Rhetoric Does Not Match Reality of North Slope Drilling

In the push to open the Arctic National Wildlife Refuge to oil development, the big oil companies and their allies in the Congress, Administration, and Alaska state government say drilling on Alaska’s North Slope has been clean and environmentally benign. They profess a commitment to strict environmental regulation, and they assert that new technologies – particularly ice roads and directional drilling – will reduce even further any impact of drilling in the Arctic National Wildlife Refuge.

This is misleading because industry has caused significant environmental damage, the benefits of dubious “new” technologies are often exaggerated, and state of the art practices are often not used due to economics or practical reasons. The result: cumulative harm to the pristine environment.

ICE ROADS EXAGGERATED

“Now let me show you how we operate. I said we are not going to have roads. We are not going to open up gravel pits. That is drilling in the Arctic. That is the same as in the 1002 area of ANWR. That is a winter road. It is a road that is frozen. It works fine... Where are they talking about these big gravel roads? It isn't done anymore. We use technology.” 

Senator Frank Murkowski (April 17, 2002)

Ice road travel season is melting away

Global warming, a direct result of burning fossil fuels, is diminishing the oil industry's ability to use ice roads. Over the past three decades, ice road use on the North Slope has been shortened from 204 to 124 days.2

![A Vanishing Arctic Winter Season](image-url)
Ice roads require vast quantities of water

Construction of ice roads requires enormous quantities of fresh water, mostly in the winter when liquid water is hard to come by. According to Alaska Department of Natural Resources, North Slope oil exploration and development consumed 1.5 billion gallons of water in 2000.3

The Arctic Refuge’s coastal plain, however, has few lakes, and water is very limited. A 1995 U.S. Fish and Wildlife Service report confirmed earlier conclusions: "Additional investigations since 1987 substantiate the fact that water in the 1002 area is very limited and the impact upon water resources should be considered major."4

There is not one oil field on Alaska’s North Slope that does not have permanent gravel roads.

Gravel roads are still standard practice for oil development on land. The Tarn and Meltwater oil fields were developed between 1998 and 2001 with 20 miles of new road as well as a new 25-acre gravel mine.5 Exxon recently proposed 15 miles of new roads joining new drill pads, jet airport, dock, gravel mine, and production sites for its Pt. Thomson gas hydrocarbon project.6

Even the original Alpine field -- promoted to this day as a “roadless development” -- had three miles of roads when it began pumping crude in 2000. In December 2004, a new road into NPR-A and others connecting to the initial oil field bump the total to 33 miles of Alpine roads and BLM predicted 122 more miles would be needed for the next phase of Alpine expansion.7

Alaska’s Governor Frank Murkowski vaulted two major roads on the North Slope to the top of his “industrial roads” program in 2005.8 These would be year-round, permanent gravel roads:

• Foothills Road heading for 50 miles west from the Trans-Alaska Pipeline towards the NPR-A.
• Bullen Point Road pushing east from Prudhoe Bay for 48 miles to ExxonMobil’s Pt. Thomson oil and gas field--just a few miles from the Arctic National Wildlife Refuge.

DIRECTIONAL DRILLING DOESN’T PAN OUT

“With new horizontal drilling, companies make one hole and tap reserves up to 7 miles away.”

Interior Secretary Gale Norton (April 5, 2001)

Contrary to Secretary Norton’s claims, no wells have extended out 4 miles on the North Slope. Of more than 4,800 wells drilled on the North Slope to date, only 21 have reached more than 3 miles away.10 For 95% of all North Slope wells, the reach across the landscape was less than 2 miles away from where the drill rig sat. Even at the recently developed Alpine oil field—touted as a model of new technology—the average production well has extended only 1.6 miles laterally from the wellhead.11

Economic factors play a major role in determining whether extended-reach wells are drilled at all. In 2000, BP noted “the company stopped drilling extended reach wells—those which reach out a long distance from the pad—after oil prices crashed in the late 1990’s, because extended-reach drilling is expensive.”12 In 2004, BLM cited economic and geological limitations of directional drilling when it granted ConocoPhillips an exemption from a lease stipulation prohibiting the company from building a drill site for 30 wells, powerplant, road, and other permanent facilities in the sensitive fish and wildlife habitat of Fish Creek.13

Even if the technology performed as well as its proponents claimed, directional drilling would do little if anything to mitigate the full impacts of oil production in the Arctic Refuge. Permanent gravel roads and busy airports are still used for access, and production well sites must be connected by pipelines. Intrusive, noisy and damaging seismic surveys on the surface are still necessary for exploration.
THE “WINTER ONLY” FALLACY

“Oil and gas activity only takes place in the winter time—not in the summertime.”

Senator Ted Stevens (April 10, 2002)

Oil development and production activities occur year round
Like directional drilling, the chorus of “we’ll only drill in the winter” is deliberately misleading propaganda. Once oil is discovered, efforts to recover it continue year-round. Year-long vehicle traffic, production plant noise, helicopter and airplane traffic, air pollution, and other activities create inevitable conflicts with wildlife in every month and season. Oil companies have never ceased production activity in the summer months on the North Slope.

Winter exploration is anything but harmless to the environment.
Winter exploration can disturb polar bears in their maternity dens and frighten sensitive muskoxen, year-round residents of the coastal plain. Exploration also impacts fish habitats in rivers and lakes by removing massive amounts of water to build ice roads and ice pads, and seismic trails damage plants and permafrost even through snow and ice.

Ultimately, drilling proponents have no intention of limiting their activity to the winter season – they drill and produce oil through the summer now, and they can be expected to do so in the future.

Most Americans maintain that there are some places so special that they should be off-limits to oil drilling and industrial development, and they believe the coastal plain of the Arctic National Wildlife Refuge is one of them. Policy makers evaluating proposals to open the Arctic Refuge to oil drilling should look carefully at the industry's promises and its track record.

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References


6 ExxonMobil. July 30, 2001. Point Thomson Gas Cycling Project, Environmental Report, Fig. 2-1.


10 Data analysis by A. Baldivieso, GIS Analyst, Alaska Center for the Environment. February 4, 2005. Well data base obtained from H. Okland, January 13, 2005, Alaska Oil and Gas Conservation Commission (geographic areas: Arctic Foothills, Arctic Ocean, Arctic Slope, Beaufort Sea, Chukchi Sea), supplemented with 27 offshore wells from Alaska Department of Natural Resources, Division of Oil and Gas, (well database, last updated in 2002) (http://www.dog.dnr.state.ak.us/oil/products/data/wells/wells.htm; www_well_lat_lon). Drilling distance was calculated as lateral offset between top-hole and bottom-hole latitude and longitude locations for a total of 4865 wells that have been drilled (wells with insufficient data were excluded; a total of 5119 wells were in the combined database but we excluded those without completion dates for the analysis). Information for all wells was used for charts categorized by miles, and for determining total number greater than 2 or 3 miles away. Chart for average distance by year is based on production wells only (excluding exploratory wells; including all types of production wells –service, injection, ngls, and waste disposal). The average distance for 4865 wells (production and exploration) analyzed was 0.93 miles.

11 Analysis by A. Baldivieso, February 4, 2005, for Alpine wells, defined as encompassing all within the Colville River Unit. Alaska Department of Natural Resources. August 23, 2004.


