Suncor Refining & Marketing supplemental information

- Integrated model
- Financial strength
- Oil Sands market access
- Markets for refined products
- Refinery overview
- Custom gross margin benchmark
- First-in first-out (FIFO) inventory
- Sample calculation
- Glossary
Direct physical integration of upstream and downstream businesses

Suncor takes an active role in connecting supply to consumer demand with a diverse portfolio of upstream production, refinery assets and customer outlets.

Mining and In Situ assets provide reliable bitumen feedstock.

Suncor upgrades ~75\% of bitumen to sweet and sour synthetic crude and finished diesel.

International and East Coast Canada offshore assets provide high quality oil supply.

2018 refinery feedstock (~60% equity & comparable crude & 97% inland crude)

<table>
<thead>
<tr>
<th></th>
<th>Montreal</th>
<th>Sarnia</th>
<th>Edmonton</th>
<th>Commerce City</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>70%</td>
<td>39%</td>
<td>37%</td>
<td>65%</td>
<td>53%</td>
</tr>
<tr>
<td>Sour</td>
<td>6%</td>
<td>30%</td>
<td>26%</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>Sweet</td>
<td>16%</td>
<td>30%</td>
<td>23%</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Other Feedstock</td>
<td>7%</td>
<td>19%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>

2018 refinery products

<table>
<thead>
<tr>
<th></th>
<th>Montreal</th>
<th>Sarnia</th>
<th>Edmonton</th>
<th>Commerce City</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates</td>
<td>22%</td>
<td>14%</td>
<td>15%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Gasoline</td>
<td>37%</td>
<td>47%</td>
<td>48%</td>
<td>48%</td>
<td>43%</td>
</tr>
<tr>
<td>Other</td>
<td>37%</td>
<td>37%</td>
<td>35%</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>Bunker</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

1 See Slide Notes and Advisories.
**FFO\(^1\)** protection and strength through pricing cycles

Refining & Marketing supports **FFO\(^1\)** in all cycles while covering enterprise-wide sustaining capital\(^2\).

- **Minimizing volatility**
  - in all price cycles

- **Optimizing value**
  - of all barrels and products

- **Maximizing FFO\(^1\)**
  - by controlling the full value chain

### Graph

- **WTI ($US/bbl)**
  - 2014: $93
  - 2015: $74
  - 2016: $49
  - 2017: $43
  - 2018: $51

- **WCS ($US/bbl)**
  - 2014: $93
  - 2015: $74
  - 2016: $49
  - 2017: $43
  - 2018: $51

### Table

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil Sands</th>
<th>E&amp;P</th>
<th>R&amp;M</th>
<th>Corporate</th>
<th>Sustaining capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.9</td>
<td>2.3</td>
<td></td>
<td>2.3</td>
<td>5.4</td>
</tr>
<tr>
<td>2015</td>
<td>1.4</td>
<td>2.9</td>
<td></td>
<td>2.9</td>
<td>6.8</td>
</tr>
<tr>
<td>2016</td>
<td>1.3</td>
<td>2.6</td>
<td></td>
<td>2.6</td>
<td>6.0</td>
</tr>
<tr>
<td>2017</td>
<td>1.7</td>
<td>2.8</td>
<td></td>
<td>2.8</td>
<td>4.7</td>
</tr>
<tr>
<td>2018</td>
<td>1.9</td>
<td>3.8</td>
<td></td>
<td>3.8</td>
<td>10.2</td>
</tr>
</tbody>
</table>

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1, 2 See Slide Notes and Advisories.
Market access for Suncor’s oil sands production

Suncor has made strategic investments in refineries and current/proposed logistics infrastructure to mitigate Alberta egress limitations and market disconnects

Pipelines (current and forecasted gross capacity)¹

- Express, Platte and Rocky Mountain (280 mbpd)
- Enbridge Line 3 – Proposed (370 mbpd)
- Flanagan South Pipeline (585 mbpd)
- Marine opportunities

- Trans Mountain Pipeline, TMPL (300 mbpd)
- Trans Mountain Expansion, TMEP – Proposed (590 mbpd)
- TransCanada Keystone (590 mbpd)
- TransCanada Keystone XL – Proposed (830 mbpd)
- Enbridge Mainline (2,600 mbpd)
- Enbridge Line 3 – Proposed (370 mbpd)
- Enbridge Line 9 (300 mbpd)

Alberta egress bottleneck does not impact the ability to move Suncor barrels.¹

Marine opportunities

1, 2, 3 See Slide Notes and Advisories.
Markets for Suncor’s refined products

- **4 Refineries strategically situated across North America**
- **~460 mbpd** Refining nameplate capacity
- **~530 mbpd** Product sales in 2018
- **~300 Petro-Pass locations**
- **~1750 Retail sites**
- **~50%** North American retail sites Suncor owned

- **Edmonton**
  - Services a region from the west coast to western Ontario
  - ~195 Petro-Pass Locations
  - ~550 Retail Service Locations

- **Montreal and Sarnia**
  - Have a local market reach of over 22 million people
  - ~115 Petro-Pass Locations
  - ~980 Retail Service Locations

- **Edmonton refinery**
  - Services a region from the west coast to western Ontario
  - Suncor Terminal
  - Suncor refinery capacity
  - Product Import/Export

- **Product reach**
  - Import/export capability at Vancouver and Montreal
  - Export capability to the US Pacific North West
  - Asphal Market reach
  - Commerce City’s asphalt market stretches into Utah and Nevada
  - Commerce City is the only refinery in Colorado and is the largest refinery in the US Rockies

- **Asphalt Market reach**
  - ~240 Retail Service Locations

- **Western Canada product distribution area**
- **Eastern Canada product distribution area**
- **Eastern Canada high population density zone**
- **United States asphalt + product distribution area**
- **United States asphalt distribution area**
- **United States product distribution area**

1, 2, 3, 4, 5 See Slide Notes and Advisories
Edmonton refinery

142 mbpd refining crude throughput capacity\(^1\)
Ability to process 100% oil sands crude

9.8 Nelson Complexity Index rating\(^2\)

~475 Employees
~350 additional contractors on site

Markets throughout western Canada
Vancouver to Thunder Bay to the Yukon via pipeline, rail and truck

1951
Edmonton Refinery opens as a British American ("B/A") facility with a nominal refining capacity of 12 mbpd.

1968-1980
Refinery rebrands as Gulf Edmonton refinery and expands capacity to 82 mbpd.

1983-1986
Syncrude units start-up at Edmonton Refinery becoming the first refinery in Canada to refine upgraded synthetic crude from Alberta’s oil sands. In 1986, Gulf Edmonton refinery joins Petro-Canada.

2008
Refinery Conversion Project (RCP) commissioned adding new crude, coker, sulphur and vacuum units in an entire refinery shutdown. The project allowed for conventional crude to be replaced by significantly lower cost Sour Synthetic and Sour Heavy Crude from the oil sands. Restated capacity between 2008 and 2018.

2018
First major turnaround since the RCP where entire refinery was shut down. The successful turnaround allows the refinery to operate without another scheduled shut down of the entire refinery until 2030.

\(^1\) See Slide Notes and Advisories.

\(^2\) See Slide Notes and Advisories.
Edmonton refinery – crude & product slate

### Advantages

| Feedstock | 100% oil sands feedstock directly connected to oil sands production  
|           | Ability to process multiple crude types |
| Product   | Large market reach with capabilities to export to international waters  
|           | In-line product blending minimizes inventory |

### Primary processing units

- Crude Distillation
- Hydrotreating
- Catalytic Cracking
- Delayed Coking
- Reforming
- Alkylation

#### Butane NG: 10%

- Gasoline: 50%
- Distillates: 44%
- Other: 5%

1, 2 See Slide Notes and Advisories.
Commerce City refinery

98 mbpd refining crude throughput capacity\(^1\)
Ability to process 20% oil sands crude

7.0 Nelson Complexity Index rating\(^2\)

~450 Employees
~200 additional contractors on site

3 refineries operated on an integrated basis
High value by operating as a single asset and as the only refinery in the state of Colorado, largest refinery in the Rockies

2003 Suncor purchased its first Commerce City property from ConocoPhillips. This property included Plants 1 and 3 of today’s Commerce City refinery which had a nominal processing capacity of 60 mbpd.

2005 Suncor acquires the 30 mbpd processing capacity Valero refinery that is situated between Plant 1 & 3. Since then, the plant was renamed Plant 2 and together the three assets have operated as one Suncor refinery under the Suncor Energy U.S.A. banner.

2006 Completed Project Odyssey, a $445-million project to enhance environmental performance and meet new U.S. fuel regulations. This upgrade also made it possible to process a wider range of products from the oil sands, giving the refinery a large advantage over other local refineries that do not have this ability.

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\(^1\) See Slide Notes and Advisories.
\(^2\) See Slide Notes and Advisories.
Commerce City refinery – crude and product slate

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Feedstock</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feedstock</strong></td>
<td>Bulk of crude comes from the local Colorado area and the close proximity to local fields results in transportation and pricing advantages. Optionality for North Dakota, Wyoming, Montana and Western Canadian crude.</td>
<td>Supplies 1/3 of the jet fuel used at Denver International Airport via a direct pipeline and is the state’s largest producer and supplier of paving-grade asphalt. Local population and resulting product demand is growing.</td>
</tr>
</tbody>
</table>

**Primary processing units**

- Crude Distillation
- Hydrotreating
- Catalytic Cracking
- Asphalt Plant
- Reforming
- Alkylation

**Butane** 1%  
**Sweet** 65%  
**Sour** 23%  
**Heavy** 11%

**Product Supplies**

1/3 of the jet fuel used at Denver International Airport via a direct pipeline and is the state’s largest producer and supplier of paving-grade asphalt. Local population and resulting product demand is growing.

1, 2 See Slide Notes and Advisories.
Montreal refinery

137 mbpd Refining crude throughput capacity
Ability to process 30% oil sands crude

9.0 Nelson Complexity Index rating

~400 Employees
~330 additional contractors on site

Full range of refined petroleum products
including petrochemical products (key supplier of local petrochemicals polyester industries)

1954-1985
Construction completed in 1954 by PetroFina, the refinery began production by processing 20 mbpd. In 1970 expansion projects were carried out to bring the refinery’s crude oil refining capacity to 95 mbpd and improve its yield of value-added products such as gasoline and distillate fuels. During this period, the refinery purchased equipment to manufacture petrochemicals such a benzene, toluene and xylene. In 1981, Petro-Canada acquired all the assets of Petrofina, including the Montreal Refinery.

2003
Petro-Canada made a strategic decision to increase refining capacity to 137 mbpd.

2014
Increased hydrocracking unit capacity, higher distillate production.

2015
Line 9 reversal provides access to Western Canadian crude feedstock.

1, 2 See Slide Notes and Advisories.
Montreal refinery – crude and product slate

**Advantages**

<table>
<thead>
<tr>
<th>Feedstock</th>
<th>Strong flexibility through feedstock optionality with access to Western Canadian crudes, US crudes as well as any other international feedstocks through pipeline, rail and marine.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td>Large tanks storage capacities for crude and finished products with access to large domestic markets through pipelines, rail loading facilities and trucking transport. Ability to optimize feedstock to Montreal and Sarnia refineries as well as products to Ontario and Quebec. Synergy with Parachem (chemicals market) and access to international waters and customers.</td>
</tr>
</tbody>
</table>

**Primary processing units**

- Crude Distillation
- Hydrotreating
- Catalytic Cracking
- Asphalt Plant
- Reforming
- Alkylation
- Aromatics

**General process flow**

- Butane: 8%
- NG: 8%
- VGO: 70%
- Sweet: 6%
- Sour: 16%
- Heavy: 16%

**Product Breakdown**

- Gasoline: 37%
- Distillates: 37%
- 5% Petrochemicals
- 2% LPGs
- 8% Asphalt
- 8% Other
- 4% Bunker

1, 2 See Slide Notes and Advisories.
Sarnia refinery

85 mbpd Refining crude throughput capacity
Ability to process up to 45% oil sands heavy crude and ~80% total oil sands crude

10.8 Nelson Complexity Index rating

~350 Employees
~100 additional contractors onsite

Located along the St. Clair River
Allowing for marine access

1953-1972
Sarnia refinery begins processing oil at 15 mbpd in 1953. In 1972, Sarnia’s second crude unit is completed bringing processing capacity to 70 mbpd.

1984
Hydrocracker and Vacuum Unit start operations.

2007
Suncor Genesis Project enables the refinery to meet low sulphur fuel standards and integrate oil sands sour crude production. Created new crude capacity – 85 mbpd through debottlenecking.

1, 2 See Slide Notes and Advisories.
## Sarnia refinery – crude and product slate

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Feedstock</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tied into the western market for oil sands crude. Flexibility in crude source between mid-west crude and oil sands crude.</td>
<td>Integrated with Montreal refinery to supply large local market in the surrounding area. Sarnia refinery has a partial ownership in refined products pipeline to the Greater Toronto Area. Direct access to international waters.</td>
<td></td>
</tr>
</tbody>
</table>

### Primary processing units

- Crude distillation
- Hydrotreating
- Catalytic cracking
- Reforming
- Alkylation
- Aromatics

### Feedstocks

- Butane NG: 8%
- Sweet: 39%
- Sour: 23%
- Heavy: 30%

### Products

- Gasoline: 47%
- Distillates: 37%
- 4% Petrochemicals
- 3% LPGs
- 6% Asphalt
- 2% Bunker
- 1% Other

1, 2 See Slide Notes and Advisories.
Custom 5-2-2-1 gross margin benchmark

To help analysts and investors model Suncor’s Refining and Marketing (R&M) business we have designed an indicative custom 5-2-2-1 benchmark based on publicly available pricing data. The benchmark is a single value that incorporates refining, product supply and rack forward businesses, but excludes the impact of first-in, first-out (FIFO) accounting.

**Gross Margin** = Product Value – Crude Value

**Product Value** = NYH 2-1-1 (40%) + Chicago 2-1-1 (40%) + WTI (20%) + Seasonal Factor

**Crude Value** = SYN (40%) + WCS (40%) + WTI (20%)

**New York Harbor (NYH) 2-1-1 and Chicago 2-1-1**
These regional benchmark cracking margins are indicative of Suncor’s western and eastern refining margins. Each 2-1-1 formula represents the spread between 2 barrels of WTI crude oil and 1 barrel each of gasoline and ULSD. WTI is added to cracking margins to represent full product value.

**Seasonal Factor**
An estimate of USD $6.50/bbl in Q1/Q4 and USD $5.00/bbl in Q2/Q3 reflect the grade quality and location spreads for refined products sold in the company’s core markets during the winter and summer months, respectively.

WTI = West Texas Intermediate crude oil at Cushing
SYN = Sweet Synthetic crude at Edmonton
WCS = Western Canadian Select at Hardisty

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**Q1 2019 Example**

<table>
<thead>
<tr>
<th>Product Value ($US/bbl)</th>
<th>74.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTI + NYH 2-1-1</td>
<td>73.15</td>
</tr>
<tr>
<td>WTI + Chicago 2-1-1</td>
<td>70.25</td>
</tr>
<tr>
<td>WTI</td>
<td>54.90</td>
</tr>
<tr>
<td>Seasonal Factor</td>
<td>6.50</td>
</tr>
</tbody>
</table>

**Crude Value ($US/bbl)**

<table>
<thead>
<tr>
<th>SYN</th>
<th>52.60</th>
<th>40%</th>
<th>21.04</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCS</td>
<td>42.50</td>
<td>40%</td>
<td>17.00</td>
</tr>
<tr>
<td>WTI</td>
<td>54.90</td>
<td>20%</td>
<td>10.98</td>
</tr>
</tbody>
</table>

**Gross Margin ($US/bbl)**

<table>
<thead>
<tr>
<th>FX (US$/Cdn$)</th>
<th>0.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average refinery production (mbbls)<strong>1</strong></td>
<td>44,000</td>
</tr>
<tr>
<td>Gross Margin ex-FIFO ($CAD millions)</td>
<td>1,515</td>
</tr>
</tbody>
</table>

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1 See Slide Notes and Advisories.
First-in, first-out (FIFO) inventory gains and losses

Crude and products inventory and timing
The amount of time between purchase of feedstock to sale of refined product. Direct correlation to FIFO impact.

<table>
<thead>
<tr>
<th>Location</th>
<th>Average (~ 1.5 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmonton</td>
<td></td>
</tr>
<tr>
<td>Commerce City</td>
<td></td>
</tr>
<tr>
<td>Montreal / Sarnia</td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>(~ 1.5 months)</strong></td>
</tr>
</tbody>
</table>

Crude logistics time\(^1\) – Time between purchase of feedstock to receipt at refinery gate
Products storage time\(^1\) – Time between product processed and shipment beyond refinery gate

*Transit & storage time will vary depending on market & operating conditions

Composition of average inventory barrel
Illustration of how to calculate prices used for FIFO impact

FIFO impact
Key rules of thumb

The change in inventory value each quarter indicates the magnitude of the FIFO impact

A decrease in inventory value reflects a loss
Associated with a decreasing business environment

An increase in inventory value reflects a gain
Associated with an increasing business environment

<table>
<thead>
<tr>
<th>Prior reporting quarter price</th>
<th>Current reporting quarter price</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% last month of the quarter price</td>
<td>70% last month of the quarter price</td>
</tr>
<tr>
<td>30% Middle month of the quarter price</td>
<td>30% Middle month of the quarter price</td>
</tr>
</tbody>
</table>

Commodity mix in inventory\(^1\)

- WTI (~60%)
- WCS (~20%)
- SYN (~20%)

1 See Slide Notes and Advisories.
R&M gross margin calculation

Q1 2019 FIFO impact calculation

<table>
<thead>
<tr>
<th></th>
<th>Q4 2018</th>
<th></th>
<th>Q1 2019</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec-18</td>
<td>Nov-18</td>
<td>Mar-19</td>
<td>Feb-19</td>
</tr>
<tr>
<td>WTI ($US/bbl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-18</td>
<td>49.00</td>
<td>56.70</td>
<td>58.15</td>
<td>55.00</td>
</tr>
<tr>
<td>Nov-18</td>
<td>60.70</td>
<td>11.05</td>
<td>48.20</td>
<td>45.35</td>
</tr>
<tr>
<td>WCS ($US/bbl)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-18</td>
<td>6.00</td>
<td>11.05</td>
<td>58.30</td>
<td>54.80</td>
</tr>
<tr>
<td>Nov-18</td>
<td>4.20</td>
<td>3.32</td>
<td>12.39</td>
<td>3.00</td>
</tr>
<tr>
<td>SYN ($US/bbl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-18</td>
<td>17.70</td>
<td>34.10</td>
<td>58.30</td>
<td>54.80</td>
</tr>
<tr>
<td>Nov-18</td>
<td>12.39</td>
<td>10.23</td>
<td>9.52</td>
<td>3.00</td>
</tr>
<tr>
<td>Average inventory cost/bbl</td>
<td>36.81</td>
<td></td>
<td>55.24</td>
<td></td>
</tr>
<tr>
<td>Inventory barrels (mmbbls)</td>
<td>25</td>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Inventory value (USD)</td>
<td>920</td>
<td></td>
<td>1,380</td>
<td></td>
</tr>
</tbody>
</table>

- **Q1 2019 vs. Q4 2018 FIFO Gain**
  - $460M USD
  - $615M CAD

R&M gross margin calculation (CAD millions)

Q1 2019 Example

5-2-2-1 custom benchmark $1,515
FIFO gain (CAD) $615
R&M gross margin $2,130
Q1 2019 reported amount $2,140

1 See Slide Notes and Advisories.
Glossary

Alkylate (Alkylation): A refining operation that takes low value derivatives from the catalytic cracking and other processes and unites them in the presence of an acid catalyst to produce a very high octane, low vapor pressure gasoline blending component.

Aromatics: Hydrocarbons characterized by their uniform carbon ring structure and their often pleasant aroma. Commercial petroleum aromatics are benzene, toluene, and xylene. These three are often referred to by the acronym BTX. These chemicals are used as high octane components in gasoline. Aromatics have been judged to be undesirable in some finished motor fuels with various state and federal regulations geared toward reducing their levels. CARB diesel fuel in the state of California mandates a low aromatics composition.

Asphalt: A dark-brown-to-black cement-like material containing bitumen as the predominant constituent obtained by petroleum processing, used primarily for road construction. It includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. Note: The conversion factor for asphalt is 5.5 barrels per short ton.

Barrel: Term used as the standard measurement of volume for crude oil and large quantities of refined products in the petroleum industry. A unit of volume equal to 42 U.S. gallons – often abbreviated as bbl.

Benchmark Crude: A widely accepted grade of crude oil used as a standard in trading. Other grades would be traded at a price differential according to the quality differences. Examples would be WTI, Brent, Dubai and Arab Light.

Brent: Blend of crude oil from a critical group of North Sea fields, Brent is the standard contract for ICE crude oil futures trading, and the most commonly referenced crude in Europe. It's described as the European counterpart of WTI, and its morning performance is often a harbinger for the NYMEX opening. London’s ICE Brent contract is the benchmark crude for international oil physical and futures trading.

Catalytic Cracking: The refining process of breaking down, via heat and pressure, the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules, primarily gasoline. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Coker: An oil refining unit in which heavy feed such as flasher bottoms, cycle oil from a fluid catalytic cracker, or thermal cracked gas oil is subjected to high temperatures. This causes the feed to crack, creating lights oils. Coke – solid, densely packed carbons – builds up in the reactors of the unit and periodically needs to be removed.

Crack Spread: Term applied to the differential between what a typical refined products mix would yield, and the value of crude. The common crack spread features a per bbl reference derived of 66.6% unleaded gasoline and 33.4% No. 2 oil. The resulting average is compared to the WTI number for the resulting “crack spread.” Crack spreads of 3:2:1 use three parts gasoline, two parts of distillate to one part of crude.
**Crude Distillation:** An oil refinery unit that separates crude oil into different products according to their individual boiling point ranges. Distillation allows for the materials to be separated without being subjected to conditions that would cause cracking or decomposition.

**Delayed Coking:** A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

**Distillation:** The most basic refining operation that heats the crude oil and condenses the cuts in a fractionating column in order to separate the various petroleum products for further processing.

**Feedstock:** Any of the raw or semi-finished materials which move to the various units of a refinery or petrochemical plant. Crude is a feedstock, but the term is mainly used to describe raw materials after the distillation process which in turn go on to more sophisticated units at the refinery. VGO, naphtha, condensate and straight run residual fuel are commonly referred to as feedstocks.

**Gasoil (VGO):** Commonly, the European term used for diesel fuel and heating oil.

**Hydrotreating:** A refining unit whereby processed material from the crude units are treated in the presence of catalysts and hydrogen, often to remove sulfur and other unwanted substances. The hydrotreater is often the critical unit for producing jet fuel and low-sulfur diesel.

**Liquefied Petroleum Gases (LPG):** A group of hydrocarbon-based gases derived from crude oil refining or natural gas stream fractionation that are often liquefied, through pressurization, for ease of transport. They include: ethane, propane, normal butane, and isobutane. Uses of these fuels include: home heating, industrial, automotive fuel, petrochemical feedstocks and for drying purposes in farming.

**Natural Gas (NG):** A naturally-occurring raw material often produced in conjunction with crude oil that is processed through a variety of facilities to yield natural gas liquids. It is a commercially acceptable product for industrial and residential consumption and is shipped via pipeline.

**Petrochemical:** An intermediate product derived from crude and natural gas processing that is used in production of a wide range of products, including plastics. Also the facility that processes these intermediate products. Petrochemical plants are often integrated with major refineries.

**Rack Market:** Petroleum products sold at the wholesale level from primary storage. Refers to loading racks where tanker trucks fill up.
Reforming: An oil refining unit in which naphthas are changed chemically to increase their octane level. Paraffins convert to iso-paraffins and naphthenes, and naphthenes change to aromatics. The catalyst used is usually platinum, though sometimes palladium.

Sour Crude Oil: Crude oil is considered ‘sour’ if it contains ≥ 0.5% sulfur.

Spot Price: The current value of any product on a volume basis.

Sulfur: A yellowish nonmetallic element, sometimes known as “brimstone.” It is naturally occurring at various levels of concentration in many fossil fuels whose combustion releases sulfur compounds that are considered harmful to the environment. Some of the most commonly used fossil fuels are categorized according to their sulfur content, with lower sulfur fuels usually selling at a higher price. Note: No. 2 Distillate fuel is currently reported as having either a 0.05% or lower sulfur level for on-highway vehicle use or a greater than 0.05% sulfur level for off-highway use, home heating oil, and commercial and industrial uses. This also includes Ultra Low Sulfur Diesel (<15 ppm sulfur; 0.0015%). Residual fuel, regardless of use, is classified as having either no more than 1% sulfur or greater than 1% sulfur. Coal is also classified as being low-sulfur at concentrations of 1% or less or high-sulfur at concentrations greater than 1%.

Sweet Crude Oil: Crude oil is considered ‘sweet’ if it contains < 0.5% sulfur.


West Texas Intermediate (WTI): The benchmark grade of domestic crude, traded on the NYMEX and stored at Cushing, Oklahoma.
Advisories

Forward-Looking Statements – This presentation contains certain “forward-looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 and “forward-looking information” within the meaning of applicable Canadian securities legislation (collectively, “forward-looking statements”), including statements about: Suncor’s strategy and business plans and operating and financial results; expectations for refinery feedstock mix, including equity and comparable crude and inland crude percentages, product mix, inventory barrels and crude product in inventory and timing; anticipated percentage of upgraded bitumen; utilization rates; the expectation that the successful turnaround at the Edmonton refinery in 2018 will allow the refinery to operate without a scheduled entire shutdown until 2030; the belief that the custom 5-22-2-1 gross margin benchmark will continue to be an appropriate measure against Suncor’s actual results; and potential future pipelines and market access expectations that are based on Suncor’s current expectations, estimates, projections and assumptions that were made by Suncor in light of its experience and its perception of historical trends. Some of the forward-looking statements may be identified by words such as “planned”, “estimated”, “target”, “goal”, “illustrative”, “strategy”, “expected”, “focused”, “opportunities”, “may”, “will”, “outlook”, “anticipated”, “potential”, “guidance”, “predicts”, “aims”, “proposed”, “seeking” and similar expressions. Forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, some that are similar to other integrated oil and gas companies and some that are unique to Suncor. Users of this information are cautioned that actual results may differ materially as a result of, among other things, assumptions regarding: commodity prices; timing of commissioning and start-up; cost, characteristics, and capacity of capital projects; assumptions contained in or relevant to Suncor’s 2019 Corporate Guidance; fluctuations in foreign exchange and interest rates; product supply and demand; market competition; future production rates; assets and facilities not performing as anticipated; expected debottlenecks, cost reductions and margin improvements not being achieved to the extent anticipated; dividends declared and share repurchases below expected levels; the sufficiency of budgeted capital expenditures in carrying out planned activities; risks inherent in marketing operations (including credit risks); imprecision of reserves estimates and estimates of recoverable quantities of oil, natural gas and liquids from Suncor’s properties; expected synergies and the ability to sustain reductions in costs; the ability to access external sources of debt and equity capital; the timing and the costs of well and pipeline construction; Suncor’s dependence on pipeline capacity and other logistical constraints, which may affect the company’s ability to distribute products to market; mandatory production curtailments being greater or imposed for longer than anticipated; the timely receipt of regulatory and other approvals; the timing of sanction decisions and Board of Directors’ approval; the availability and cost of labour, services, and infrastructure; the satisfaction by third parties of their obligations to Suncor; the impact of royalty, tax, environmental and other laws or regulations or the interpretations of such laws or regulations; applicable political and economic conditions; risks associated with existing and potential future lawsuits and regulatory actions; improvements in performance of assets; and the timing and impact of technology development.

Although Suncor believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Suncor’s Management’s Discussion and Analysis for the second quarter ended June 30, 2019 and dated July 24, 2019 (the Q2 MD&A), Annual Report for the year-ended December 31, 2018 (the 2018 Annual Report) and its most recently filed Annual Information Form/Form 40-F and other documents it files from time to time with securities regulatory authorities describe the risks, uncertainties, material assumptions and other factors that could influence actual results and such factors are incorporated herein by reference. Copies of these documents are available without charge from Suncor at 150 6th Avenue S.W., Calgary, Alberta T2P 3E3, by calling 1-800-558-9071, or by email request to invest@suncor.com or by referring to the company’s profile on SEDAR at www.sedar.com or EDGAR at www.sec.gov. Except as required by applicable securities laws, Suncor disclaims any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Suncor's actual results may differ materially from those expressed or implied by its forward-looking statements, so readers are cautioned not to place undue reliance on them.

Suncor’s corporate guidance includes a planned production range, planned maintenance, capital expenditures and other information, based on our current expectations, estimates, projections and assumptions (collectively, the “Factors”), including those outlined in our 2019 Corporate Guidance available on www.suncor.com/guidance, which Factors are incorporated herein by reference. Suncor includes forward-looking statements to assist readers in understanding the company’s future plans and expectations and the use of such information for other purposes may not be appropriate.

Non-GAAP Measures – Certain financial measures in this presentation – namely funds from operations – is not prescribed by GAAP. All non-GAAP measures presented herein do not have any standardized meaning and therefore are unlikely to be comparable to similar measures presented by other companies. Therefore, these non-GAAP measures should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. All non-GAAP measures are included because management uses the information to analyze business performance, leverage and liquidity and therefore may be considered useful information by investors. See the “Non-GAAP Financial Measures Advisory” section of the Q2 MD&A.

Funds from operations (previously referred to as cash flow from operations) is defined in the Q2 MD&A and reconciled to the most directly comparable GAAP measure in Suncor’s annual management’s discussion and analysis (MD&A) for the respective year.
Slide 3

(1) Upgrading volume percentages are based on historical averages and subject to change with operating and market conditions. See Forward-Looking Statements in the Advisories.

Slide 4

(1) Funds from operations (FFO) is a non-GAAP financial measure. FFO is calculated as cash flow provided by operating activities excluding changes in non-cash working capital. See Non-GAAP Measures in the Advisories.

(2) Represents sustaining capital expenditures (exclusive of associated capitalized interest) as reported in the applicable year. The classification of the company's sustaining capital expenditures has been updated to "asset sustainment and maintenance" as of Jan. 1, 2019 to better reflect the types of capital investments being made by the company. For a description of asset sustainment and maintenance capital expenditures see the Capital Investment Update section of the Q2 MD&A.

Slide 5

(1) Based on Suncor’s forecast of market access capacity available to industry and Suncor’s planned production profile. See Forward-Looking Statements in the Advisories.


(3) Proposed future pipeline. There can be no assurance this pipeline will be built with the capacity indicated or at all. See Forward-Looking Statements in the Advisories.

Slide 6

(1) Nameplate capacity as at June 30, 2019. Nameplate capacity may not be reflective of actual utilization rates. See Forward-Looking Statements in the Advisories.

(2) Product sales included 245.6 mbpd of gasoline, 203.4 mbpd of distillate, and 78.4 mbpd of other products in 2018.

(3) 307 Wholesale Cardlock sites are operated under the Petro-Canada brand.

(4) 1766 retail sites are operated under Suncor’s retail service station network.

(5) The Montreal and Sarnia refineries have a local reach of over 20 million people in accordance to population numbers retrieved from Statistics Canada 2016 census.

Slide 7

(1) Nameplate capacity as at June 30, 2019. Nameplate capacity may not be reflective of actual utilization rates. See Forward-Looking Statements in the Advisories.

(2) Nelson Complexity Index rating is based on IHS Markit’s 2018 refining and marketing downstream infrastructure report.

Slide 8

(1) Crude and product slate percentages reflect 2018 results as disclosed in the 2018 Annual Information Form. Crude and product slate percentages are approximate and may vary with changing operating and market conditions. See Forward-Looking Statements in the Advisories.

(2) Definitions for primary processing units are included in the Glossary.

Slide 9

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Slide 11

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Slide 12

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(2) Definitions for primary processing units are included in the Glossary.

Slide 13

(1) Nameplate capacity as at June 30, 2019. Nameplate capacities may not be reflective of actual utilization rates. See Forward-Looking Statements in the Advisories.

(2) Nelson Complexity Index rating is based on IHS Markit’s 2018 refining and marketing downstream infrastructure report.

Slide 14

(1) Crude and product slate percentages reflect 2018 results as disclosed in the 2018 Annual Information Form. Crude and product slate percentages are approximate and may vary with changing operating and market conditions. See Forward-Looking Statements in the Advisories.

(2) Definitions for primary processing units are included in the Glossary.

Slide 15

(1) Average refinery production is based on the twelve months ended June 30, 2019.

Slide 16

(1) Crude logistics time, products storage time, commodity mix in inventory and average number of days in inventory are an illustrative approximation and actual results will vary depending on market and operating conditions. See Forward-Looking Statements in the Advisories.

Slide 17

(1) Inventory barrels are an illustrative approximation and actual results will vary depending on market and operating conditions. See Forward-Looking Statements in the Advisories.

Slide 18

(1) Glossary terms sourced from IHS Markit.
## Investor Relations contacts

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