Olympus (A)





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CON: Against Offshore Drilling

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Conclusion

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Ethical Dilemma

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Ethical Dilemma

Offshore drilling is a method of retrieving oil from reserves under the ocean, with depths from 300 to 10,000 ft. (1a)
Before the ocean floor is penetrated, a geologist surveys the area to determine the potential for gas and oil. (1b) Those in favor of this practice argue that the use of the immediate natural resources is financially efficient; those opposed dispute that the oil supply is rapidly depleting and drilling poses major environmental hazards.

CON: Against Offshore Drilling

Statement: Offshore drilling is detrimental to humanity, and it's prevalence should be greatly decreased.

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Danger Increases with Time

As the reserves close to the shore become more depleted, the operations have to move farther out to sea. Naturally, the greater the distance from land, the deeper the water will be.

- Increased risk: Deeper drilling depths result in a greater hazard. Things like accidents, fires, and spills are more likely to occur. Robert Bea, from the University of Berkley, explained that there's "equipment and steel strung out over a long piece of geography, starting at surface and terminating at 18,000 feet below the sea floor". (1) With a longer structure, there's more possible weak points.
- Bea also stated that 80% of errors are human and organizational problems, and 50% of these come from issues with the mechanical design (2)
- Increased danger to the workers as well. In the instance of an accident, it takes longer for emergency responders to reach the scene, possibly endangering the lives of the employees. (1)
- Each time an oil company moves even a few feet farther in depth, they're
 crossing into territory they never have before. They're inexperienced at
 dealing with such great depths. In the BP oil spill, many attempts to halt
 the disaster failed because the operators were ignorant on how to handle a
 plug at such depths, as well as dealing with ice forming in containment
 structures due to the freezing ocean temperatures. (3)

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Interference with Human Coastal Activity

- Coastal areas house more than half the nation's population. Many of these regions are heavily dependent on the ocean to contribute to a steady economy, whether it's through tourism or fishing. (12)
- The US ^{*}generates approximately \$185 billion in sales annually and supports over two million jobs* (12) in the fishing industry. Oil spills, big or small, jeopardize this entire system. Tourists are reluctant to come to the beaches because of the harmful chemicals drifting near the shore.
- In some regions, fishing and marine animals are the major food source. Alaskan villages are already struggling to catch enough fish to feed their families. With talk of offshore drilling expanding into Alaskan waters, the citizens may not be able to feed themselves. (13)
- Even if the spill is cleaned up, the production of fish eggs is noted to decrease. (12)

Environmental Hazards

Pollution

Forms of Pollution-

Drilling Muds- "Used for the lubrication and cooling of the drill bit and pipe". (4). Every type used releases chemicals that are harmful to marine wildlife.

Drilling platforms. The main site of the oil rig. On average, one will expel more than 90,000 metric

TONS of drilling fluids and metal cuttings INTO THE OCEAN. (4)

reduced water-Third trapped underground and brought up with oil and gas." (d). On average, they are an oil content of 30-40 ppm. If there was, for example, 2 billion gallons of produced water (a laushle amount), there would be 70,000 gallons of oil released into the environment. (4) if gis-Effect on marrine widdlife. Bird mortally has been associated with them, as well as a general sruption to the ecosystem. One will make 50-100 wells, each releasing 25,000 pounds of toxic relials into the ocean (such as lead, chromium, mercury). A rig will also produce as much air ollution as 7,000 cars driving 50 miles in a single day; (5)

• When the oil is burned as fuel, it releases all sorts of harmful gases and chemicals into the atmosphers. Effects of these gases are: increased global warming, and rain, contributions to ground-level ozone, hazy conditions, and detrimental health impacts on the entire human raice. (6) increased global warming alone, even by a few degrees, is estimated to whop out at fifth of the world's coastal wellands. Sea levels could rise more than 20 feet and the Arcia Circle and Antarctica would lose ions believes that provide solace for mammals that with ring distances in the occur of case of expoir beans). (6) This would most likely result in the extinction of polar bears, leading to a drastic change in the ecosystems.

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o catch enough fish to feed their families. With ore drilling expanding into Alaskan waters, may not be able to feed themselves. (13) spill is cleaned up, the production of fish eggs

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"Danger Increases With Time"

Gulf Wer oil spill BP Deepwater Horizon	Persian Gulf Gulf of Mexico	January 21, 1991 April 20, 2010-present	10-11,000.000 4,900,000				
				Idos I oil well	Gulf of Mexico	June 3, 1979- March 23, 1980	3.3-3,500,000
				Atlantic Empress / Aegean Captain	Trinidad and Tobago	July 19, 1979	2,100,000
Forgana Valley	Uzbekistan	March 2, 1992	2,100,000				
Nownuz oil floid	Persian Gulf	February 1983	1,900,000				
ABT Summer	Angola	1991	1,900,000				
Castillo de Beliver	South Africa	August 6, 1983	1,850,000				
Amoco Cadiz	Brittany, France	March 16, 1978	1,600,000				

- increased with depth, there would be more oil spills than in years with oil drilling
- - put the restoration effort on a strong footing." (11)
- "It will take several years to fully implement the stringent new safety regime...But it is not necessary to put Deepwater drilling on hold until all the changes are in place."..."We suggest a better option: build from this tragedy in a way that make the Gulf more resilient, the country's energy supplies more secure, our workers safer, and our cherished natural resources better protected," (11). The ation also proposed ways to improve the safety of workers. There wil always be dangerous jobs, but this industry is receiving federal aid that is decreasing the danger.

"Interference with Human Coastal Activity"

- The entire coastal population is not jeopardized by oil spills.
 - oil and gas exploration."(7) Thus, the fishing and coastal tourism economy will not shatter from the small area that oil is extracted.
- In wake of the Deep Horizon oil spill, offshore drilling process was inspected and problems were revealed. There are new regulations to fix these problems so the industry can keep expanding while being safer for the to shut down the industry and are confident the risk of extreme environmental damage is very unlikely with these new regulations. (1)
- The fishing industry is jeopardizing its own coastal ecosystems. Commercial fishing "destabilizes the food chain and destroys the natural habitats of many aquatic species."(15)The fishing industry is not a stable way to support the economy because it is depleting many of the fish populations. "Over 70 percent of the world's fisheries are either "fully exploited, "over exploited" or significantly depleted*.(15) Oil is not the non-renewable resource that requires concern in this situation; it's the fact that fishing will soon no longe be able to sustain the economy because of its own methods
- Finally, the United States may receive \$185 billion from the fishing industry financial side of it, a decrease in offshore oil drilling would cause this number to rise and be a burden on the United States' economy.

"Environmental Hazards"

- Deep ocean oil drilling is not the main source of oil in ocean.
- Oil is natural seeped into the ocean from highly pressurized seafloor rock, and accounts for 60% of the total oil in North American waters. One oil seep off California produces a maximum of 9.125 tons of oil per year. (12) Also, about 37% of oil comes from land based runoff and consumption of oil. (13) Thus, offshore drilling accounts for less
- When oil is combusted, it will have products such as carbon dioxide. However, it is impractical to propose not using oil. Petroleum accounts for 37% of the United States energy, so getting rid of oil is
- · if oil is not used, then the 37% gap will still be there, and renewable resources are not going to fill it. In 2011, only 9% of the United States' energy came from renewables, and only 10% worldwide (14), showing the technology is not able to satisfy the world's energy demand.
- the oil will have to come from somewhere. Pollutants are released from transporting the oil and will increase if offshore oil

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"The True Risk Factor"

- Although most of the major oil spills occurred in the 1990's, the total number of oil spills has majorly increased this decade. The number of barrels of oil and toxic chemicals spilled has risen from 4,400 in the 1990's to 6,100 in the 2000's. A barrel of oil is about 42 gallons, which means that more than 256,200 gallons of oil and chemicals have been spilled into the ocean since the start of the century. (17)
- While new regulations were imposed after the BP oil spill, there have still been accidents as a result of similar failures.
- In 2012, Shell's rig off of Alaska is cited as having environmental and safety violations as well as a failed wellcontainment system, even though standards have been apparently strengthened for offshore well design. (18)
- The French oil company Total struggled to stop a leak of a natural gas well for over 4 weeks, also in 2012. (19)
- 40,000 barrels of oil leaked out of a loading line off the coast of Nigeria. (19)
- Stricter regulations may be imposed, but human and mechanical error can never be truly eradicated with such complicated procedures. There's always a risk of contaminating our environment.

"Financial Benefits"

The Economy

- One of the main reasons offered for the continuation of environmentally unsound practices are financial benefits. People will do anything to preserve our already unstable economy.
- The entire economy is based off of things that come from the Earth; anything that is bought, traded, or sold will have originated from nature at some point in time.
- There is a myriad of environmental hazards when it comes to offshore drilling, and all of these problems can transfer directly over to the economy (eg: the fishing industry, tourism, human and animal health, etc).

Jobs

- The jobs created in drilling can be very brief. As Cindy Zipf, director of Clean Ocean Action, says. "Once the extraction infrastructure is built or energy reservoirs are depleted, jobs vanish." (14)
- Yes, many jobs are created in the beginning of the process, but that number decreases when the machinery is established and the oil is used up. Instead, lasting jobs can be found in "investments in renewable energy, efficiency and conservation", (14)

The Cost of C

- More than a trillion dollars is a lot to pay for a for a recourse that will someday be unavailable.
 Instead, we should focus on conserving the oil and natural gas we have left, and investing in renewable energy sources.
- Renewable energy sources are not depleted after constant use, like solar end
 biggorous budgestage agust gentlegged energy and gentle energy (15).
- These types of energy may sound expensive to harness, but the cost has greatly decreased sinc their initiation. For example, solar power costs 60% less than it did two years ago. For utility-sized solar panels, the cost has gone from \$7 to \$2.50 in the last five years and the price is expected to drop even more. (16) With the rising cost of oil and the quickly dropping cost of renewable energy the greener option will soon be the clear financial choice.

"The World's Need for Energy"

- Fossil fuels are our primary energy source. While the continuous use non-renewable energy is an enticing thought, we should slowly decrease our usage and increase the use of renewable energy.
- Population growth: energy demand increases with population. The world's energy demand is expected increase by 50% by 2020.
 We're using the reserves too fast and the population is growing even faster. Yes, the world needs energy, but if we keep using nonrenewable energy, we won't be able to sustain ourselves for much longer. (20)
- Renewable energy example: Solar power will be able to provide for 1 billion people by 2020. (20)
- Solar and wind energy can be seen as unreliable, but they run complementary to each other. The sun shines during the day (energy can be harnessed even on a cloudy day), and it is generally windier at night. (21)
- generally windier at night. (21)

 Our dependency on fossil fuels is crippling, but it doesn't have to be permanent. Iceland is now 100% reliable on renewable energy, using mainly hydro and geothermal sources. (22)

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Conclusion

It is important with the controversial topic of offshore oil drilling to factor in the pros and the cons while forming your opinion. Those who chose the be in favor of the pro side have come to the conclusion that the practice is necessary for supporting the economy and should not be shut down due to of the environmental risks. However, those in favor of the decrease in offshore oil drilling believe that oil resources are being used at an unsustainable rate and the environmental effects are too large to be ignored. Both sides have been presented, and now it is up to you to make your informed ethical decision.

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