follow the Swan trajectory, an infill location between the Rodney 1-14H well, a well that North Dakota Department of Mineral Resources Oil and Gas Division records indicate is still operated by Zavanna and the Slawson-operated Sail and Anchor 4-13-14HBK well. Samson has a working interest 27.18 percent in the Rodney 1-14H well and a 25.03 percent working interest in the Sail and Anchor well.

Winter frack

Meanwhile, frack operations at the Slawson-operated Tofte 2 pad have accelerated now that it has been vacated by the drilling rig, the company said. Preparations are under way to fracture stimulate the Coopers/Tooheys/Little Creature well group. Samson said it has a 27.7 percent working interest in each of the wells.

Fracture stimulation operations scheduled for a late November start should be completed by mid-December, the company said.

All of the wells are in the Stockyard Creek field in south-central Williams County, North Dakota.

—STEVE SUTHERLIN

Blow out preventers are being tested before the drill out of surface casing, which is set at 2,367 feet, the company said in an operational advisory issued from its Denver office Nov. 18.

MOVING HYDROCARBONS

Washington board blocks rail project

Shorelines Hearing Board reverses local permit for Grays Harbor project, requiring state, local officials to conduct a new review

By ERIC LIDJI

For Petroleum News Bakken

A Washington state regulatory board is blocking the proposed expansion of a storage facility at Grays Harbor that would accommodate shipments of crude oil by rail.

The Shorelines Hearing Board reversed a permit issued for the project, saying the city of Hoquiam and the Washington Department of Ecology violated the State Environmental Policy Act by approving the expansion. Specifically, the board said the regulators failed to adequately consider the cumulative effect of several facilities proposed for Gray harbor and fell short of requirements for gauging how the project might impact the environment.

The reversal delays the project, but the Washington Department of Ecology could still allow the expansion to move forward if it is able to pass a more thorough review.

The Pacific Northwest is seeing numerous rail facility proposals to accommodate the increase in mid-continental oil supplies, particularly from the Bakken formation.

The Shorelines Hearing Board handles appeals of local permits.

Three projects

Westway Terminal Co. LLC has operated a terminal at the port since late 2009. The facility currently includes four 3,340,000-gallon storage tanks, two short rail spurs with 18 loading spots and associated buildings. In December 2012, the

The reversal delays the project, but the Washington Department of Ecology could still allow the expansion to move forward if it is able to pass a more thorough review.

company sought permission to expand the facility. The proposed expansion would add four 8,400,000-gallon storage tanks and expand the rail facilities to four long spurs with 76 spots. The expansion would also require a pipeline connecting the storage tanks to the terminal.

A coalition of citizen and environmental groups challenged the project, but also questioned whether regulators properly considered it alongside two other projects.

In February 2013, Imperium Terminal Services LLC also sought a permit to expand its facilities just west of the Westway operation. The expansion would also accommodate shipments of liquid fuels, including oil, by adding nine 3,360,000-gallon storage tanks and some 6,100 feet of track through new rail spurs, as well as an associated pipeline.

And US Development LLC recently proposed a third project in the area.

The \$50 million rail facility would have six-to-eight storage tanks with capacity of 800,000 to 1 million barrels and receiving capacity of less than 50,000 barrels per day. ●

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• NATURAL GAS

ND gas infrastructure keeping up with production

September flaring essentially flat; gas connections near par with wells going online; gathering construction quietly continues

By MIKE ELLERD

Petroleum News Bakken

As North Dakota continues to set month-on-month oil and gas production records (see story on page 1), ongoing efforts to get natural gas gathering pipe in the ground and catch up with flaring are progressing.

The total volume of natural gas produced in the state in September, which includes small volumes of inert gas produced from enhanced oil recovery operations, increased by 5.2 percent over August. However, flaring in September was essentially flat compared to August with the volume of gas flared up by 0.3 percent, while the percentage of gas flared actually decreased by that same amount from 29.5 to 29.2 percent according to North Dakota Department of Mineral Resources information.

In absolute volumes, a total of 9.572 million cubic feet of gas were flared in North Dakota in September compared to 9.541 million cubic feet flared in August.

September trends

North Dakota Pipeline Authority Director Justin Kringstad tracks natural gas production and flaring volumes from non-

confidential wells, and his numbers indicate that 28 percent of gas from non-confidential wells was flared in September. Of that 28 percent, 13 percent was from wells not connected to gas gathering systems and the other 15 percent was from wells connected to gathering infrastructure with insufficient capacity to capture all of the gas coming online (see chart on page 7).

Kringstad's statistics indicate a slight decrease in the number of new wells that went on production in September along with a decrease in the number of new wells that were connected to gas gathering infrastructure. However, the number of new well connections at 189 was nearly on par with the 195 new wells that went on production in September. Kringstad said it is "good news" to see that the industry is keeping up with the drilling pace.

According to Kringstad, more than 7,100 non-confidential wells in North Dakota are currently connected to gas infrastructure or are in some manner utilizing gas at the wellhead.

The September flaring numbers come as flaring becomes more of a spotlight issue in the state. The North Dakota Petroleum Council formed a taskforce in August to work with the North Dakota Industrial Commission to develop rule

changes to better address flaring. In October, class action lawsuits seeking royalties on flared gas were filed against 10 North Dakota operators.

"I was happy to see such a small increase in volume and a decrease in percent flared," said Lynn Helms, director of the Department of Mineral Resources in a Nov. 15 monthly press conference. However, Helms was quick to note that more work remains.

"That's good news," Helms said of the September flaring volume, but added that it still is "way too much flaring for ... public consumption and for regulators, and so we're excited the industry has formed a taskforce and is working very hard to come up with solutions. Early next year the commission will be entering into that whole discussion and talking about what their policies look like."

Helms added that some "big projects" are coming online, such as Hess Corp.'s Tioga gas plant expansion, scheduled for completion by the end of the year, the Alliance Tioga pipeline running from the Hess plant to Alliance's mainline near Sherwood in Renville County that went into service in September, and Oneok's Divide County gathering system that will go into service before the end of the year.

Gathering infrastructure needed

However, larger projects are not necessarily the type of infrastructure that directly addresses the capture of gas in the oil fields, instead it is the gathering infrastructure that actually captures the gas. Kringstad said infrastructure construction is continually ongoing, but he added that it doesn't draw the attention that the larger projects do, such as gas plants and transmission pipelines.

"On the new projects, I know that for natural gas gathering, those type of projects, they get put in continually, non-stop, 365 days a year," Kringstad said in the Nov. 5 press conference, adding that "we don't see the type of publicity that we do with the major transmission pipelines, but we did see back in 2012 over 2,400 miles of pipeline put in the ground, the majority of that being gathering, which don't get all the attention that they may deserve, but we can rest assured that those pipes are being put in the ground around the clock as quickly as they can safely do so and work with the landowners, work with all the interested parties to get those projects put together." •

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• COMPANY UPDATE

DeeThree Exploration revels in light oil results

By GARY PARK

For Petroleum News Bakken

Buoyed by the success of its Alberta Bakken and Belly River light oil resource plays in its home province, Calgary-based DeeThree Exploration has raced to production of 9,000 barrels of oil equivalent per day (81 percent oil and natural gas liquids) with the bulk of another 2,000 boe per day of tested volumes scheduled to be tied in during November.

Continued extensive drilling of its Exshaw/Bakken play in southern Alberta resulted in eight net wells in the third quarter, posting a 100 percent success rate.

Oil output from the play rose 43 percent from the second quarter to 3,935 bpd and, based on current field estimates, current production is about 4,600 bpd, the company said.

Two to three rigs

Describing its latest quarter drilling results — using two or three rigs continuously — as "excellent," DeeThree said seven of the three wells drilled were onstream for more than 30 days, at an average initial production rate of 472 bpd each, topping the budgeted rate of 300 bpd.

Two wells drilled on the eastern portion of the pool earlier this year continue to sustain impressive rates, with one yielding 112,000 barrels in six months and currently delivering 560 bpd, while the second well has pumped more than 53,000 barrels in just over three months and is now producing 585 bpd.

DeeThree said it has identified many drilling locations on the play that it rates as analogous to those two wells.

The company said it has also added 33,440 acres this year to its dominant land position in the Ferguson area

through government land auctions and plans to drill two delineation wells on the Exshaw/Bakken in the final quarter.

Enhanced oil recovery begun

To maximize recovery of its Exshaw/Bakken oil, DeeThree said it has started a natural gas reinjection enhanced oil recovery pilot, injecting 280 boe per day of solution gas into its initial injector.

An additional gas injector well is expected to be operational early in 2014, based on encouraging results from the EOR pilot.

Four wells (3.97 net) were drilled and completed during the quarter on the Brazeau Belly River property, also with a 100 percent success rate, and drilling activity was stepped up towards the end of September by adding a second rig.

DeeThree also completed a major pipeline project in September to extend

and increase capacity of the company's existing infrastructure.

Recent drilling highlights include two horizontal wells drilled and completed more than five miles apart testing the same equivalent Upper D sand. Both have shown significant flow rates.

The first well, after being drilled and fractured, flow tested for four days up to the 4.5-inch frack string at an average 1,000 bpd of 44-degree API oil and 1.3 million cubic feet per day of gas with a flow rate of 1,050 bpd and 1.7 million cubic feet of gas.

Land position grows

DeeThree said it continues to build its dominant land position in the play, acquiring 8,805 acres this year, mostly through third-party acquisitions.

Sproule Associates estimates the company has about 67 million barrels of

recoverable contingent oil resource remaining in the Belly River lands.

Because of the drilling results, DeeThree has hiked its 2013 capital budget by C\$40 million to C\$200 million, with the increase accounting for a C\$3 million investment on Exshaw/Bakken lands and C\$8 million in the Brazeau Belly River.

The 2013 exit rate target has been raised to 10,000-10,500 boe per day from the earlier 9,600-10,000 boe per day. •

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Petroleum News

Bakken

BAKKEN Stats

Montana well permits and completions

November 8—14, 2013

Abbreviations & parameters

With a few exceptions, the Montana weekly oil activity report includes horizontal well activity in the Bakken petroleum system in the eastern/northeastern part of the state within the Williston Basin. It also includes the Heath play and what is referred to as the South Alberta Bakken fairway in northwestern/west-central Montana, which is at least 175 miles long (north-south) and 50 miles wide (east-west), extending from southern Alberta, where the formation is generally referred to as the Exshaw, southwards through Montana’s Glacier, Toole, Pondera, Teton and Lewis & Clark counties. The Southern Alberta Bakken, under evaluation by several oil companies, is not part of the Williston Basin. Following are the abbreviations used in the report and what they mean.

BHL: bottomhole location | **BOPD:** barrels of oil per day | **BWPD:** barrels of water per day
IP: initial production | **MCFPD:** thousand cubic feet per day | **PBHL:** probable bottomhole location
PD: proposed depth | **SHL:** surface hole location | **TD:** total depth

And public land survey system abbreviations:

FNL = from north line | **FEL** = from east line | **FSL** = from south line | **FWL** = from west line

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For Petroleum News Bakken

New locations—horizontal wells

In Richland County, Continental Resources Inc. was approved for the Marla AHSL, which has an SHL at NW NW 35-24N-55E (400 FNL/440 FWL) and a PBHL of 20,182 feet at WL SW 2-23N-55E (200 FSL/0 FWL). The Marla will target the Bakken formation.

Re-issued locations

In Richland County, a re-issued permit was approved for Continental Resources’ Charlotte Federal 3-11H, a Bakken formation well which has an SHL at NW NE 11-25N-52E (260 FNL/2390 FEL) and a PBHL of 19,007 feet at SW SE 14-25N-52E (200 FSL/2200 FEL).

Completions

In Fallon County, Petro-Hunt LLC filed a completion report for the Askin 10-61 33D-1-1. The Red River formation

well has an SHL at SE 33-10N-61E (1775 FSL/790 FEL) and a total depth of 10,730 feet. No IP report was provided.

In Richland County, Continental Resources reported the completion of three Bakken formation wells.

The Staci-Linnea 4 HSU has an SHL at SE SE 14-23N-55E (240 FSL/253 FEL) and a BHL of 20,134 feet at NW NW 12-23N-55E (236 FNL/12 FWL). The well reported an IP of 300 BOPD, 91 MCFPD and 97 BWPD.

The Earl-Reimann 4 HSU has an SHL at SE SE 14-23N-55E (240 FSL/298 FEL) and a BHL of 20,558 feet at SE SE 26-23N-55E (236 FSL/15 FEL), and reported an IP of 220 BOPD, 69 MCFPD and 138 BWPD.

The Collins 1-28H, with an SHL at NE NW 28-23N-52E (295 FNL/1980 FWL) and a BHL of 13,720 feet at SE SW 28-23N-52E (232 FSL/2009 FWL) reported an IP of 176 BOPD, 151 MCFPD and 116 BWPD.

In Roosevelt County, Oasis Petroleum North America LLC reported the comple-

BAKKEN STATS COMMENTARY

Conoco has top IP

For the first time in months a Statoil well does not appear in the Top 10 IP list for Bakken petroleum system wells in North Dakota.

The list, which contains 24-hour initial production rates, or IPs, for active wells filed as completed with the state of North Dakota for the most recent week (Nov. 12-18) and those released from confidential status in the same period, generally has a Statoil well in the top position and at least one or two more among the 10 winners. In last week’s Petroleum News Bakken eight of the 10 wells were operated by Statoil.

This issue’s list (see page 9) puts Burlington Resources (owned by ConocoPhillips) in first position with its Badlands 21-15TFH well in the Hawkeye field in McKenzie County. The company reported an IP rate of 2,982 barrels of oil. A Kodiak well came in second and two Halcon wells took the third and fourth places.

Statoil — again for the first time in months — did not actually report any well IPs from Nov. 12 through Nov. 18, although four of its wells are in the main IP chart as having been released from confidential status during that same period. Unfortunately, Statoil did not get its IP reports into the North Dakota Industrial Commission in time for us.

Two of those four wells were in the Alger field in Mountrail County and two in the Last Chance field in Williams County.

We will keep an eye on their scout tickets to see if any happened to beat the overall North Dakota Bakken IP, 5,417 barrels, which is held by Statoil’s Beaux 18-19 7H well in the Banks field in McKenzie County. (The other two are also in the Banks field. All three are middle Bakken formation wells.)

—KAY CASHMAN

Contact Kay Cashman at publisher@petroleumnews.com

tion of the Chokecherry 2758 11-10B. The Bakken formation well has an SHL at NW NW 10-27N-58E (550 FNL/155 FWL) and a BHL of 20,175 feet at NE NE 11-27N-58E (568 FNL/300 FEL). The Chokecherry recorded an IP of 1,303 BOPD, 523 MCFPD and 4,214 BWPD. ●

Editor’s note: Darryl L. Flowers, a contributor to Petroleum News Bakken, is

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Looking for a rig report?

North Dakota

The best list for North Dakota is updated daily by the North Dakota Oil and Gas Division at www.dmr.nd.gov/oilgas/riglist.asp

Saskatchewan

Weekly drilling activity report from the government of Saskatchewan: www.economy.gov.sk.ca/Daily-Well-Bulletin-Weekly-Drilling-Reports

Manitoba

Weekly drilling activity report from the government of Manitoba: www.manitoba.ca/iem/petroleum/wwar/index.html



PHOTO COURTESY CONTINENTAL RESOURCES



Bakken producers’ stock prices

Closing prices as of Nov. 13, along with those from previous Wednesday

Company	Exchange	Symbol	Closing price	Previous Wed.
Abraxas Petroleum Corporation	NASDAQ	AXAS	\$3.45	\$3.89
American Eagle Energy Corporation	OTC	AMZG	\$2.60	\$2.29
Arsenal Energy USA, Inc.	TSE	AEI	\$5.68	\$6.14
Baytex Energy USA Ltd	NYSE	BTE	\$40.67	\$36.66
Burlington Resources Co., LP (ConocoPhillips)	NYSE	COP	\$72.25	\$73.34
Continental Resources, Inc.	NYSE	CLR	\$108.76	\$114.72
Crescent Point Energy US Corporation	TSE	CPG	\$40.43	\$40.32
Denbury Onshore, LLC	NYSE	DNR	\$17.01	\$17.62
Emerald Oil, Inc.	NYSEMKT	EOX	\$7.60	\$8.09
Enerplus Resources USA Corporation	NYSE	ERF	\$18.25	\$17.99
EOG Resources, Inc.	NYSE	EOG	\$166.92	\$169.46
Fidelity Exploration & Production (MDU)	NYSE	MDU	\$30.28	\$30.55
GMX Resources, Inc.	PINK	GMXRQ	\$0.11	\$0.11
Halcon Resources	NYSE	HK	\$4.18	\$4.67
Hess Corporation	NYSE	HES	\$81.31	\$80.78
Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	\$11.37	\$12.06
Legacy Reserves Operating LP	NASDAQ	LGCY	\$27.65	\$27.26
Marathon Oil Company	NYSE	MRO	\$37.26	\$36.15
Mountain Divide, LLC (Mountainview Energy)	CVE	MVW.V	\$0.45	\$0.45
Newfield Production Company	NYSE	NFX	\$29.34	\$29.61
Oasis Petroleum North America	NYSE	OAS	\$47.26	\$50.42
Oxy USA, Inc. (Occidental Petroleum)	NYSE	OXY	\$97.18	\$97.00
QEP Energy Company	NYSE	QEP	\$32.93	\$32.51
Resolute Natural Resources Company, LLC	NYSE	REN	\$8.84	\$8.86
Samson Resources Company (KKR & Co)	NYSE	KKR	\$22.73	\$22.68
SM Energy Company	NYSE	SM	\$87.57	\$89.84
Statoil Oil and Gas LP	NYSE	STO	\$22.80	\$22.56
Triangle USA Petroleum Corporation	NYSE	TPLM	\$10.02	\$10.68
Whiting Oil and Gas Corporation	NYSE	WILL	\$60.71	\$65.66
WPX Energy Williston, LLC	NYSE	WPX	\$18.18	\$18.48
XTO Energy, Inc. (ExxonMobil)	NYSE	XOM	\$94.68	\$92.59



North Dakota Pipeline Authority

Monthly update November 15, 2013

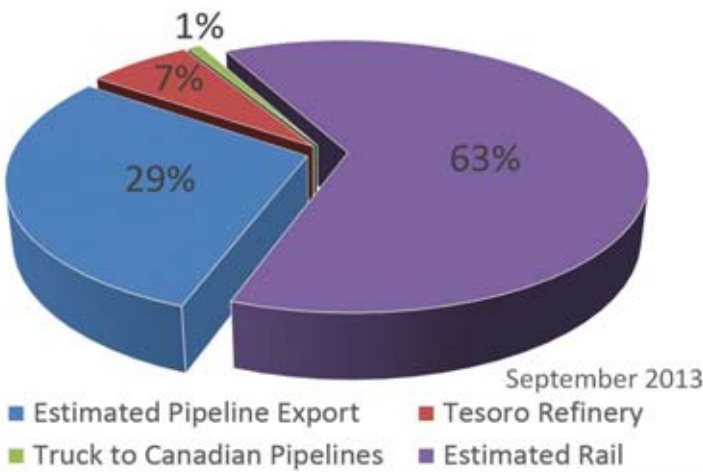
US Williston Basin Oil Production - 2013

MONTH	ND	Eastern MT*	SD	TOTAL
January	739,184	70,598	4,617	814,399
February	780,591	71,861	4,891	857,343
March	785,431	73,406	5,111	863,948
April	793,748	76,027	5,131	874,906
May	811,485	75,050	4,800	891,335
June	821,598	73,551	4,781	899,930
July	875,736	75,802	4,678	956,216
August	911,186	75,460	4,877	991,523
September	931,940		5,017	--
October				--
November				--
December				--

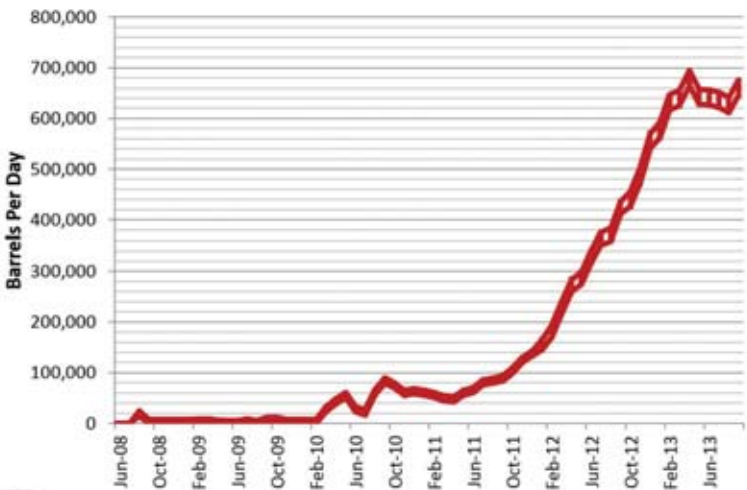
Disclaimer...

Due to Federal shutdown, no truck import/export data was available for September 2013. All transportation estimates for September were assembled using August 2013 truck data.

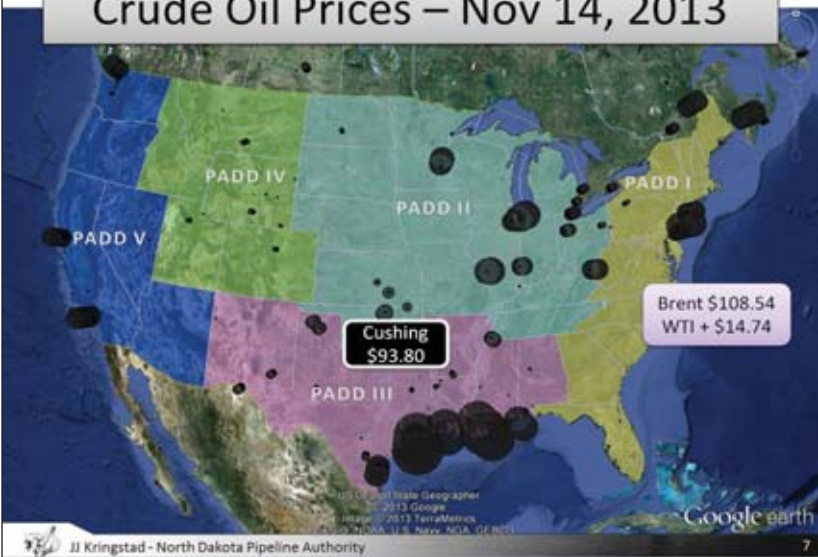
Estimated Williston Basin Oil Transportation



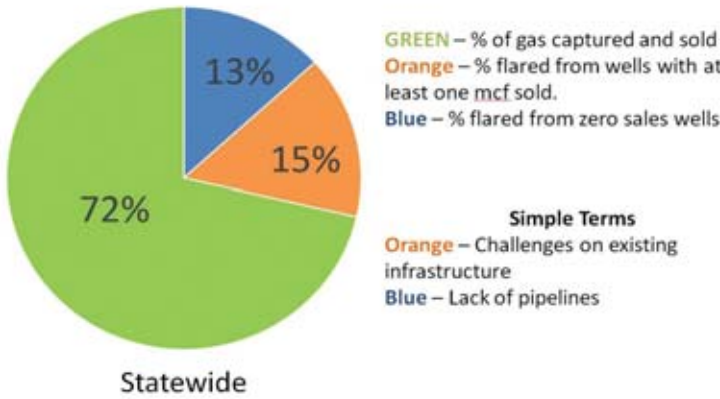
Estimated ND Rail Export Volumes



Crude Oil Prices – Nov 14, 2013



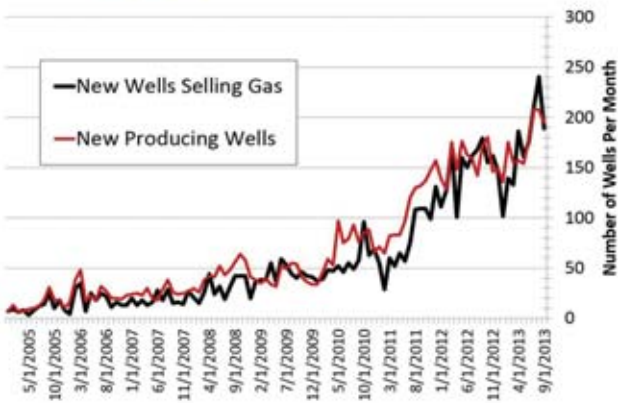
Solving the Flaring Challenge



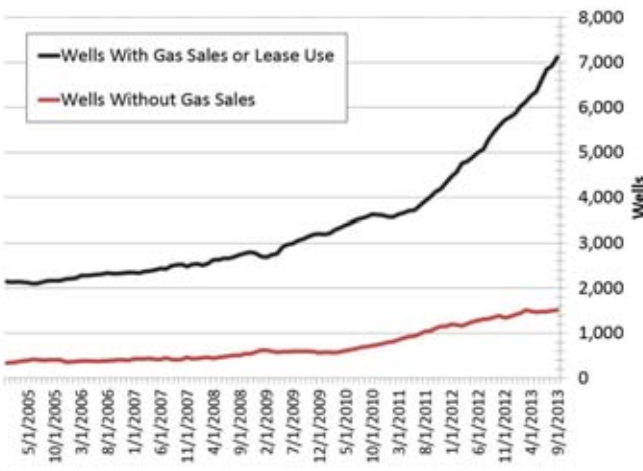
August 2013 Data – Non-Confidential Wells



Capturing the 13% Faster Well Connections



ND Gas Gathering Statistics





IPs for ND Bakken wells

November 12—18, 2013

This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from Nov. 12-Nov. 18, 2013 in the Bakken petroleum system, which includes formations such as the Bakken and Three Forks. The completed wells that did not have an available IP rate (N/A) likely haven't been tested or were awarded confidential (tight-hole) status by the North Dakota Industrial Commission's Department of Minerals. This chart also contains a section with active wells that were released from confidential status during the same period, Nov. 12-Nov. 18. Again, some IP rates were not available (N/A). The information was assembled by Petroleum News Bakken from NDIC daily activity reports and other sources. The name of the well operator is as it appears in state records, with the loss of an occasional Inc., LLC or Corporation because of space limitations. Some of the companies, or their Bakken petroleum system assets, have been acquired by others. s. In some of those cases, the current owner's name is in parenthesis behind the owner of record, such as ExxonMobil in parenthesis behind XTO Energy. If the chart is missing current owner's names, please contact Ashley Lindly at alindly@petroleumnewsbakken.com

LEGEND

The well operator's name is on the upper line, followed by individual wells with data in this order: NDIC file number; well name; field; location; spacing; county; geologic target; wellbore type; total depth; IP test date; IP oil flow rate. (IP stands for initial production; in this chart it's the first 24 hours of oil production.)

IPs for completed North Dakota wells

EOG Resources

25254; Parshall 34-0509H; Parshall; LOT3 5-152N-90W; ICO; Mountrail; Bakken; horizontal; 19,510; 11/7/2013; 1,047 bbl

Hess

23514; EN-Fretheim S-154-93- 0805H-4; Robinson Lake; SESW 8-154N-93W; 2SEC; Mountrail; Bakken; horizontal; 20,440; 10/18/2013; 620 bbl

HRC Operating (Halcon Resources)

24737; Fort Berthold 152-94-15A-22-7H; Antelope; NWNE 15-152N-94W; 2SEC; McKenzie; Sanish; horizontal; 20,596; 10/12/2013; 2,224 bbl
24731; Fort Berthold 152-94-15B-22-3H; Antelope; NWNW 15-152N-94W; 2SEC; McKenzie; Sanish; horizontal; 19,520; 10/12/2013; 2,171 bbl

IPs for ND wells released from confidential status

American Eagle Energy

25276; Albert 16-33S-164-101; Colgan; SESE 33-164N-101W; 2SEC; Divide; Bakken; horizontal; 18,240; 10/5/2013; 438 bbl

Baytex Energy USA

24999; Olson 22-15-162-98H 2DM; Blooming Prairie; SWSW 22-162N-98W; 2SEC; Divide; Bakken; horizontal; 18,215; 5/27/2013; 535 bbl

Burlington Resources Oil and Gas (ConocoPhillips)

24627; Badlands 21-15TFH; Hawkeye; NWNE 15-152N-95W; 2SEC; McKenzie; Bakken; horizontal; 20,323; 9/3/2013; 2,982 bbl

Continental Resources

23368; Atlanta Federal 5-6H; Baker; NWNW 6-153N-101W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A
23366; Atlanta Federal 7-6H; Baker; NWNW 6-153N-101W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A
22818; Harms 1-32H; Elm Tree; SESW 32-153N-93W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
22817; Harms 2-32H; Elm Tree; SESW 32-153N-93W; 2SEC; McKenzie; Bakken; horizontal; 20,375; 8/18/2013; 439 bbl
23604; Jensen 4-8H1; Chimney Butte; NWNE 17-146N-95W; 4SEC; Dunn; Bakken; horizontal; 21,732; 9/30/2013; 244 bbl
23605; Mittlestadt 3-17H; Chimney Butte; NWNE 17-146N-95W; 4SEC; Dunn; Bakken; horizontal; 20,332; 8/23/2013; 854 bbl
23606; Mittlestadt 4-17H1; Chimney Butte; NWNE 17-146N-95W; 4SEC; Dunn; Bakken; horizontal; 20,975; 8/26/2013; 787 bbl
24812; Rollefstad Federal 14-3H-2; Antelope; LOT1 3-152N-94W; N/A; McKenzie; Sanish; horizontal; N/A; N/A; N/A
24769; Rosenquist 2-24H; Hamlet; NWNW 25-160N-96W; 4SEC; Divide;

Top 10 Bakken wells by IP rate

Burlington Resources Oil and Gas (ConocoPhillips)

24627; Badlands 21-15TFH; Hawkeye; McKenzie; 2,982 bbl

Kodiak Oil and Gas

23951; Charging Eagle 16-21-16-1H; Twin Buttes; Dunn; 2,246 bbl

HRC Operating (Halcon Resources)

24737; Fort Berthold 152-94-15A-22-7H; Antelope; McKenzie; 2,224 bbl
24731; Fort Berthold 152-94-15B-22-3H; Antelope; McKenzie; 2,171 bbl

Newfield Production

23908; Johnsrud 150-98-6-7-3H; Siverston; McKenzie; 2,103 bbl

EOG Resources

25254; Parshall 34-0509H; Parshall; Mountrail; 1,047 bbl

XTO Energy (ExxonMobil)

25206; Allie 31X-24C; Capa; Williams; 964 bbl

Continental Resources

23605; Mittlestadt 3-17H; Chimney Butte; Dunn; 854 bbl
23606; Mittlestadt 4-17H1; Chimney Butte; Dunn; 787 bbl

Slawson Exploration

23108; Wolverine Federal 5-31-30TFH; Elm Tree; McKenzie; 767 bbl

Note: This chart contains initial production rates, or IPs, from the adjacent IP chart for active wells that were filed as completed with the state of North Dakota from Nov. 12—Nov. 18, 2013 in the Bakken petroleum system, as well as active wells that were released from tight-hole (confidential) status during the same period. The well operator's name is on the upper line, followed by individual wells; the NDIC file number; well name; field; county; IP oil flow rate in barrels of oil.

Bakken; horizontal; 19,690; 10/14/2013; 548 bbl
24924; Tangsrud 3-1H2; Hayland; LOT4 1-160N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A
24768; Vatne 2-25H; Hamlet; NWNW 25-160N-96W; 4SEC; Divide; Bakken; horizontal; 17,874; 9/29/2013; 487 bbl

Hess

25063; AN-Prosser-152-95- 0211H-2; Antelope; LOT4 2-152N-95W; N/A; McKenzie; Sanish; horizontal; N/A; N/A; N/A

25284; SC-Barney 154-98-1819H-3; Truax; SESW 7-154N-98W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A

25285; SC-Barney 154-98-1819H-4; Truax; SESW 7-154N-98W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A

HRC Operating (Halcon Resources)

24731; Fort Berthold 152-94-15B-22-3H; Antelope; NWNW 15-152N-94W; 2SEC; McKenzie; Sanish; horizontal; 19,520; 10/12/2013; 2,171 bbl

Kodiak Oil and Gas

23951; Charging Eagle 16-21-16-1H; Twin Buttes; SESE 21-147N-92W; 2SEC; Dunn; Bakken; horizontal; 19,417; 9/3/2013; 2,246 bbl

Newfield Production

23908; Johnsrud 150-98-6-7-3H; Siverston; NENW 6-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,282; 7/12/2013; 2,103 bbl

Oasis Petroleum North America

25135; Nels 5792 13-3T; Cottonwood; LOT2 3-157N-92W; 2SEC; Mountrail; Bakken; horizontal; 19,538; 9/14/2013; 720 bbl
24630; Ordean Federal 5300 24-25T; Willow Creek; SENE 25-153N-100W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A

Petro-Hunt

22112; Fredrickson 160-94-33D-28-3H; North Tioga; SWSE 33-160N-94W; 2SEC; Burke; Bakken; horizontal; 19,218; 10/14/2013; 233 bbl

QEP Energy

23337; MHA 1-03-02H-149-92; Heart Butte; SWSW 3-149N-92W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
23339; MHA 2-03-02H-149-92; Heart Butte; SWSW 3-149N-92W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
23338; MHA 3-03-02H-149-92; Heart Butte; SWSW 3-149N-92W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A

Samson Resources (KKR & Co.)

21650; Magpie 3-10-162-96H; Juno; SESW 34-163N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

Slawson Exploration

23893; Mauser {Federal} 1-18-17TFH; North Fork; LOT2 18-149N-97W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
23108; Wolverine Federal 5-31-30TFH; Elm Tree; LOT4 31-153N-93W; 2SEC; McKenzie; Bakken; horizontal; 20,570; 9/3/2013; 767 bbl

To view this chart in its entirety, please visit <http://bit.ly/1dhwhMw>



North Dakota oil permit activity

November 12—18, 2013

LEGEND

The county name is on the upper line, the type of permit issued is on the second line, and company names are next, followed by individual wells with data in this order: well name; location; footages; field; geological target; well bore type; elevation; NDIC file number; API number; date permit shows on NDIC website.

Abbreviations

Following are the abbreviations used in the report and what they mean:

FNL = From North Line | FEL = From East Line
FSL = From South Line | FWL = From West Line

Burke Co.

Permits issued

Continental Resources

Ellison 1-21AH1; SESW 21-161N-94W; 606'FSL and 1,920'FWL; Stoneview; N/A*; on confidential status; 2,397' ground; 26977; 33-013-017500; 11/12/2013

Petro-Hunt

MM Wold 160-94-31A-6-1HS; NENE 31-160N-94W; 275'FNL and 355'FEL; North Tioga; N/A*; on confidential status; 2,388' ground; 26979; 33-013-01751; 11/12/2013

Permits cancelled

Oasis Petroleum

Savisky 6093 42-28H; SESW 28-160N-93W; 295'FSL and 2,100'FWL; Gros Ventre; Bakken; horizontal;

2,399' ground; 26955; 33-013-01749

Prima Exploration

Gunnison 31-20H; NWNE 20-161N-91W; 250'FNL and 1,400'FEL; Northeast Foothills; Bakken; horizontal; 2,105' ground; 19519; 33-013-01521; 11/15/2013
Gunnison 31-21H; NWNE 20-161N-91W; 250'FNL and 1,320'FEL; Northeast Foothills; Bakken; horizontal; 2,090' ground; 19870; 33-013-01533; 11/15/2013

Bottineau Co.

Permits cancelled

Armstrong Operating

Ommedal 1; SWNW 24-161N-81W; 1,980'FNL and 660'FWL; Wildcat; Madison; vertical; 1,497' ground; 24023; 33-009-02293; 11/12/2013

Divide Co.

Permits issued

Hunt-Oil

Sioux Trail 160-101-13-24H-1; NWNE 13-160N-101W; 223'FNL and 1,925'FEL; Sioux Trail; N/A*; on confidential status; 2,177' ground; 27016; 33-023-01130; 11/15/2013

Permits cancelled

Samson Resources

Jackdaw 5-8-162-96H; SWSE 32-163N-96W; 325'FSL and 2,320'FEL; Juno; Bakken; horizontal; 1,928' ground; 21809; 33-023-00780; 11/12/2013
Magpie 3-10-162-96H; SESW 34-163N-96W; 368'FSL and 2,225'FWL; Juno; Bakken; horizontal; 1,928' ground; 21650; 33-023-00769; 11/12/2013

Dunn Co.

Permits issued

Petro-Hunt

Kostelnak 145-97-29B-32-2H; SESW 20-145N-97W; 270'FSL and 1,325'FWL; Little Knife; N/A*; on confidential status; 2,549' ground; 26974; 33-025-02361; 11/12/2013

Permits renewed

Enerplus Resources

Huffy 148-93-23C-24H TF; SWSW 23-148N-93W; 899'FSL and 243'FWL; South Fork; N/A*; on confidential status; 2,170' ground; 21916; 33-025-01549; 11/14/2013
Log House 148-93-22D-21H TF; SWSW 23-148N-93W; 995'FSL and 270'FWL; South Fork; N/A*; on confidential status; 2,167' ground; 21915; 33-025-01548; 11/14/2013
Round House 148-93-22D-21H; SWSW 23-148N-93W; 1,092'FSL and 296'FWL; South Fork; N/A*; on confidential status; 2,164' ground; 21914; 33-025-01547; 11/14/2013
Schwinn 148-93-23C-24H; SWSW 23-148N-93W; 802'FSL and 217'FWL; South Fork; N/A*; on confidential status; 2,174' ground; 21917; 33-025-01550; 11/14/2013

HRC Operating (Halcon Resources)

Fort Berthold 148-94-17C-08-3H; SWSW 17-148N-94W; 328FSL and 1,258FWL; Eagle Nest; N/A*; on confidential status; 2,363' ground; 24418; 33-025-01995; 11/14/2013

Marathon Oil

Felix USA 8-1H; NWNE 17-146N-92W; 299'FNL and

1,728'FEL; Wolf Bay; N/A*; on confidential status; 2,312' ground; 24441; 33-025-02005; 11/14/2013
Felix USA 8-1TFH; NWNE 17-146N-92W; 840'FNL and 1,889'FEL; Wolf Bay; N/A*; on confidential status; 2,344' ground; 24440; 33-025-02004; 11/14/2013

Location resurveyed

HRC Operating (Halcon Resources)

Fort Berthold 148-94-27C-22-3H; SWSW 27-148N-94W; 370'FSL and 1,180'FWL; Lindahl; N/A*; on confidential status; 2,295' ground; 25150; 33-105-03016; 11/18/2013

WPX Energy

Mabel Levings 14-23HA; SWSW 11-149N-93W; 455'FSL and 693'FWL; Mandaree; N/A*; on confidential status; 2,182' ground; 26513; 33-025-02296; 11/13/2013

Mabel Levings 14-23HB; SWSW 11-149N-93W; 461'FSL and 793'FWL; Mandaree; N/A*; on confidential status; 2,183' ground; 26511; 33-025-02294; 11/13/2013

Mabel Levings 14-23HW; SWSW 11-149N-93W; 452'FSL and 643'FWL; Mandaree; N/A*; on confidential status; 2,183' ground; 26512; 33-025-02295; 11/13/2013

Mabel Levings 14-23HX; SWSW 11-149N-93W; 458'FSL and 743'FWL; Mandaree; N/A*; on confidential status; 2,183' ground; 26510; 33-025-02293; 11/13/2013

McKenzie Co.

Permits issued

To view this chart in its entirety, please visit <http://bit.ly/1iuQH4d>



Top 50 North Dakota Bakken oil producers

September 2013

Company	BPD*
1 Continental Resources, Inc.	81,393.57
2 Hess Corporation	74,209.93
3 Whiting Oil and Gas Corporation	69,898.47
4 EOG Resources, Inc.	51,716.4
5 Statoil Oil and Gas LP	51,238.53
6 XTO Energy, Inc. (ExxonMobil)	45,529.63
7 Kodiak Oil and Gas (USA), Inc.	43,730.37
8 Burlington Resources Oil and Gas Co., LP (ConocoPhillips)	41,505*
9 Marathon Oil Company	39,517.27
10 Oasis Petroleum North America	37,860.47*
11 QEP Energy Company	27,537.2
12 HRC Operating (Halcon Resources)	26,912.4
13 Slawson Exploration Company, Inc.	24,198.43
14 WPX Energy Williston, LLC	20,547.43
15 SM Energy Company	19,556.63
16 Oxy USA, Inc. (Occidental Petroleum)	16,659.73
17 Petro-Hunt, LLC	15,139.07
18 Newfield Production Company	14,590.6
19 Enerplus Resources USA Corporation	13,206.83
20 Fidelity Exploration & Production (MDU)	10,088.93
21 Hunt Oil Company	9,495.53
22 Murex Petroleum Corporation	8,457.03
23 Samson Resources Company (KKR & Co)	7,621.37
24 Zavanna, LLC	7,518.3
25 Triangle USA Petroleum Corporation	6,489.67
26 Sequel Energy, LLC	3,944.97
27 Baytex Energy USA Ltd	3,937.6
28 Crescent Point Energy US Corporation	3,007.33

29 American Eagle Energy Corporation	2,796.26
30 Abraxas Petroleum Corporation	2,738.6
31 Sinclair Oil and Gas Company	2,021.57
32 Denbury Onshore, LLC	1,096.6
33 True Oil, LLC	928.6
34 Arsenal Energy USA, Inc.	830.5
35 Cornerstone Natural Resources, LLC	785.03
36 Emerald Oil, Inc.	680.3
37 GMX Resources, Inc.	626.16
38 Armstrong Operating, Inc.	588.5
39 Mountain Divide, LLC (Mountainview Energy)	458.5
40 Windsor Energy Group, LLC	295.2
41 Gadeco, LLC	284.66
42 Legacy Reserves Operating LP	137.16
43 Rim Operating, Inc.	135.16
44 Resolute Natural Resources Company, LLC	118.2
45 North Plains Energy, LLC	109.06
46 Bakken Hunter, LLC	92.1
47 Resource Drilling, LLC	70.96
48 Texakota, Inc.	39.7
49 Petro Harvester Operating Company, LLC	32.03
50 Samuel Gary Jr. and Associates	22.23

* Note: ConocoPhillips-owned Burlington production and Oasis-owned Zenergy production were added to ConocoPhillips and Oasis' separate production, so their total output determined their ranking.

Information derived from the preliminary September 2013 Oil & Gas Production Report published by the North Dakota Industrial Commission, Department of Minerals' Oil and Gas Division. This is oil produced by wells operated by these companies; it does not identify the percentage of oil from the Bakken petroleum system (including Bakken, Three Forks, Pronghorn, Sanish, etc.) that is owned by each company AND it does not include production from wells operated by others, in which these companies might hold an interest. It also does not include Bakken system oil production from wells on confidential status.

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State Summary Report September 2013

COUNTY	WELLS ACTUALLY PROD. DURING August	ADJUSTED OIL PROD. IN BBLs FOR August	ADJUSTED GAS PROD. IN MCF FOR August	WELLS ACTUALLY PROD. DURING September	WELLS CAPABLE OF PROD.DURING September	PRELIMINARY OIL PROD. IN BBLs FOR September	PRELIMINARY GAS PROD. IN MCF FOR September
BILLINGS	497	464,133	506,252	491	620	469,144	532,434
BOTTINEAU	547	203,013	41,165	553	629	213,641	34,429
BOWMAN	439	713,595	1,066,813	524	579	693,623	1,019,482
BURKE	479	485,117	628,498	480	562	446,962	604,442
DIVIDE	502	1,162,116	1,360,446	522	556	1,166,855	1,385,665
DUNN	1,170	4,682,133	3,542,386	1,206	1,291	4,582,057	3,587,871
GOLDEN VALLEY	86	94,575	61,490	92	101	93,614	58,159
MCHENRY	16	2,064	0	17	17	2,792	0
MCKENZIE	2,060	8,463,209	11,953,067	2,087	2,375	8,323,751	12,502,320
MCLEAN	44	108,423	66,542	46	55	93,494	62,816
MERCER	1	107	32	1	1	99	0
MOUNTRAIL	1,694	6,836,233	5,119,631	1,710	1,816	6,908,246	5,376,581
RENVILLE	282	86,096	16,710	277	304	81,717	13,804
SLOPE	18	44,505	18,648	18	19	41,239	14,642
STARK	188	536,304	695,875	196	209	589,068	738,536
WARD	11	3,518	1,089	12	23	3,738	1,128
WILLIAMS	1,441	4,361,633	6,167,903	1,450	1,557	4,248,150	5,879,105
STATE TOTALS	9,475	28,246,774	31,246,547	9,682	10,714	27,958,190	31,811,414

Courtesy of North Dakota Industrial Commission



North Dakota Bakken oil production by company

September 2013

Derived from the preliminary September 2013 Oil & Gas Production Report published by the North Dakota Industrial Commission, Department of Minerals’ Oil and Gas Division. Note this is the oil produced by wells operated by these companies; it does not identify the percentage of oil from the Bakken petroleum system (including Bakken, Three Forks, Pronghorn, Sanish, etc.) that is owned by each company AND it does not include production from wells operated by others, in which these companies might hold an interest. It also does not include Bakken system oil production from wells on confidential status. Consequently, it usually differs from what each company reports for production. The daily average for the individual companies was derived from dividing the total production by the number of days in September, versus the number of days wells were actually producing.

LEGEND

- Field – pool – county – total monthly oil production.
- Monthly total for all fields.
- Daily average for all fields.
- Numbers represent barrels of oil.

The operator names used in this chart are exactly as they appear in the Oil and Gas Division records, but some of the companies and/or their Bakken assets might be owned by others. The ones we have identified include Burlington Resources Oil & Gas Company, LP, which is owned by ConocoPhillips; Fidelity Exploration & Production, owned by MDU; HRC Operating, owned by Halcon Resources; Oxy USA, owned by Occidental Petroleum; Samson Resources Company, owned by KKR & Co.; and XTO Energy, Inc., owned by ExxonMobil. Please let us know if you see others by emailing Ashley Lindly at alindly@petroleumnewsbakken.com.

If you add up all the oil produced by the operators of wells in North Dakota, average Bakken production in September was approximately 790,570.2 barrels of oil per day, which excludes wells on confidential status. These numbers compare to total North Dakota oil production of 931,940 bpd in September (see page 1 story) as released by the North Dakota Industrial Commission, 93 percent (867,123 bpd) of which came directly from the Bakken system, including wells on confidential status, with the remaining 7 percent coming from the other systems, such as the largely vertical wells in the Tyler, Mission Canyon, Duperow and Red River plays. The State of North Dakota does not release detailed production information for wells on confidential status, so Petroleum News Bakken is unable to include that data in its company breakdown or its Top 50 list.			
Abraxas Petroleum		Johnson Corner – Bakken – McKenzie	15,780
Demores – Bakken – Billings	359	Keene – Bakken/Three Forks – McKenzie	209,770
North Fork – Bakken – McKenzie	19,802	Killdeer – Bakken – Dunn	6,501
Pershing – Bakken – McKenzie	61,613	Little Knife – Bakken – Dunn	32,444
Roosevelt – Bakken – Billings	386	Lone Butte – Bakken – Dunn	1,955
		Mondak – Bakken – McKenzie	0
Monthly total:	82,160	Morgan Draw – Bakken – Golden Valley	1,170
Daily average:	2,738.6	Murphy Creek – Bakken – Dunn	37,269
		North Fork – Bakken – McKenzie	13,089
American Eagle Energy		Pershing – Bakken – McKenzie	53,532
Colgan – Bakken – Divide	83,888	Pierre Creek – Bakken – McKenzie	390
		Sand Creek – Bakken – McKenzie	31,826
Daily average:	2,796.26	Twin Valley – Bakken – McKenzie	23,855
		Union Center – Bakken – McKenzie	85,945
Armstrong Operating		Westberg – Bakken – McKenzie	19,904
Patterson Lake – Lodgepole – Stark	16,957	Wildcat – Bakken – McKenzie	2
Versippi – Lodgepole – N/A	699	Willmen – Bakken – Dunn	1,994
Monthly total:	17,656	Monthly total:	1,237,858
Daily average:	588.5	Daily average:	41,261.9
Arsenal Energy USA		Carl H. Nordstrand	
Stanley – Bakken – Mountrail	24,915	Pierre Creek – Bakken – McKenzie	62
Daily average:	830.5	Daily average:	2.06
Bakken Hunter		Charger Resources	
Bounty School – Bakken – Divide	2,361	Buckhorn – Bakken – McKenzie	70
Crosby – Bakken – Divide	0	Johnson Corner – Bakken – McKenzie	171
Paulson – Bakken – Divide	402	Morgan Draw – Bakken – Golden Valley	102
		Pierre Creek – Bakken – McKenzie	0
Monthly total:	2,763	Monthly average:	343
Daily average:	92.1	Daily average:	11.43
Baytex Energy USA		Chesapeake Operating	
Ambrose – Bakken – Divide	30,021	Wildcat – Bakken/Three Forks – Golden Valley	0
Blooming Prairie – Bakken – Divide	16,731	Wildcat – Bakken/Three Forks – Stark	0
Bluffton – Bakken – Divide	2,837		
Burg – Bakken – Divide	871	Citation Oil and Gas	
Burg – Bakken – Williams	232	Sadler – Bakken – Divide	91
Frazier – Bakken – Divide	4,109		
Garnet – Bakken – Divide	5,540	Daily average:	3.03
Lone Tree – Bakken – Williams	2,534		
Lone Tree Lake – Bakken – Williams	4,675	Condor Petroleum	
Moraine – Bakken – Divide	888	Hayland – Bakken – Divide	0
Musta – Bakken – Divide	1,270	Stoneview – Bakken – Divide	1
Plumer – Bakken – Divide	3,285		
Skabo – Bakken – Divide	6,304	Daily average:	0.03
Smoky Butte – Bakken – Divide	2,964		
West Ambrose – Bakken – Divide	7,761	ConocoPhillips	
Whiteaker – Bakken – Divide	26,468	Dickinson – Lodgepole – N/A	4,466
Wildcat – Bakken – Williams	1,638	Duck Creek – Lodgepole	2,827
		West Dickinson – Lodgepole	0
Monthly total:	118,128	Monthly total:	7,293
Daily average:	3,937.6	Daily average:	243.1
BTA Oil Producers		Continental Resources	
Bicentennial – Bakken – Golden Valley	222	Alkali Creek – Bakken – Mountrail	34,523
Elkhorn Ranch – Bakken – Billings	41	Antelope – Sanish – McKenzie	50,744
Pierre – Bakken – McKenzie	192	Avoca – Bakken – Williams	10,996
		Baker – Bakken – Williams	8,481
Monthly total:	455	Baker – Bakken – McKenzie	5,837
Daily average:	15.16	Banks – Bakken – McKenzie	161,520
		Barta – Bakken – Billings	6,261
Burlington Resources Oil and Gas (ConocoPhillips)		Battleview – Bakken – Williams	4,415
Bailey – Bakken – Dunn	11,662	Baukol Noonan – Bakken – Divide	1,835
Banks – Bakken – McKenzie	4,142	Bear Creek – Bakken – Dunn	29,894
Bennett Creek – Bakken – McKenzie	1,586	Beaver Creek – Bakken – Golden Valley	5,558
Blue Buttes – Bakken – McKenzie	194,737	Beaver Creek Bay – Bakken – Mercer	99
Bully – Bakken – McKenzie	6,120	Beaver Lodge – Bakken – Williams	5,776
Cabernet – Bakken – Dunn	9,048	Bell – Bakken – Stark	2,623
Camel Butte – Bakken – McKenzie	11,004	Bicentennial – Bakken – McKenzie	755
Charlson – Bakken – McKenzie	13,371	Big Gulch – Bakken – Dunn	6,367
Clear Creek – Bakken – McKenzie	44,233	Blacktail – Bakken – Billings	2,336
Corral Creek – Bakken – Dunn	192,084	Bluffton – Bakken – Divide	3,037
Croff – Bakken – McKenzie	39,827	Border – Bakken – Burke	9,791
Crooked Creek – Bakken – Dunn	2,759	Border – Bakken – Divide	1,270
Dimmick Lake – Bakken – McKenzie	6,162	Brooklyn – Bakken – Williams	120,175
Elidah – Bakken – McKenzie	64,299	Bully – Bakken – McKenzie	3,530
Fayette – Bakken – Dunn	4,185	Cabernet – Bakken – Dunn	8,097
Hawkeye – Bakken – McKenzie	25,519	Camel Butte – Bakken – McKenzie	1,310
Haystack Butte – Bakken – McKenzie	68,339		
Jim Creek – Bakken – Dunn	3,358		

see ND PRODUCTION page 12

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ND PRODUCTION

Cornerstone Natural Resources

Bailey – Bakken – Dunn	1,786
Carter – Bakken – Burke	2,335
Clear Water – Bakken – Burke	1,189
Coteau – Bakken – Burke	2,613
Customs – Bakken – Burke	1,212
Flaxton – Bakken – Burke	2,815
Lignite – Bakken – Burke	380
Lostwood – Bakken – Burke	2,343
Northeast Foothills – Bakken – Burke	1,036
Pickett – Bakken – Burke	731
South Coteau – Bakken – Burke	5,333
Winter Butte – Bakken – Burke	1,778

Monthly total:	23,551
Daily average:	785.03

Crescent Point Energy

Alkabo – Bakken – Divide	866
Blue Ridge – Bakken – Williams	8,925
Church – Bakken – Williams	4,535
Colgan – Bakken – Divide	4,309
Dublin – Bakken – Williams	3,728
Ellisville – Bakken – Williams	10,650
Gooseneck – Bakken – Divide	2,686
Little Muddy – Bakken – Williams	15,502
New Home – Bakken – Williams	485
West Ambrose – Bakken – Divide	13,244
Wheelock – Bakken – Williams	948
Wildcat – Bakken – Williams	5,957
Winner – Bakken – Williams	18,385

Monthly total:	90,220
Daily average:	3,007.33

Denbury Onshore

Eland – Lodgepole – N/A	21,735
Livestock – Lodgepole – N/A	0
Stadium – Lodgepole – N/A	10,860
Subdivision – Lodgepole – N/A	303

Monthly total:	32,898
Daily average:	1,096.6

Eagle Operating

Spiral – Bakken – Burke	46
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Daily average:	1.53
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Earthstone Energy

Flat Top Butte – Bakken – McKenzie	199
Daily average:	6.63

Emerald Oil

Charbonneau – Bakken – McKenzie	14,131
Foreman Butte – Bakken – McKenzie	6,278

Monthly total:	20,409
Daily average:	680.3

Encore Energy Partners Operating

Ice Caves – Bakken – Billings	165
North Tioga – Bakken – Burke	0
Tree Top – Bakken – Billings	80

Monthly total:	245
Daily average:	8.16

Endeavor Energy Resources

Bicentennial – Bakken – McKenzie	14
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Daily average:	0.46
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Enduro Operating

Hay Draw – Bakken – McKenzie	0
Stoneveiw – Bakken – Divide	0

Enerplus Resources USA

Antelope – Sanish – McKenzie	10,637
Beicegel Creek – Bakken – McKenzie	0
Eagle Nest – Bakken – Dunn	5,484
Eagle Nest – Bakken – McKenzie	21,022
Four Bears – Bakken – McKenzie	946
Heart Butte – Bakken – Dunn	28,582
Mandaree – Bakken – Dunn	148,595
Mcgregory Buttes – Bakken – Dunn	141,692
Moccasin Creek – Bakken – Dunn	16,554
South Fork – Bakken – Dunn	6,658
Spotted Horn – Bakken – McKenzie	6,663
Squaw Creek – Bakken – Dunn	4,936
Wildcat – Bakken – Dunn	4,436

Monthly total:	396,205
Daily average:	13,206.83

EOG Resources

Alger – Bakken – Mountrail	22,721
Antelope – Sanish – McKenzie	80,155
Clarks Creek – Bakken – McKenzie	176,480
Clear Water – Bakken – Burke	13,278
Clear Water – Bakken – Mountrail	104,874
Cottonwood – Bakken – Mountrail	10,570
Eightmile – Bakken – Williams	1,879
Hebron – Bakken – Williams	2,977
Kittleson Slough – Bakken – Mountrail	45,455

Lake Trenton – Bakken – Williams	820
Little Butte – Bakken – Burke	987
Mandaree – Bakken – Dunn	9,116
Painted Woods – Bakken – Williams	30,008
Parshall – Bakken – Mountrail	733,350
Rosebud – Bakken – Williams	9,470
Ross – Bakken – Mountrail	42,794
Round Prairie – Bakken – Williams	24,793
Sixmile – Bakken – Williams	6,651
Spotted Horn – Bakken – McKenzie	73,460
Squaw Creek – Bakken – McKenzie	20,231
Squires – Bakken – Williams	2,422
Stanley – Bakken – Mountrail	18,590
Thompson Lake – Bakken – Burke	17,352
Van Hook – Bakken – Mountrail	101,067
Vanville – Bakken – Burke	718
Wildcat – Bakken – Williams	1,337

Monthly total:	1,551,492
Daily average:	51,716.4

Evertson Operating

Ray – Bakken – Williams	196
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Daily average:	6.53
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Fidelity Exploration and Production (MDU)

Dickinson – Bakken – Stark	7,262
Dutch Henry Butte – Bakken – Stark	16,683
Green River – Bakken – Stark	8,675
Heart River – Bakken – Stark	24,817
Lehigh – Bakken – Stark	262
New Hradec – Bakken – Stark	2,392
Sanish – Bakken – Mountrail	103,087
Stanley – Bakken – Mountrail	134,939
Zenith – Bakken – Stark	4,551

Monthly total:	302,668
Daily average:	10,088.93

Filco

Charlson – Bakken – McKenzie	48
Rough Rider – Bakken – McKenzie	36

Monthly total:	84
Daily average:	2.8

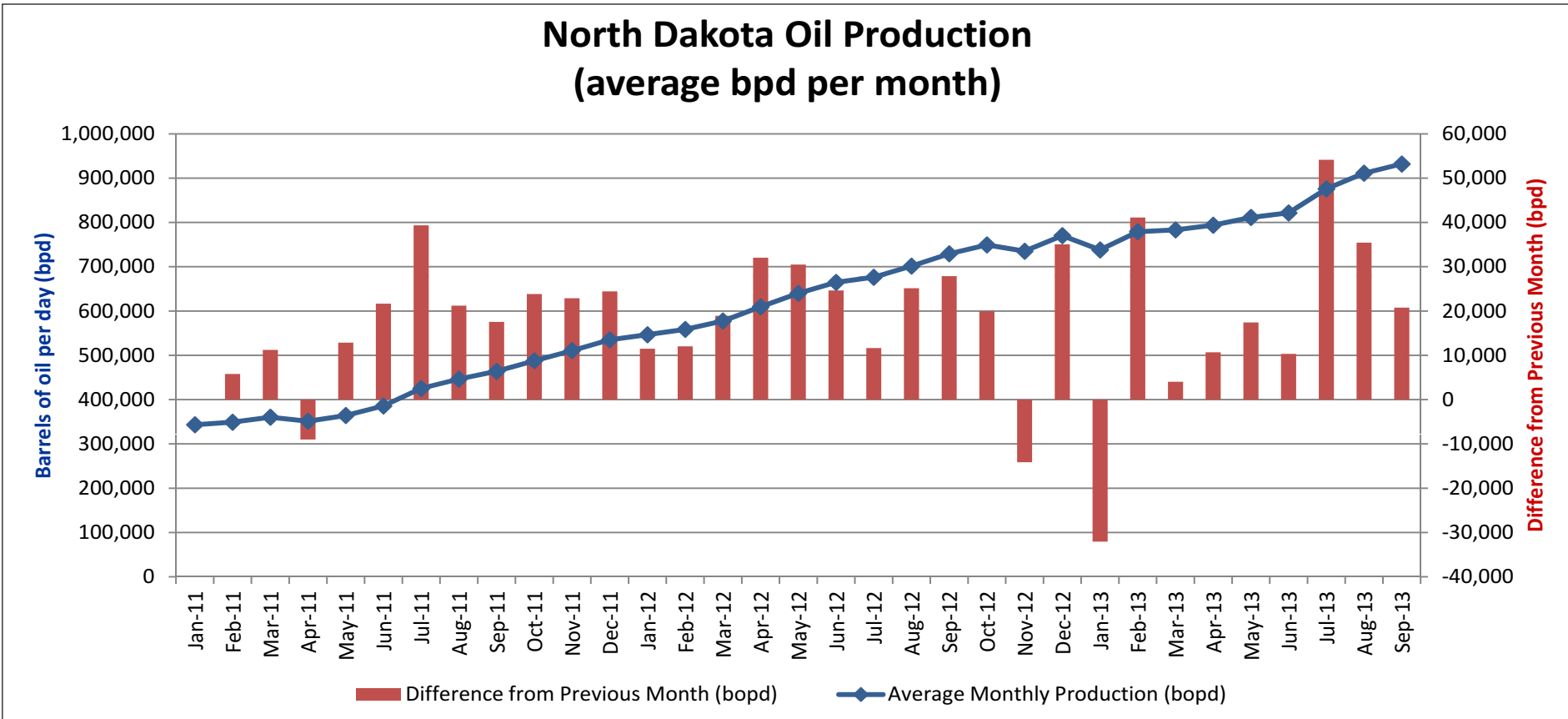
Gadeco

Epping – Bakken – Williams	8,540
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Daily average:	284.66
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Galaxy Oil

To view this chart in its entirety, please visit <http://bit.ly/19H4r47>



Data source: North Dakota Industrial Commission

continued from page 1

MORE RECORDS

pletions from 153 in August to 207 in September. According to the North Dakota Department of Mineral Resources Oil and Gas Division, approximately 1.5 wells were drilled for every well that went on production.

Department of Minerals Resources Director Lynn Helms said in a Nov. 15 monthly press conference that he looked back through department records and could not find another month with that many wells that had been drilled but not yet com-

pleted. “It is an unusual number of wells waiting on completion,” Helms said, adding that after talking to several completion companies, he was told the trend of ups and downs “is something we’re going to have to live with.”

With the advent of multi-well pad drilling, Helms said, operators are now “batch” drilling, i.e., all wells on a single pad will be drilled before completion operations begin. He said some operators have experimented with “simultaneous operations,” but said that process is “still very new and considered pretty high risk to be drilling some wells, producing some wells and fracking some wells on the same pad.”

One of the biggest risks with simultaneous operations, he said, is that if something goes wrong with one well or one rig, that can delay operations on the entire pad. That, Helms said, “is the paradigm the stimulation companies are really wrestling with.”

However, Helms said that both completion companies with whom he spoke have put on additional frack crews in the fourth quarter, so he expects to see an upswing in completions as the year draws to an end.

Fourth quarter activity

Helms said one of the completion companies he spoke with has been in contact with operators about what could be

expected in terms of drilling activity in the last quarter. Unlike many years when companies begin to slow operations to stay within annual budgets in the closing months, Helms was told that this year there is actually some extra capital available in the last quarter and some operators are actually planning to ramp up activity in order to make up for the slower activity periods in the spring and in October due to adverse weather.

Helms said one reason for the extra capital is the cost savings operators have seen from multi-well pad drilling, with well costs decreasing by more than 20 per-

• PEOPLE TALK

Oxy's Chazen to lead API board in 2014

Finance, logistics guru plans to retire from Marathon Petroleum; HR and risk management executive joins American Eagle's board

By ROSE RAGSDALE

For Petroleum News Bakken

The American Petroleum Institute board of directors has elected Stephen I. Chazen as its chairman for a one-year term, effective Jan. 1.

Chazen, 66, is president and chief executive officer of Occidental Petroleum Corp. He will succeed Clarence P. Cazalot Jr., Marathon Oil Corp.'s chairman, president, and chief executive officer, who is retiring.

Chazen has more than 40 years of experience in the oil and natural gas industry. He joined Oxy in 1994 as executive vice president, corporate development and rose to the position of president and chief operating officer in 2010, the year in which he also was elected to the company's board. In 2011, Chazen was promoted to chief executive officer. In late April, Chazen announced plans to retire from Oxy at year's end 2014.

Before joining Oxy, Chazen was a managing director of corporate finance and mergers and acquisitions in the investment banking group of Merrill Lynch & Co. He holds a doctorate degree in geology from Michigan State University, a master's degree in finance



STEPHEN I. CHAZEN

People Talk

from the University of Houston and a bachelor's degree in geology from Rutgers College.

He currently serves on the boards of directors of Ecolab Inc., the Aquarium of the Pacific and the Catalina Island Conservancy.

Finance, logistics guru plans to retire

GARRY L. PEIFFER, executive vice president, corporate planning and investor & government relations, at Marathon Petroleum Corp. Nov. 15 said he intends to retire, effective Jan. 1. "Throughout the past 39 years, Garry has made significant contributions to the success of the company," said Marathon President and CEO Gary R. Heminger. "His leadership was instrumental as we charted the course for a joint venture between Marathon and Ashland in 1998, and then again when MPC was launched in 2011. His knowledge of the business has provided a depth of insight and counsel that cannot be matched. Garry has held numerous leadership positions and has been a true ambassador for MPC, representing the company well with our numerous stakeholders, including investors, industry analysts and elected officials." Heminger added, "I am appreciative of Garry's many years of service and commitment to the company. I wish him and his family well in the coming years."

Peiffer, 62, began his career with Marathon Oil Co. in 1974. During his career, he held a variety of management positions with increasing responsibilities. These responsibilities included supervisor of employee savings and retirement plans, controller of Speedway Petroleum Corp. and numerous other marketing and logistics positions. In 1987, Peiffer was appointed to the President's Commission on Executive Exchange, serving for a year in the Pentagon as special assistant to the assistant Secretary of Defense for production and logistics. In 1988, he returned to Marathon Oil and was appointed vice president of finance and administration for Emro Marketing Co. He served as assistant controller, refining, marketing and transportation beginning in 1992. Peiffer was named senior vice president of finance and commercial services for Marathon Ashland Petroleum LLC in 1998. He was named to his current position in July 2011. In 2012, he also became president of MPLX GP LLC and serves on its board of directors. Peiffer earned a bachelor's degree in accounting from Bowling Green State and passed the certified public accountant exam in Ohio in 1974.

HR exec joins American Eagle's board

AMERICAN EAGLE ENERGY CORP. has appointed James N. Whyte to its board of directors and to serve on the company's audit committee.

Whyte, 54, is the executive vice president of human resources and risk management of Intrepid Potash Inc., a public company that is listed on the New York Stock Exchange. He joined the company's predecessor as vice president of human resources and risk management in May 2004 and was promoted to his current position three years later in December 2007.

"We are delighted to welcome James to our board," said Brad Colby, AMZG's chief executive officer and president. "His qualifications and expertise will further broaden our Board's expertise as we continue to grow our business and expand its operations. We are certain that he will make a significant, long-lasting contribution to our company."

"This is a great period in the growth of American Eagle's business and the value for its stockholders. I am thrilled to join American Eagle's board at this exciting stage of (the company's) corporate development," said Whyte.

Whyte was granted an option to purchase up to 200,000 shares of the company's common stock at a price of \$2.39 per share (which represented the average of the closing prices of American Eagle's common stock for the five trading days prior to the effective date of his appointment), vesting 50 percent on the first anniversary of the grant and 50 percent on the second anniversary. ●

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LAND BOARD

"The Energy Impact Grant Fund allows us to address a wide range of challenges, but we must always be prepared to adapt our response to help meet the region's dynamic and ever-changing needs."

The board awarded about \$5.2 million to enhance the region's emergency medical services and about \$7 million for rural fire districts.

Watford City received \$1.2 million to purchase a new ladder truck, fire gear, a new ambulance, emergency service equipment, and to fund additional emergency service staff.

The Beach Community Ambulance Service was awarded \$250,000 to purchase a new ambulance, emergency medical equipment, and to fund additional staff.

The Dickinson Rural Fire District was granted \$500,000 to purchase a water pumper truck and the Williston Rural Fire District \$360,000 to purchase a fire truck.

The Wildrose Fire District in Williams County received \$325,000 to complete construction of its new fire hall.

The city of Tioga was granted \$270,000 to buy a new ambulance and to complete an addition to its fire hall.

Stanley received \$564,000 to assist in the purchase of a new ambulance, a rescue truck, and fire gear.

The impact fund has been in existence for three decades but its budget has skyrocketed recently.

"It was actually established as a coal impact fund on the 1980s; the oil and gas impact fund has been around for two decades but it was small — even as recently as four years ago it was only \$4 million annually," Land Commissioner Lance

Gaebe told Petroleum News Bakken. "It jumped from \$8 million a biennium to \$100 million a biennium in 2011; a special session of the legislature added another \$30 million in 2011."

The impact fund routes a share of oil and gas revenue to communities impacted by oil and gas development.

"It's a share or a portion of the gross production tax," Gaebe said. "Five percent of the gross production tax levied against oil and gas production is each month put into a fund called the oil and gas impact grant fund."

The fund disbursed about \$125 million in grants in the last biennium ending June 2013, Gaebe said.

This is the fourth round of grants this fiscal year, he said. "This biennium the legislature appropriated \$240 million for grants, and we have given about \$120 million of that so far."

"The eligible entities are political subdivisions so it could be cities, schools, counties, and park districts," he said.

A month earlier there were grants for sheriff offices and law enforcement, and prior to that grants for schools, he said, adding that in July a substantial amount of grants went to cities for water, sewers and other infrastructure to cope with city growth.

"If you look at the communities and the impacts and the needs, they sure clamor for more. We have in the magnitude of \$650 million in requests for the \$125 million that we had last biennium so there definitely is a clamor for more dollars," he said.

For a complete list of the land board grants visit: www.nd.gov/energyimpact

—STEVE SUTHERLIN

Contact Steve Sutherlin
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AAR PROPOSAL

that the cost could run to \$1 billion.

ARR: Required after July explosion

However, the AAR, making a case for itself and short-line railroads, said the July explosion at Lac-Megantic, Quebec, that claimed 47 lives, has made it necessary to retrofit the existing fleet of 78,000 older cars and require even higher standards for 14,000 newer models.

“Surely it is not in the nation’s interest to thwart rising transport of domestic energy supplies,” the AAR’s letter said.

“At the same time, railroads, their customers and suppliers, and the federal government must take precautions to avoid another devastating accident.”

AAR President Edward Hamberger said the time has come “for a thorough review of the U.S. tank car fleet that moves flammable liquids, particularly considering the recent increase in crude oil traffic.”

He said if the problem was tackled properly it would not cause a “dislocation” to crude shipments because there is “plenty of crude to go around.”

Shipments up 44 percent

In the latest quarter, U.S. shipments rose 44 percent from a year earlier to 93,312 carloads, equivalent to about 740,000 barrels per day, or 10 percent of U.S. crude production — a godsend to railroads that have experienced a sharp decline in coal shipments to power generators.

But analysts warn that the AAR proposal could severely punish the tank car sector and erode the economic ben-

But analysts warn that the AAR proposal could severely punish the tank car sector and erode the economic benefits of shipping crude by rail, especially given that a number of DOT-111 cars were upgraded in 2011 to meet stricter guidelines, and are now being recommended for steel jackets, thermal protection and pressure relief valves to protect cars trapped in a fire.

efits of shipping crude by rail, especially given that a number of DOT-111 cars were upgraded in 2011 to meet stricter guidelines, and are now being recommended for steel jackets, thermal protection and pressure relief valves to protect cars trapped in a fire.

The AAR is also suggesting an “aggressive phase-out of cars that cannot meet retrofit requirements.”

Toby Kolstad, an analyst at freight car consultancy Rail Theory Forecasts in Portland, Ore., said the industry could not withstand such a “blow.”

However, Samir Kayande, an analyst at ITG Investment Research, argued that although there would be a short-term impact on cars during a retrofitting, the burden “doesn’t strike me as meaningful.”

Disagreements on cost

The Rail Supply Institute told an industry presentation earlier this year that the costs of meeting AAR proposals could exceed \$40,000 per car — an estimate it expects to update soon.

Growth Energy, a group representing the ethanol industry, cited a Railway Safety Institute estimate that

retrofitting older DOT-111 cars would cost about \$63,000 and did not take into account the additional tank cars that would need to be placed in service to ensure the consistent availability of fuel deliveries while cars destined to retrofit waited for modifications at a limited number of certified shops.

Growth Energy President Tom Buls said current tank cars remains “safe and effective as shown in (their) overwhelming success rate.”

“There has not been enough or conclusive data to show that extensive and costly changes to the existing rail car fleet would significantly improve rail safety transportation of ethanol,” he said. In 2012, 61 percent of the 13.3 billion gallons of ethanol produced in the U.S. was shipped by rail, Growth Energy said.

Refiner Valero, which owns about 8,000 rail cars, most of them purchased in the past 18 months, said its fleet meets voluntary standards adopted by the AAR in 2011 and would not comment on the call for retrofits to existing cars until it had a chance to study the report.

Justin Kringstad, director of the North Dakota Pipeline Authority, told a news conference Nov. 15 he was not aware of any negative impact on rail shipments from the Williston Basin stemming from the high-profile rail accidents involving crude.

He said Williston rail volumes are consistent with what would be expected given the current crude oil pricing differentials and the advantage to shipping Bakken crude to coastal markets.

From a safety standpoint, railroads are working with federal regulators to “understand if there is anything that can be done to make it even safer,” Kringstad said. ●

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Ebeltoft . Sickler . Lawyers consists of 10 lawyers serving Bakken-based businesses in North Dakota and Montana. Practice groups provide legal expertise for: corporate due-diligence, merger, acquisition and business sale negotiation and completion, and leasing, purchase or sale of real estate and developer contracts, appearances for planning and zoning and litigation relating to governmental decisions, and environmental claims litigation.

Pete Morowski, Associate Lawyer

Morowski previously worked as a litigation attorney at a boutique plaintiff’s personal injury law firm in Houston, Texas. At Ebeltoft . Sickler . Lawyers, he concentrates his practice with in the real estate, mineral and environmental, alternatives to litigation and litigation solutions practice areas. Morowski recently attended the Rocky Mountain Mineral Law oil and gas short course over five days in Westminster, Colo.



PETE MOROWSKI

COURTESY PHOTO

Bakken Players

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RAIL EXPORTS

Kringstad said that with Brent/WTI spread again widening, rail exports will probably increase over the next several months because “we’re seeing the prices in the region are depressed relative to what they can realize on those coastal oil markets.” Those price differentials, he said, will be “driving those barrels back towards those rail destinations on the East Coast and West Coast.”

North Dakota Department of Minerals Management Director Lynn Helms said he has not heard what he considers a “really good explanation” as to why the sweet crude prices have fallen so much in recent months, but he knows there have been constraints on light sweet refining capacity in the Mid-Continent area.

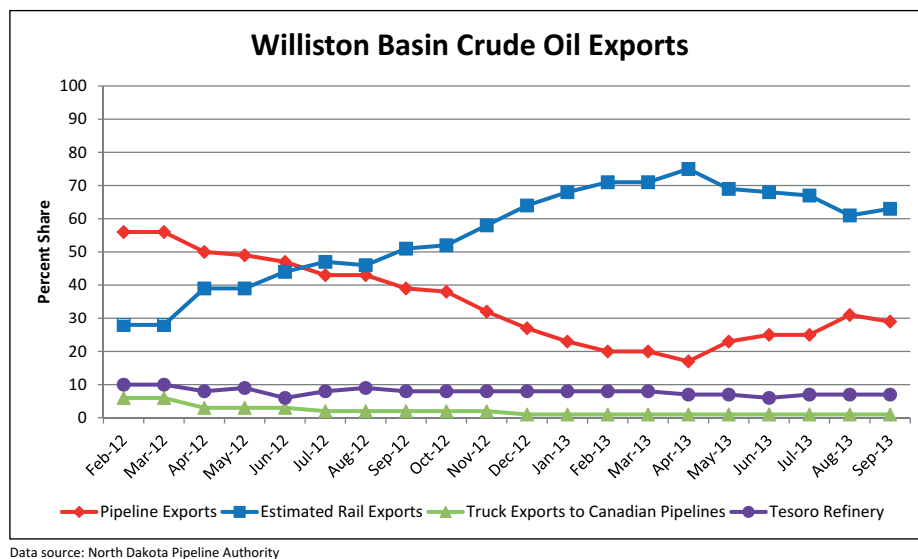
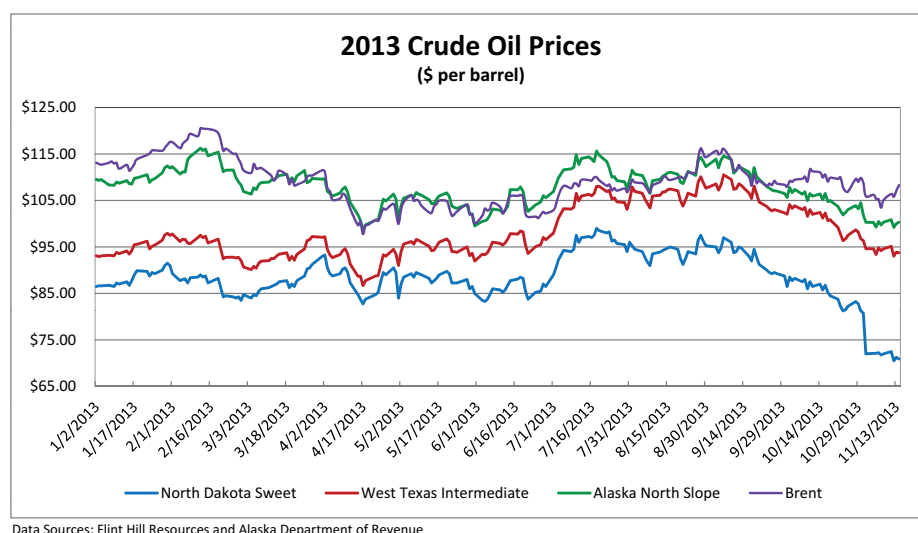
Regardless, Helms agrees that rail exports are likely to increase and notes that Brent prices have not fallen to the extent that WTI and Mid-Continent North Dakota sweet crude prices, and the stronger Brent pricing is “going to drive a lot more oil into rail cars because you haven’t seen the same kind of fallout in Brent price,” he said in the Nov. 5 press conference. “So this is going to push more oil faster to the east and west coasts.”

Depressed Mid-Con prices

Although the Brent/WTI spread has been widening in recent months, it is not so much a function of the Brent price rising as it is a function of the WTI price falling. Between early September and mid-November, the per barrel price of Brent fell just over \$7 from \$115.68 to \$108.50, while the WTI price fell over twice that amount from \$108.54 to \$93.84, a difference of \$14.70 (see chart).

Another coastal crude index besides Brent is Alaska North Slope crude, which has seen a larger differential than Brent. On Sept. 3, Alaska North Slope closed at \$113.88 per barrel and on Nov. 15 it closed at \$102, a difference of \$11.88.

Even more glaring is the price of North Dakota sweet crude. Not only has it historically traded at a discount relative to the



other three crude oils, but it has seen a much more pronounced decline in recent months (see chart). On Sept. 1, North Dakota sweet was trading at \$95 per barrel on the Flint Hills Resources market and on Nov. 15 it closed at \$70.50, a difference of \$24.50 per barrel. The price experienced a one-day tumble of more than \$8 between Oct. 31 and Nov. 1 on the Flint Hills market.

North Dakota insulated

The lower sweet crude prices have not had a noticeable effect on oil development in North Dakota according to Helms, although he said that could change in the future. He said North Dakota was insulated from crude oil price fluctuations in recent years, i.e., in 2010 through 2012. Helms

said North Dakota was “almost completely decoupled from oil price during those years, and for the most part I think we still are.” He said one advantage that North Dakota operators have in times of fluctuating oil prices is the rail option. Rail cars, he said, “really give us the ability to move this oil where the money is.”

Helms believes all of North Dakota’s 22 rail loading facilities have additional capacity “on top of the fact that there are more rail facilities in the design phase.” He noted that ground was just broken on Thunder Butte refinery on the Fort Berthold reservation (see related story on page 3), and “not surprising,” he said, “the very first thing they are going to build is a rail facility.”

Rail, however, is not without its share of problems. In the wake of recent derailments,

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TRADING HUB

coupled with the fact that it sits in the middle of one of the most highly productive oil basins in the country, Johnsons Corner is well suited as a hub in that it’s a commodity transportation center with a stable and steady supply and relatively large storage capacity which provides buyers with multiple export options. And with that storage capacity, producers could ship crude to the hub without having to make prior export commitments.

“Johnsons Corner in McKenzie County is starting to look like a hub,” Hushka told the Energy Development and Transmission Committee. “It has multiple pipelines options that are coming into it and a lot of other very large storage farms that are being built. So as the tankage is built onsite and the product is being shipped into a central location,” he continued, “you can begin to manage the product as you do in a hub. You don’t have to commit early to a pipeline.”

As more and more shipping options become centralized at a single location, Hushka said, producers have more options and no longer have to “commit three years worth of pipeline usage.” He added that as more capacity becomes available, onsite traders become attracted to the region because they have the opportunity to store and ship.

A standalone commodity


If Johnsons Corner were to become a crude oil hub for Bakken Crude, it would mean that Bakken crude would be traded as its own, standalone commodity. Hushka said crude oils such as Brent and West Texas Intermediate became index crudes because they ultimately emerged as stable commodities guaranteed to flow into the market. As they became guaranteed, he said, they could begin to be traded.

That situation, Hushka said, now exists in the Bakken. “We now have that. We’ve proved to resources, traders and refiners, that we can produce upwards of a million barrels per day ... and now we’re proving to them that we can sustain that flow. As those conditions come into play, I do

believe that Bakken will begin to be traded on its own index.”

While Bakken crude oil trades at discount to other crudes at Mid-Continent markets (see story, this page), Hushka believes it should be trading in the neighborhood of 6 to 8 percent above Brent because of its quality. He said if Bakken crude is broken down and evaluated on a component basis the way a refiner would evaluate it, it prices out higher than other crude oils because it’s lighter, has a lower sulfur content, and has the ability to produce more high-value products. “So I do think that ... if it historically follows the original model, we’ll see that, we’ll see Bakken traded on its own.” ●

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a push is on to tighten rail car safety (see related story on page 1).

Below the sweet spot

The falling crude oil prices, Helms said, are always a concern to operators and North Dakota crude is now priced below what he says industry has always considered the “sweet spot,” which he says is in the range of \$80 to \$85 per barrel. “And so there is a concern there and that’s going to impact how they bring these wells on and how hard they produce them when they initially bring them on — they may even choke them back a little bit and not flow wells at 5,000 barrels a day.”

But Helms said even though current North Dakota crude prices are below this “sweet spot,” the prices are still well above what is generally considered to be the breakeven price. He recently looked at the latest 12-month production data per county, and said that “if you look at the four biggest counties where most of the rigs are, they all have a breakeven oil price of \$45 a barrel or less, so there’s a long ways to go before Williams, Mountain, McKenzie and Dunn counties pull the reins in and really decrease activity.”

In February 2012, the first month for which export data are available from the North Dakota Pipeline Authority, pipelines accounted for 56 percent of basin exports with railroads exporting 28 percent of basin crude. Of the remaining 16 percent, 10 percent went to Tesoro’s Mandan refinery and 6 percent was transported on tank trucks to Canadian pipelines. In September, 62 percent of oil left the basin on rail cars and 29 percent went through pipelines. Solid numbers on exports to Canada are not currently available, but the Pipeline Authority estimates that 1 percent of Williston Basin crude went to Canada in September and 7 percent went to the Tesoro refinery. ●

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MORE RECORDS

cent in some cases.

Bakken contribution

The number of producing wells in the state increased to 9,682 in September, up 207 over August. Of that total number of wells, 6,447 were producing from the Bakken petroleum system and of those, 5,889 were modern horizontal wells.

Furthermore, of the 931,940 bpd average North Dakota oil production in September, 867,123 bpd or some 93 percent came directly from the Bakken system, with the remaining 7 percent coming from “legacy conventional pools.” Helms said the 93 percent Bakken production is somewhat of a “stunning number,” and noted that were it not for the Bakken and Three Forks formations, North Dakota’s oil production would amount to only 7 percent of the current of approximately 932,000 bpd production, i.e., the production would be only approximately 65,000 bpd.

“That’s significantly lower even than when I took this job in 1998,” he said, “When I took the job we were at 80,000, and we got above 100,000, then we dropped back below 100,000, and then Cedar Hills came online and it’s kind of been onward and upward since then.” He added that it is “really the difference of an unconventional play — production would be less than 10 percent of what it is today if it weren’t for the Bakken and Three Forks.”

Helms noted how much more productive the modern horizontal wells are compared to conventional, vertical wells. “It also speaks to how productive these wells are — 61 percent are modern Bakken/Three Forks completions but they’re producing 93 percent of our oil. So they’re way more productive wells than the conven-

tional resource wells.”

Slower growth rate

While September oil production set another monthly record, the rate of production growth slowed in September for the second consecutive month (see chart). In July, the state’s average daily oil output reached 875,736 barrels per day, a record increase of 54,138 bpd over June output. In August, average daily production reached 911,186 bpd, another record high but a smaller increase of 35,450 bpd over July. The 931,940 September output was a smaller increase of 20,754 bpd over August production. However, the 20,754 bpd increase in September is nearer the 3-year average monthly increase of 18,320 bpd.

Seismic activity up

Seismic activity is on the rise in North Dakota, according to Helms, and the state now has four buried arrays for monitoring and optimizing hydraulic fracturing. But in addition to the static or passive surveys in the more traditional counties such as Dunn, McKenzie and Williams, Helms said there are now active surveys in some outlying counties such as Billings, Golden Valley and Slope.

Some of the players, Helms says, are starting to look seriously at some of the other formations such as the Red River and the Tyler to see what the structures look like and what might be some of the seismic attributes.

“I think that is a longer-term leading indicator that we’ll see some uptick in activity next year and the following year in some of these other plays.”

—MIKE ELLERD

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ONEOK MOVES

will be built in central McKenzie County and will have the capacity to process 200 million cubic feet, mmcf, of natural gas per day. That capacity will boost Oneok’s total North Dakota gas processing capacity to 800 mmcf per day.

The cost of the plant is estimated at between \$320 million and \$390 million, but Oneok is also planning to spend an additional \$230 million to \$290 million to upgrade and expand gathering infrastructure to support the plant. Construction of the Lonesome Creek plant and the associated infrastructure upgrades and expansions are expected to be completed by late 2015.

Processing at the Lonesome Creek plant will increase the volume of NGLs that Oneok produces in the Williston Basin.

Processing at the Lonesome Creek plant will increase the volume of NGLs that Oneok produces in the Williston Basin. The company is increasing the capacity of its Bakken NGL pipeline accordingly. The capacity of the Bakken NGL pipeline is currently being expanded from its original capacity of 60,000 barrels per day to 135,000 bpd, and that expansion is expected to be complete in the third quarter of 2014. The second expansion will boost capacity to 160,000 bpd, and that expansion is anticipated to be done during the first half of 2016.

Oneok Partners President Terry K. Spencer said in the press release that as Williston Basin production “continues to increase with no signs of leveling off or slowing,” the new plant and associated infrastructure will be well-positioned with Oneok’s other assets in the region to provide essential gas processing capacity. Spencer said the investments are another example of Oneok’s “ongoing commitment to address natural gas gathering and processing constraints in the region and help reduce natural gas flaring in North Dakota.”


Wasting no time

Oneok is not wasting any time getting started on the new projects. Justin Kringstad, director of the North Dakota Pipeline Authority, told Petroleum News Bakken on Nov. 19 that immediately after the press conference ended at the state capitol in Bismarck, Oneok personnel from the company’s main office in Tulsa, Okla., were contacting him requesting information necessary to proceed with the projects.

“One thing that impacted me the most today,” Kringstad said, “was that within two minutes of the press event ending, staff from Oneok’s main office were calling my cell phone for additional production and flaring data so that they could keep moving forward to optimize gas projects in the region. I have seen nothing but continual commitment from Oneok to capture this valuable gas resource and today’s announcement is one significant piece of the flaring solution going forward.”









—MIKE ELLERD

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