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## ON CANADIAN OIL

### “Oil Sands” or “Tar Sands”?

Myth: Canada is producing “tar sands”.

Fact: Oil sands consists of grains of quartz sand, surrounded by layers of water and clay, and covered in heavy oil called bitumen. Canada is producing oil, not tar.

### Land Disruption

Myth: Oil sands operations will disrupt the land equivalent to the size of Florida.

Fact: Canadian law requires all oil sands development in Canada to be ultimately recovered and returned to its natural state. The entire oil sands deposits of western Alberta lie under the land equivalent of the size of Florida (~140,000 square kilometers); only 2.5% can be mined (500 square kilometers); the remainder (80% of the resource) will be extracted “in situ” - a process which has a surface impact similar to conventional oil drilling and doesn't involve mines or tailings.

Companies must submit detailed reclamation plans to Canadian government regulators before starting projects and must pay a deposit into a government administered reclamation fund over the project's life.

### Greenhouse Gas (GHG) Emissions

Myth: More GHGs are emitted (3-5 times more CO<sub>2</sub>) from producing and refining crude oil from oil sands than other crude oils.

Fact: Lifecycle GHG emissions (measured from the production well through the refining process and use as gasoline or other refined product) from oil derived from oil sands are comparable to other crude oils refined in the United States. In fact, 70% to 80% of the GHGs are emitted during consumption (e.g., transportation) and are the same regardless of source of crude.

Canada is responsible for 2% of world's GHG emissions and just one-tenth of one percent of global GHG emissions come from Canadian oil sands.

Industry is continually improving energy efficiency and technologies to capture CO<sub>2</sub>. Since 1990, industry has reduced energy intensity (GHG emissions per produced barrel) of oil sands by 27%.

### Tailings Ponds

Myth: Tailings ponds are giant, toxic lakes.

Fact: The ponds are a mixture of hot water, residual bitumen, sand, and clay left over after bitumen is separated from sands. More than 80% of the water used in separation is recycled (up to 90%) and tailings ponds are monitored for seepage. The Canadian government mandates that companies active in the oil sands development improve tailings technologies and accelerate reclamation plans. All ponds will be reclaimed.

## **Water Use**

*Myth: Industry is draining the Athabasca River because of the excessive water needed to produce oil sands oil.*

*Fact: The government allocates 2.2% of the river's natural flow to the oil and natural gas industry. According to the Canadian Association of Petroleum Producers, the maximum amount of water that could be used if all projects currently being considered were to be developed is less than 3%. In some cases, oil sands producers are recycling as much as 90% to 100% of the water used in production. In situ projects do not use water drawn directly from the Athabasca River. Where feasible, producers use saline or brackish water from underground aquifers.*

## **Boreal Forest**

*Myth: Oil sands production is destroying the boreal forest habitat.*

*Fact: The boreal forest covers more than 147,000 square miles in Alberta, and oil sands deposits sit below about 4.5% of Canada's total Boreal forest region. The entire mineable area is less than 1% of the forest. Forty years of mining has disturbed only one one hundredth of 1% of Canada's boreal forest. Reclamation is required.*

## **Migratory Birds**

*Myth: Oil sands mines are killing migratory birds.*

*Fact: Deterring birds is an important part of the Alberta government's approval requirements for tailings ponds. In open-pit mining, tailings ponds are needed to separate the tailings (a mixture of water, clay, sand and residual bitumen) and recycle the water. Industry uses noisemakers to try to deter birds from landing on the ponds and takes measures to ensure that wildlife is protected in the areas where oil sands development is being conducted.*