

Debate stirred over 1st major US tar sands mine

April 10 2011, By CHI-CHI ZHANG, Associated Press



This June 25, 2008 photo shows an aerial view just north of Fort McMurray in Alberta, Canada, where the world's largest oil companies are building massive open pit mines to get at the oil sands. A proposed tar sands mine on Utah's eastern Uinta basin, that would be the first commercial project of its kind in the U.S. has environmentalists concerned that shortsightedness may trump reason. A Canadian company aims to mine roughly 62 acres on the Uinta basin to produce bitumen, a tar-like form of petroleum, from oil-soaked sands. For decades, other Utah operators have used oil sands as a poor-man's asphalt, and Canada has been wringing oil from the dirt for years, but nobody has yet tried to produce petroleum from U.S. soil on such a large scale. (AP Photo/Canadian Press, Eamon Mac Mahon, File)

(AP) -- Beneath the lush, green hills of eastern Utah's Uinta Basin, where elk, bear and bison outnumber people, the soil is saturated with a sticky tar that may soon provide a new domestic source of petroleum for the United States. It would be a first-of-its kind project in the country that



some fear could be a slippery slope toward widespread wilderness destruction.

With crude prices surging beyond \$100 a barrel, and politicians preaching the need to reduce America's reliance on foreign supplies, companies are now looking for more local sources. One Canadian firm says it's found it in the tar sands of Utah's Book Cliffs.

Alberta-based Earth Energy Resources Inc. aims to start with a roughly 62-acre mine here to produce bitumen, a tar-like form of petroleum, from oil-soaked sands. For decades, other Utah operators have used oil sands as a poor-man's asphalt, and Canada has been wringing oil from the ground for years, but nobody has yet tried to produce petroleum from U.S. soil on such a scale.

And it could be just the beginning. The company has over 7,800 acres of Utah state land under lease, with plans to acquire more, and estimates its current holdings contain more than 250 million barrels of recoverable oil.

"This is not just a 62-acre project that will last seven years. We are looking at a 30,000-acre project that will destroy the environment in this area over many years," said John Weisheit, a <u>Colorado River</u> guide and founder of the Moab, Utah-based environmental group Living Rivers.

Weisheit worries that shortsightedness and the rush to feed America's insatiable appetite for oil could trump reason at the expense of other precious natural resources.

The Bureau of Land Management says Utah has an estimated 12 to 19 billion barrels of oil buried in its tar sands, mostly in the eastern part of the state, though not all of that would be accessible.



Weisheit says if Earth Energy is allowed to mine the land, he fears others may not be far behind.

"We used hear that it's not lucrative to extract oil from tar sands unless oil prices were above \$60 barrel," he said. "But now that prices have risen, we're definitely seeing companies take advantage of the situation."

Living Rivers is challenging this project's approval and contends it would dig up fragile topsoil, destroy limestone plateaus formed over thousands of years and pollute groundwater downstream that flows into the Colorado River. The group claims the Utah Division of Water Quality didn't accurately assess the potential for widespread environmental damage from the PR Springs mine. A hearing is set for May 25.

While tar sands projects are relatively new in the U.S., Canada has been a major producer for years, and in doing so, has become the No. 1 foreign supplier of oil to America. Alberta's sprawling oil sands deposits are the second largest oil reserves in the world outside of Saudi Arabia. The region produces about 1.2 million barrels of oil a day with an estimated 174 billion barrels in reserve.

But it comes at a cost. The oil sands operations, including extraction and processing, are responsible for up to 4 percent of Canada's greenhouse gas emissions, and that's expected to triple to 12 percent by 2020.

Unconventional oil - petroleum in any form other than fluid - has been eyed by the industry for years but largely considered not economically viable until recently. The major source of unconventional oil in the U.S. is shale, rock with all the necessary ingredients that wasn't buried under the right conditions to produce oil. But it's all getting a fresh look now as the untapped reserves are being seen as part of the future of domestic supplies.



And while companies are still determining whether shale production makes economic sense, Canada's booming oil sands industry has eyebrows raised and wallets open. Generally, oil from oil sand costs roughly \$20 a barrel to produce, about a few dollars more than pumping liquid oil.

The initial Utah mine would be Earth Energy's first commercial effort at extracting oil from sands. It's unclear why the company chose Utah instead of staying closer to home where oil sands are bountiful. The company declined to say, but officials insist the project won't pollute anything and will leave Utah's oil sands as clean as beach sand after processing with a citrus-based solvent.

"We are insuring that we won't pollute by complying with the regulations and as indicated with the project being approved," said company CFO Glen Snarr.

Environmentalists aren't buying it and don't want any part of it in this country.

They've been fighting a 1,900-mile pipeline proposed by another Canadian company that would carry crude extracted from Alberta's tar sands to refineries in Texas. The Keystone XL pipeline would double the capacity of an existing pipeline from Canada, delivering more than 500,000 barrels a day. According to a report commissioned by the Obama administration, the pipeline, coupled with a reduction in overall U.S. oil demand, "could essentially eliminate Middle East crude imports longer term."

Susan Casey-Lefkowitz, director of the International Program at the Natural Resources Defense Council, says the rewards simply aren't worth the risks.



"Refining the oil (from tar sands) creates more greenhouse gases than traditional crude," said Casey-Lefkowitz. "With projects such as Keystone, we have concerns such as pipeline leaks due to the corrosive nature of the bitumen and the high temperatures in which it would be transported."

Oil sand is like black tar melded onto sand and clay. Reserves are found in Utah and a few other U.S. states, but America's neighbor to the north has by far the continent's largest deposits.

And while most oil sands are easy to get to by strip mining similar to digging out coal, separating the oil from the sand takes a lot of water and energy. In Canada, there's even been talk of building a nuclear power plant simply to supply the industry, a move conservationists there have been fighting.

Environmentalists in the U.S. say they don't want to see a Canadian-style oil sands industry crop up here, and are concerned that water pollution generated in the process could poison underground aquifers and wildlife in the region.

In 2008, more than 1,600 ducks died after landing on a northern Alberta toxic waste pond that contained pollution generated in the oil sands separation process. Dozens of such toxic pools have been building up over 40 years in the region.

Earth Energy says it will deploy a "revolutionary" new extraction process in Utah using a citrus-based solvent that "leaves behind no toxic chemicals" or the need for retention ponds, ensuring it doesn't harm wildlife or other natural resources.

Still, environmentalists fighting the project believe the strip mining could cause just as much harm.



Rob Dubuc, a lawyer working with Living Rivers, said the group is concerned about groundwater and downstream pollution.

"Rain will ... wash pollution from the sands into the ground further tainting the porous soil and groundwater," Weisheit said.

The state Division of Water Quality hasn't yet responded to the group's appeal. But Rob Herbert, a manager in the agency's Ground Water Protection unit, said the project qualified for a permit, in large part, because of the citrus-based solvent the company says it will use. He said the area also lacks substantial groundwater, meaning there would be little risk of aquifer pollution.

"They are still obligated to protect groundwater and it does not absolve Earth Energy Resources from that responsibility," Herbert said.

In the end, despite all the debate, experts say projects like the proposed Utah mine are an afterthought when it comes to satisfying the U.S. demand for oil.

"If this project only produces 2,000 barrels of oil a day, it's irrelevant in terms of the 19 million barrels the U.S. consumes a day. It's not contributing anything to national security," said Richard Fineberg, a pipeline analyst with Ester, Alaska-based Research Associates. "With the cost, energy and amount of water that is used, it does not seem economically feasible, whereas investment into conservation and alternative energy is renewable each year."

©2010 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Debate stirred over 1st major US tar sands mine (2011, April 10) retrieved 24 April 2024 from https://phys.org/news/2011-04-debate-1st-major-tar-sands.html



This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.