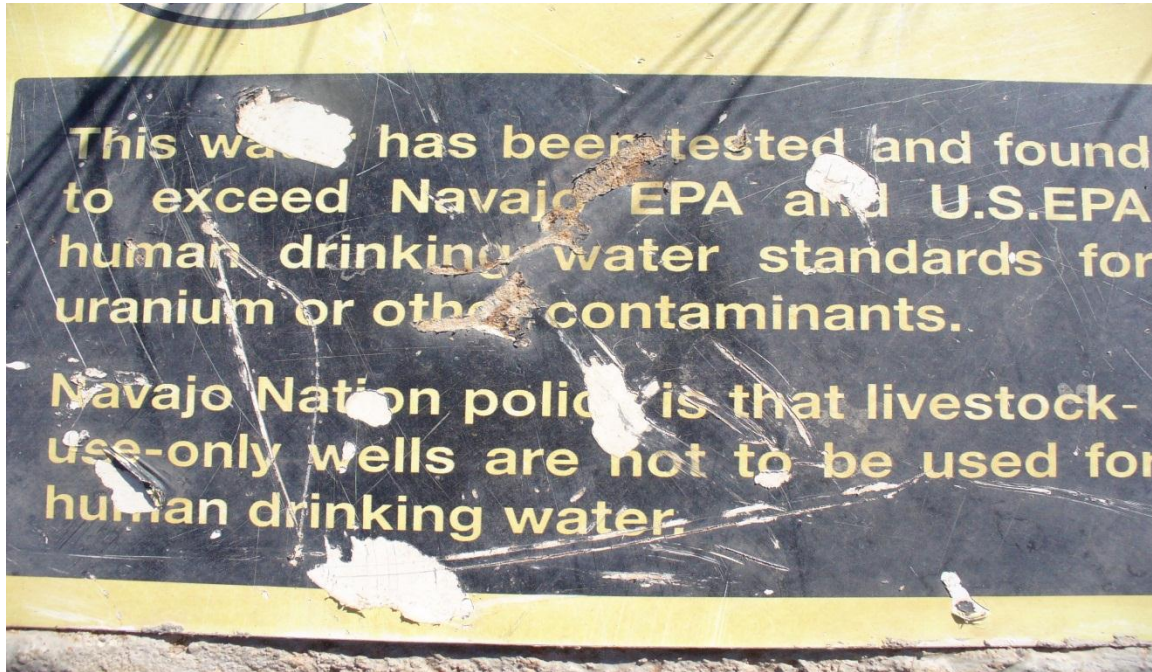


State-Corporate Crime on the Navajo Nation: Human Consumption of Contaminated Waters

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Corporate crimes are different than some of the crimes we think of with white-collar crime in that corporate crimes are not committed for personal gain, even though certain individuals directly benefit from them. State-corporate crime is a hybrid of white-collar crime because it has attributes of corporate and government crime. Many of the crimes committed by the government are closely tied to corporations in the private sector. There are many links between corporate “power elites” and the government on all levels.

State-corporate crime refers to “...illegal or socially injurious actions that occur when one or more institutions of political governance pursue a goal in direct cooperation with one or more institutions of economic production and distribution (Kramer and Michalowski 1990:3). Applying state-corporate crime in the case of this paper is demonstrated by examining the United States interest in energy and mineral resources found on American Indian reservations. These reservations are of strategic importance to corporations and the government because they constitute one of the largest and least known mineral repositories on the continent – nearly 5% of U.S. oil and gas, one-third of its strippable low sulfur coal, and one-half of its privately owned uranium (Gedicks 1993:40).

Exploitation of indigenous people is often the unfortunate result of state-corporate crime. One common thread that runs through many of the 562 federally recognized American Indian nations is that they are poor. Unemployment rates of 70% are not uncommon, along with substandard health care, education, substance abuse, high rates of violence, and the basic necessities of subsistence. Because these sets of circumstances exist among many Indian nations, large corporations, sometimes in cooperation with public agencies, are well positioned to exploit indigenous peoples who are on the frontline of contemporary struggles. Even though people on the reservation may receive some monetary compensation, many believe the trade-off of intrusion on their lands, devastation of the environment, and catastrophic harms to people are too high a price to pay for corporate jobs.

With that said, I now turn to an issue of particular importance in the southwest on the Navajo Nation, roughly the size of West Virginia encompassing portions of Arizona, New Mexico, and Utah. Very briefly, the 1872 Mining Law allowed speculators to file claims, mine for various minerals almost anywhere they wanted, while remaining unaccountable for their actions in dealing with any sort of clean up. Those who created this law so long ago could scarcely imagine the lethality of uranium and the legacy this type of mining would leave behind.

With economic conditions being what they are today, it is no surprise that uranium speculators are again targeting the Colorado Plateau for uranium mining. The price of uranium has risen sharply in the past few years, leading to requests to reopen expired claims and closed mines. Many people, including the Governor of Arizona, are in favor of reopening these mines without a thorough understanding of past legacies.

True, there would be new jobs created in very depressed areas of the region. However, we've here before, and uranium mining did not leave anyone, other than the mining companies, in a better place. Uranium mining in the 1950s brought substandard wages, radioactive dust, or "yellowcake" which poisoned people, livestock, and hopelessly contaminated drinking water and soil. Lung cancer among Navajo miners ran rampant, and today that legacy remains. Because of this past history, leaders on the Navajo Nation have banned any future uranium mining.

Outside the reservation, the 1872 mining law remains in effect making it difficult for local and state officials to stop the process, and unfortunately, we all live downwind. For well over a century, mining companies have left toxic mine tailings in piles that continue to pollute streams and underground aquifers. Because of the 1872 law, mining companies were simply allowed to walk away without attempting any sort of clean up. In an effort to make significant changes to this mining act, the 110th Congress, 2007-2008, H.R. 2262: Hardrock Mining and Reclamation Act of 2007 was introduced. This bill would modify the requirements applicable to locatable minerals on public domain lands, consistent with the principles of self-initiation of mining claims, and for other purposes. This bill never became law. The bill was received in the Senate on November 5, 2007, read twice and then referred to the Committee on Energy and Natural Resources (GovTrack.us).

Companies who wish to mine today have taken measures for better oversight regarding the health and environmental impacts. Safety standards have improved for miners who now have better protection from radiation exposure. Even with these improvements, as stated in the previous paragraph, no

significant changes have been made to modify how and where mining can take place. And given the state of the economy at this time, would there be sufficient resources for federal government oversight? If past mining practices mirror what future mining has in store, we need to examine the past legacy of uranium mining. Uranium mining was in full swing in the 1950s. When the bottom fell out of the market for this ore, thousands of contaminated sites were left behind. Death rates due to lung diseases tripled among miners, and the largest radioactive spill in United States history occurred when a tailings dam broke at Church Rock, New Mexico spilling millions of gallons of radioactive waste into the Rio Puerco River. What we need to keep in mind is that Uranium-238, the most prevalent isotope in uranium ore, has a half-life of about 4.5 billion years, meaning that half the atoms in any given sample with decay in that amount of time. Uranium-235 has a half-life of 704 million years, and Uranium-234 has a half life of 245,000 years (Institute for Energy and Environmental Research. IEER Factsheet/Uranium. <http://www.leer.org/fctsheet/uranium/html>). This means the water is hopelessly contaminated.

Many Navajo men working in the mines were unaware of the dangers inherent in uranium. Mining peaked from the early 1950s through the 1980s with approximately 400 million pounds being extracted from the region. Profits dwindled and uranium mining ceased until 2007 when prices soared to \$136.00/lb. Stories abound of people living on the reservation using sand and crushed rock from old uranium mines to make concrete slabs for floors in hogans and other uses. People had no idea these “free” materials were radioactive. If we look back to the 1950s, cancer rates on the reservation “were so low that a medical journal published an article titled ‘Cancer immunity in the Navajo’ (Pasternak. LA Times. 2006, A9). However from 1944-1986 mining companies removed tons of ore from the ground. Multinational corporations, as well as smaller operations, provided uranium with their sole customer, the United States government. When the Cold War ended in the early 1960s, one-thousand mines and processing plants on the Navajo Nation were closed (Pasternak LA Times. 2006, A9).

Over this period of time, people on the reservation lived in radioactive dust from the waste piles. The radioactive dust blew around in the wind. Abandoned pit mines filled with rain and the people and livestock drank from the water. Children played in radioactive puddles and dug caves in piles of mill tailings. Many homes were built with radioactive debris. Chunks of ore, squared off nicely by the blasting process, were left at old mines and were used to make bread ovens, cisterns, foundations, fireplaces, floors and walls. Today one can drive through the Cameron area and see these foundations, and piles of uranium tailings left behind. Even though the Navajo Nation produces most of the energy for the southwest, there are about 8,000 people with no electricity, gas lines for heat, no running water for homes, plumbing or any type of sanitation. People in this area have been forced to haul water fit for human consumption because their wells are contaminated by companies that have mined and processed uranium ore, leaving toxic mine tailings in piles polluting streams and underground aquifers with no obligation to clean up the devastation left behind. Today we can still drive past huge tailing piles near Cameron, Arizona and see other piles beside the Colorado River near Moab, Utah. We can also see uranium contaminated home foundations that were abandoned due to radioactivity.

People who were believed to have a “special immunity” to cancer saw death rates double from the early 1970s to the late 1990s according to Indian Health Services data. During this same time, the

overall cancer rate in the general population of the United States declined. In 1981 the tribe's health department reported sharp increases in breast, ovarian and related cancers among teenage girls.

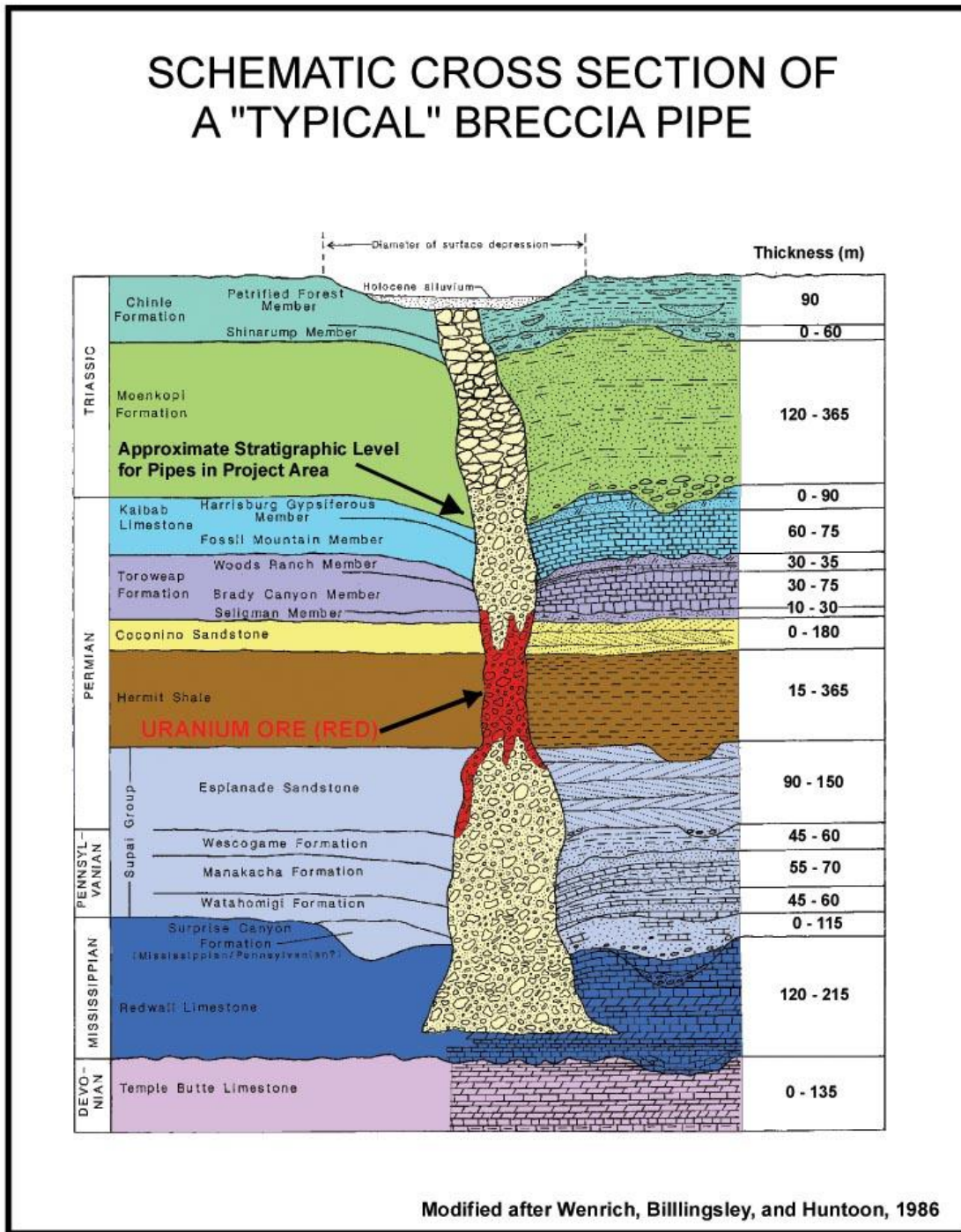
Pasternak (L.A. Times, 2006, A9) reports that Navajo Neuropathy and other severe health issues are associated with drinking uranium contaminated water. In spite of high rates of cancer, diabetes, autoimmune disease, kidney failure and birth defects, there has been no comprehensive study of public health in uranium and coal mine communities. Both the citing of mines in a minority community and the failure of the government to take remedial action follow the patterns of discrimination which gave rise to the environmental justice movement.

Because of the lethality of uranium, new evidence shows gastric cancer rates up 50% during the 1990s among Navajo people in two New Mexico counties with uranium sites. Uranium has been linked to reproductive cancers, and a sharp increase in breast, ovarian, and other cancers among teenage girls. Today, cancer rates 17 times the national average have been found (Cole. Arizona Daily Sun, 3-29-08, A1 and A8).

On Friday, February 19, 2010 the Arizona Daily Sun reported on the front page that a study conducted by the Southwest Biological Sciences Center at U.S. Geological Survey in Flagstaff have "slightly elevated levels of uranium in the water, but that the majority of wells, springs and streams would be fit to drink under EPA standards" (Cole. Arizona Daily Sun, 2-19-10, A1 and A7). The study reports that there were "a few" samples that were greater than the drinking water standard. How many is a few? And given the half-life of uranium, wouldn't a few be too many?

I spoke with the author of the article, and she informed me this type of mining would be different because uranium would come from breccia pipes rather than open pit mines. Breccia pipes are long vertical tubes of broken rock. "The uranium mineralization occurs in the breccia zone within the core of the pipe, as well as in the annular ring faults surrounding the breccia pipe" (Yount. The NAU Project: Uranium Exploration in Northern Arizona).

A schematic cross section of a typical breccia pipe follows.



Looking at the schematic cross section of a typical breccia pipe, on the previous page it is easy to see that the ore still needs to be taken from deep in the earth. Whether open pit, or breccia pipe, the moment uranium is taken out of the ground radioactive waste is generated. When uranium is removed from the

ore, “85% of the radioactivity is left behind in the tailings. The wind can easily blow the tailings away and contaminate soil and water” (Duda. 1980:1).

Ironically, and in direct contrast to the study reported on February 19 by the Arizona Daily Sun, President Joe Shirley of the Navajo Nation signed a Public Health State of Emergency for Navajo residents living in areas exposed to unsafe uranium contaminated drinking water which has resulted in chronic health problems and who need access to safe drinking water in their homes. The Navajo Commission on Emergency Management drafted this document on January 15, 2010, and it was signed on the same day the Arizona Daily Sun reported uranium contamination is minimal.

In this paper, I have demonstrated the legacy of mining beginning in the 1950s as well as the violence of mining for corporate and government benefit at the expense of the environment and people. As long as economic and political powers continue to pursue these types of ventures without the strictest of environmental regulation, the harms to all of us will continue.

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