

# Weekly Fundamental Market Report May 14-25, 2018

## Market Update

PRODUCTS	5/14/18	5/15/18	5/16/18	5/17/18	5/18/18	5/21/18	5/22/18	5/23/18	5/24/18	5/25/18
WTI Crude Oil	70.96	71.31	71.49	71.47	71.23	72.26	72.12	71.84	70.71	67.88
Brent Crude Oil	78.23	78.43	79.28	80.09	78.38	78.34	79.15	79.80	78.79	76.44
Natural Gas	2.84	2.84	2.82	2.75	2.75	2.77	2.89	2.91	2.94	2.94

- [CME Group](#)

## Headlines

### Local North Dakota

- **Future outlook of the Bakken.** [Fox](#)
  - The Bakken is the second largest oil producing area in the country, second only to a region in Texas. Department of Mineral Resources Director Lynn Helms says the Bakken is expected to break its production record later this year, sooner than expected. "Our anticipation is the first month that we get thirty days of nice weather and no road restrictions, we're going to break that record," said Helms. Because of this record breaking production more companies are investing in the Bakken than ever before. "So, overall investments we could be looking at reversal pipelines, new pipelines, new rail capacity, and new gas processing capacity and infrastructure," said Erec Isaacson, vice president of Rockies Business Unit. Although the future of the Bakken is good, companies still say there will be challenges ahead. "We do need more labor and we're going to need more on our labor force," said Brad Holly, president and CEO of Whiting Petroleum Corporation. Helms says in 2014 there were 56,000 employees in the Bakken, and in 2016 it dropped to 36,000. He says to accomplish what the Bakken is forecasted to do, we need to hire 63,000 more employees by 2020.
- **Bakken executives project 'disciplined approach' as ND oil activity ramps up.** [Dickinson Press](#)
  - North Dakota oil production is expected to return to record levels this summer, but executives of top Bakken companies said Thursday, May 24, they expect the resurgence to be slow and steady. "We're taking a real disciplined approach to development," said Brad Holly, president and CEO of Whiting Petroleum. "We've had enough booms and busts. We need to get this one right." Whiting, now the No. 3 North Dakota oil producer after selling some assets during the downturn, has five drilling rigs operating in the state with no immediate plans to add more. "We only want to add activity if we think we can do it efficiently," Holly said in an interview at the Williston Basin Petroleum Conference in Bismarck, which attracted more than 2,450 people. Director of Mineral Resources Lynn Helms projects a modest ramp-up in drilling this year, with activity occurring in a larger footprint in the Bakken rather than focused only on the core. North Dakota had 65 drilling rigs operating Thursday, up from 49 a year ago and 28 two years ago when oil industry leaders last held their conference in Bismarck. The state produces 1.16 million barrels per day and is on track to exceed its previous record of nearly 1.23 million barrels of oil per day, potentially as early as June, Helms said. Technology advancements are driving the increase in activity rather than the price of oil, said Continental Resources President Jack Stark. "This year, there's no doubt that the Bakken is performing better than ever," he said. "The rock hasn't changed. It's all happened through technology." Stark estimates that Continental, North Dakota's top oil producer, only recovered about 3 to 5 percent of the oil early in its Bakken operations. Now Stark estimates the company recovers 15 to 20 percent of the oil, with efforts underway to continue increasing that. "The size of the prize is huge here," Stark said. Four enhanced oil recovery projects will be tested in the field this summer to research ways to recover even more oil, Helms said. "We're leaving a lot down there," said Thomas Nusz, chairman and

CEO of Oasis Petroleum. "It's encouraging to know that people are thinking about a whole bunch of different things in order to increase recovery. It's just a focus on continuous improvement and how do we do more." Erec Isaacson, vice president of Rockies Business Unit for ConocoPhillips, said \$65 oil is the new \$100 oil, thanks to innovations the industry developed during the downturn. "Today we're thriving at that \$65-plus price," Isaacson said. "We've made great strides through technology, innovation and optimization." Helms said he estimates the oil industry has invested about \$127 billion in the Bakken through well-drilling and completions, natural gas gathering and processing, rail facilities and crude oil transmission pipelines through 2017. Over the next 20 years, Helms projects the industry will need to invest another \$348 billion to keep up with the growth in well count, expected to increase from today's 14,157 wells to as many as 65,000 wells. The executives also talked about investing in North Dakota communities to help recruit and retain workers. Mike Henderson, a vice president for Marathon Oil who oversees North Dakota operations, said compliance with regulations and a commitment to safety and environmental protection is essential to protect the industry's license to operate. "We must be responsible corporate neighbors, never lose sight of the fact that we are guests in these communities and we will be judged by our individual and collective behavior," Henderson said.

- **ND oil conference to showcase industry advancements. [Dickinson Press](#)**
  - Optimism is high ahead of the 2018 Williston Basin Petroleum Conference, where North Dakota's oil industry is set to discuss technology advancements that could recover even more oil from the Bakken. More than 2,150 people are registered for the event that starts Tuesday at the Bismarck Event Center, with additional participants expected to attend throughout the three-day event. The conference will showcase research projects that are underway to increase the potential of the Bakken and target more oil-producing formations. "I think there's just a big technology breakthrough ahead of us," said Kathy Neset, an oilfield geologist and president of Neset Consulting. "There might have been a slowdown in the rig count, but there was a not a slowdown in the work going on behind the scenes to continue research and development." North Dakota has 14,457 producing oil and gas wells as of March, a new record for the state. But the oil produced from those wells, most recently 1.16 million barrels per day, only represents about 10 percent of the oil that could be recovered, industry experts say. Ultimately, North Dakota is projected to have 60,000 oil and gas wells, with the drilling completed over the next 15 to 17 years, said Director of Mineral Resources Lynn Helms. "We're still less than a fourth of the way there," Helms said. As drilling continues, technology advancements will allow the oil industry to capture more oil from future wells, Neset said. "Each one of these new wells will capture a higher percentage of crude oil," she said. One research project that will be highlighted during the conference is a partnership with Liberty Resources and the Energy and Environmental Research Center at the University of North Dakota. Liberty CEO Mark Pearson is scheduled to discuss a pilot project that involves injecting natural gas underground to enhance oil recovery. The technology has been investigated in the lab at the EERC and will be tested in the field north of Tioga this summer, said John Harju, vice president for strategic partnerships for the EERC. "The simulation results are very, very encouraging," Harju said. Other topics that will be highlighted during the conference include workforce issues, pipeline monitoring technologies, expanding natural gas infrastructure and cybersecurity issues. Interior Secretary Ryan Zinke is the keynote speaker on Wednesday morning. The conference features more than 70 presenters, including eight Bakken executives, and a trade show with more than 270 booths. The 26th annual conference, which rotates between North Dakota and Saskatchewan in Canada, attracted more than 4,000 people in 2012 and 2014. Though attendance is on track to be closer to 2,500, Ness said he thinks optimism is as high as it was during the peak years of the Bakken boom. "We've been through a rough period," Ness said. "I think finally Wall Street and investors have recognized what we've accomplished in the Bakken with the decreased costs, the improved efficiency and companies and the investors are focusing back on the Bakken. That's a big, big deal."

## Domestic U.S.

- **Oil climbs over 2 percent, shrugs off API's U.S. crude build. [Reuters](#)**
  - Crude Oil prices surged on Wednesday, shrugging off an unexpected build in U.S. crude stockpiles and rebounding from a four-day slump as Russia's central bank expressed caution on plans to boost oil supply. Brent LCOc1 settled up \$2.11, or 2.8 percent, at \$77.50 a barrel. U.S. crude CLC1 gained \$1.48, or 2.2 percent, to \$68.21. Data from industry group American Petroleum Institute (API) showed that U.S. crude inventories rose unexpectedly last week, increasing by 1 million barrels against analyst expectations of a 525,000-barrel

decline. Prices were little changed in post-settlement trading despite the surprise stock build. Oil has been pressured by reports that the Organization of the Petroleum Exporting Countries (OPEC) and Russia may ease up on output cuts in place since January 2017. The cuts have driven down global inventories and boosted prices, with global benchmark Brent reaching a 3-1/2-year high of \$80.50 a barrel on May 17. On May 25, sources told Reuters that Saudi Arabia and Russia are discussing raising oil output from OPEC and allied non-OPEC countries by around 1 million bpd. On Wednesday, however, the Russian central bank said falling oil prices would pose a risk to the country's financial sector. "It seems that somebody in the central bank is taking notice of the big drop in oil prices and sending a signal of, 'Hey, wait a second. We don't want these prices to fall too far,'" said Phil Flynn, analyst at Price Futures Group in Chicago. U.S. crude's discount to Brent WTCLc1-LCOc1 rose to as much as \$9.31, with Brent supported as investors worried that U.S. sanctions could be cutting crude supplies from Iran. "There's more concern on the Brent side that supply losses from Iran are harder to be made up," Flynn said. India's Reliance Industries Ltd (RELI.NS), owner of the world's biggest refining complex, plans to halt oil imports from Iran, two sources familiar with the matter said. In Brazil, the FUP oil workers union said workers had joined the call for a nationwide strike on at least 20 oil rigs in the lucrative Campos basin and other areas of the country. Protesters are calling for the resignation of Petroleo Brasileiro SA (PETR4.SA) Chief Executive Officer Pedro Parente and a change to company fuel pricing policies. The company said production was not affected. Last week there was a strike by Brazilian truckers over high diesel prices. Ongoing unrest could threaten demand for fuels in Brazil, which U.S. data showed was the No. 8 energy consumer in 2016.

# Oil and Gas Analysis

## o Rotary Rig Count Summary

Location	Date	Week	+/-	Week Ago	+/-	Year Ago
United States	18-May-18	1046	1	1045	145	901
	25-May-18	1059	13	1046	151	908
North Dakota	18-May-18	55	-1	56	11	44
	25-May-18	56	1	55	11	45
Canada	18-May-18	83	4	79	-2	85
	25-May-18	81	-2	83	-12	93
International	Apr-18	978	6	972	22	956

- Baker Hughes

## o WTI & Bakken Spot Price

May 2018 Daily Spot Prices					
	Mon	Tue	Wed	Thu	Fri
<b>Bakken (FH)</b>					
2018 April-30 to May-4	60.02	60.02	60.75	61.25	61.25
2018 May-7 to May-11	62.46	62.81	62.81	62.85	63.15
2018 May-14 to May-18	63.36	63.45	63.55	63.65	63.65
2018 May-21 to May-25	63.86	63.99	63.99	64.04	64.04
<b>WTI</b>					
2018 April-30 to May-4	68.56	67.28	67.91	68.45	69.71
2018 May-7 to May-11	70.74	68.83	71.16	71.36	70.69
2018 May-14 to May-18	71.01	71.34	71.43	71.47	71.23
2018 May-21 to May-25	72.26				
<b>Differentials</b>					
2018 April-30 to May-4	8.54	7.26	7.16	7.2	8.46
2018 May-7 to May-11	8.28	6.02	8.35	8.51	7.54
2018 May-14 to May-18	7.65	7.89	7.88	7.82	7.58
2018 May-21 to May-25	8.4				

- Flint Hills Resource
- EIA

o **Weekly Petroleum Status Report**

<b>Stocks (Million Barrels)</b>			
	<b>Four Weeks Ending</b>		
	<b>5/18/2018</b>	<b>5/11/2018</b>	<b>5/19/2017</b>
Crude Oil (Excluding SPR)	438.1	432.4	516.3
Motor Gasoline	233.9	232.0	239.9
Distillate Fuel Oil	114.0	114.9	146.3
All Other Oils	406.2	406.2	433.6
Crude Oil in SPR	661.3	662.0	687.7
<b>Total</b>	<b>1,853.6</b>	<b>1,847.6</b>	<b>2,023.9</b>

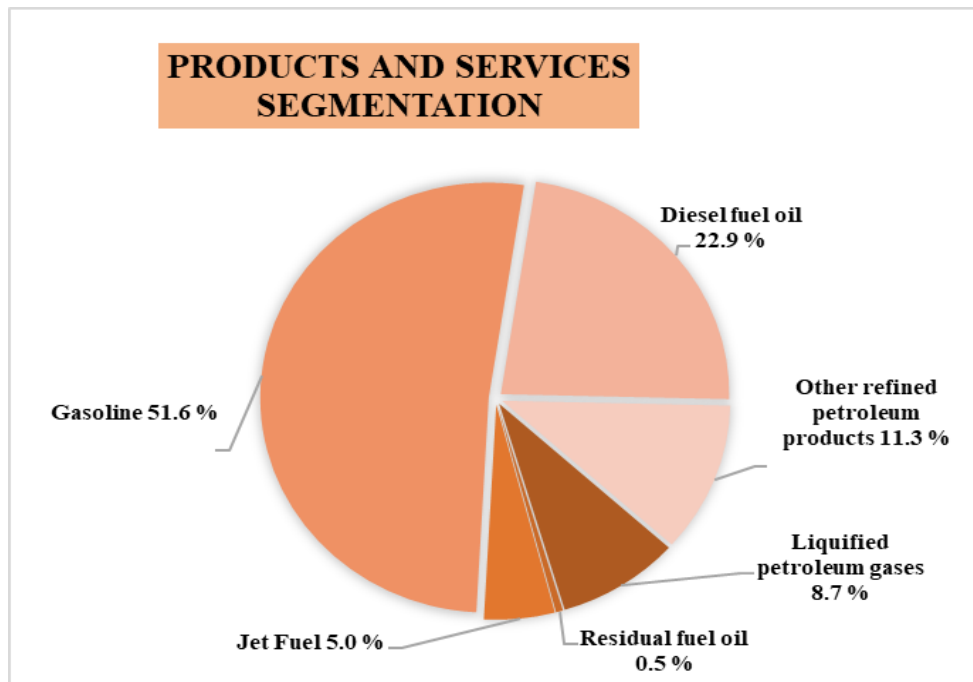
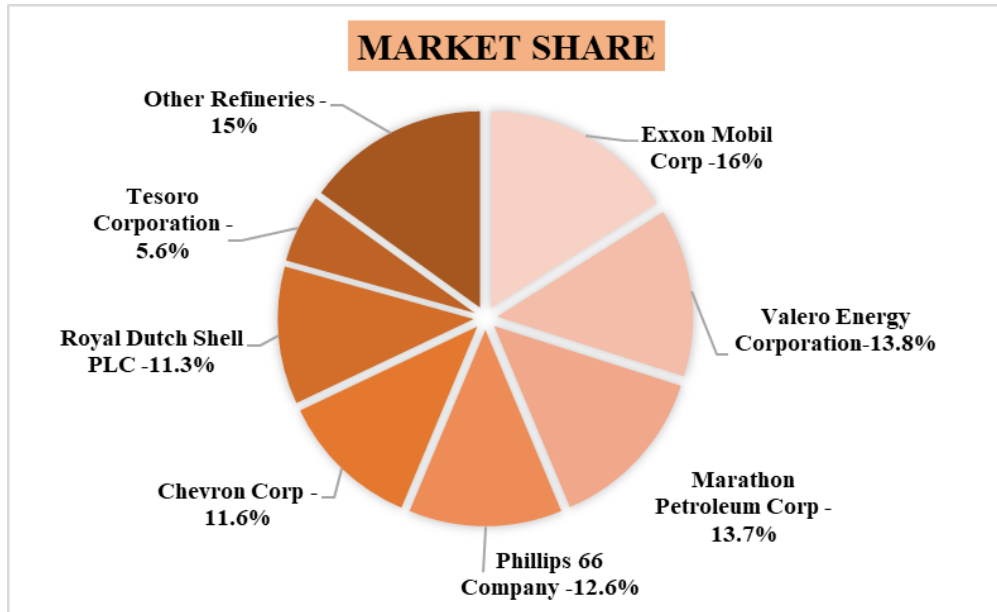
<b>Products Supplied (Thousand Barrels per Day)</b>			
	<b>Four Weeks Ending</b>		
	<b>5/18/2018</b>	<b>5/11/2018</b>	<b>5/19/2017</b>
Motor Gasoline	9,521	9,370	9,430
Distillate Fuel Oil	4,163	4,191	4,242
All Other Products	6,789	6,499	6,507
<b>Total</b>	<b>20,473</b>	<b>20,060</b>	<b>20,180</b>

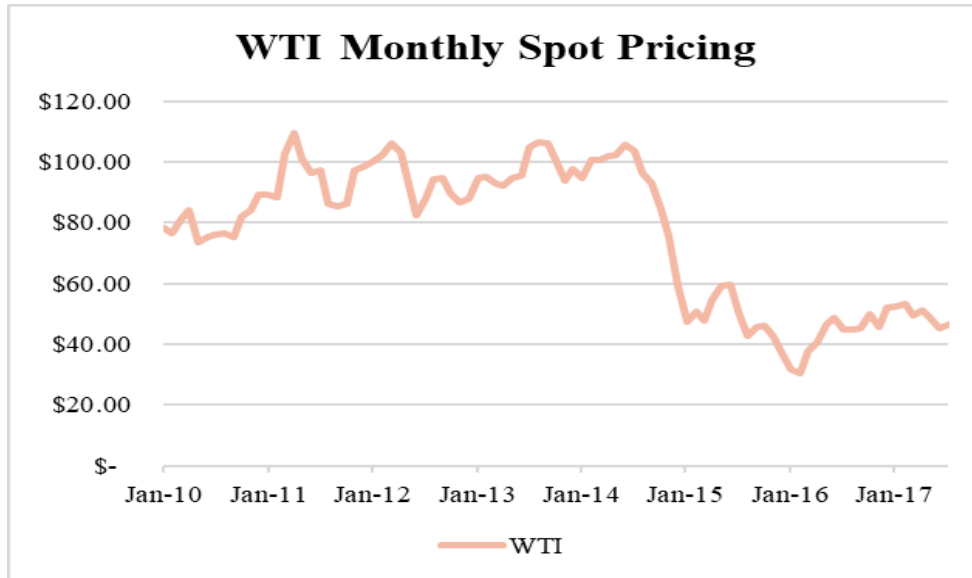
<b>Refinery Activity (Thousand Barrels per Day)</b>			
	<b>Four Weeks Ending</b>		
	<b>5/18/2018</b>	<b>5/11/2018</b>	<b>5/19/2017</b>
Crude Oil Input to Refineries	16,578	16,576	17,085
Refinery Capacity Utilization	91.1	90.9	92.9
Motor Gasoline Production	10,133	10,092	10,024
Distillate Fuel Oil Production	4,989	4,999	5,074

<b>Net Imports (Thousand Barrels per Day)</b>			
	<b>Four Weeks Ending</b>		
	<b>5/18/2018</b>	<b>5/11/2018</b>	<b>5/19/2017</b>
Crude Oil	5,823	5,755	7,457
Petroleum Products	-2,451	-2,870	-2,511
<b>Total</b>	<b>3,372</b>	<b>2,885</b>	<b>4,946</b>

- [EIA](#)

- **US Petroleum Refining at a Glance**





- [EIA](#)

## o Key External Drivers

- o **World price of crude oil**
  - <http://markets.businessinsider.com/commodities/oil-price?type=wti>
- o **Demand from gasoline and petroleum bulk stations**
  - <https://www.reuters.com/article/us-usa-natgas-kemp/u-s-natural-gas-prices-rise-as-winter-stocks-look-tight-kemp-idUSKCN1BU1RK>
- o **GDP of mainland China**
  - <https://tradingeconomics.com/china/gdp>
- o **Trade-weighted index**
  - <https://www.investing.com/news/economy-news/top-5-things-to-know-in-the-market-on-friday-541066>
- o **Total vehicle miles**
  - <https://www.advisorperspectives.com/dshort/updates/2017/08/31/vehicle-miles-traveled-another-look-at-our-evolving-behavior>