

## MINING COMPANIES AT BISBEE

Between 1881 and 1930, literally dozens of mining companies were formed to exploit properties in the area around Bisbee. How many there may have been is difficult, if not impossible to determine, as early on so very much was carried on informally and often the only surviving information is to be found in random notes in the notoriously inaccurate newspapers of the time or cleverly-crafted advertisements for the stock. Fortunately, by 1900 several credible researchers began following and publishing data on copper companies (i.e. H. J. Stevens via The Copper Handbook).

The information presented herein has been gleaned largely from local newspapers, notably the Arizona Weekly Citizen, The Arizona Republican, Tombstone Prospector, Tombstone Epitaph, The Weekly Orb., Cochise Review, and Bisbee Daily Review. Also, invaluable and accurate information came from the Copper Handbook, volumes II through XV and to a lesser degree the Copper Manual volumes I through V. The annual reports for the Calumet and Arizona Mining Company and related companies for the years 1902 through 1932 as well as the annual reports for Phelps Dodge and Co., Inc. for the years 1909 through 1916 and for Phelps Dodge Corporation for 1917 through 1950 all provided important and detailed information.

The late 1890s and the early part of the 20th century were a time when many new companies appeared at Bisbee and the early success of the Calumet and Arizona in 1902 followed by the Shattuck and Arizona discovery of ore in 1904 made even the wildest dream seem possible and inspired a rush to invest in these copper fields. By 1900, more than 1,000 mining claims covering nearly 20,000 acres had been filed. Some 400 were patented while the remainder were unpatented. Serious mining men, speculators and promoters alike all wanted to gain control of good ground and go to the hungry stock market to get the financing needed to develop the property.

To be sure there were many serious endeavors, guided by capable managers, a very few of which succeeded. More common however, holders of a group or block of mining claims who hoped, usually with no concrete basis, other than proximity, that their claims held more of the ores found by the Copper Queen, sought to sell shares in their company to finance their expensive gamble. The Copper King of Arizona made much of its proximity to the Copper Queen mines, suggesting it could be of equal value. However, the Dividend fault cut off any ore extensions. Most of the money raised in the stock market by the Copper King was used by to pay the directors handsomely, not look for ore.

The number of companies attempting to develop properties at Bisbee was cyclical and largely a function of available capital in the stock market. Thus during periods of high metal prices, more speculators were in the market with more money available for these junior type companies. This remains much the same today, except that those intent on swindling the investors now have a more difficult time. The periodic stock market panics/crashes/depressions typically cleaned out the market place by forcing many into bankruptcy. The panics of 1893, 1907 and 1929 had the most impact on the small mines at Bisbee. Even the smaller successful mines such as the Denn, Shattuck and Wolverine mines were closed during 1907/08 and the depression of post WWI years forced the merger of the Denn and Shattuck companies and caused the Higgins to be sold to Phelps Dodge while the unprecedented market crash of 1929 ultimately forced the merger of the C & A with PD.

The geology of Bisbee's ore deposits is complex and the only way to see if an area is mineralized is to open it up. This meant huge investments in sinking shafts and driving crosscuts in the difficult search for ore. Diamond drilling was relatively new in the mineral exploration game at the turn of the 20th century, and while it was employed to a certain degree, most sank shafts to gain depth prior to drilling. In all, prospecting was a very costly effort and many small companies simply ran out of money before they found anything, if there was anything to be found.

In some cases, the smaller companies with adjoining properties merged, while in other instances larger, well-funded companies purchased the stock of the smaller companies, essentially absorbing their properties. The evolution of the principle mining companies as they absorbed others is discussed later.

Advance Development and Mining Co.  
African Noble Duke Gold and Copper Mining Co.  
American Development Co.  
American Prospecting and Development Co.  
American-Saginaw Development Co.  
Anaconda and Arizona Mining Co.  
Anaconda and Bisbee Mining Co.  
Arizona Bisbee Copper Co.  
Arizona Gold Mining and Development Co.  
Arizona Prince Copper Co.  
Atlanta Mining Co.  
Atlas Exploration and Mining Co.  
Bisbee-Arizona Development Co.  
Bisbee-Arizona Gold and Copper Mining Co.  
Bisbee Belle Copper Co.  
Bisbee Coalition Mining Co.  
Bisbee Consolidated Copper Co.  
Bisbee Copper Co.  
Bisbee Copper Development Co.  
Bisbee Copper Mining Co.  
Bisbee-Duluth Mining and Development Co.  
Bisbee Extension Development Co.  
Bisbee Extension Mining Co.  
Bisbee Gold and Copper Mining Co.  
Bisbee Mining Co.  
Bisbee-Quincy Copper Mining Co.  
Bisbee Queen Developing Co.  
Bisbee and Superior Development Co.  
Bisbee West Copper Mining Co.  
Boston-Bisbee Mining Co.  
Box Canyon Mining Co.  
Calumet and Arizona Mining Co.  
Calumet and Bisbee Development Co.  
Calumet and Boston Copper Co.  
Calumet and Cochise Development Co.  
Calumet and Pittsburg Mining Co.  
Cochise Copper Mining Co.  
Cochise Development Co.  
Copper King of Arizona Co.  
Copper Queen Mining Co.  
Copper Queen Consolidated Mining Co.  
Copper Queen Extension Mining Co.  
Copper Glance Mining Co.  
Copper Rock Gold Mining and Milling Co.  
Crescent Copper Mining Co.  
Denn and Arizona Copper Co.  
East Side Mining Co.  
Easter Sunday Mining Co.  
Empire Mining Co.

Empire State Mining Co.  
Eureka Development Co.  
Golden Era Mining Co.  
Hecla and Arizona Development Co.  
Hecla and Arizona Gold and Copper Mining Co.  
Higgins Development Co.  
Higgins Leasing Co.  
Holbrook and Cave Mining Co.  
Houghton Development Co.  
International Copper Mining Co.  
Ishpeming and Bisbee Development Co. Ltd.  
Ivanhoe Copper Co.  
Junction Mining Co.  
Juniper Flats Gold Mining Co.  
Lowell and Arizona Copper Smelting and Mining Co.  
Lake Superior and Bisbee Development Co.  
Lake Superior and Pittsburg Development Co.  
Lake Superior and Pittsburg Mining Co.  
Lake Superior and Western Development Co.  
Marquette and Arizona Mining Co.  
Modern Copper Mining Co.  
Mountain View Development Co.  
Neptune Mill and Mining Co.  
Night Hawk Leasing Co.  
North Bisbee Development Co.  
Ohio Mining Co.  
Orin Silver Mining Co.  
Phelps Dodge and Co.  
Pittsburg and Duluth Mining Co.  
Pittsburg and Hecla Development Co.  
Pittsburg and Superior Copper Co.  
Portage Lake and Bisbee Development Co.  
Portage Lake and Calumet Development Co.  
Quincy and Arizona Development Co.  
Red Jacket and Bisbee Development Co.  
Saginaw Development Co.  
Shattuck and Arizona Copper Co.  
Shattuck Denn Mining Co.  
Silver Bear Mining Co.  
South Bisbee Copper Mining and Townsite Improvement Co.  
Superior and Pittsburg Copper Co.  
United Verde Extension Mining Co.  
Utica and Bisbee Development Co.  
Warren District Development Co.  
Warren Reality and Development Co.  
Wolverine and Arizona Mining Co.

It is almost certain that the above list is incomplete, as information on the many involved in floating stock based on property holdings near Bisbee is sketchy, at best. And too, it was not uncommon for promoters to fold up a company when the available funds were exhausted and simply dream up a new name for a company and start over again with the same property as a basis.

## **THE SUCCESSFUL MINING COMPANIES AT BISBEE**

As noted above, a good many companies and individuals attempted to make something of the ground they held rights to in the Bisbee area. More than a few had property with true value, but lacked the resources to prove the potential. It was expensive, very expensive to sink shafts of several hundred feet then to drive exploration headings to open up the ground and prove its value. Many tried and most failed.

Below is a brief summary of the few mining companies that were indeed successful at Bisbee. Over the years, as the ores in a property were depleted or market conditions became difficult, it was common for the larger, more financially secure companies to acquire the smaller company's holdings. This consolidation was largely to improve surface access or to exploit the remaining ore tons.

### Phelps Dodge Corporation

Cash is king in the mining business and Phelps Dodge & Co. was always prudent in its use of cash, always, and seemed to have the available funds when needed as well as the vision and courage to invest at the right time. This well-established and closely held mercantile firm entered the copper mining business in 1881 with the purchase of properties in both Bisbee and Morenci. At Bisbee it established the Atlanta Mining Company with the purchase of the Atlanta Mining Claim, which was contiguous to the Copper Queen Mining Claim. However, there would be several difficult years before any value was realized from this risky investment in the far-away Arizona Territory.

In 1884 the fabulous Copper Queen Orebody was nearing its end and the Copper Queen Mining Company had been seeking additional ores - exploring in all directions for several years, but to no avail. The Atlanta Mining Company had been chasing any promising indication as well, but with no luck. Fate intervened and both companies intersected the same, large high-grade orebody almost simultaneously. The orebody was within the mining claims held by both companies, a difficult and potentially legally challenging matter. Defining the ownership of the ore under the prevailing "Law of the Apex" would be a long and costly battle, enriching the ever-present parasitic lawyers. The Copper Queen was already involved in such a suit with the Arizona Prince concerning the ores of the original Copper Queen orebody, a suit that had the potential to destroy the company. Yet, the owners of the Copper Queen sought to sell the company (and the lawsuit) at a high price based on its reputation.

For six months the owners of the Copper Queen Mining Company attempted to sell their mine at a grossly inflated price. So outrageous was their effort that it attracted the attention of the highly regarded Engineering and Mining Journal (1885), which said the Copper Queen was undoubtedly a good property, but advised great caution when reading the supposed expert reports. No doubt the Copper Queen was offered to the partners of Phelps Dodge at a high price as well, but they were wise and prudent businessmen who would be ready to move when the price made sense.

In August of 1885, an amalgamation of the Copper Queen Mining Company with the Atlanta Mining Company was completed and the Copper Queen Consolidated Mining Company (CQCMCo.) was formed. The owners of the new company were the owners of the Copper Queen and the Atlanta mining companies. Terms of the amalgamation were that 1,400,000 shares with a par of \$10 each were to be issued and the CQ owners would receive 1,000,000 while the Atlanta received 400,000 plus a \$200,000 cash payment. Douglas (1909) later groused that almost all of the ore was found to be on Atlanta ground and had this been known, a better deal for the Atlanta could have been had.

However, in the face of depressed metal prices the former CQ owners looked for a way out. The partners of Phelps Dodge bought that part of the Copper Queen Consolidated Mining Company they did not own in 1886, thereby consolidating the whole of the company under their control. At this

same time, the partners advanced the CQCMCo. funds to build a new, more efficient smelter to help offset the low copper prices by increased copper production.

The company was a very closely held business with no shares held outside of the Phelps Dodge and Co. owners or the most senior of management. This meant that all capital improvements and expansions were paid for directly by the shareholders. These advances were typically carried as loans and repaid from operating profits, but the operating profits would have gone to them in any event. The investments were in reality made from what could correctly be considered as personal funds, but were made to grow the company and enhance its profitability. As the company grew it became imperative that the risk and reward associated with the needed expansions be shared with others.

In 1908 the Copper Queen Consolidated Mining Company was folded into the reorganized Phelps Dodge and Co., Inc. as a wholly owned subsidiary, thus ceasing to exist as an independent company. It was also during this reorganization that PD became a publicly traded company. Then in 1917 when Phelps Dodge reorganized again as Phelps Dodge Corporation, it became the Copper Queen Branch. This latter reorganization was coincidental with the decision to move forward with the Sacramento Open Pit Mine, a huge investment. Though unrecorded, it is very possible that the undertaking of this massive and somewhat risky investment was going to require additional outside investors.

Below are the mining companies at Bisbee which were acquired by PD interest through stock acquisition or by the direct purchase of property and folded into the Copper Queen Consolidated Mining Company or Phelps Dodge Corporation.

The mining companies known to have been active in the Bisbee area:

Atlanta Mining Co.

Calumet and Arizona Mining Co.

Copper Queen Mining Co.

Higgins Development Co.

Holbrook and Cave Mining Co.

Lowell and Arizona Copper Smelting and Mining Co.

Neptune Mill and Mining Co.

Silver Bear Mining Co.

Warren Realty and Development Co.

Amalgamated with the Copper Queen in 1885 to form the CQCMCo.

Merged into PD in 1931 on the basis of 3.25 shares of PD for each share of C&A.

Amalgamated with the Atlanta in 1885 to form the CQCMCo.

Purchased in 1922

Acquired by the principles of PD in 1888 and transferred to the CQCMCo. for additional CQCMCo. stock in 1894

Purchased in 1902

Purchased at a Sheriff's sale in 1887

Purchased about 1890

Purchased in 1917

In 1947, Phelps Dodge purchased from Shattuck Denn Mining Company all of the mining claims related to the Denn Mine as well as the surface facilities, except for the mill. For the next several years, substantial tonnages of lead/zinc were mined from this newly acquired ground (Mills, 1958). The properties held by the Wolverine and Arizona Mining Company were purchased a few years later for their nuance value and never mined. In 1972, the claim block that included the Shattuck Mine was acquired by Phelps Dodge and an important exploration effort for precious metals undertaken with but modest success. However, this small acquisition brought the whole of the productive area under the ownership of Phelps Dodge.

Subsequent to the cessation of all mining at Bisbee, Phelps Dodge undertook to acquire substantial blocks of property north of the Dividend fault. The idea was to follow up on promising diamond drill intercepts made by Occidental Petroleum during an exploration program investigating a large porphyry mass, long known to have low-grade copper values. In the end, Phelps Dodge secured the needed property and mineral rights and conducted an exploration program dubbed the "Cochise Project," which identified an interesting porphyry hosted resource. Perhaps, someday this will prove to be minable and Bisbee will once again contribute a vital metal to the American economy.

### Calumet and Arizona Mining Company

The Calumet and Arizona Mining Company had a very different genesis than the Copper Queen. It was always an investor owned and driven company as were the several related companies that were ultimately folded into the C & A. This is not a criticism, but rather a contrast in styles as the C & A was always operated at the highest levels of professionalism and efficiency, to the great benefit of the shareholders.

Many of the initial investors were associated with the highly successful Calumet and Hecla Mining Company in Michigan. Their general approach was to acquire a property, form a company based on this property and sell capital stock in the company to finance the development. Without exception, the same group of capitalist were the largest investors, thus taking the greatest risk.

Each property had its own company and while the core investors were the same not all investors were in all of the companies. Thus, each company had to more or less stand on its own with little financial assistance from the related companies. While the senior management, officers and directors were common to all of the companies and some development activities were undertaken by one group to assist another, the related costs were meticulously distributed accordingly.

As the companies began to consolidate to achieve greater operational and administrative efficiency, the differences in shareholders became a nettlesome issue for the Directors. The formation of the Superior and Pittsburg Copper Company in 1906 forced the Directors to offer one Superior and Pittsburg Copper Company share for each Calumet and Pittsburg, Junction Pittsburg and Duluth and Lake Superior and Pittsburg, share. As all the companies were not truly of equal value, this bothered the Directors and principle investors as they suffered some dilution in value. Then, in 1911 when the Directors sought to merge the Calumet and Arizona with Superior and Pittsburg Copper Company to reduce administrative costs and minimize exposure to taxes, a number of dissident shareholders tried to get a better offer. None was forthcoming and it took four tense years

to complete the transactions to the great consternation of the Directors. By January 1916, the deal was done and Calumet and Arizona Mining Company was the sole surviving company.

Acquired by the Superior and Pittsburg Copper Company in 1913 for 16,000 shares of treasury stock

Merged into the Superior and Pittsburg Copper Company in 1906 via a stock swap

Purchased by the Superior and Pittsburg Copper Company in 1914 for \$60,000

Merged into the Superior and Pittsburg Copper Company in 1906 via a stock swap

Merged into the Superior and Pittsburg Copper Company in 1906 via a stock swap

Converted into the Calumet and Arizona Mining Company in 1901 via a 1 for 1 stock swap

Merged into the Superior and Pittsburg Copper Company in 1906 via a stock swap

Acquired in 1902 by the Lake Superior and Pittsburg Mining Company via a stock swap

Dissolved 31 December 1915 with all assets transferred to Calumet and Arizona via 1 C&A share for 3½ S&PCC shares swap

American-Saginaw Development Co.

Calumet and Pittsburg Mining Company

Calumet and Bisbee Development Company

Junction Mining Company

Lake Superior and Pittsburg Mining Company

Lake Superior and Western Mining Company

Pittsburg and Duluth Mining Company

South Bisbee Copper Mining and Townsite Improvement Co.

Superior and Pittsburg Copper Company

### Shattuck Denn Mining Company

Third in importance among the mining companies at Bisbee was the Shattuck and Arizona Mining Company and the closely related Denn and Arizona Mining Company. Much of the management was the same between the two companies, but not all and the shareholder base was somewhat different. The Shattuck Mine was reasonably successful from the outset and it was well managed. By 1920, the Shattuck was largely mined out and lessees took over, but the mine still had significant value.

At the Denn Mine, things were difficult from the beginning. It had to sink through the wide Divided Fault zone where very bad ground and lots of water were to be found. However some incredible orebodies were waiting for a determined and committed developer.

During the early 1920s, the management of the two companies felt that inasmuch as both companies were essentially managed by the same group, it would be more effective to merge the companies and operate as a single unit. A logical move, however many shareholders took great exception to the evaluations placed on the individual companies. Holders of Shattuck stock felt their shares were

undervalued, even though the mine was believed to be largely worked out – due more to the prevailing low copper prices at the time than a lack of mineral. And too, this was their last chance get any value from the stock.

Conversely, Denn shareholders knew from work done by the C & A near the Denn sideline the property showed great potential and had no desire to be diluted by more shares given to the Shattuck shareholders, who in their mind brought very little to the deal.

Interestingly, a great many shareholders of both companies were Bisbee residents so this conflict spilled over into the community. In any event, the hotly contested merger was completed in 1925 and the Shattuck Denn went on to mine several very fine ore bodies from the Denn Mine during the 1930s and early 1940s, rewarding its shareholders accordingly.

### Wolverine and Arizona Mining Company

This small, underfunded company held some nine claims, mostly south of the Shattuck property. Early efforts were fraught with frustration, as while numerous indications of nearby ore were found, it was sometime before minable quantities were delineated. Always a small operation and hampered by a shortage of operating capital, the Wolverine and Arizona operated only during times of high metal prices and suspended operations quickly when prices fell.

Lessees mined the few remaining tons during the 1920s, using the Higgins Tunnel to access the ore. The property was eventually sold to Phelps Dodge, but was never mined again.