

## **U.S. Agency Carefully Optimistic On Bakken Deposit**

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One of the most extensive oil deposits in the world—the huge Bakken Formation—underlies North Dakota and Saskatchewan. The Bakken holds up to 500 billion barrels of oil, double the proven reserves of Saudi Arabia. But it lies in thin, shallow shale formations that are hard to drill and don't flow readily. Is the Bakken America's energy independence; a dire threat of global overheating; or just expensive holes in the ground?

In 1995, the U.S. Geological Survey said it expected to recover only 151 million of the Bakken's billions of barrels, using then-available technology. This month, however, USGS announced the Bakken could now yield 28 times that much oil, up to 4.3 billion barrels, thanks to higher oil prices and two new technologies: computer-guided horizontal drilling, and high-pressure rock fracturing. Will another dozen years of high-tech add another 4 billion barrels of recoverable Bakken oil? Will biotech bacteria help us harvest the oil as natural gas?

Meanwhile:

- Three oil companies have found 15 billion barrels of oil 28,000 feet under the Gulf of Mexico—boosting U.S. proven reserves 50 percent.
- The U.S. could now start harvesting a “super giant” gas field—500 trillion cubic feet—from the Marcellus Shale under the Appalachian Mountains. Again, it would require the horizontal drilling and rock fracturing.
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- Brazil has discovered the third largest oil field in history, the Carioca, 170 miles offshore under 6,000 feet of water. The Carioca ranks behind only the Saudi and Kuwait fields discovered 60 years ago.

The USGS agrees the world has harvested only about one-third of the oil we've discovered, not to mention six trillion barrels of tar sands and huge amounts of oil shale already found but not exploited.

Even in North America, we are not running out of fuels. Between the Bakken, the Marcellus Shale, Alberta's tar sands, and two centuries worth of coal, North America is rich in fossil fuels. What we now face is our own decision not to use them.

We have accepted the Greenpeace claim that human use of fossil fuels is artificially overheating the earth—without evidence. We've accepted the Greenpeace decision not to use nuclear power, which has no emissions at all, and a fine safety record outside the old Soviet Union.

Human history shows a Medieval Warming (950–1300AD) and a Roman Warming (200 B.C – 600 AD) that were warmer than today. Ice cores, seabed sediments and fossil pollen say they

were part of a moderate, natural 1,500-year warming/cooling cycle (1–3 degrees C up and down at the latitude of Washington) that goes back a million years. The carbon-14 in trees tells us it's linked to the sun. Alarmists say the cycle existed but has been overtaken by the huge increase in human-emitted greenhouse gases since 1940. They tell us our recent warming couldn't be due to the sun, but offer no evidence to counter the carbon-14 in the trees.

The earth's net warming since 1940 is a tiny 0.2 degrees C, with no warming trend at all since 1998. Last year temperatures dropped—in defiance of the climate computer models. NASA admits the “oceans stopped warming” 4–5 years ago, based on best-ever data from 3,000 new high-tech ocean buoys. The sunspots have been predicting all of this since 2000.

Meanwhile, we're using scarce cropland, starving the world's poor and endangering wildlife species to get biofuels, which deliver worse mileage, higher costs, and more greenhouse emissions than gasoline.

Shouldn't the U.S. have some evidence that humanity is to blame—beyond computer models—before we renounce our still-abundant fossil and nuclear power?

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