

# Uranium Mining in Colorado

## Colorado's Boom and Bust History with Uranium Mining

Colorado has approximately 1,200 historic uranium mines, which produced over 63 million pounds of uranium from 1948 to 1978. In the past uranium mining and milling sites in Colorado have contaminated the air, soil, ground, and surface waters with toxic and radioactive chemicals. These operations created negative impacts on mineworkers, public health, wildlife, and the environment.



There is no special program to clean up and/or contain the toxic and radioactive legacy of thousands of mines left behind by the uranium mining industry. And now Colorado is facing another uranium boom.

The photo to the left is at Uravan, Montrose County CO where much of the last uranium boom took place.

## The New Uranium Boom

In 2002 the price of uranium was \$10 a pound, but it has since jumped to \$90 a pound in 2007. Natural disasters around the world, including the flooding of uranium mines in Australia and Canada caused the price of uranium to increase. A surge in demand from China, India, and Russia also contributed to the price increase. There is now widespread speculation about the resurgence of a nuclear power industry in the United States, which benefited from favorable policies promoting nuclear power in the 2005 Energy Policy Act, and uranium speculators are all over the West looking for ore deposits.

As of May 2007, there are 35 permitted uranium projects in Colorado, all of which are active but none of which are producing yet. However, the Division of Reclamation, Mining and Safety anticipate some uranium mine operations to resume production this year. Cotter Corporation is the most recent company to mine uranium in Colorado (2005). They are a subsidiary of General Atomics Corporation in San Diego and want to reactivate four mines this year.

## It's No Longer Pick and Shovel Mining

The old ways of using a pick and a Geiger counter to find uranium are over. Currently in the U.S. there is only one method of uranium mining that is practiced. It is called In Situ Leaching and it involves injecting a weak sulfuric acid solution to dissolve the uranium and then pumping the acidic (radioactive) water out of the ground.

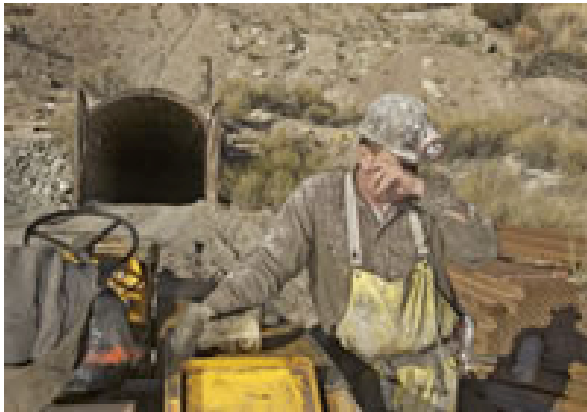


## Environmental Impacts of Uranium Mining

Uranium mining operations release increased levels of toxic and radioactive contaminants in areas surrounding mining, milling, loading, transportation, and waste storage facilities. Contaminated soils are disseminated by wind and contaminated waters flow into rivers and groundwater.

This widespread distribution of toxic and radioactive contaminants causes deleterious effects to plants, fish, and wildlife throughout the areas surrounding areas. Groundwater resources are particularly at risk since the weak sulfuric acid solution is pumped into the ground and re-captured with dissolved uranium, which can leak into groundwater supplies for local communities or farmers and ranchers

The half-life of uranium is 4.5 billion years. Contaminated areas may be polluted for this period of time.



## Health Risks From Exposure to Uranium

The byproducts of uranium mining include uranium, radium, thorium, radon gas, lead, selenium, and arsenic. Uranium, thorium, and radium are radioactive. Exposure to the byproducts of uranium mining causes cancer.

Ingesting uranium is toxic and leads to bone, liver, and blood problems. Inhalation of radon gas causes lung cancer. The long-term effect of selenium exposure causes damage to liver and kidney tissue as well as the nervous and circulatory systems. Arsenic is poisonous and can be lethal.

Scientific studies have shown that residents living within 1 mile downwind or \_ mile in any direction of uranium mining operations are exposed to radiation levels similar to those of nuclear workers and have a greater risk of developing health problems.

## Uranium and the 1872 Mining Law

Under the Mining Law of 1872, any individual or company can stake a claim on the National Forests or national resource lands administered by the Bureau of Land Management for the development of uranium. The number of new claims in the state has increased dramatically in the past year, largely fueled by the speculation of the next uranium boom in the West. According to government data, Kee Nez Resources from Utah and Western Fuels from Washington State hold the most mining claims on Colorado's public lands.

