



Polar Oil Drilling



The Arctic contains a likely 13% of the world's undiscovered useable oil resources and 30% of its undiscovered useable natural gas resources, according to an evaluation conducted by the U.S. Geological Survey (USGS). Consideration of these resources as commercially viable is relatively recent, due to the difficulty and cost in developing Arctic oil and natural gas deposits. Profitable development of Arctic oil and natural gas deposits could be challenging due to the following features:

- Equipment needs to be designed and modified to endure the freezing temperatures.
- On Arctic lands, poor soil quality can require additional site groundwork to avoid equipment and structures from falling.
- Long resource lines and restricted transport access from the world's manufacturing focus require equipment dismissal and a larger inventory of spare parts to ensure reliability while increasing transport costs.
- Employees expect higher earnings and salaries to live and work in the inaccessible and inhospitable Arctic.
- Natural gas hydrates can create working difficulties for drilling wells in both onshore and offshore Arctic areas.

Natural gas development could be particularly perplexing. Although the Arctic contains large amounts of it, the expansion of Arctic natural gas resources could be hindered by the low market value of natural gas compared to that of oil. Furthermore, natural gas customers normally live far from the district, and transport costs of it are higher than those for oil and other liquids. Overlapping and disputed claims of economic authority between neighbouring authorities also could be an obstacle to developing Arctic resources.

Along with financial and governmental challenges, conservational restrictions and regulations may also affect timelines for examination and construction of Arctic incomes. Environmental issues include the conservation of animal and plant species unique to the Arctic, particularly polar bears, seals, whales, and other sea life. The adequacy of existing technology to manage offshore oil spills in an arctic environment is another unique challenge. Spills among ice glaciers can be much more difficult to contain and clean up than spills in open waters. Also, the far north is melting and far faster than predicted. Global temperatures have risen 0.7C since 1951. In Greenland, the average temperature has gone up by 1.5C. Its ice cap is losing an estimated 200bn tonne a year as a consequence. Further rises are now believed unavoidable, causing the region's ice to disappear long before the century's end. As a result, global powers are beginning to look to the region for its gas and oil, which were all were once hidden by a layer of ice. Now the ice is disappearing, raising lucrative prospects for Arctic nations, in particular, Russia, the US, Canada, Norway and Denmark, which controls Greenland. The large-scale investment could bring riches to areas of poverty. However, development could destroy pristine ecosystems and the ways of life for certain people.

Points to Consider:

- How will Polar Oil drilling affect the inhabitants of countries?

- Sea ice coverage has decreased by 13% each decade since 1980, how will this affect the animal population and the environment?
- What plans could be introduced to convince nations to stop drilling in international waters?

Useful Links:

<https://www.greenpeace.org/usa/arctic/issues/oil-drilling/>

<https://www.worldwildlife.org/stories/how-would-offshore-oil-and-gas-drilling-in-the-arctic-impact-wildlife>

<http://www.worldwatch.org/node/5664>