

## **U.S. LIGHT SWEET OIL** **THE ENVIRONMENTAL SOLUTION**

America’s recent energy renaissance has been fueled by technological advances, enabling the commercial extraction of light sweet oil from tight shale formations. This high-quality, light sweet oil produced from the Bakken, Eagle Ford, Permian and other fields in the U.S. is essentially sulfur-free and requires less energy to convert into refined products, making these domestic crude grades far more environmentally friendly than heavy sour oil produced in California, the Middle East, or the tar sands of Canada.

CRUDE OIL GRADE	SULFUR % BY WEIGHT
<b>Light Sweet U.S. Bakken (N. Dakota)</b>	<b>0.08</b>
<b>Heavy Sour U.S. San Joaquin (Calif.)</b>	<b>2.00</b>
<b>Heavy Sour Saudi Arabian</b>	<b>2.87</b>
<b>Heavy Sour Canadian Bitumen</b>	<b>4.24</b>

A September 2011 study prepared for the Union of Concerned Scientists on California refinery CO<sub>2</sub> emissions concluded “feed quality drives refinery energy and emission intensities.” In California, making fuels such as gasoline from less dense, lower-sulfur crude reduces the mass emitted per barrel of crude oil refined by an average of 20%, while denser, high-sulfur crude could increase refinery emissions by another 40% or more. This is because these heavier barrels require more aggressive carbon rejection and hydrogen adding processes, which burn more energy.

*The photos below show the surface footprint made by massive mountains of sulfur extracted from heavy sour crudes. No such extraction is necessary when processing light sweet crude produced from shale.*



U.S. light sweet oil production is at risk due to America’s ban on crude oil exports. Every barrel of light sweet oil that is not produced in America negatively affects the environment.