

A Thumbnail Sketch of the Cripple Creek/ Victor Mining District's History

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For countless centuries, one of North America's great gold deposits lay hidden under grasslands on the west flank of Pikes Peak, an area suitable for summer grazing range. Unfortunately, this district had no ore-finding burro's like some other districts and the human prospectors didn't find much to mine for a long time. The overland gold seekers headed for California in 1849 followed routes to the north or to the south of this area. The "Pikes Peak gold rush" of 1859 brought many would-be gold miners to the eastern base of Pikes Peak but only those that went north to Cherry Creek found any of the shiny stuff that dreams are made of. The rest went home "busted" and the Pikes Peak region gained a poor reputation as a potential gold area. The presence of gold on the west side of the peak was noted in 1874 by H.T. Woods of the Hayden Homestead Survey, but little notice was taken of this observation. Another black eye for the district came when "Chicken Bill" of Leadville salted a claim on Mt. McIntyre, 10 miles west of Cripple Creek. Bill narrowly escaped hanging when the hoax was discovered by the reported 4,000 participants but unfortunately the affair was labeled the Mt. Pisgah hoax and purported have been just outside Cripple Creek.

"There's Gold in Them Thar Hills"

The district then lay dormant, save for ranching and part-time prospecting by Bob Womack, ranch hand for the Broken Box Ranch. He tried to convince others that gold was present but he was too well-known for his tall tales and propensity for the spirits for any support. Finally in 1890, rocks from Womack's persistent digging were assayed in Colorado Springs showing that the rock actually contained gold. This led to the formation of the Cripple Creek Mining District on April 5, 1891.

Some small placer deposits of gold were found on Mineral Hill immediately north of Cripple Creek. One problem with finding gold in the district was that much of the gold was chemically bound with the element Tellurium and miners were not familiar with this form of gold. The mineral Sylvanite, part gold, silver and telluride is silver in color. Gold should be gold color!

Stamp mills were brought in but gave very poor recovery. The small amount of free gold that was present, was coated with a film or tarnish of iron telluride which resisted amalgamation, the time honored method of recovering gold. High-grade ores running several ounces of gold to the ton could be sent by wagon north to the Colorado Midland Railroad at Florissant and shipped from there to the smelters in Pueblo and Denver by rail. But what was to be done with the bulk of the Cripple Creek ores which did not contain sufficient values to pay for mining, transportation to the smelter and the smelting charges? Area miners who had come from the Black Hills of South Dakota brought the chlorination process with them and this became the common method of gold recovery. A license to use the cyanide method developed by the MacArthur Brothers of England was obtained for the Brodie Mill in Anaconda Gulch, a method already in use in South Africa and New Zealand.

The Railroads

Better transportation than wagons was urgently needed, the Florence and Cripple Creek Railroad reached the district from the Arkansas River to the South in 1894. This was quickly followed by the standard gauge Midland Terminal line coming from a connection with the Colorado Midland to the north. The two railroads, competitive at first, joined forces forming a monopoly. Mine owners with mills in Colorado City adjacent to Colorado Springs organized and built the Colorado Springs and Cripple Creek Railroad or "Short Line" traversing the south slope of Pikes Peak. The new railroad was able to force freight rates downward, accelerating production.

Although, several small chlorination and cyanide mills were in operation in the district in the 1890's, problems arose. Fuel for mill boilers was nearly nonexistent in the area. What little timber had been present on the grassy hills was rapidly consumed for building and heating houses as well as mine and mill structures. Coal and fuel oil were available from the mines and the oil field to the south along the Arkansas River, however, it was cheaper to haul ore down hill than to haul the fuel uphill. Water for mills and homes was rather scarce as the region has an annual precipitation rate of around 20 inches. These factors led to construction of the larger mills nearer fuel supplies and adequate quantities of water. At first these larger mills were along the Arkansas River between Florence and Canon City. Later, Colorado City adjacent to Colorado Springs became the milling center for the ores of Cripple Creek.

The chlorination and cyanidation process competed for the Cripple Creek market into the early 1900's. Chlorination was favored at first but cyanidation proved to be the most efficient and by 1911 all of the chlorination mills had burnt down or gone out of business. New fangled electricity seemed to have been responsible for many of the mill fires.

From 1891 to 1900, the district boomed. The rapid rise in production was accelerated by the financial crisis of 1893. Silver miners were hurt when the mint in India stopped their large silver purchases but the crowning blow to the Colorado mining economy came when Congress repealed the Sherman Silver Purchase Act. These two actions were reflected in the immediate drop in the price of silver. The great silver camps at Creede and Leadville virtually shut down and the ex-silver miners headed for Cripple Creek. Gold production boomed and in 1899 nearly 1,000,000 ounces of gold were recovered.

After the inevitable fires raced through Cripple Creek and Victor, modern brick buildings were erected almost overnight. Good times rolled. Nearly one million ounces of gold were produced in 1899. The district boasted of an amusement park called Pinnacle Park at Cameron served by trolley and train. The park had a zoo where the pits built to house the bears are visible today. Entertainment reached a new high (or low) when the only recorded bull fight in North America was held at Gillett just northeast of Cripple Creek.

In 1898, Winfield Scott Stratton, a one-time carpenter and part-time prospector, sold his great Independence Mine to the Venture Corporation of England for \$11,000,000. This transaction helped focus attention on the gold camp both nationally and internationally.

As the Century Turned

After the turn of the century, production levels started to slide as the mines went deeper, ore grades decreased with depth, and water increased with depth. The Cripple Creek District has been likened to a granite bottle with a large sponge inside, saturated with melting snows and rain water from early geologic time. Pumps were inefficient and expensive so drain tunnels were driven into the ore zones to drain the water. The drain tunnel can be compared to drilling a hole through the granite bottle and letting the water flow out by gravity. In the Cripple Creek District, five major tunnels were driven through the years at successively lower elevations but longer distances to aid in the drainage.

In spite of the relief provided by the drain tunnels on operating costs, production continued to decline. One very bright spot occurred in 1914 when a vug or cavity on the 1200 level of the Cresson mine discovered. Sixty-thousand ounces of gold were taken from that geode-like cavity about the size of a living room but twice as high. Armed guards protected the bagged gold bonanza all the way to the smelter in Denver.

Production continued to decrease through the WWI period and the 1920s. A slight increase occurred in 1934 when the price of gold was officially raised from \$20.67 to \$35.00 per troy ounce. However, It became evident by the late 1930s that in spite of the gold price increase, a deeper tunnel would have to be driven to drain production levels below 8000 feet if the district were to survive.

The Carlton tunnel at 7000 feet in elevation and the fifth of the drains was 6.11 miles in length and driven in just 2 years and 5 days setting many hard-rock tunnel records. The Carlton Tunnel accomplished its goal of dewatering and was a masterpiece of underground mining construction and yet, through no fault of the miners and the mining company, a masterpiece of poor timing.

World War II

The entry of the United States into WWII brought on the L-208 act restricting mining of nonessential metals and the gold mines were shut down. The L-208 act virtually shut the district down for the duration.

After the war, the district did not immediately recover. The idle mines had deteriorated and former miners did not return for many reasons including better pay for mining uranium on the Western Slope of Colorado than gold in Cripple Creek. Postwar inflation drove up the cost of materials and supplies.

In an effort to revive the district, the Golden Cycle Company shut down the only remaining mill in Colorado Springs and built the Carlton Mill midway between Cripple Creek and Victor. The mill was officially started in 1951 by Lowell Thomas, author, radio commentator and world traveler. The Carlton was the largest custom gold mill in North America at 1000 tons per day. A state-of-the-art facility, the mill was only the third mill to utilize carbon adsorption for collecting the gold. During the 10 years of operation the mill produced 437,077 troy ounces of gold before its shutdown in 1961. In that year, with gold still pegged at \$35.00 per ounce most of the gold mining operations in the United States closed shop with operational costs per ounce at or higher than \$35.00 per ounce.

Two periods of labor unrest (1893-1894 and 1903-1904) led to the Cripple Creek District being union-free after 1904. Government troops were called out in both instances but most violence took place in the 1903-1904 period. Albert Horsely, better known as Harry Orchard, came to the district from the Coeur d'Alene and set a bomb on the 600 level of the Vindicator Mine resulting in the death of the Superintendent and one of the foremen. Shortly thereafter, he blew up a railroad station in the town of Independence as the night shift crew from the nearby Findlay Mine were waiting to go home, killing 13 miners. Orchard fled from the district to Idaho where he killed Ex-Governor Steunenberg with another bomb. Orchard was apprehended for these tragic acts and served the rest of his life in the Idaho prison.

The Cripple Creek District lay dormant from 1962 until the 1970's. Then United States citizens were once more allowed to possess gold and the price was permitted to seek its own level in the world market. Extensive exploration in the district disclosed large quantities of low grade gold-bearing material previously uneconomical for mining and processing.

Mining Returns

The same chemistry, involving cyanide, used for nearly 100 years in this district to recover gold is still utilized. However, the old time miner had only a scoop shovel and a one-ton ore car to move his rock and moving 16 tons in his 8-10 hour shift was a fair days work. Today, large rubber-tired equipment is used in surface mines to move hundreds of tons of rock each shift. This permits mining very low grade gold bearing rock at 0.02 to 0.03 troy ounces per ton in a far safer manner than that experienced in the underground mines of the past. In order to process the large quantities of gold ore efficiently, large leach pads are built out of dikes on impermeable membranes. These replaced the small tanks previously used to leach the gold with the weak cyanide solution inside mill buildings.

The leach solution drips through the crushed gold ore placed on the leach pad dissolving the gold. The gold-bearing or pregnant solution is then pumped into tanks containing coconut-shell carbon where it is adsorbed onto the carbon. After the carbon has become loaded with gold, the gold is stripped from the carbon and electroplated onto stainless steel mesh. The plated gold (like so much mud) is washed from the mesh and vacuum filtered. The resultant filter cake is fluxed, melted in a furnace at 2100 degrees F.

and poured into a cone-shaped mold. The resulting button or dore, a combination of gold and silver and resembling a large Hershey Kiss, is sent to a refinery for separation into gold and silver bullion for the world market.

Today, mining does not commence after a claim has been staked as it once did. Instead, a thorough geologic investigation followed by feasibility studies, an extensive permitting process with local, State and federal agencies and the posting of a reclamation bond must be accomplished before any rock is moved. The ultimate bonding required for the Cripple Creek & Victor Gold Mining Company the present mining operation is 98 million dollars. Reclamation must be completed as permitted and approved before the bond can be released.

In addition to meeting the many environmental requirements, CC&V has built trails and set up mining equipment exhibits in cooperation with a local volunteer group. The company earned a State award for the rehabilitation of the building used for their offices in Victor. In addition to supporting the local schools, CC&V helps local clubs and groups and contributes to many other community needs.

Today, gold is much more than a collection of gold bricks in a Swiss vault. It is used in coins and jewelry plus many new uses due to gold's unique characteristics. Gold is easily worked and does not corrode. These qualities permit it to be used in computers, and other critical electrical connections to insure reliability. Gold also has uses in medicine as well as fiber optic cables. Space craft employ it to cover the nose cone tiles to prevent burning up on reentry as well as using a gold film on the spacecraft windows to ward off infrared rays. Tall commercial buildings also use a gold film on windows to ward off the negative effects of the sun's rays. Truly gold is a versatile metal!

Suggested Reading:

Money Mountain by Marshall Sprague
Cripple Creek Mining District by Robert Guilford Taylor
Midas of the Rockies by Frank Waters
The Flood of Gold by Robert Spude
The Rocky Mountain Revolution by Stewart Holbrook
Colorado's War on Militant Unionism by George Suggs
All that Glitters by Elizabeth Jameson