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**BLIGHTED HOMELAND**

## **Mining firms again eyeing Navajo land**

**Demand for uranium is soaring. But the tribe vows a 'knockdown, drag-out legal battle.'**

By Judy Pasternak

Times Staff Writer

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Crownpoint, N.M.

When mining companies started calling tribal offices last year, Navajo President Joe Shirley Jr. issued an edict to employees: Don't answer any questions. Report all contacts to the Navajo attorney general.

Decades after the Cold War uranium boom ended, leaving a trail of poisonous waste across the Navajo Nation, the mining industry is back, seeking to tap the region's vast uranium deposits once again.

Companies are staking claims, buying mineral rights and applying for permits on the edge of the tribal homeland. They make no secret of their desire to mine within the reservation as well.

That prospect has turned neighbor against neighbor and touched off legal, political and financial maneuvering far from Navajo lands.

Fifty years ago, a nuclear arms race propelled the search for uranium. Today, the driving force is the quest for new sources of energy. China and India are building nuclear reactors at a rapid pace to fuel their growing economies, and the Bush administration is pushing to expand nuclear energy in this country to reduce U.S. dependence on foreign oil.

With demand increasing, the price of uranium has climbed to more than \$60 a pound. Six years ago, it was as low as \$7.

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Mining companies are extracting uranium in Texas, Wyoming and Nebraska, and are taking steps to mine in Colorado.

But Navajo country, covering some 27,000 square miles in Arizona, New Mexico and Utah, is the biggest prize of all — "the Saudi Arabia of uranium," in the words of Mark Pelizza, a vice president of Uranium Resources Inc.

A subsidiary of the Texas-based company holds a Nuclear Regulatory Commission license to mine in and around Crownpoint, a crossroads town of 3,000 Navajos that sits on the largest known undeveloped uranium deposit in the U.S.

URI officials are seeking permission to begin mining on a test basis in the nearby township of Church Rock, N.M., in 2008. If results there convince regulators that the project is environmentally sound, the company will be allowed to start operations in Crownpoint.

Mining in both places is expected to yield 42 million pounds of uranium over 20 years — worth more than \$2.5 billion at today's prices.

Two Canadian firms — Strathmore Minerals Corp. and Energy Metals Corp. — are also laying the groundwork for mining.

Altogether, the three companies have acquired rights to tens of thousands of acres just outside the reservation's southeast boundary. URI alone has invested more than \$25 million.

Mining executives say they plan to extract uranium from underground rock formations through an environmentally benign chemical process. There will be no blasting, no unsightly pits and no lasting contamination, they say.

Unconvinced, the tribal council last year passed a ban on mining or processing uranium in "Navajo Indian country," a term that embraces both the reservation and neighboring communities such as Crownpoint and Church Rock that participate in tribal government.

Federal courts have recognized "Indian country" as extending beyond the reservation's boundaries, but the ban seems destined to be challenged in court.

After the measure took effect in April 2005, mining concerns kept calling the Navajo capital, Window Rock, Ariz., hoping to secure support for their projects. So Shirley signed Executive Order 02-2005, which instructs tribal employees to avoid any "communications with uranium company representatives."

The directive infuriated mining executives. "You tell me, what kind of a democracy is that?" asked John DeJoia, a Strathmore vice president. "They've got tremendous resources out there. They're a very poor nation. That could change."

Robert McNair, director of capital projects for Dejour Enterprises Ltd., a Canadian energy company, asked state officials for help. He reached Derrith Watchman-Moore, New Mexico's deputy environment secretary.

A Navajo who had served as the tribe's environmental director, Watchman-Moore told McNair there would be no new uranium mining until past contamination had been purged. "My strategy was to discourage them from asking for a permit," she said.

It worked. Dejour decided to focus instead on a huge deposit in Saskatchewan.

The tribal government has also tried to block financing for the projects. When Shirley learned Itochu Corp. was considering investing \$32 million in the URI venture, he asked the Japanese conglomerate not to do it.

"The Navajo people have made our wishes and our laws clear: We do not want further uranium mining in our communities," Shirley said in a letter to Itochu's chairman.

But URI, Strathmore and Energy Metals have pressed on. They have an important ally in Sen. Pete V. Domenici (R-N.M.), who has been a forceful advocate for nuclear power as chairman of the Senate Energy Committee.

In the spring, Domenici pushed Department of Energy officials to meet with mining executives who were worried that the government might sell large quantities of uranium from a 135-million-pound federal reserve that is costly to maintain. The mining officials feared such a step would depress the price of the metal and make it harder to finance their projects.

An assistant energy secretary assured the executives that there would be no big sales before 2009, according to records obtained under the Freedom of Information Act. Later, the Energy Department drafted a long-term strategy for the reserve and invited the industry's views.

Mining companies say about 100 skilled laborers will be hired at each site. Those jobs, along with income from mineral leases, could help ease pervasive poverty among Navajos, they say.

Opponents say the environmental risks are too great. One of URI's planned subterranean minefields is within a mile of six wells that supply drinking water for about 15,000 people in and around Crownpoint. Chronic exposure to uranium in drinking water has been associated with kidney disease and increased risk of cancer.

URI's federal license requires it to provide replacement wells, but tribal officials worry that contaminated water could migrate toward the new wells. No company has ever mined so close to a public water supply using the technology employed by URI.

The uncertainties unsettle many Navajos, who are surrounded by the legacy of past mining — abandoned shafts, tainted wells, radioactive dust.

"All these promises ... I don't believe a word of it," said Larry King, a 49-year-old Navajo who raises cattle on his family's ranch in Church Rock. "I've seen too much mining. I'm not convinced."

### **The right solution?**

Most of the projects would employ "solution mining," in which water fortified with oxygen — and sometimes bicarbonate — is injected into an underground formation of porous sandstone. The solution washes uranium and other minerals from the sandstone. The uranium-laden water is then pumped to the surface. There, the uranium is filtered out, dried and trucked away for further processing.

The oxygen solution is pumped back into the aquifer, and the process is repeated until the sandstone has yielded all the uranium that can be removed economically.

The amount of water poured back into the ground is slightly less than was removed, creating a low-pressure area. This causes groundwater to flow into the mining zone rather than away from it, and prevents uranium and other contaminants from spreading, according to the companies.

Just in case, they plan to ring mining zones with test wells so that any movement of pollutants will be detected promptly.

After an area has been fully mined, the producers would restore the aquifer by repeatedly pumping water to the surface, cleaning it with the same process used to purify bottled drinking water and injecting it back into the ground.

Solution mining has a three-decade track record in the U.S. Five facilities are operating today — one in Wyoming, one in Nebraska and three in Texas.

"I'm not aware of any major disasters," said Tibor Rozgonyi, head of the mining engineering department at Colorado School of Mines. "You can control the contamination, if you design correctly."

The questions revolve around whether aquifers can be permanently cleaned.

In Wyoming, the state Department of Environmental Quality has approved the closure of two solution-mining sites in the last two years. But it took at least six years to clean the aquifers to the state's satisfaction. "We think they can do it faster, in two or three years," said Richard Chancellor, the Wyoming official overseeing the restoration.

In a boom and bust industry, time matters, he said: "What if they went bankrupt and walked away?" Bonds posted by mining concerns might not cover all the costs of cleanup and monitoring, skeptics say.

In Texas, Uranium Resources Inc. is having difficulty cleaning a solution mine south of Corpus Christi. George Rice, a hydrogeologist hired by a review board in Kleberg County, found elevated

concentrations of uranium, radium-226 and other pollutants more than five years after mining had ended.

In his report, Rice wrote that a URI official told him a request to relax the state's cleanup standards was "inevitable."

The problem, Rice wrote, is that once a closure is approved, the company can stop pumping, cleaning and monitoring groundwater. "There is no guarantee that the water will not migrate beyond the mine's boundaries," he wrote.

Pelizza of URI says it shouldn't matter if the water in a solution-mining zone isn't totally purified as long as it meets standards for its pre-mining use. "How clean," he asked, "is clean enough?"

### **Troubled history**

The Puerco River, which runs along the southern boundary of the Navajo reservation, is usually dry in the summer. But early on July 16, 1979, the channel roared with 93 million gallons of radioactive water.

An earthen dam at a uranium mill in Church Rock had ruptured, releasing liquefied tailings, a waste product of traditional uranium production.

The result was the largest accidental release of radioactive material in American history. The surge was detected 50 miles downstream, in a stretch of the river that Navajos use to graze cattle and irrigate their corn.

The dam was considered state of the art, officials of United Nuclear Corp., which operated the mill and a nearby uranium mine, later told Congress.

The Environmental Protection Agency is trying to decontaminate groundwater at the site. But project manager Mark Purcell said the task may prove impossible. Some of the tainted water is moving toward Navajo land, he added.

With this experience as a backdrop, Navajo organizations and environmental groups are fighting URI's plan to make Church Rock a test site for solution mining.

A tribal water resources manager, John Leeper, noted in a written declaration to the Nuclear Regulatory Commission that private wells tap the Church Rock aquifer "for human drinking water."

King, the rancher, joined the board of the major opposition group, Eastern Navajo Dine Against Uranium Mining. (*Dine*, pronounced dih-NEH, is Navajo for "people.") The organization joined outside environmentalists in appealing URI's federal license, stalling the project for years.

It has sponsored protests with a rallying cry of *leetso doo'da* — Navajo for "no uranium." Its leaders have traveled to Washington, D.C., and the United Nations to argue against a resumption of mining.

"We don't want nobody doing experiments around our area, no," King said.

To Juan Velasquez, Strathmore's vice president for environmental and regulatory affairs, such talk is "the bane of the uranium industry. We're all fighting against emotional arguments."

Velasquez knows mining's troubled history in Church Rock. He became president of United Nuclear four years after the 1979 tailings spill, with responsibility for cleaning up the mill.

In 1992, the NRC ordered the company to set aside more than \$16 million to guarantee completion of the cleanup. Instead, on Velasquez's instructions, the money was turned over to United Nuclear's parent company.

The commission imposed an unusually large \$100,000 fine for "willful violation of an NRC order." United Nuclear agreed to pay \$99,000 without admitting wrongdoing. Velasquez called that "a business decision" and said "there was never a time in which any surety was at risk."

Before Velasquez's arrival, United Nuclear had closed its Church Rock uranium mine, leaving behind a pile of radioactive waste ore. The closure met federal standards then in place. In August, a heavy rain flushed radioactive material from the mine into an arroyo.

Velasquez said he had no concerns that today's stricter mining regulations might likewise prove inadequate in the future. The Navajos, he said, have more pressing health issues than uranium mining.

"We could worry ourselves to death that one additional cancer in a million will be caused," Velasquez said. "It sounds stereotypical, but these Indians jump in their car and drive 90 miles per hour down the road. But they won't take the risk on uranium."

Twenty-five miles northeast of Church Rock, the groundwater in Crownpoint is pure. Uranium permeates the sandstone in the aquifer, but it is tightly bound.

Water from the six municipal wells, famous for its sweet taste, contains trace concentrations of uranium far below the EPA maximum for drinking water, federal regulators say.

URI wants to transform an old uranium drilling site into a solution-mining zone and processing plant.

For now, the lone employee at the site is Benjamin House, who signed on with URI 10 years ago, when it was the only company pursuing a mining license. A former delegate to the Navajo council, House has purchased airtime on the Navajo radio station to press the company's case. He has also booked tours of URI's Texas facilities for tribal and local leaders.

He steels himself for confrontation as he makes his rounds. URI plans to mine a second site west of Crownpoint. When House stood there recently, in a sparse field of tumbleweeds and pinon trees, a red pickup halted abruptly on the nearest dirt road. The driver leaned out the window to snarl at House.

House knows what his detractors think: "I sold out." But, he said, some Navajos approach him on the sly, saying they could use the jobs mining would bring.

House's most vocal backers are nine extended Navajo families who signed mineral leases with URI in the early '90s. They look forward to receiving royalties if mining gets underway.

Among them is Bessie Largo, a widow who makes ends meet by weaving rugs. Speaking in Navajo translated by House, she said her acreage was not suited for farming. "We are supposed to make a living off that land, and that is exactly what we are trying to do," she said.

### **Preparing for battle**

The tribe claims jurisdiction over any territory where mining would affect Navajo residents, regardless of who owns the land or the mineral rights.

"A sovereign has a right to protect its people against environmental threats," said David Taylor, an attorney in the Navajo Department of Justice.

Mining executives, however, are honing arguments that the tribal ban does not apply to their leaseholdings in an area known as the "checkerboard," at the reservation's southeast edge.

Here, the tribe's communal land gives way to a hodgepodge of parcels held by federal and state agencies, private businesses and other owners. This is where the planned Church Rock and Crownpoint solution-mining sites are.

Strathmore is leasing land owned by the U.S. Bureau of Land Management. URI plans to mine on land the Navajos bought from the Santa Fe Railroad in 1929. The railroad retained the mineral rights, and a successor sold them to URI.

The uranium firms don't hide their eagerness to move onto the reservation proper. Pelizza sees the checkerboard projects as the key to achieving that goal.

"There's a concern. Once we've addressed those concerns, maybe the Navajos will see that and make exceptions," he said.

Taylor, the tribal lawyer, says it won't happen.

"We have no intention of letting them mine without a knockdown, drag-out legal battle," he said.

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