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Drilling for Oil in the Alaskan National Wildlife Refuge

The Alaskan National Wildlife Refuge is the largest partition of its kind in the United States. It has been a center of debate since its inception due to its untapped oil reservoirs. The balance between energy and the environment has greatly stirred advocates on both side of the table. The conflict between high oil potential and nearly pristine nature creates a dilemma: should Congress open the area for oil and gas development or should the area's ecosystem be given permanent protection from development? We'll begin by looking at exactly what ANWR is, the oil situation, and then get viewpoints from both sides of the issue.

Estimates for the quantity of oil in the Refuge vary with each study. There is an extremely good chance that there is at least 11.6 billion barrels of oil in the proposed area. There is also a minimal chance that there is around 31.5 billion barrels or more are present. Oil prices, geologic characteristics, cash flow, and any transportation constraints, would be among the most important factors affecting the development rates and production levels that would be associated with given volumes of oil resources. Production would most likely peak at roughly 15-20 years after development starts. Peak production associated with a technically recoverable resource of 5.0 billion barrels (bbls) at the faster development rate would be 750,000 bbls per day. U. S. petroleum consumption is about 19 million bbls per day. There is also estimated to be a large reserve of natural gas in the area, though there is currently no way to deliver the gas to

the mainland US. Recent price increases have made the construction of a natural gas pipeline much more feasible.

Domestic production needs the ANWR opened to commercial production if it is to sustain even its current production. Domestic crude oil production, which has already declined from nearly 9 million barrels per day in 1985 to about 6.6 million barrels per day in early 1995, is projected to decline to less than 5 million barrels per day in 2010. Even with only a modest growth in U.S. crude oil demand, the deficit in U.S. supplies will be on the order of 10 million barrels per day, which will have to be made up by new discoveries or imports.

Opponents of drilling see the Refuge come from all across the board, though largely stem from an environmentalist nature, and see the ANWR as a unique area of the US, one of the last of its kind, which cannot be destroyed by the invasion of oil production. The diverse habitats and numerous species are unlike any other conservation area in the northern polar region. While it is usually covered in snow, the flare of life during the spring and summer months has led to the nickname "America's Serengeti".

Of the many unique animals call the ANWR home. This includes musk oxen, grizzly bears, wolves, wolverines, foxes, golden eagles, and snowy owls gather here to hunt and den. A herd of 129,000 caribou, named the Porcupine River herd, gathers annually on the Coastal Plain to bear and nurse their young. Polar bears also depend on the Coastal Plain of the Refuge as their most important place to den on American soil. In the fall, the Coastal Plain also supports up to 300,000 snow geese which detour to feed from their nesting grounds in Canada. The Arctic Refuge is also a critical stop and nesting area for millions of other birds during migration. Many of these grounds could be

destroyed during development and thus severely limiting the use by Alaska's many animal populations.

The Arctic Refuge also supports more than just wildlife. For a thousand generations, the Gwich'in people of Northeast Alaska and Northwest Canada have depended upon the Porcupine (River) caribou herd to sustain their culture. The herd is central to their way of life, providing food, clothing, and a critical link to their traditional ways. To the Gwich'in people, the Coastal Plain is sacred ground.

Opponents see tapping oil in the Refuge as a short term solution to a long term problem. Considering the oil would not even be accessible for ten years, it would not actually decrease foreign dependence on oil, rather merely maintain it until it eventually diminishes. Even if the reserves were filled with the most liberal estimates of oil potential, they would only be a dent in the total US consumption, and the destruction of an extraordinary wildlife area is not an acceptable consequence.

Proponents of the ANWR development cite many statistics in their defense. Many of these reasons are economic; for instance the economic impact between 1980 and 1994, North Slope oil field development and production activity contributed over \$50 billion to the nation's economy, directly impacting each state in the union. Revenues to the State and Federal Treasury revenues would be enhanced by billions of dollars from bonus bids, lease rentals, royalties and taxes. Estimates in 1995 on bonus bids alone were \$2.6 billion. The nearly half million jobs it could potentially create also would be a large boost to not only the economy but individual citizens.

The oil itself, advocates say, is greatly needed to begin with, as imported oil is too costly. The U.S. imports over 55% of the nation's needed petroleum and costs more than

\$55.1 billion a year, with figures rising and expected to exceed 65% by the year 2005. North Slope production in decline the North Slope oil fields currently provide the U.S. with nearly 25% of its domestic production and since 1988 this production has been on the decline. Peak production was reached in 1980 of two million barrels a day, but has been declining to a current level of 1.4 million barrels a day. Experts see the Coastal Plain as America's best possibility for the discovery of another giant "Prudhoe Bay-sized" oil and gas discovery in North America. U.S. Department of Interior estimates range from 9 to 16 billion barrels of recoverable oil.

While the environmental effect is a central facet of this issue for most people, even the development proponents do not want to see the environment destroyed, and maintain that both can coexist. Only the 1.5 million acre or 8% on the northern coast of ANWR is being considered for development. The remaining 17.5 million acres or 92% of ANWR will remain permanently closed to any kind of development. If oil is discovered, less than 2000 acres of the over 1.5 million acres of the Coastal Plain would be affected. Also, oil and gas development and wildlife are successfully living together in Alaska's arctic. For example, the Central Arctic Caribou Herd at Prudhoe Bay has grown from 3,000 to as high as 23,400 during the last 20 years of operation. In 1995, the Central Arctic Caribou Herd size was estimated to be 18,100 animals. Revenue from oil development also goes to further wildlife preservation efforts, in effect helping the animals of the Coastal Plain proliferate.

The Alaskan perspective is somewhat surprising, as they largely favor development in their "backyard", though it is largely due to the estimated 250,000 to 735,000 jobs which will be created by development. The only humans living on the

Coastal Plain of ANWR are the residents of Kaktovik. These indigenous people, who have benefited from development, have greatly supported oil and gas development on the surrounding lands. It provides a tax base for their local government and goes to support everything from schools to sewer systems. Native and village corporations with oil field-related subsidiaries are working on the North Slope, and the local government has a say with permits and environmental regulation.

The locals and their organizations have all endorsed the development of the Coastal Plain based on their experiences with Prudhoe Bay. A poll of all Alaskans (conducted in 1995 by Dittman Research Corporation) found that more than 75% of them supported exploration and production of oil in ANWR. They even have a non-profit organization, Arctic Power, which promotes development on the Coastal Plain. Arctic Power boasts over 10,000 members and endorsements from members of society all across the spectrum.

In my opinion, the Alaskan National Wildlife Refuge, while it could provide an excellent boost to domestic oil production, will not cure America's seemingly bottomless thirst for energy, which is the real root problem here. From my research, I do not believe the minimal development proposed would destroy the environment or the wildlife in the area, though it might not necessarily be the best for it. The entire project would be a very large boost to the Alaskan economy, and I now see why they support it so much, but what would they do when the oil runs out? I see the actual development and drilling of ANWR as a small problem in relation to the sleeping giant of American energy consumption. I think politicians and policy makers should be focusing on alternative methods or renewable sources for energy. If this was to happen, I believe that the

ANWR would no longer even be an issue, as we would progress past oil. In conclusion, I would support the development of the Coastal Plain on a limited basis, though only on the condition that even greater weight would be shifted to more effective and long lasting forms of energy.

Works Cited

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Comments on Paper 1

"Drilling for Oil in the Alaskan National Wildlife Refuge"

by Zachary Woodward

1. Achieving "balance" will always be a matter of "choices and tradeoffs" that reflect the values of society.
2. A good approach to the paper. The first step in solving any problem is to understand it. Lee Hamilton (former Indiana congressman and author of the foreword to our text) has emphasized that usually perfect solutions aren't possible and that compromises have to be made – a lost art among politicians today. Al Gore, an environmentalist at heart, has pointed out that what *needs to be done* and what *can be done* are miles apart in the case of environmental protection.
3. This is known as the "Hubbert Peak" after the man who predicted well in advance when U.S. oil production would peak, and now has a prediction for when world oil production will peak. Production of a new and abundant resource tends to rise exponentially initially, to peak, and then to fall at roughly the same rate – so the overall curve is symmetrical. So, once you have reached the peak, you have a pretty good idea of how much longer the resource will last. You might find it interesting to look up "Hubbert Peak" on the internet.

4. 750,000 bbls per day is about 5% of the U.S. daily use, and probably the ANWR reserves would peak in a few decades.
5. Does the deficit in U.S. oil supply have to be made up with new "discoveries or imports"? What about renewables, greater efficiency, and conservation?
6. Won't the price of domestically produced oil always reflect prices on the world market?
7. This is an important paragraph: how serious would the environmental impacts be and would the economic-environment tradeoffs be worth it? This is for society as a whole to decide – assuming it is well informed.
8. Interesting that the native Alaskan view is predominantly IMBY!
9. I like ending your paper with your "opinion." I would like to see all papers end this way, because developing an intelligent stand on complex issues such as this one is an evolutionary process that takes time.
10. What will Alaska do when its oil runs out? The Middle East faces the same problem, and Sara pointed out that their solution is to begin investing now in the global economy in other ways. Why Alaska isn't doing this instead of giving away \$2,000/year of the oil profits to each Alaskan citizen I don't know.
11. Your conclusion: a balanced view.
12. This is an excellent paper that I would like to share with the class, but you didn't give me an electronic version. Is returning electronic versions with my comments to everyone worthwhile? You might inquire around to see if they are being read. If they are, I suggest that you insert my comments into your paper and send it around as an attachment to your classmates.

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