

Keystone Pipeline:

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ABSTRACT

In 2008, a project for a 1,179 mile pipeline that ran from Alberta, Canada to Texas was approved by TransCanada. The city of Alberta, Canada, lies above a massive plot of tar sands oil. This pipeline would have succeeded in providing the U.S. with over 168 billion barrels of oil ready to be manufactured and sold throughout the world (2017, Denchak). Many agree that this pipeline would have benefited the U.S. immensely, while others argue that this could be the start of an environmental breakdown. This debate spanned over the course of three presidential terms, until eventually the project was finally terminated by the Biden Administration in 2021. All of these debates led me to the question “Was the environmental aspects of this project too disastrous to even compare to the potential security it would have provided the U.S. with? Or would the economic possibilities be successful enough, to outweigh the effects it would have on the environment?” To conduct this research I will use the case study research, since a majority of my data collected will be from past pipelines and their history. I will base all of these results/ findings to determine what would have benefited the U.S. in the short-run, as well as the long run.

RESULTS

With all of this information that was presented to me throughout my research, I discovered that overall, the world is not technologically advanced enough to run off of “clean/green” energy. People have tried to solve the carbon emissions issue by “going green” and introducing the idea of electric cars, however; studies have shown, “manufacturing an EV is actually worse for the planet than making a conventional car. This comes down to the effects of mining, transporting, and refining battery materials. (James, 2025)”. Not to mention, oil spills are inevitable since there has never been a pipeline in history that hasn't spilled or leaked within its lifetime. The truth is, the world is not advanced enough to completely run off of clean energy. Which means that we have to run off of fossil fuels, and other “unclean” energy sources. We can not put a hold on life by trying to restrict our fuel usage. The world has to get their energy from somewhere, and sadly, it cannot be accomplished through clean practices. Until we are able to obtain energy and fuels in a more environmentally friendly way, fossil fuels, and oils are the most efficient option at this point in the world. With this being said, the U.S. would have benefitted if the Keystone Pipeline had not been terminated.

RESEARCH OVERVIEW

I organized my research into two main categories: the “long-run” and the “short-run”. Both of these categories evaluate past pipelines and their effects, as well as other research that was conducted alongside with it.

LONG-RUN: When the pipeline is viewed within a long period of time, the conclusion can be made that the Keystone Pipeline would have eventually harmed the U.S.

- All pipelines within my research have had a devastating oil spill
- Tar sands oil has been proven to be the most harmful oils and is much harder to cleanup and detect
- The keystone pipeline would involve transportation via boat, which means more fuels emitted into the ocean as well as a possibility of an accident occurring overseas
- Construction over sacred indigenous lands



SHORT-RUN: When this pipeline is viewed within a short period of time, the conclusion can be made that it would have been extremely beneficial to continue this pipeline.

- Raised the GDP within the United States
- Helped reduce the unemployment rate (would have provided over 20,000 americans)
- Reduce the United States debt
- Guarantee security on oil in an instance of emergency or war
- In general, there are no current **efficient** energy sources other than fossil fuels/coal.



STUDIES AND PAST PIPELINES

Green Energy: One of the main uses of fuels is for transportation. With this, the emergence of electric vehicles have been presented into the world. One study shows the carbon emissions from a regular vehicle versus an electric car. In the lifetime of a gas car, it emits around 6 to 9 metric tons of carbon dioxide, whereas the electric vehicle; emits 11-14 metric tons of carbon dioxide (James, 2025). This study simply proves the state that the world is in, to where we are not advanced enough to completely go green and disregard the use of oil and gas.

Tar Sands Oil: Studies show that tar sands oil emits 15 percent more carbon emissions than regular oil does (Union of Concerned Scientists, 2013); as if that wasn't harmful enough.

BP Oil Spill: This destroyed a large portion of the Gulf's habitats and reefs. Wildlife was heavily impacted by this accident. As a result, the Deepwater Horizon had to pay over 65 million dollars in clean up fees. The Gulf Coast (which is where the Deepwater Horizon is located) brings in an average of around 470 million barrels of oil (University of Mississippi, 2017), which is estimated to be an average of \$66 (Macrotrends, 2025). With this being said the average price that the oil industry brings in revenue, approximately \$31 billion. Though there is no denying that this event was not devastating, this pipeline is one of the many pipelines that brought in billions of dollars into the US's GDP. It allows us to have an upperhand in the oil industry as well as obtain a healthy annual revenue.

MV Hawaiian Patriot: The MV Hawaiian Patriot was a cargo ship that had transported oil from land to land. In the year of 1977, this cargo ship had a technical failure, which caused the vessel to sink and lose all of its cargo, which at this time was oil. 30 million gallons of crude oil was lost into the ocean, which resulted in 50,000 tons being spilled into the ocean. Though this spill seemed to be devastating, there were no clean up efforts, since none of the oil was predicted to reach landfall. The MV Hawaiian Patriot helps support the reasons why the Keystone Pipeline was terminated. A majority of the oil produced from this pipeline was to be exported to other countries. This would be done by cargo ships.

