



**EARTHWORKS**

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**– TRACKING TAR SANDS CRUDES –**

**RESEARCH NOTE 2:**

**GULF COAST REFINERIES TAKING OR PROJECTED TO TAKE CANADIAN TAR SANDS CRUDE  
THAT ALSO TAKE VENEZUELAN AND PERSIAN GULF CRUDES**

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This research builds upon *Research Note 1: Canadian Crude Oil Imports to U.S. Refineries: Tracking Tar Sands Crude*, to demonstrate:

- 1) Of the Gulf Coast refineries shown to take Canadian tar sands crude<sup>1</sup> whether and how much Venezuelan and Persian Gulf Crude oil they imported in 2009.
- 2) Of the Gulf Coast refineries projected to take Canadian tar sands crude from the Keystone XL pipeline,<sup>2</sup> whether and how much Venezuelan and Persian Gulf Crude oil they imported in 2009.

## REPORTING PETROLEUM IMPORTS

The U.S. Energy Information Administration (EIA) collects information on crude oil and other petroleum product imports to the United States. Each company that imports crude oil or petroleum products into the United States must file monthly data via form EIA-814.<sup>3</sup> Data from EIA-814 filings are available to the public, and are summarized in the EIA's "Company Level Import" reports.<sup>4</sup>

### USEFUL DATA IN FORM EIA-814:

- **products** (data can be sorted to differentiate imports of crude oil from imports of finished petroleum products such as jet fuel or petrochemicals)
- **country of origin** for imported crude oils
- **processing facility**, which, for crude oil is typically a refinery receiving the imported crude oil
- **API gravity**, which tells you about the weight of the crude, **and sulfur** content of the imported crude oils are also reported (it is possible to distinguish between heavy and light, and sweet and sour crude oils). The research note uses the EIA convention of identifying heavy crude as having an API gravity of less than 22. Light or medium crudes are identified as having an API gravity of greater than 22.<sup>5</sup> In research note one, Canadian tar sands crude was positively identified when the crude had an API gravity of less than 22, a heavy crude.

### LIMITATIONS OF THE DATA FILED IN FORM EIA-814:

- Shipments are reported on a **monthly** basis. There is no requirement to report separate "batches" or shipments of a particular type of crude (although it appears that some refineries do report this way). Therefore, if a refinery imports a number of different types of crude in a month (e.g., heavy, light, synthetic) they may simply report one number for

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<sup>1</sup> Research Note 1: Canadian Crude Oil Imports to U.S. Refineries: Tracking Tar Sands Crude, Morey Burnham, EARTHWORKS

<sup>2</sup> NEB Reasons for Decision. P.13.

<sup>3</sup> EIA web site. Forms. **See form EIA-814**. <http://www.eia.doe.gov/oss/forms.html>

<sup>4</sup> EIA web site. Company Level Imports. [http://www.eia.doe.gov/oil\\_gas/petroleum/data\\_publications/company\\_level\\_imports/cli.html](http://www.eia.doe.gov/oil_gas/petroleum/data_publications/company_level_imports/cli.html)

<sup>5</sup> Energy Information Administration. Glossary. [www.eia.doe.gov/pub/oil\\_gas/petroleum/data.../glossary.pdf](http://www.eia.doe.gov/pub/oil_gas/petroleum/data.../glossary.pdf)

the volume of crude oil imported (and average the API and sulfur values for all of the shipments in a month). This makes it impossible to identify any one crude oil. Because of this, categories are estimates only.

## **RESULTS**

The following table shows which of the Gulf Coast refineries identified as taking Canadian tar sands derived crude from Canada also take crude from Venezuela and the Persian Gulf. The same information is reported for Gulf Coast refineries that are expected to import Canadian tar sands crude via the Keystone XL pipeline. This list of refineries were listed in the Canadian National Energy Board's decision on the Keystone XL pipeline as being the Gulf Coast refinery market available to tar sands crude shipped through the pipeline.

The table breaks down crude oil imports into two categories: heavy and light. We have done this because it follows the convention used in research note 1 of identifying Canadian tar sands crude as having an API gravity of less than 22.

The table also shows the capability of each refinery to process heavy crudes.

A third heading shows how many barrels per day of tar sands crude that refineries projected to take Keystone XL imports could possibly receive. This heading is only applicable to those refineries projected to receive oil from the Keystone XL pipeline.

Finally, the Xs in the table indicate numbers are unavailable because the refinery is a planned expansion. Question marks indicate refineries for which no data was available, but we are not certain they don't receive Venezuelan or Persian Gulf crude. All numbers are in 1000s of barrels per day.

### Gulf Coast Refineries Known to Take Canadian Crude

<b>Refinery</b>	<b>City</b>	<b>Capacity for XL Crude</b>	<b>Venezuela Heavy</b>	<b>Venezuela Light</b>	<b>Gulf Heavy</b>	<b>Gulf Light</b>
Exxon Chemical Trading Inc.	Houston		0	0	0	0
Exxon Mobil PI Co	South Houston		0	0	0	0
Exxon Refining and Supply Company	Beaumont		0	0	1404	3402
Marathon Petroleum	Garyville		2115	5489	0	26385
Premcor Refining Group Inc.	Port Arthur		13116	4505	494	1484
Sun Terminal	Sun Sun		0	525	0	1449
Sunoco Inc.	Marine		?	?	?	?
Valero Energy Corp.	Three Rivers		0	1647	0	2351
Valero Refining Company Texas LP	Corpus Christi		0	2176	1005	36436
WRB Refining LLC.	Borger		0	0	0	0

**Gulf Coast refineries projected to take tar sands crude  
from the Keystone XL pipeline if completed**

<b>Refinery</b>	<b>City</b>	<b>Capacity for XL Crude</b>	<b>Venezuela Heavy</b>	<b>Venezuela Light</b>	<b>Gulf Heavy</b>	<b>Gulf Light</b>
Valero Energy	Port Arthur	289	?	?	?	?
Motiva Enterprises	Port Arthur	285	0	0	0	47497
Motiva Enterprises Expansion	Port Arthur	325	x	x	X	x
Total Petrochemicals	Port Arthur	232	0	8597	0	8597
ExxonMobil Corp	Beaumont	349	0	0	1404	3994
Valero Energy	Houston	83	0	545		550
Houston Refining	Houston	271	79100	2586	495	1983
Pasadena Refining	Pasadena	100	0	0	0	0
Shell Deer Park	Deer Park	330	525	1094	0	0
ExxonMobil Corp	Baytown	567	0	0	1959	61621
BP, Texas City	Texas City	478	0		1429	1255
Marathon Oil,	Texas City	76	0	0	0	0
Valero Energy,	Texas City	200	4299	497		21046
Calcasieu Refining	Lake Charles	53	?	0	0	0
CITGO	Lake Charles	430	29197	24490	0	0
ConocoPhillips,	Lake Charles	239	14984	2800	0	2630