



What's in your tank?



If you drive in Colorado, and fill up at Phillip's 66 gas stations, there's a good chance you're using **DIRTY GASOLINE** from **TAR SANDS**.

Dirty Gasoline from Tar Sands

Some gasoline is derived from much dirtier crude oil than others, such as oil from Alberta's tar sands. Tar sands oil is so thick and heavy that the earth must be heated or strip mined

to get the oil, known as bitumen, out of the ground. This type of oil mining burns much more fuel and releases more greenhouse gas and sulfur dioxide than conventional oil extraction.

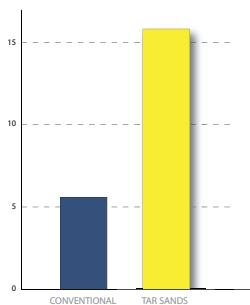
Before it can be refined into gasoline, diesel, jet fuel or other petroleum products, bitumen must

be upgraded to remove heavy metals and sand. This upgrading process releases even more carbon dioxide and toxic pollutants. Next, the refining process releases additional carcinogens and other pollutants to the water and air.



Global Warming

Overall, producing a barrel of crude oil from tar sands releases 2 to 3 times the amount of carbon into the atmosphere as is released when producing a barrel of conventional oil.



Extracting tar sands oil creates carbon dioxide emissions 2-3 times that of conventional oil.

A High Price to Pay

It's about more than the price at the pump. Choosing our resources carefully is good for North America's environmental, social and economic health. Some energy sources are just plain dirty, inefficient and destructive. Your dollars at the pump should go to better fuels!

Dirty, Inefficient and Destructive

Dirty — Tar sands production generates 3 times the greenhouse gases and 2.5 times the smog-creating air pollution compared to conventional oil.

Inefficient — Tar sands production uses the equivalent of two barrels of oil (or natural gas) to extract three barrels of tar sands oil, wasting 66% of the energy.

Destructive — Tar sands threatens one of the planet's largest forest ecosystems, the Boreal Forest — a large natural carbon-absorbing sink. It also requires the destruction of about 3 barrels of fresh water to extract just 1 barrel of fuel.

The impacts of tar sands — environmental and public health issues

Tar sands tailings ponds, covering more than 19 square miles, contain mercury, arsenic and cancer-causing polycyclic aromatic hydrocarbons (PAHs). Downstream in Athabasca rivers and lakes, dangerous levels of mercury, arsenic and PAHs have been found in river sediments, fish and wildlife. **Unusual tumors and mutations** have been documented in local residents, fish and wildlife downstream from the tailings ponds. **Refinery pollution** at Suncor in Denver includes cancer-causing benzene, dioxin, toluene, lead and other hazardous contaminants. **Water consumption**— In 2005, three tar sands operations removed about a 100 million cubic meters of water from the Athabasca River — enough water to supply 430,000 Denver residents for one year. Today, tar sands companies are allowed to remove enough water to support a city of 2 million people. These



withdrawals threaten the health of the river, and the life that it sustains. Most of this water will never return to the river. **Forest destruction**— Leases for tar sand development cover 15,000 square miles of boreal forest (about 100 times the size of Denver County).

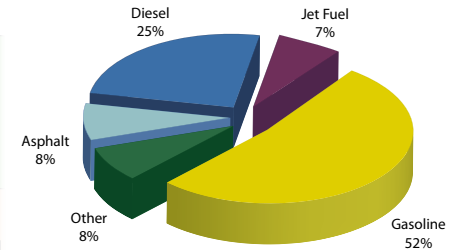
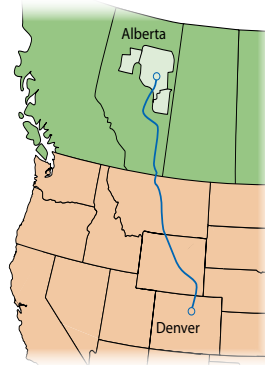


Join the No Dirty Energy Campaign!

Go to www.nodirtyenergy.org to take action and urge Suncor to cap tar sands production.

Dirty Gasoline in Colorado

One third of Colorado's gasoline and diesel comes from Suncor's Commerce City refinery, northeast of Denver. 15% of the oil processed at Suncor's Commerce City Refinery is from the Alberta tar sands. Pipelines carry the dirty tar sands crude from Suncor's Alberta operations to Suncor's Commerce City refinery. The crude travels in pipelines owned by Suncor and Express Pipeline (Kinder Morgan).



Gasoline is the #1 product produced at Suncor's Commerce City Refinery

Suncor Dirty Gasoline and Products

- Suncor gasoline and diesel: 173 Phillips 66 gas stations sell Suncor fuel throughout Colorado.
- Denver Regional Transportation District (RTD): Many of the buses within the RTD run on diesel fuel supplied by Suncor.
- Denver International Airport (DIA): A Suncor pipeline delivers jet fuel from the Commerce City refinery to a pipeline serving DIA.
- Colorado roads and highways: Suncor's Commerce City refinery is the largest supplier of asphalt in Colorado. All of the refinery's asphalt is sold to SemMaterials, LP.



TAR SANDS EXTRACTION AND PRODUCTION IN ALBERTA, CANADA. LEFT TO RIGHT: Dragline and trucks haul tar sands. Suncor upgrader. Tailings ponds north of Fort McMurray between the Suncor and Syncrude upgraders.



PHOTOS ©: cars, iStock; Canada map front and tar sands photos, Pembina Institute—excavation by Chris Evans, upgrader and tailings pond by David Dodge; plane, Robert J. Cijnjle; road, Charlene Anderson; nozzle and drop from iStock. DESIGN by Creative Geckos

The No Dirty Energy Campaign is brought to you by EARTHWORKS' Oil & Gas Accountability Project. www.nodirtyenergy.org

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