Natural Resources Canada
Ressources naturelles Canada

Fuel Focus

Understanding Gasoline Markets in Canada and Economic Drivers Influencing Prices

Issue 14, Volume 8

July 26, 2013

Canada

Copies of this publication may be obtained free of charge from:
Natural Resources Canada
Petroleum Resources Branch
580 Booth Street, 17th Floor
Ottawa, Ontario K1A 0E4
Phone: (613) 992-9612
TTY Service: (613) 996-4397 (Teletype for the hearing-impaired)
Fax (613) 992-0614
Email: prb.drp@nrcan-rncan.gc.ca
Web site: http://nrcan.gc.ca/eneene/focinf-eng.php

ISSN 1918-3321

Aussi offert en français sous le titre *Info-Carburant*

Fuel Focus

Volume 8, Issue 14
July 26, 2013

National Overview

Canadian Retail Gasoline Prices Up by 0.3 Cent per Litre from Last Week

For the week ending July 23, 2013, the average Canadian retail gasoline price was $1.35 per litre. Higher world crude oil and North American wholesale prices helped push up the Canadian average retail gasoline price by less than 1 cent per litre from the previous week, and up nearly 2 cents per litre from the last report two weeks ago. That represents an increase of almost 6 cents per litre compared to a year ago.

Diesel prices increased marginally by less than 1 cent per litre from the previous week to $1.26 per litre. That represents an increase of 7 cents per litre compared to the same period last year.

Recent Developments

- **Oil Market Report**: Despite a lacklustre economic outlook, futures markets were buoyed by upheaval in Egypt and supply-side issues. Global demand is forecast to grow by 1.2 million barrels per day (mb/d) in 2014, following upwardly revised growth of 930 kb/d in 2013. Non-OPEC supply is forecast to increase by 1.3 mb/d in 2014, higher than an upwardly revised 1.2 mb/d for 2013. OECD commercial total oil inventories built seasonally by a relatively weak 4.8 mb in May to 2,683 mb. North American crude runs surged in May and June ahead of an exceptionally steep seasonal ramp up in global throughputs expected in 3Q13. (Source: International Energy Agency, OMR, July 11, 2013)
- **New Motor Vehicle Sales**: The number of new motor vehicles sold from January to May of 2013 rose 2% to 727,847 units compared to the same period in 2012. New motor vehicle sales were up in every province except for Ontario, almost unchanged at 263,399 units, and Quebec, which decreased by 1% to 178,797 units. Alberta (+7%) reported the largest increase in the number of new motor vehicles sold—7,415 units in the first five months of 2013 for a total of 107,596 units. Sales of new motor vehicles in Manitoba grew by 10% to 22,831 units. (Source: The Daily, http://www.statcan.gc.ca/daily-quotidien/130715/tdq130715-eng.htm)
- **Crude Oil Production Increases 7%**: Domestic crude oil production (including condensate and pentane plus) increased 7% to 50 billion cubic metres in the first quarter of 2013 compared to the same period in 2012. (Source: Statistics Canada, Supply and Disposition of Crude Oil and Natural Gas Monthly Report)

Figure 1: Crude Oil and Regular Gasoline Price Comparison (National Average)

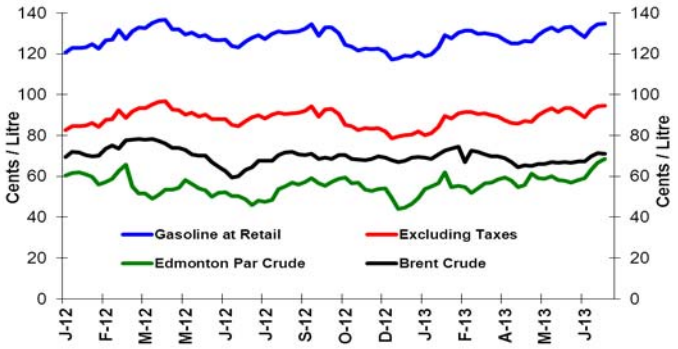
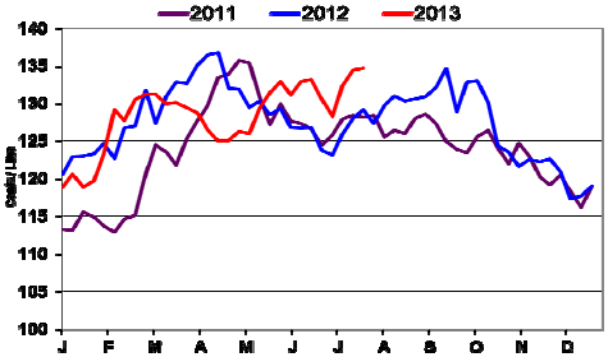


Figure 2: Weekly Regular Gasoline Prices



Changes in Fuel Prices

	Week of:	Change from:	
¢/L	2013-07-23	Previous Week	Last Year
Gasoline	134.7	+0.3	+5.5
Diesel	125.6	+0.3	+7.3
Furnace Oil	118.6	+1.2	+6.9

Source: NRCan

Natural Gas Prices for Vehicles

2013-07-23	¢/kilogram	¢/L gasoline equivalent	¢/L diesel equivalent
Vancouver	119.4	78.8	81.7
Edmonton	115.1	75.9	78.7
Toronto	110.6	73.0	75.6

Source: ¢/kg *Kent Marketing Services Limited*

In this Issue

	Page
National Overview	1
Recent Developments	1
Retail Gasoline Overview	2
Wholesale Prices	3
Refining and Marketing Margins	4
Crude Oil Overview	5
***Supplement**: Factors Behind the Narrowing of the WTI / Brent Price Differential*	6

Retail Gasoline Overview

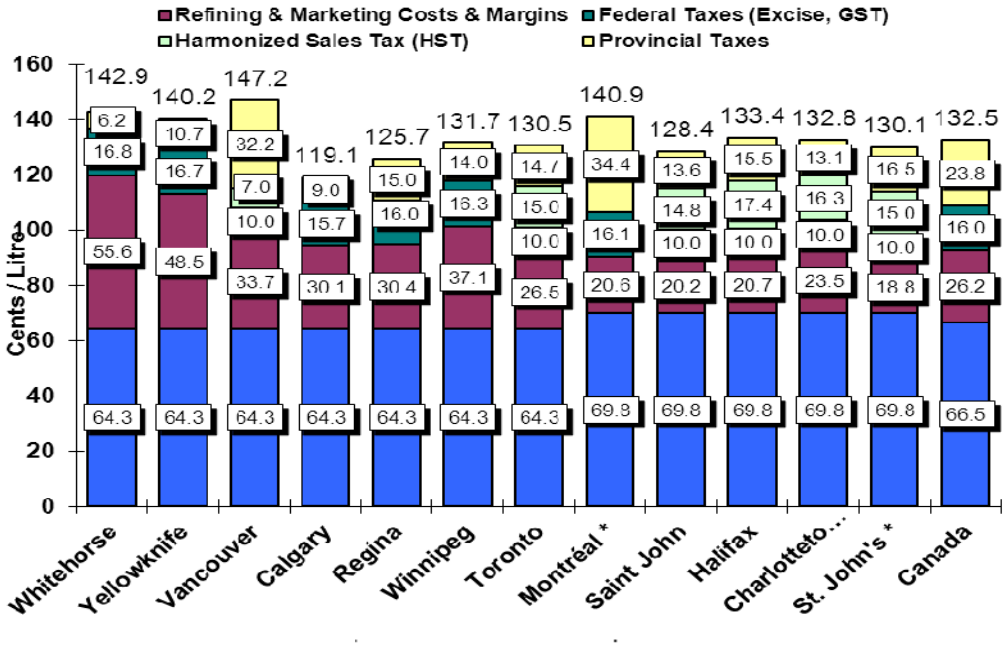
The **four-week average** Canadian pump price in selected cities across Canada was $1.32 per litre for the period ending July 23, 2013. That is an increase of 1 cent per litre from the last report on July 12, 2013, and an increase of 6 cents per litre compared to the same period in 2012.

For the period ending July 23, 2013, the **four-week average** crude oil price component of gasoline registered nearly 67 cents per litre. That represents a 12-cent-per-litre increase compared to the same period in 2012.

Retail prices in eastern centres increased, on average, by 3 cents per litre compared to the last report two weeks ago and ranged from $1.28 to $1.41 per litre. Prices in western centres decreased, on average, by 1 cent per litre and ranged from $1.19 to $1.47 per litre.

At the national level, refining and marketing costs decreased by nearly 3 cents per litre from the previous report of two weeks ago to 26 cents per litre. This is 7 cents per litre lower from this time last year.

Figure 3: Regular Gasoline Pump Prices in Selected Cities
Four-Week Average (July 2 to 23, 2013)



Source: NRCan

** Regulated Markets*

How Gasoline Markets Function

Price is the equalizer that ensures supply always meets demand. If demand exceeds supply, prices will rise until either new supplies are attracted to the market or demand is dampened so that equilibrium is achieved.

If supply exceeds demand, prices will drop until the market is in balance. Because of the ability to move product to the market where the highest price is found, most petroleum product prices are similar from market to market. Generally, the difference in wholesale prices between two markets can be attributed to the cost of transportation between those two markets.

However, there are numerous factors that can influence retail gasoline prices—supply/demand, crude oil costs, distribution costs, federal and provincial taxes and local market conditions. Retail prices and, to a lesser degree, wholesale prices can still vary significantly between markets.

Wholesale Gasoline Prices

Compared to the previous week, wholesale gasoline prices for the week **ending July 18, 2013** increased in most selected Canadian and American centres.

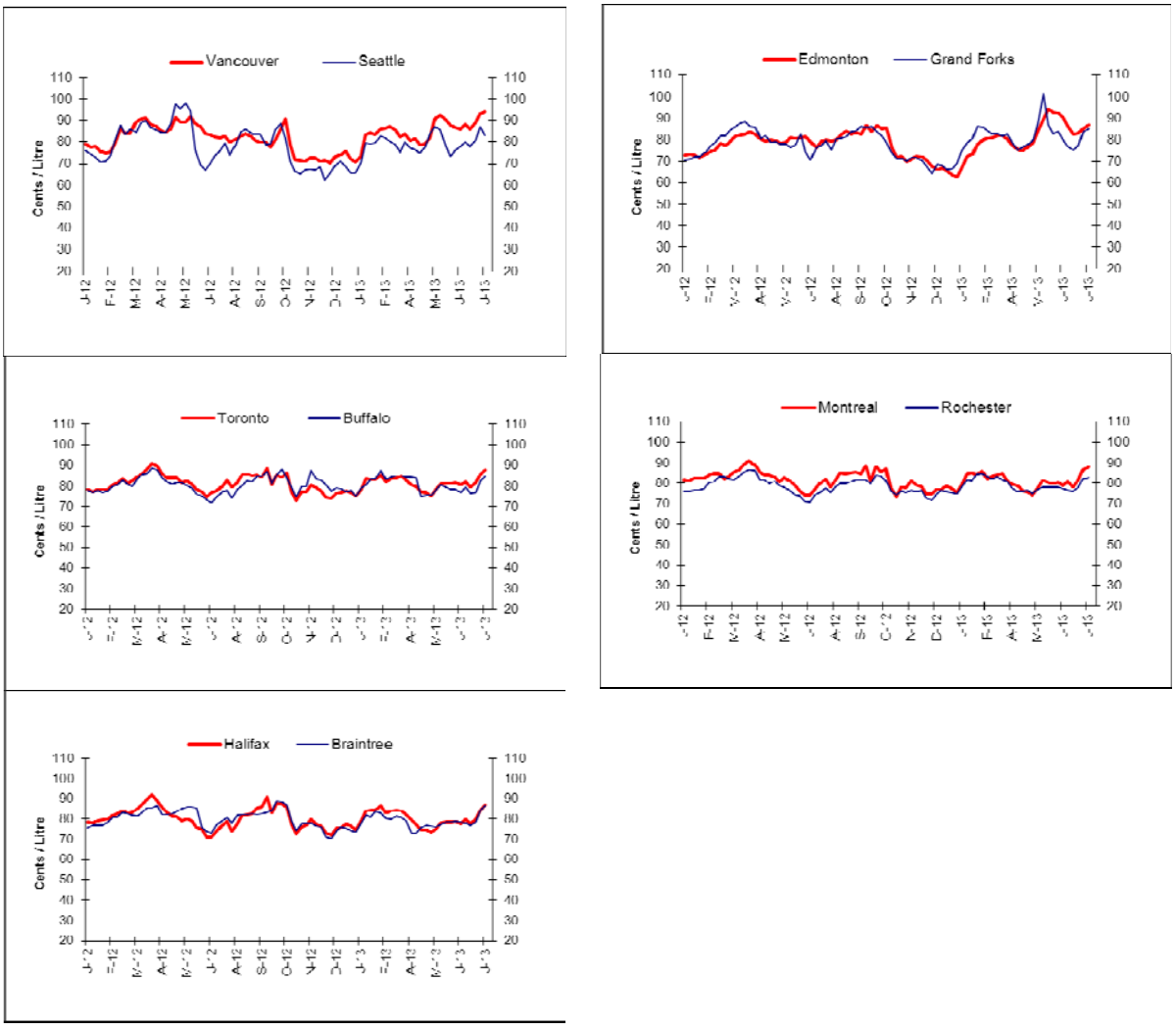
Wholesale gasoline prices ranged from an increase of more than 2 cents per litre to a decrease of 4 cents per litre. Prices for the period ended in the 83- to 94-cent-per-litre range.

In the eastern markets of Canada and the United States, wholesale gasoline prices, compared to the previous week, registered increases ranging from 1 to 2 cents per litre. Prices for the period ended in the 83- to 88-cent-per-litre range.

Western wholesale gasoline prices ended in the range of 85 to 94 cents per litre, with prices from an increase of 2 cents per litre to a decrease of 4 cents per litre.

Prices in the American and Canadian centres increased in the range of 4 to 11 cents per litre compared to the same period in 2012.

Figure 4: Wholesale Gasoline Prices
Rack Terminal Prices for Selected Canadian and American Cities Ending July 18, 2013
(CAN ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide

Gasoline Refining and Marketing Margins

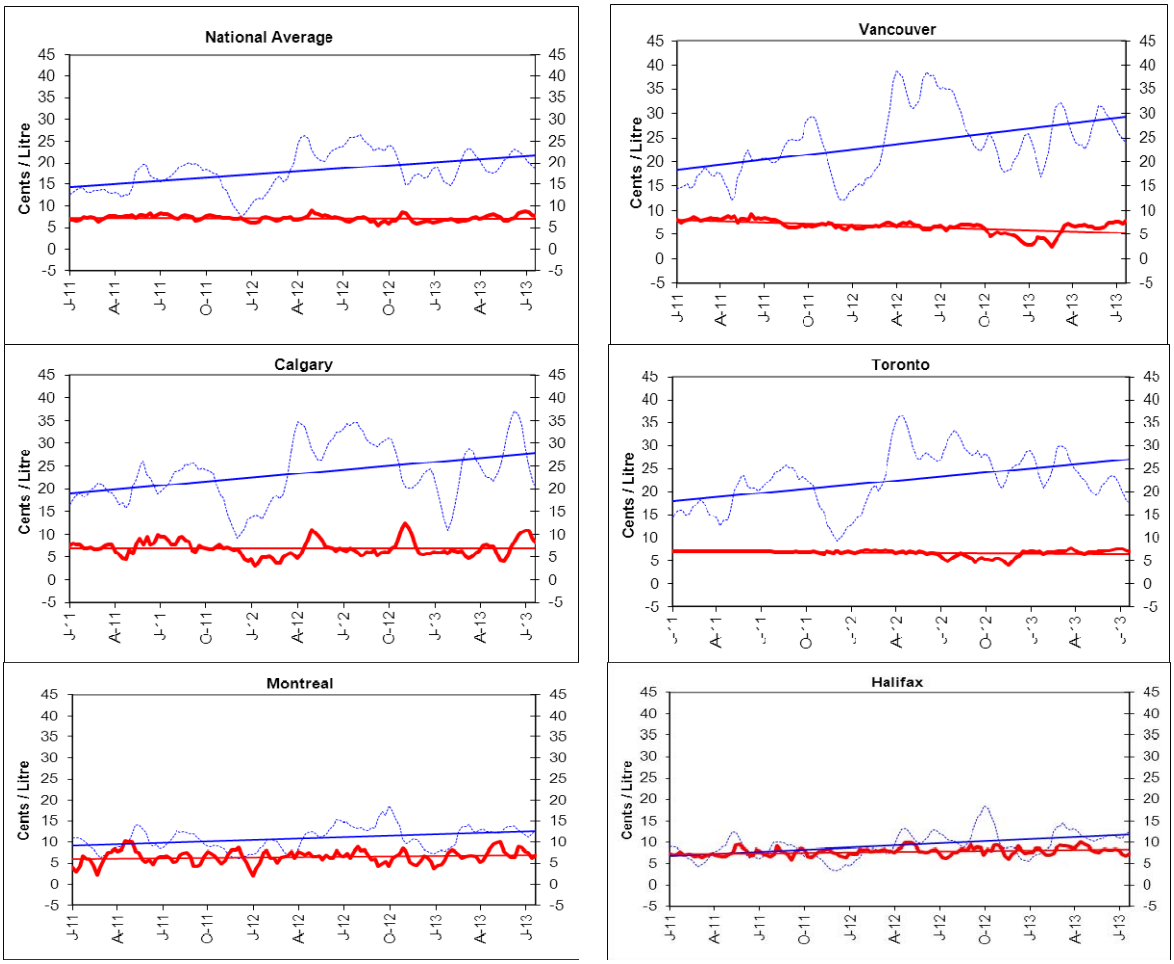
Four-week rolling averages are used for the gasoline refining and marketing margins. Figure 5 shows the trends for the period ending July 23, 2013.

Gasoline refining margins have been trending lower in the last six weeks from a high of 23 cents per litre on June 11, 2013, to a straight decline of 18 cents per litre for the week ending July 23, 2013. More than adequate gasoline and crude oil inventories in the United States contribute to the lower refining margins. Compared to last year, margins in Canada are currently 7 cents a litre lower.

Nationally, the marketing margins continue to hover around an average of 7.8 cents a litre. However, as outlets compete for market share, the marketing margins can be volatile—as shown in the individual centres.

For the five centres, the marketing margins ranged from a low of 7 cents in Toronto, Montreal and Halifax to a high of 8 cents in Vancouver and Calgary. The marketing margins have to cover all costs associated with operating a service station.

Figure 5: Gasoline Refining and Marketing Margins
Four-Week Rolling Average Ending July 23, 2013
Refining Margin — Marketing Margin



Source: NRCan

Crude Oil Overview

After a Long Hiatus, Edmonton Par, WTI and Brent Trade Closely Again

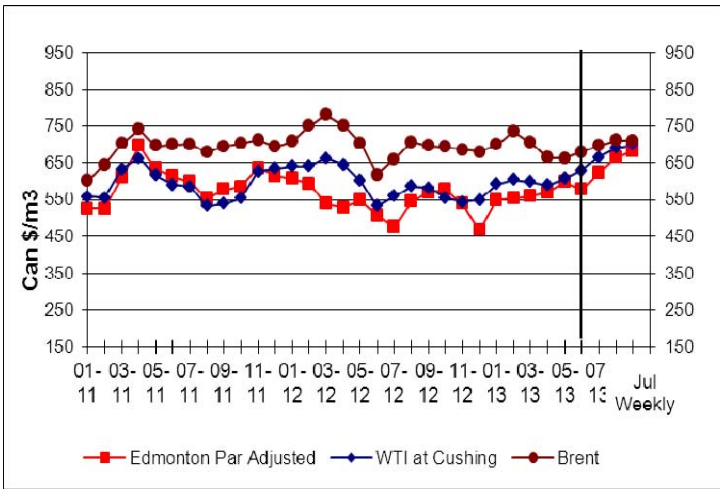
For the week ending July 19, 2013, prices for the three marker crudes averaged between $684/m^3$ and $711/m^3$, (US$105 to US$109 per barrel). That is a significant increase for Edmonton Par; up $19/m^3$ (US$4 per barrel) compared to the previous week—the highest weekly level in more than two years.

While Brent oil prices declined slightly as a result of falling European oil demand, North American crude oil prices kept moving upward nudged by a stronger US economy and increasing North American oil demand.

Crude oil from the Bakken crude oil formation in North Dakota, which had been backing up in the US Midwest dampening North American crude prices, is increasingly moving by rail to refinery markets. This has contributed to narrow the price spread between the North American crude and international Brent type crude oil.

For the week ending July 19, 2012, the price differential between WTI and Brent was $11/m^3$ (US$1.73 per barrel). Declining US crude oil inventories combined with new pipeline and rail shipments of North American crude has contributed to rising WTI prices. See Supplement on page 6 for further clarifications.

Figure 6: Crude Oil Price Comparisons



Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2013-07-19		Change From:			
			Previous Week		Last Year	
	$Can/$ m^3	$US/ bbl	$Can/$ m^3	$US/ bbl	$Can/$ m^3	$US/ bbl
Edmonton Par	683.91	104.58	+18.97	+3.69	+207.73	+29.77
WTI	699.60	106.98	+8.76	+2.17	+124.66	+16.65
Brent	710.95	108.71	-1.32	+0.65	+33.93	+2.35

Source: NRCan

Short-Term Energy Outlook

The U.S. Energy Information Administration (EIA) expects that the Brent crude oil spot price will average $102 per barrel over the second half of 2013, and $100 per barrel in 2014. That forecast assumes there are no disruptions to energy markets arising from the recent unrest in Egypt.

The discount of West Texas Intermediate (WTI) crude oil to Brent crude oil, which averaged $18 per barrel in 2012 and increased to a monthly average of more than $20 per barrel in February 2013, fell to less than $5 per barrel in early July 2013. The narrowing of the WTI-Brent price spread is supported by several factors that have depressed Brent prices or raised WTI prices. EIA expects the WTI discount to widen to $8 per barrel by the end of 2013 as crude oil production in Alberta, Canada, recovers following the heavy June flooding and as Midcontinent production continues to grow.

Regular-grade gasoline prices have fallen from an average of $3.66 per gallon on June 10, 2013, to $3.49 per gallon on July 8, 2013. EIA expects the annual average regular gasoline retail price to decline from $3.63 per gallon in 2012 to $3.48 per gallon in 2013 and to $3.37 per gallon in 2014.

Source: U.S. Energy Information Administration, http://www.eia.gov/forecasts/steo/index.cfm

Factors Behind the Narrowing of the WTI/Brent Price Differential

North American West Texas Intermediate oil (WTI) and the waterborne Brent type of crude oil price differentials have narrowed, and WTI exceeded Brent in intraday trading on July 19, 2013, after trading at a significant price discount to Brent for over two and a half years. This was the first time since August 2010 that WTI exceeded the price of Brent. The price difference between the two benchmarks reached as much as US$ 27 per barrel in 2012 (Brent US $27 per barrel higher than WTI). This article is a follow-up to a recent Supplement in Issue 11 of June 14, 2013, on the benchmark crude oil price differentials, and summarizes the factors responsible for the recent increase in the WTI price and the price spread narrowing between WTI and Brent crude oil.

Between 2011 and early 2013, a number of factors resulted in high oil price differentials. Since the beginning of 2011, North American crude oil production began to overwhelm demand in the North American market. Inventories built up at Cushing, Oklahoma, where WTI prices are determined. The result was a growing disconnect between North American crude prices and global prices. By the summer of 2012, rising crude production from Canada's oil sands and from US tight oil fields (such as the Bakken in North Dakota and the Eagle Ford in Texas) boosted US crude oil inventories to their highest levels in 22 years. With insufficient infrastructure capacity to ship North American crude oil to coastal ports, the Brent/WTI oil price differentials were wide.

The main factors causing the WTI price to climb and WTI/Brent price spread to narrow are as follows:

- A sharp decline in crude stockpiles in the United States.
- The capacity of the Seaway pipeline between Cushing, Oklahoma and the US Gulf Coast was increased by 150,000 barrels per day (b/d) in 2012 to 400,000 b/d earlier this year. That pipeline, which transports crude to the US Gulf of Mexico, has contributed to reduce US crude oil inventories.
- An additional 850,000 b/d of pipeline capacity is under development between Cushing and the US Gulf Coast and is expected to come online by the end of 2013. This is expected to prevent a build-up of high inventories in the US Midwest even as new US tight oil and new oil sands production come online.
- Significant growth in the delivery of crude to markets by rail has reduced US crude oil inventories and pushed North American oil prices up. Nearly 675,000 b/d of Bakken crude oil is now being shipped from North Dakota by rail—almost 15 times the amount transported by rail three years ago.
- Demand for Brent crude oil from North American refiners has fallen as Bakken crude is now being delivered increasingly by railways to the US Northeast, New Brunswick and Quebec markets.
- At the same time, falling European oil demand and weak Chinese growth reduced the demand for Brent while the strengthening US economy has increased the demand for oil in North America.
- British Petroleum has restarted the 413,000 b/d Whiting Indiana refinery, which increases the demand for Canadian heavy crude oil supplies that might otherwise fill up storage tanks at Cushing, Oklahoma.

What does this mean for the Canadian economy? Natural Resources Canada estimates foregone producer revenues today, due to North American crude oil prices remaining below their historical level versus Brent (for years WTI traded at a premium to Brent), at less than $10 million per day ($3.7 billion per year). Natural Resources Canada estimates foregone revenues peaked at over $60 million per day ($22 billion per year) in early 2013. See Fuel Focus Report Issue 11 http://www.nrcan.gc.ca/energy/node/2338#sup

The high differentials and resultant foregone revenues led crude oil producers to find alternative means to move their product to market, including via rail, reshaping demand and price differentials. Elevated oil price differentials could return in the future as North American tight oil and oil sands crude production continue to grow rapidly.

Source: Natural Resources Canada