



**NEW MEXICO**

# ***Abandoned Mine Lands***

HISTORY OF THE LAKE VALLEY MINING DISTRICT



Photo Courtesy of Robert Eveleth, NMBGMR

**HOMER E. MILFORD**

**From the AML archaeological survey report of  
Lake Valley by Moiola and Milford, 2000**



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HOMER E. MILFORD

**It is hardly safe for a man's reputation to tell the truth in reference to the Lake Valley mines,** (*Santa Fe New Mexican*, August 29, 1882)

**"The Lake Valley Mines of New Mexico were being floated... If there were years of dishonor, from 1880 to 1884 we may class that period as the crown of them. ... those promoters; they were the wisest lot that the West ever knew. The promoter of to-day is a butcher when compared to the handlers of the fine stiletto that those men plunged into the vitals of the public."** (Henry B. Clifford, *Rocks in the Road of Fortune; or the Unsound Side of Mining*, 1908, pp. 233-235)

**"The Lake Valley mines, those marvels (on paper) of New Mexico's mineral wealth. It will be remembered that these are the wonders that Mr. George D. Roberts bought for \$10,000 (or at least he said he paid that sum), stocked at the rate of \$20,000,000, and is now selling in Philadelphia at \$5 a share, or \$3,000,000."** (SFDE, April 5, 1882)

**"Valueless properties are thrown upon the market, and, by incessant newspaper puffs, and fraudulent reports, are sold to confiding speculators. We have an example of this in the Sierra mines of New Mexico, the stock of which was floated in Philadelphia by our old California operator, George D. Roberts, and which since have proven to be utterly worthless. If Mr. Roberts did not know the Sierras were frauds, he certainly was prudent enough to sell every share of stock he owned in them before the bubble burst."** (SFDE, 7/27/1883)

**"After bilking an innocent public of millions, the fraudster [J. Whitaker Wright] admitted his crime by ending his own life."** (Mouat, 1995/1996, p. 9)

**"The next scheme George D. Roberts and Alfred (sic.) P. Harpending intend floating. ... These gentlemen may be scrupulously honest - we do not question it here; they may only be unlucky in their ventures. Still people who are chronically "unlucky", should be avoided, especially if they are getting rich at it."** (*The Daily Exchange: San Francisco*, March 24, 1882)

**Waste, thievery could not be worse if it was plotted openly.** (H. H. Sawyer to Benjamin Silliman Jr., 12/30/1882)

**"Every property with which the name of Mr. George D. Roberts has been associated in the New York market, has been a grievous loss to the investors; and how, properties which his hands have touched never recover. It is certainly timely, thus to lay bare these facts of the mal-odorous history of these people and of their schemes."** (*The Mining Record*, March 11, 1882, p. 218)

## Section 1: Introduction

This history of Lake Valley includes a wealth of contemporary comments that it would not have without Richard E. Lingenfelter sharing his newspaper-clipping file on George D. Roberts. This collection was made over several decades in preparation for his books *The Hardrock Miners, A History of the Mining Labor Movement in the American West, 1863-1893* and *Death Valley & The Amargosa, A Land of Illusion*. Lingenfelter's extensive collection was augmented by documents located in the past five years working with Jeremy Mouat of Athabasca University. Mouat's research for his book on the Rossland mines of British Columbia interested him in J. Whitaker Wright. Mouat is doing research for a biography of J. Whitaker Wright, the junior partner in the promotion of the Lake Valley mines. About five years ago this common interest in Lake Valley brought us together at a Mining History Association meeting. Since then, we have cooperated on Lake Valley and several other projects related to speculative mine promotions. Mouat has located numerous documents in various archives across North America related to Lake Valley. Thus both Lingenfelter and Mouat are major contributors to this history and deserve recognition as co-researchers, and though not listed as co-authors. The author listed is responsible for any and all inaccuracies. Robert Eveleth of the New Mexico Bureau of Mines and Mineral Resources shared what had survived from the Lake Valley files of that agency. Eveleth also shared his personal collection of stock certificates and other items.

The archaeological section of the report concentrates on the peripheral mining areas of the Lake Valley Mining District and covers a minority of the mining claims whose history is discussed here. However, the history of those claims would be poorly understood without the history of the entire district.

It is dangerous as well as libelous to accuse someone of dishonesty if you can not prove it, even a hundred years after his or her death. George D. Roberts and J. Whitaker Wright, the promoters of the Lake Valley mines from 1881 to late 1883, started their venture with the intent to sell what they thought was a small silver deposit for dozens of times its real mining value. Roberts and Wright had successful careers buying deposits or mines and then forming mining companies to sell stock to the public at inflated prices. By manipulating the news their mine managers gave the press, they could raise and lower the stock prices numerous times making a profit in both directions. They knew that eventually each company would be considered worthless and anticipated that event by selling their stock before this occurred. Roberts generally had one or more new companies under development to replace the companies that got discredited. I have tried to avoid using derogatory terms to describe Roberts and Wright. Every derogatory term I know, and some I did not know were applied to Roberts in the press almost 120 years ago. These ranged from mild ones like "dishonest" to "his Satanic Majesty." Roberts was never convicted of stock fraud, but Wright was in 1904. With the exception of quotes from the press, mild terms are used for these men in this history. This is not because I think they were honest or had anything but the worst of intentions, but because I admire the skill they demonstrated in what was then and now illegal. These men made at least one positive contribution to mining. The mills they built to impress the public, to entice them into buying stock, were often later used by honest miners. This was an inadvertent contribution to the development of mining in North

America, Australia and Africa. Roberts's luck ran out at Lake Valley and he switched to speculation in other industries in 1883. Following the 1894 revival in mining stocks Roberts returned to mining stock promotion. He obtained a concession from the Russian Government to explore and develop mines on the eastern shore of Siberia across the Bearing Straits from Alaska. Russian officials confiscated his ship in 1900 and he disappears from the press until his death in poverty a year later. Both Roberts and Wright deserve biographies as two of the best practitioners of their questionable profession. Their dreams, schemes and companies generated millions in mining company investments over the last four decades of the 19th Century. Their investments from British Columbia to Sierra County, New Mexico provided an infrastructure built upon by honest miners to produce millions of dollars worth of metals for the world after the promotion games were over.

The silver deposits of Lake Valley brought some of the leading Scientists of 19th Century America to New Mexico in the 1880s. Most of these scientists wrote reports for the two major promoters of the area, but only the articles they published in mining journals have been located. The numerous articles written about Lake Valley over the past 119 years relate a story of the discovery of an unusually rich ore body, called the Bridal Chamber, and the fact that the companies put most of their earnings into a futile effort to find other rich deposits. It is the intent of this history to tell "the rest of the story." The men who bought all of the claims in the central part of the Lake Valley District in the Spring of 1881 were not honest or even semi-honest mine promoters. They were two of the most talented, but unscrupulous stock promoters of their age. It was the last successful scam of George Roberts, who had floated essentially worthless mining companies for decades in the West. It was the second or third offering of a bright and rising promoter, J. Whitaker Wright who by 1899 was the richest mine promoter in the entire world. Roberts attracted little attention after Lake Valley, but Wright's suicide in a London courtroom in 1904, after his conviction for stock fraud, was front-page news around the world. Both men were true professionals at a trade that we now consider deplorable. They both survived dozens of mining scams before public opinion and the government caught up with them. They were true artists at their trade and deserve admiration for their planning and luck in an age in which unregulated speculative finance was a major source of capital for mining. Some of the scams these men operated were so well run that they have escaped responsibility for them for over a hundred years. A prime example is the Great Diamond Hoax of 1872.

George Daly, the first manager at Lake Valley in 1881, like many others involved, was an experienced hand from past promotions. Daly was a West Coast union buster who had managed mines for stock promoters from the Sierra Nevada's to the Rocky Mountains. He got the job managing Lake Valley when he was ordered out of a mining camp for the third time in three years for inciting violence. Daly recognized the limestone deposit at Lake Valley as the ideal geological setting for a stock promotion. The limestone contained scattered small, but very rich pockets of silver chloride ores that could be developed in such a way as to give the appearance of something fantastic. The stock promotions Roberts was running in Colorado and Nevada in 1881 were in their final phases. At best, they had only a few months to a year before public exposure and collapse. Roberts always tried to have a number of future promotions under development and planned the Lake Valley companies on the same format as his State Line



promotion in Nevada. Roberts purchased the entire known deposit for the State Line promotion and divided the claims amongst four companies. The two companies in the middle were given the most promising claims and sold at the highest prices and two companies with lower priced stock given the less promising claims at both ends. This is exactly the format he used at Lake Valley. Roberts and Wright knew each other in Leadville, but how they decided on a joint venture at Lake Valley is not known. Roberts generally hired others to act as officers of companies he formed in order to maximize his distance from the scam when it became known to the public. Lake Valley was only Wright's second known venture in mining stock promotion. Wright was the junior partner and served as vice-president or president of the companies. Probably the biggest surprise at Lake Valley for everyone was the discovery in September 1881 of a large pocket of very rich silver chloride, which they named the Bridal Chamber. Even this unexpected windfall was skillfully developed and nurtured with well-publicized visits by dignitaries to help sell stock. The Lake Valley mining companies, like the other offerings of these promoters, lost money for the individuals who bought the stock.

This history of Lake Valley adds additional information to the articles by Silliman (1882), Fountain (1882), Endlich (1883), Clark (1895), Jones (1904), Keyes (1908), MacDonald (1909), Eveleth (1986) and others, but differs in linking events at Lake Valley to the activities of the participants in other parts of the country. This broader picture tarnishes the reputations of some revered men as well as a great mining district. It is a saltier and hopefully a more interesting story than told in the past. Lake Valley was a scam that almost succeeded for a few stock purchasers as well as the promoters. It was not profitable for very many stock purchasers except those in on the stock promotion. The purchase of stock in a new mining company has always been a speculative investment, and the 1870s to 1900 were a period in which speculative promotions were a significant part of the financing of mining ventures. However, in spite of various governmental stock market regulations over the past century, as Bre-X in Indonesia proved in the 1990s, bilking the public is still possible by the promoters of new mining companies. Lake Valley brought together two of the best of this breed of promoter with state of the art window dressing development, manipulation of the press, and innocent as well as guilty experts who gave glowing reports. "The Richest Mines on Earth," (Mining World, 8/1/1882) was the title given an article by one newspaper editor after he was wined and dined at Lake Valley.

Involved in the early history of Lake Valley were a founder of the National Academy of Science (Benjamin Silliman Jr.), a father of American paleontology (Edward D. Cope), a financial benefactor of America's first women's college (Robert Pearcell Smith), some of the leading mining experts of the time (John Hayes Hammond) and it was the only stock ever owned by America's leading poet (Walt Whitman). **Appendix II** at the end of this report was designed to clarify names of people and claims encountered in the text. Section I lists the claims owned by each company and the history of their ownership. Section II provides a short biography of the major individuals discussed in the text. Section III lists the managers of the mines and the period they ran the mines. Section IV is a history of the bloody raid on Lake Valley by the Territorial Militia in 1883. The abbreviations used for newspapers and journals are explained at the beginning of the Bibliography.

## SECTION 2: Discovery and Prospecting Period: July 1878 - February 1881

The discovery of gold placers and silver lode deposits around Hillsboro, 15 miles north of Lake Valley, in 1877 brought many miners into the area. Small ranches had been started south of Hillsboro. R. D. McEvers owned the closest ranch to Lake Valley near a small lake three miles north of the deposits. McEvers' ranch was a common stopping point on the trail from the Rio Grande Valley over the Black Range to the Mimbres Valley and Silver City. George W. Lufkin, who worked both as a prospector and cowboy, has been given credit by most authors as the initial discover of the Lake Valley mineral deposits. Keyes (1908) gave credit to the local rancher McEvers, whose house was three miles north of the deposit.

The earliest mining claim notices found were made in both their names and are dated August 1878. Most contemporary sources credit Lufkin as the original discoverer, at some point in the summer of 1878. Lufkin, while passing through the area, either noticed float rocks or the dark black iron and manganese layers that came to the surface between the limestone layers. Jones (1904, p. 89) presents a discovery story that Lufkin got off his horse to tighten the girth and noticed a stone which he picked up. It was very heavy, a sign of metal-containing rock, and took it back to Hillsboro to be assayed. Jones places the date as August 1878 and says that later Lufkin brought Chris Watson into the prospecting and working on the claims. The local rancher McEvers, whose headquarters were three miles north of the area, was Lufkin's partner and filed the first claim in both their names. The date of location of the Lincoln Claim is given as August 12, 1878. Thus, Lufkin must have picked up the original rock in July 1878 or earlier. McEvers did not file the Lincoln claim until March 12, 1880 with the Dona Ana County (Mining Claims, Book 2, p 515) Clerk in Las Cruces. In the "Notice of Location" for the Lincoln claim he stated that he and Lufkin staked the claim on August 12, 1878 "on this lode or vein of Silver bearing Lead, or other Mettle." This is the earliest Lake Valley claim located in the Dona Ana County records, but many early claims were filed in Grant County whose records were not checked.

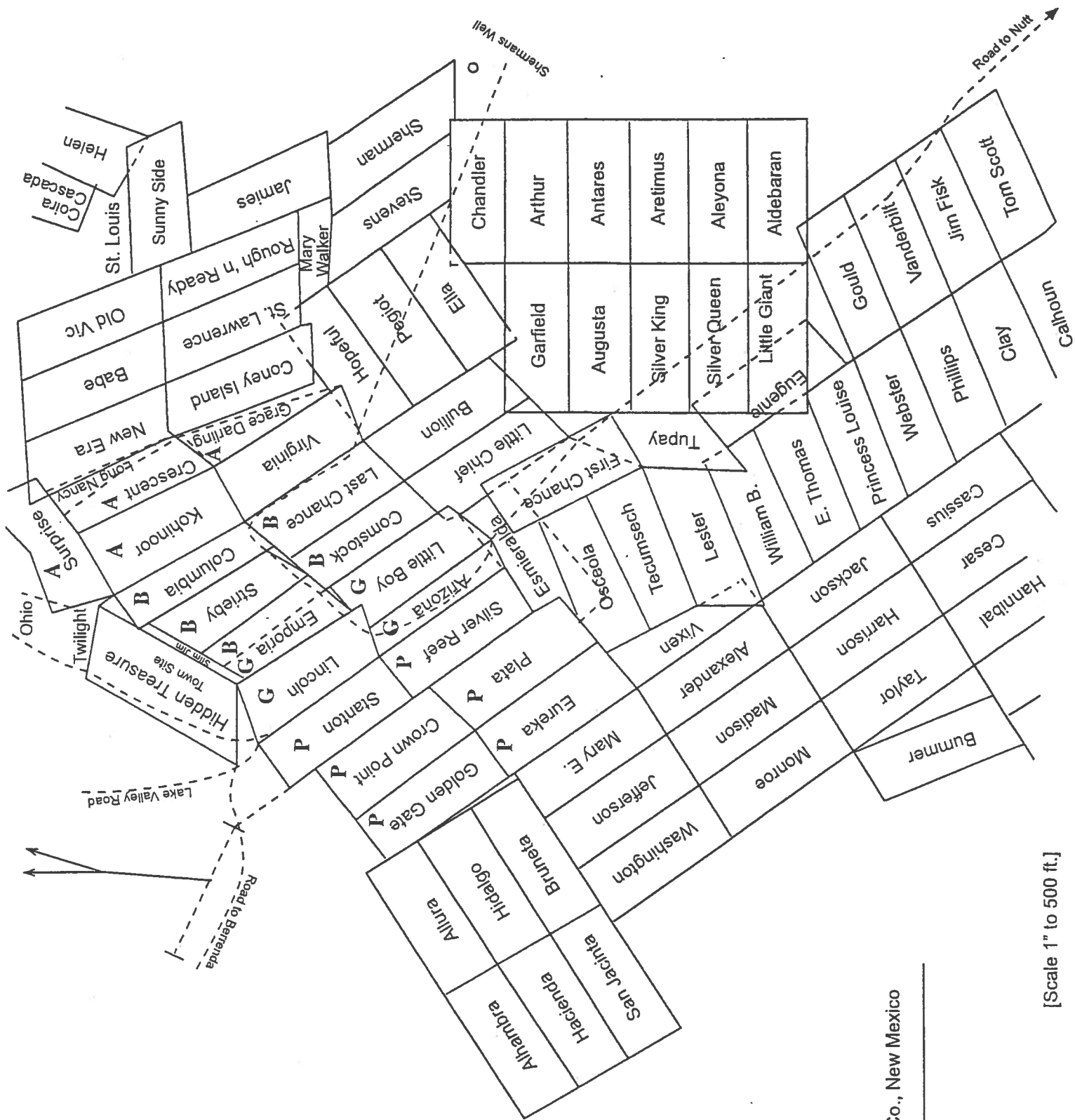
Albert J. Fountain (1882, p.19) gives a different discovery story. Fountain said that Lufkin was on a prospecting trip with a friend when he found the "big, black bodies of ore, cropping out above the surface." "They [Lufkin and an un-named companion] satisfied themselves that they had 'struck it rich' in silver; but as their 'grub stake' was by this time exhausted, they returned to Hillsboro and got employment, one as a cook and the other as a miner, saved up their wages for several months, in order to have a grubstake... In a few weeks the Indian war broke out upon the country and mining operations in that section were suspended."

Yet another story of how Lufkin found the Lake Valley deposit was given by McKenna in his book, *Black Range Tales* (1936, pp.285-6). McKenna relates that a Chinese man quit his job at Fort Selden on the Rio Grande and crossed the Black Range by himself. In route he came upon "a large outcroppin' of what he thought was iron," and broke off a piece and took it with him. He got lost, but eventually found his way to the silver mining camp of Georgetown over the ridge to the north of Santa Rita. The miners there recognized it as "pure horn silver," but the Chinese man could not retrace his steps, having gotten lost and never found the deposit again.

Some of the people who went out looking founded the Carpenter District. One of these was an engineer named Sawyer (possibly Henry H. Sawyer who later owned mines at Lake Valley) who discovered and named Sawyer's Peak, the highest point in the Black Range. McKenna goes on to say, "Amongst those who had seen the Chinaman with the ore were two prospectors, Lufkin and Watson. These two believed the Chink had found the ore near McEverts' (sic. McEvers') ranch, so they went through Gavilan Canyon and camped at Crystal Springs. Prospectin' south they came to a large quartzite dyke..." (p. 285-6).

### Early Development of the Claims

The Lake Valley deposit developed very slowly. Writers in the following decades blamed the slow progress on the Apache menace of the time. The reason was more likely that the early assays were poor, contrary to the popular myths created in the 1880s that they discovered bonanza ores only inches below the surface "at grass roots" (Fountain, 1882, p.19). This was definitely not the case, as the early silver assays were mediocre compared to the discoveries around Hillsboro and other areas. McEvers staked adjacent claims according to newspapers four years later (*Santa Fe New Mexican*, 8/29/1882, *The Republican*, Las Cruces 12/15/1883, p. 1), but based on the Lincoln location notice, McEvers was probably working in partnership with Lufkin on most if not all claims. Other prospectors heard of Lufkin and McEvers's work, and in the summer of 1879, many other prospectors from Hillsboro, Georgetown and Silver City came to Lake Valley to try their luck. The county lines were not clear and the Silver City area prospectors filed their claims in Grant County. A small rush was on and in August the first mention of the area was made in the national mining press, "McEvers ranch silver deposit excitement". (EMJ, Aug. 16, 1879). The first government report, however, indicated that the results were not exciting, "Mr. McEvers's Ranch, some 20 [sic. 12] miles south of Hillsboro, is another locality of silver. Work done there, however, during the summer did not give good results." (Lt. Rogers Birnie, Jr. report, p. 252, in Wheeler, 1879). There was a dark heavy mineralized outcropping on the surface between two layers of limestone. It occurred at scattered locations for about 2000 feet from northeast to southwest. This relatively small area was the only area that seemed to have silver values. It was covered by six claims in 1880 and over 90% of the future Lake Valley production came from these claims on the outcrop. The zone ended on the Stanton claim in the southwest and on the Koohinor in the northeast. To the west of the Lincoln claim McEvers and Lufkin also filed the Stanton claim in August of 1878. To the east was the Columbia Claim, whose title history was not traced back to its location (**see Figure 6 and 7 for claim maps and Appendix II for claim title histories**). The claim at the eastern end of the outcrop, the Kohinoor claim, was not located until January of 1880 by William F. Clark. Assay results continued to be unpromising in 1879 and Lufkin sold half of his interest (1/4 of title) in the Stanton claim to Dawson on December 13, 1879. The stated price was one dollar; a common arbitrary value often



# Sierra Mines

Daly, Dona Ana Co., New Mexico

- Sierra Plata
- Sierra Grande
- Sierra Bella
- Sierra Apache

[Scale 1" to 500 ft.]

Figure 6. H. H. Sawyer's 1881 Lake Valley Claim Map



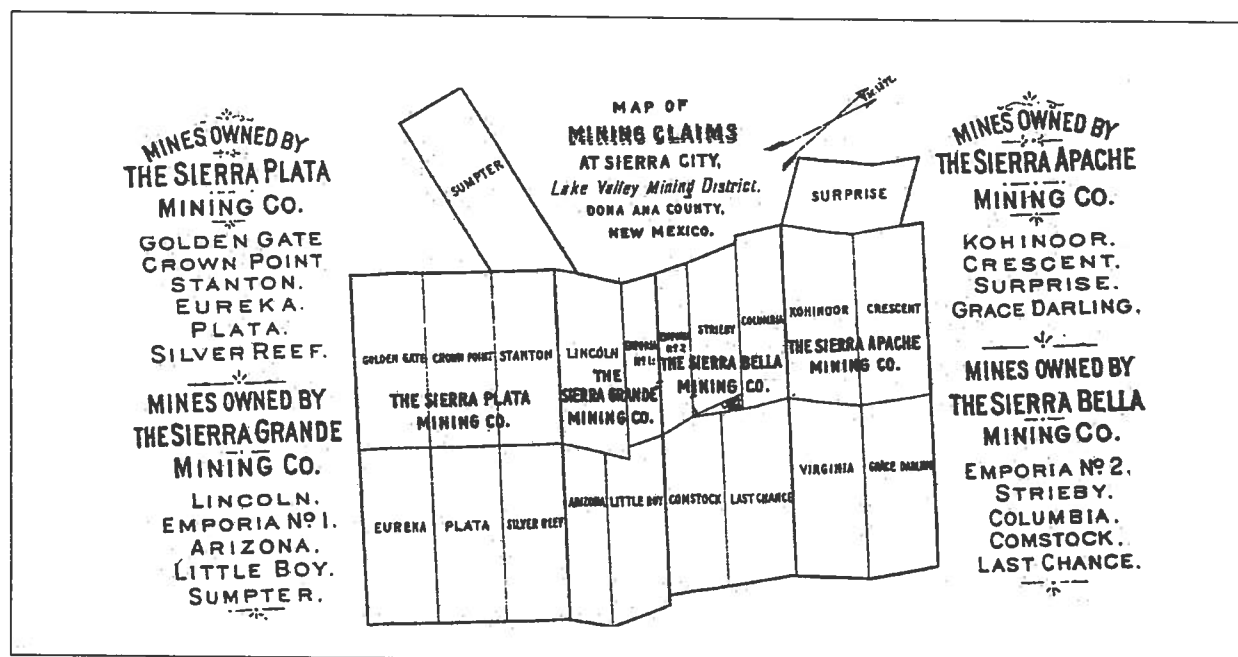


Figure 7. 1882 prospectus map of the four Sierra company claims.

The names of the claims owned by each company are under the company name. The only claim shown of this map not owned by a Sierra company is the Virginia claim. From Library Company of Philadelphia.





listed in deeds, but was probably only a few hundred dollars. The Stanton is the claim on whose eastern boundary at a depth of about 30 feet, the million dollar Bridal Chamber was found in the fall of 1881. The 5 to 10 foot deep prospect pits in 1879 and 1880 revealed only low grade silver ores that would pay little beyond the cost of refining. In the fall of 1880, better grades of silver ore may have been found. However, the major cause for the increase in claim values was that outside promoters were buying claims. A year after he purchased one quarter of the Stanton Claim, Dawson sold that quarter interest to Reynolds for \$1,500 dollars in December 1880. This was undoubtedly a big profit for Dawson.

The rising price of claims probably came as much from increasing interest by mining promoters in Lake Valley as it did from possible improving assays. As claims were being filed in three counties: Dona Ana, Grant and Socorro, there was confusion on ownership. Even the Stanton, filed in Dona Ana, was unsuccessfully claim jumped in March of 1880 by E. B. Learned and Gus Wilson as the "Monte Cristo", filed in Grant County. Apparently McEvers acquired the Monte Cristo interest to the degree it existed, as he filed its Grant County claim notice with his on March 12, 1880 with Dona Ana County. In 1879 or 1880 John A. Miller, the trading post operator at Fort Bayard, purchased McEvers' ranch to grow hay and also his interest in claims. Miller replaced McEvers as the dominant partner with Lufkin and Watson and tried unsuccessfully to raise capital for a smelter in 1880 by selling a partnership to outside investors. To what degree Miller financed work at the claims is not clear (Fountain, 1882, p. 19), but very little work was done. As a businessman Miller had some skill at promoting the potential of mining in the area and in 1880 a group of eastern investors bought three or more claims from him and his partners at Lake Valley. Eastern interest in western mines started increasing in 1879 and by 1880 a boom in mining stocks was on. In the fall of 1880, George B. Chittenden and some of his associates from an eastern group of mine promoters visited Lake Valley and the Black Range. Chittenden filed a claim for all the water of Borinda Creek (now spelled Berrenda Creek), "three miles in a Westerly direction from the cabins now standing at the Lake Valley mines" and filed this claim notice on October 23, 1880. He did this because any future mills at the mines would require large amounts of water. He also purchased Lufkin and Watson's 2/3 interest in the Columbia Claim and their as well as Miller's interests in several other claims at Lake Valley.

After Chittenden visited Lake Valley, he returned to the East Coast and he and his associates created "The Lake Valley Mining Company" as a West Virginia Corporation on December 8, 1880. It was filed with West Virginia on December 20, 1880, but not filed in New Mexico as a foreign corporation until May 27, 1881 after it was purchased by George Roberts. It is not in the New Mexico Corporation Commission microfilm, but is number 114 in the old record books on pages 436-437. It was capitalized at \$100,000, but the document states that the incorporators only paid in \$25,000 at the time of incorporation. Thus, only 1/4 of the amount shown was actually paid into the company.

#### Lake Valley Mining Company Stock Ownership:

Owner, residence	No. Of shares	\$ paid
George B. Chittenden, Washington D.C.	24,952	24,952
Lester A. Bartlett, Washington D. C.	34,953	34,953

Steby? B. Ladd, Washington D.C.	12,476	12,476
Halbert E. Paine, Milwaukee, Wis.	12,476	12,476
James P. Welch,?, Iowa	<u>15,143</u>	<u>15,143</u>
Totals	100,000	100,000

The headquarters of The Lake Valley Mining Company were in Washington D.C., and Bartlett, the largest stockholder, was reported in the press as the president. However, Paine in 1881 signed the deeds as president of the company. Ladd and Paine were also directors of two other companies based in Washington D.C. formed to mine in New Mexico about the same time. They were both directors of the 'Pinafore Mining Company' incorporated in Colorado which owned the Pinafore claim, later renamed the Last Chance claim on the south side of the Lake Valley Mining Company's Columbia Claim at Lake Valley. The Pinafore was incorporated with a par value of two million dollars. Wilson and Daly optioned the Pinafore Company stock or their claim at the same time they optioned the majority of the Lake Valley Mining Company stock. On June 15, 1881 Daly gave Wilson a promissory note for stock in the Pinafore Company as part of his half of the profits from the sale of claims to eastern investors. By November 1881, a decision had been made not to proceed with the Pinafore Company and J. Whitaker Wright replaced Wilson's note for Pinafore stock with one for Sierra Bella stock. The Last Chance (Pinafore) claim was made part of the Sierra Bella Company claims. This is shown in **Figures 6 and 7**.

Two other companies were formed by the promoters of the Lake Valley Mining Company to sell to eastern investors. Ladd and Paine were also directors of the Ivanhoe Mining Company that operated the Ivanhoe Mine at Grafton in the Black Range and The Sierra Negra Mining Company. As the Sierra Negra filed papers with New Mexico their claims must have been somewhere within New Mexico. The location of their claims was not found, but were probably also in the Black Range. Robert G. Ingersoll, for whom Clifford (1883, 1908) worked, was a director of the Ivanhoe Mining Company. William G. Gillette was superintendent of the Ivanhoe mine in 1881 and probably a relative of D. B. Gillette who became the manager at Lake Valley in 1882. The Ivanhoe was the subject of questionable promotion in the eastern stock markets and considered the Black Range's chief claim to fame by Silliman in 1881 (1882, p. 442).

The first mining at Lake Valley, other than small prospect pits was started in March 1881 by the Lake Valley Mining Company on the Columbia Claim. Miller kept his 1/3 interest in the Columbia Claim in 1880 when his partners sold their interests because he had found a piece of very rich ore on it and felt it was likely to become a paying mine. He gladly sold his interest in all other claims in March 1881. The Lake Valley Mining Company acted as though they had total ownership of the Columbia, but did not. The price they paid for a 2/3 interest in the Columbia Claim in the fall of 1880 was not found. As the total capital paid into the company was only \$25,000, the claim must have cost a fraction of that amount.

The deed from the Lake Valley Mining Company to George D. Roberts was written on September 7, 1881 for the two and one-half claims they owned on the outcrop. The deed specifies the price for them as \$200,000, but that is probably not correct as Roberts bought the

company's stock not the claims and probably for a lower sum. The deed covered a undivided half interest in the Emporia and the entire Columbia and Strieby claims. The deed was signed for the Lake Valley Mining Company by Halbert E. Paine as President in Illinois on 9/11/1881 and Lester A. Bartlett as Vice-President and Geo. B. Chittenden, Secretary in Washington D.C. on 9/19/1881. It was not recorded in Dona Ana County until September 11, 1882 (Book 4, pp. 251-253). The deed also covered the water rights and mill site on Berenda Creek that Chittenden filled on in the fall of 1880. Roberts deeded these claims to the Sierra Bella on November 1, 1881 (pp. 247-49). Only the deed from Roberts to the Sierra Bella on June 10, 1882 was located for the two claims south of the outcrop also given to the Sierra Bella. In that deed the Comstock and Last Chance (named Pinafore claim until after June 1881) both traced title back only to claims filed on December 28, 1881. However, these must have been new claim fillings or refiling as both claims existed before that date. The Pinafore (Last Chance) was owned by the Pinafore Mining Company, mostly the same people as owned the Lake Valley Mining Company, but was a separate corporation. Probably it and the Comstock were purchased by Daly et. al. in April 1881 separate from the Lake Valley Mining Company stock.

Miller's sued for his 1/3 share of past production on the Columbia Claim three years later. In that suit, Miller stated that George D. Roberts kept promising he would pay him 1/3 of the profits, but never did so. After the Dona Ana court ruled in Miller's favor he went to the Lake Valley mines to collect, and was offered complete ownership of the Columbia Claim in exchange for his 1/3 of its past production. He accepted full title to the Columbia claim and started a crew to work. They soon discovered a new pocket of rich silver ore and the Sierra Company manager tried to force Miller out with threats. The Sierra Grande Company eventually bought the Columbia claim back from Miller for \$30,500 and sold it back to the Sierra Bella for \$33,550. (Sierra Grande, Report of the Board of Directors ..., 1884, p. 36)

The option to purchase a 2/3 interest in the Columbia was probably made in October 1880 while Chittenden was in the area from Watson and Lufkin who where Millers partners. There appears to have been a great increase in the location and filing of new claims in December 1880, resulting from the rising prices promoters were paying for claims. In addition to McEvers' interest in mining claims Miller may have acquired that of other miners before 1881. Miller negotiated the sale for all of the claim holders with Wilson and Daly in 1881.

The Columbia, like the Stanton claim, traced its history back to a claim located by McEvers and Lufkin on August 12, 1878. The promoters also bought the Strieby and a half interest in the Emporia claim west of the Columbia which they put into the Lake Valley Mining Company and one or more claims they put into the Pinafore Mining Company. The late 1880 sales of these claims for probably several thousand dollars each, was a major boost to the area and its claim values. The only sale located for that period which gave the sales price was on December 29, 1880 of a 1/4 interest in the Stanton claim at the western end of the outcrop for \$1,500.

### **Section 3: The National Mining Context: 1879-1883**

"History must be seen in its long forgotten context." Charles W. Poltzer, S.J. (SPANBORD, 9/27/00)

As the Comstock Lode declined in production and its stocks crashed in the late 1870s, miners and engineers went elsewhere. Mine promoters in California and Nevada for the same reasons were looking at newer regions for places to exercise their talents. There was also discussion in California of the need for new laws to regulate mining stock promotion and correct some of its worst abuses. Though these new laws were not enacted until 1880, by 1879 promoters realized the new regulations were coming and actively searched for opportunities elsewhere. In January 1879 George D. Roberts, Winfield Keyes, and a number of other Californians were in Leadville, Colorado, which was the most promising of the new silver mining regions in the west. Roberts may have been involved in trying to buy the Little Pittsburg as he said, "its value was very small indeed," in light of a recent court case. (EMJ, v. 27, p. 108, 2/1881)

The New York financial markets had experienced booms in mining stocks associated with each of the great mining rushes: gold in Georgia in 1835, copper companies in Michigan in the 1840s, gold in California in the 1850s and the gold rush in Colorado in the 1860s. Each of these booms had been almost total financial disaster for investors. Few of the mining companies floated on the East Coast during these rushes made money for anyone but their promoters. The New York Mining Stock Exchange founded during the Colorado Gold Rush and associated with the New York Stock Exchange disappeared, except on paper, with the collapse of interest in mining stock at the end of the Civil War. The prosperity of the late 1870s gave eastern capitalists money to invest and the publicity given to the discovery of rich silver deposits in Colorado attracted their attention. Eastern investors claimed that they had matured and would not again be fooled by pipe dreams, but rather demand companies with proven reserves and a history of paying dividends. "If, in fact, eastern investors had matured and now demanded proven properties, George Roberts had what they wanted, as, of course, every good salesman must." (King, 1977, p. 96).

In March and April of 1879 James R. Keene, the California stock promoter that George Daly and the MacDonalds worked for at Bodie, California negotiated to buy one of the leading producing mines in Leadville called the Little Pittsburg. One of the experts Keene hired to evaluate the mine was the famous mining engineer James Hague who wrote a long report on it. The report indicted it had significant amounts of high grade ore but how long that would last was unknown. No documents have been found to indicate the price or amount of interest Keene was negotiating for and it is assumed that he declined the purchase of the Little Pittsburg. (Smith, 1973, pp. 110-111, 337-338) The owners of the Little Pittsburg were David H. Moffat, and Jerome B. Chaffee who had some local experience in stock promotion in Colorado, but the other partner Horace Tabor had none. A very sophisticated stock promotion of the Little Pittsburg started only a month after Hague's report to Keene, but neither Keene's nor his old partner Roberts involvement has been demonstrated to date. Dempsey and Fell (1986, p. 156) in their discussion of the Robinson Mine promotion wrote "other companies floated by Roberts, notably Horace Tabor's Little Pittsburg Consolidated Mining Company." This incidental comment by Dempsey and Fell was not discussed or referenced, but was the only one found giving Roberts credit for the Little Pittsburg promotion. The Little Pittsburg was the first big Leadville company to be 'boomed', hyped or promoted in New York and was capitalized at twenty million dollars par value. Though Smith (1973) credits the three Coloradan's with responsibility for the eastern promotion of the

Little Pittsburg they must have been aided by one or more New York promoters. At the end of May 1879, the promoters chartered several hotel railway cars to take the eastern dignitaries they made company directors, newspaper reporters, experts such as Rossiter Raymond editor of the *Engineering and Mining Journal* and Yale paleontologist O. C. Marsh to visit the mine. Chaffee's long time associate, Steven B. Elkins, with whom his first big deal was an option to sell the Maxwell Land Grant in 1868-9, was also in the entourage. (Lambert, 1955, *Steven Benton Elkins, American Four-square*, University of Pittsburg Press, Pittsburg.) Elkins and Chaffee were old friends and business partners and had served in congress together as delegates from Colorado and New Mexico in the early 1870s. They had purchased the Ortiz Mine Grant south of Santa Fe together a few months earlier. The 28 guests on the train were wined and dined across the country to the mine during the last week of May 1879. The plan worked to perfection. The experts wrote glowing reports, Raymond said there was two million in silver ore in sight, and Roberts' friend, the mining engineer Winfield Scott Keyes, wrote that the mine held the "biggest pot of money in the world." (King, 1977, p. 94). The journalists on the trip wrote even more glowing stories that stimulated great interest in Leadville stocks in general as well as the Little Pittsburg. Charles H. Dow, remembered more for his stock-market theories than as a newspaper man, wrote that the Little Pittsburg was worth \$54 million and that it could easily pay \$100,000 a month in dividends for years. Dow wrote nine long articles on the mine taking up over a hundred pages in Bishop's book. (Bishop, 1960, pp. 248-354) It was in this eastern state of euphoria that Roberts started his major mining stock 'booming' in 1879. Though no Roberts involvement in the Little Pittsburg float has been proven, it has all the earmarks of a Roberts operation. The press indicated that some unspecified assistance was provided by New Yorkers, but did not name anyone. It seems unlikely that the Little Pittsburg was all the Coloradoans own doing. Roberts had investigated it and other Leadville mines four months before the float, and the people involved had business dealings with him before and after the float. Roberts reputation was clouded by his many company failures, and partners would have tried to keep his involvement out of the press.

George Roberts and a number of his California friends moved their center of operations to New York in 1879. Many on the east coast, such as the New York mining *Review*, welcomed their coming east while others, such as the *Times*, noted an "un-wholesome" similarity to past stock promotions. The New York Mining Stock Exchange, which had survived only on paper, was revived in 1877. It took off in 1879 going from only a few hundred shares a day in volume to an average of 50,000 shares a day (King, 1977, p. 101). The New York Exchange prohibited brokers from being the promoters of mining companies listed on the Exchange (EMJ, v. 29, p. 260, 2/1880). This prohibition was costly in commissions for a promoter, but more importantly made it more difficult to effectively manipulate his stock's price. A significant portion of the profits in a good professional promotion came from short sales. After the promoter sold his stock short at a high price he could order his mine manager to announce bad news from the mine which then forced the stock price down. The promoter could then buy stock at the lower price to cover his short sales. This sequence of events was generally repeated several times in each Roberts' mining stock promotion, including Lake Valley.

Roberts was busy during the spring and summer of 1879 buying up options on a number of

Colorado silver mines to add to his stable of companies being developed for the eastern market. The years from 1879 to 1883 were the peak years of Roberts's long career. He was promoting more companies than at any other period. The total capitalization on paper was in excess of \$100 million. This dollar volume dwarfed his diamond mining company and other offerings in the early 1870s. The period from 1880 to 1883 has been described as the period of the greatest and most disreputable mining stock promotion in the 19th century. Henry B. Clifford, who wrote an expert's report on Lake Valley for Wright and Roberts, titled his book on this period *Years of Dishonor*. Clifford did not name individual promoters in his book, but his comment about a "broken down Nevada manipulator" being the major culprit obviously refers to Roberts. (Clifford, 1883, pp. 1-17). Clifford's little book in 1883 and his larger volume in 1908, whose second title was *The Unsound Side of Mining*, must have been written at least partly out of guilt over his work for Roberts and other promoters. You could argue that the California mining stocks floated in Europe in 1850 were more blatant frauds, as they did not own any mines and probably did not even know anyone who had ever been to California. However, the dollar value of those early mining stock sales was minuscule in comparison to the estimated \$20 million a year in mining stocks sold between 1879 and 1883. The age of the amateur promoter had long since passed by 1879, though Bre-X demonstrated in the 1990s that even amateurish mining stock promoters will always be able to occasionally make a fortune before they are exposed. Bre-X gold mining stock reached a market value of four billion dollars before the public found out in 1997 that its mine contained no gold.

Roberts sized up the buoyant market for mining stocks in New York and their desire for sound mineral investments with proven reserves and future dividends. Following the success of the Little Pittsburg promotion in the summer of 1879, Roberts brought to the market what were supposedly the best of the eight hundred mines he had inspected in the western United States. It was an impressive list of "Roberts dividend-paying mines." More than six were launched in Colorado in the six month period between October 1879 and April 1880 and another six in Nevada in 1881. In addition to this dozen, several in other areas were floated, before the four in New Mexico were offered in 1881. The first offered in Colorado was the Chrysolite, followed by the Little Chief and Iron Silver mining companies at Leadville, all capitalized at ten million. The others in Colorado were the Freeland at Idaho Springs, Robinson Consolidated near Breckenridge, and the little Winnebago-OK at Central City, capitalized at only two million. All were developed mines with a record of profitable production that could be shown to the public before Roberts bought them. In addition to these Roberts was also probably the central figure behind the purchase of the Gilpin Mine in April 1880 a dozen miles north of Leadville and the creation and promotion of the Gilpin Consolidated Mining Company. Dempsey and Fell (1986, p. 74) felt that this was a personal operation of George Daly while he was working for Roberts at Leadville. Daly came to Leadville with little cash after his expulsion from Bodie and thus had neither the \$65,000 reportedly paid for the mine nor experience in stock promotion. Though documents may be in Daly's name he had to be a front for Roberts. Daly had no known experience in promoting mining stocks. His only experience was as a mine manager for stock promoters. Dempsey and Fell (1986, p. 119) also credit a small placer mine promotion the Fuller Placer near Breckenridge to Roberts. After buying the mines Roberts would organized them into public companies and supply them with directors and officers that looked impressive. The

officers were generally a combination of naive but respected eastern notables of business, politics or social status and old cronies from California. Roberts seldom held any formal office in the final company offered to the public. The mine managers were old trusted Roberts lieutenants from past operations that knew what was wanted and needed, or men who had worked for other stock promoters and knew the ropes. Thus, they could do their job with minimal instruction and supervision. The mine managers knew they were to maximize early production, often to create the cash for Roberts to pay the previous owner for the mine, but also to create large dividends to boost the stock price during its booming period. Where the ore body allowed, they also knew how to make window dressing development of the ore body so that it would look richer and more extensive than it was. This was used to impress both the experts and the press during the boom. Numerous and carefully worded telegrams on ore production and positive or negative developments at the mines or mills were part of the managers job. They were to arrive on cue at Roberts' office in New York for release to the press. Two of the mine managers in Colorado in 1879-80 were the first managers at Lake Valley, George Daly and Bernard McDonald.

Of Roberts's Colorado promotions the Chrysolite has been studied by historians in the greatest detail: Smith (1973), Lingenfelter (1974) and King (1977). There are many other authors that have made comments on the Chrysolite and Roberts. A few of them are listed in the Roberts Biography. Richard Lingenfelter (1986) has extensively studied the four State Line Mining Companies in Nevada. They were floated by Roberts after the Colorado Six and were the model used by Roberts when he set up the four Sierra companies at Lake Valley. The State Line will be discussed later in conjunction with the history of the Sierra companies. Roberts had new companies coming out every few months between October 1879 and 1882. During this period, he was attacked so violently in the press that stocks linked to his name fell in price. Roberts increasingly tried to hide his connection to his companies. The press also probably linked his name to companies he was not involved with. Thus, there is some question about his authorship of some of the 1881-1882 stocks, especially companies in Mexico attributed in the press to him.

Roberts befriended Horace Tabor when he first came to Leadville in January or February 1879 and they toured the mining districts of the Territory looking for good promotions. Roberts acquired the Chrysolite and other mines from Tabor in the spring of 1879 for a combination of cash and stock in the future companies he would form. Horace Tabor traded his interest in the Chrysolite mine for a reported 70,000 shares in the new company (King, 1977, p. 97). However, Tabor probably did not know when to sell and got little of the short sales profit of one million. Thus Roberts probably got over 75% of the four million dollars in profit in the Chrysolite promotion. Of all the mining stock promotions in the United States in the 1880s Roberts' Chrysolite was the most successful or profitable for a single promoter. In total dollars extracted from investors the Little Pittsburg probably exceeded the Chrysolite, but its profits were divided amongst three or more promoters. Roberts hired Winfield Scott Keyes a mining engineer of good reputation, but who would do his bidding as his overall manager for his three Leadville companies. Keyes wrote a glowing report comparing the Chrysolite to the Comstock Lode of Nevada. This and other expert opinions were printed in the company prospectus that came out in January 1880. Future silver production of the Chrysolite was estimated at \$74 million.



Roberts devised a slick scheme to sell the capital stock, par valued at \$50 each, for \$13.89 a share, or exactly the \$2,778,000 that the company "paid" for the property, but he reserved an option or "call" to buy back one-half the stock within eight months after refunding the purchase price plus interest. (King, 1977, p 99)

The price 'the company' paid for the mine was always exaggerated in Roberts's operations. It was not what Roberts paid, but rather what the company paid him or what ever he chose to put out to the press. The price paid for the mines was immaterial, as Roberts initially owned all the stock in the companies with the exception of what he had promised his lieutenants and previous owners for their interests in the property. Roberts cost for the Chrysolite was a small fraction of the 2.7 million reported to the press. The offer to buy back half the stock at the offering price was a meaningless gesture, as it did not force Roberts to buy it back. Thus, if the price went down he could ignore the option. However, it was taken by the New York market as an assurance that Roberts would do his best to make the mine pay so that he could also profit from exercising the option. During the fall Keyes was high grading the mine and selling the maximum amount of ore to the smelters. Until the company was formed in October 1879 this money went to Roberts who used it to pay for the mine. The Chrysolite Company was formed in October 1879 and started paying \$1.00 per share in dividends each month in December. In other words, the Chrysolite was paying \$200,000 a month in dividends. Most of these early dividends went to Roberts as the major stockholder. It later came out that dividends were declared before the ore was even mined to pay them, possibly starting as early as the first dividend in December 1879. The stock soared from its first offering at \$13.89/share in October to \$40/share by the end of January 1880. Lingenfelter and King disagree as to when it was first offered to the public. Roberts commonly sold stocks on a "when issued basis" by letters referred to then as "calls." Roberts sold "calls" on Chrysolite stock just as he did on Lake Valley and they were traded months before the stock officially existed. King (1977, p. 99) wrote that in the Chrysolite promotion Keyes "faithfully fed a stream of ore receipts and good news into the New York office, where Roberts' genius for publicity took over." According to one report, Keyes excavated 1,130 tons of ore during one week in January that paid nearly \$100,000 into the company treasury. (King, 1977, p. 99) This was a lie by Keyes, but can only be refuted by the later evidence that by January 1880 production was not keeping up with the monthly dividend. Thus, the mine was producing less than \$200,000 a month and Keyes claimed one week's production was more than half a month's production. A similar deception that occurred at Lake Valley can be proven.

By February 1880 the Chrysolite was ahead of the Little Pittsburg in the race for being the darling of the New York Market. With many other fine horses in his stable ready to join the race, Roberts turned his attention from creating mining companies to setting up institutions in New York to facilitate their sale to the public. Roberts was always cautious in leaving a paper trail to himself and thus the records of his activity in New York are minimal. However, King gives him the major credit for the 1880 changes in New York.

George Roberts saw a need to enlarge the city's buying power and at the same time avoid some of the opposition to his methods from the New York Mining Stock Exchange. To do this, he proposed the creation of a new mining-stock exchange, along with a banking house, which would encourage

speculation by loaning money for the purchase of securities in the same way that San Francisco banks had made money available to Comstock operators. Accordingly, in early 1880, with ... [a half a dozen other western politicians and mine promoters] Roberts began to organize an exchange, bank, and clearinghouse to operate as a unit for the free buying and selling of stocks, with control of the machinery firmly resting in his [Roberts] hands. ... The real success of the whole scheme rested in the Mutual Trust Company... the trust enabled the public to buy approved mining stocks on margins as high as 40 and 50 percent and accepted those securities as collateral on the loans. By providing financial aid for the purchase of their own wares, Roberts and company closed a circle of control over the mines and small investors that encompassed promotion, financing, and management... Roberts and John Jones were trustees of both institutions. (King, 1977, pp. 101-103)

“The Mining Trust Company” was organized first and elected its board of directors on February 26, 1880. The 15 directors of The Mining Trust Company included George D. Roberts, at least two of his mining company front men. R. C. McCormick, president of Freeland and A. P. K. Safford and two of the three men considered the owners and promoters of the Little Pittsburg, Chaffee and Tabor as well as Steven B. Elkins. Roberts was the spokesman for the directors to the press. (article in an undated San Francisco *Chronicle* clipping from a New York dispatch dated February 27, 1880, Harpending Papers, Col. No. 8043, University of Wyoming) The exchange he organized was the American Mining Stock Exchange, which did not have a rule against brokers having their own stock promotions. It opened its doors on June 1, 1880 across the street from the New York Mining Stock Exchange. J. Whitaker Wright was instrumental in opening one of the two new mining exchanges in Philadelphia in the following year and published an investment journal, *The Mining Journal*, in Philadelphia to promote Lake Valley stocks. New mining exchanges were also created in Boston and Chicago by 1882.

The first major bad news to hit the mining stock market was the collapse of the Little Pittsburg Company stock in February 1880. The stock dropped from over \$30 to \$15 at the end of February and to only \$5 in May. Moffat and Chaffee admitted years later in a lawsuit brought by disgruntled stockholders, that they were the major early sellers, but claimed they did so only to save their own investments. Raymond made a second inspection of the Little Pittsburg, which basically said the mine had been high graded to maximize immediate return, but still had a lot of lower grade ores. With the collapse of the Little Pittsburg the market turned sour for all mining stocks and Chrysolite stock fell to \$15 in April. Roberts announced after the April dividend that the company would no longer pay the \$200,000 a month it had been paying in dividends. It was announced that dividends would only be paid quarterly to conserve cash and overcome the monthly fluctuation in production. The real value to a promoter in switching from monthly to quarterly dividends is that it gave an additional two month period in which dividends did not have to be paid. Some papers argued that the Chrysolite stock had been “beared” by the dividend change. Reports also circulated that the mine’s rich ore was exhausted and that insiders were selling large amounts of stock to drive the price down. What actually led to the price decline in April and May 1880 was probably selling by stockjobbers, stock brokers that Roberts had sold stock to at low prices but who were to help manipulate the price to higher levels. They either broke ranks due to their need for cash as the entire market declined, or when word of the possible exhaustion of the rich ore got out. Roberts must have still held a large amount of stock, as he was not ready to abandon the Chrysolite in May.

Roberts fought back to raise the stock price. Roberts' mine manager Keyes said that reports that the mine was exhausted were "palpable lies." (King, 1977, p. 107). Probably most helpful was that Keyes got the very prominent and well respected mining engineer Rossiter Raymond to write a positive report on the mine. Raymond was in Leadville to do yet another evaluation of the Little Pittsburg. Keyes, an old classmate from Freiberg, talked Raymond into going the few hundred feet to the Chrysolite and writing a quick report on it. Raymond's May 20, 1880 inspection only lasted a few hours, and he wrote the report the same day concluding that \$7 million in ore was in site, the mine never looked so good, and that dividends should resume the next month (Lingenfelter, 1977, p. 144). Raymond's report was immediately publicized, and due to his great reputation as a leading and honest evaluator of mines, Chrysolite stock started to climb back up in price.

Keyes' beautiful job of window dressing the ore deposit totally fooled Raymond. All the tunnels or drifts were carefully made to follow the rich intersecting ore veins, being careful not to go outside of the vein and expose the barren rock. The mine thus gave the appearance of a system of tunnels dug to facilitate a rapid extraction of a large continuous bed of ore. It was one of the few times that the famous and reputable Rossiter Raymond was fooled by a mine promoter. When this deception was exposed two months later it was a great embarrassment to Raymond. He blamed himself for taking Winfield Keyes' assays and word about parts of the mine he had not seen. It was a violation of one of the basic rules of good mine assessment. Raymond knew better, but they had attended the Freiberg School of Mines together and Raymond did not suspect Keyes' honorability until later. Raymond, fortunately for his reputation, did put a qualifier in his report not noticed by investors at the time. Raymond wrote that the \$7,000,000 "figure is not based wholly upon personal knowledge." (King, 1977, p. 98). After Raymond got access to company files in August 1880 his articles in the *Engineering and Mining Journal* indicated that he found documents showing that Roberts had ordered Keyes to do a number of the deceptive practices. Raymond was accused of being part of the scam, and to salvage his reputation, he became part of the new management at the end of August 1880 when Roberts' management left. In October 1880 Raymond accepted the presidency of the Chrysolite Company in order to overcome criticism in the press that he was involved in the Roberts scam. Raymond also felt that his earlier assessments of the mine were partially accurate and that it still had enough lower grade ores to be made profitable. Raymond eventually got the Chrysolite on a paying basis and stayed in its management until 1899.

#### Roberts Engineers a Strike in Leadville

Raymond's report still left Roberts and Keyes with a dilemma. The only rich ore left in the mine was the thin layer they had left on the walls of the drifts. (Lingenfelter, 1974, p. 145) The stock price would fall if ore shipments declined, but if they kept ore production up by mining the veneer, everyone would see that the mine was exhausted and in a matter of days word would reach the New York markets. Roberts still wanted a higher price before he unloaded and needed at least a few weeks time to work the market. An ingenious scheme was developed to supply the needed time. The plan was so ingenious, many people still have a hard time believing anyone could have been clever enough to have pulled it off. Roberts at his best was a genius.

On May 26, 1880, less than a week after the release of Raymonds report, the miners of the Chrysolite walked off the job. This meant the Chrysolite did not have to produce any ore and the thin coating of rich ore on the walls could be left in place. It gave the company an ironclad reason for not shipping ore, which even a half-whit investor could understand and accept. Roberts' actual cost for Chrysolite stock was probably less than \$5 per share and the price rose during the first week of the strike until it had almost doubled from its May low. If the strike could just last long enough for Roberts to unload his remaining stock this horse could go to the glue factory. Roberts had plenty of others in the race.

It was a beautifully planned operation in which Roberts's lieutenants not very subtly set up a situation in which the miners in the Chrysolite had little choice but to strike. Keyes, two days after the Raymond report, took a group of local dignitaries to visit the mine to show them that it still had rich ore. With all of them as witnesses he attacked the miners as lazy and demanded that his shift bosses enforce new rules in the mine prohibiting talking or smoking underground. In this age of anti-smoking this may not seem to be a major insult, but was tantamount to prohibiting workers from going to the bathroom during their work day. The shift bosses said enforcing such rules was impossible and they would resign if Keyes insisted on the new rules. Keyes accepted their resignations and posted the no smoking and no talking rules. Keyes obviously knew what would happen next and left Leadville for Denver putting his assistant general manager, George Daly in charge of Roberts's three Leadville companies. Initially the Chrysolite miners walked out, demanding only the reinstatement of the shift bosses, which they probably assumed would also get rid of the stupid new rules. When the miners first walked out they went to the Little Chief, management of which was Daly's normal job. That day the miners went to many other mines on Fryer Hill, all within 500 to 2000 feet of each other and many miners joined the walk out. The press initially reported the cause of the strike as the usual grievances of wanting higher wages, shorter hours and the reinstatement of several miners (the shift bosses) fired by the company.

Daly hired guards, "gunmen", within 24 hours and persuaded the sheriff to deputize them under the command of the MacDonald brothers. He then fortified all three mines, building block houses and lining the shaft houses with bulletproof boilerplate and making gun ports. (Lingenfelter, 1977, p. 147) When strikers sent a delegation to negotiate, Daly refused and fired all of the striking miners. Probably through Daly's efforts the sheriff arrested 250 of the miners on the charge of vagrancy as they now had no visible means of support since Daly had fired them. Many other miners fled Leadville fearing arrest. Daly hired unskilled labors to give the appearance that he was going to continue mining in spite of the strike. However, he kept them in the dormitories under guard rather than sending them down into the mine. A week later Roberts sent orders to shut the mines. Most other mining companies did not try to reopen and just shut down to wait out the strike. King (1977, p. 107) believed that Daly and Keyes were acting on orders from New York to fortify the mine. That was not likely, as Keyes did not return to Leadville until later in the strike, after Daly had started fortifying the mines on the second day. Fortifying a mine was a concept familiar to Daly and the MacDonalds. If Roberts sent orders, they would have been much broader and would have been to start a strike and to keep it going

until told to stop it. Daly and the MacDonalds had conducted exactly the same fortification tactic at Bodie in 1879, which led to their killing one of the neighboring miners and their expulsion from that town. Bernard and Joe came with Daly to Leadville and were working for Roberts. According to a May 29th newspaper story it was Joe MacDonald who refused the strikers request to remove the gunmen from the Chrysolite (Lingenfelter, 1977, p. 148). Like Daly, they had tremendous hatred for unions and twelve years later in 1892 Joe MacDonald again fortified a mine. Joe was superintendent of one or several mines at Burke, Idaho during the Coeur d'Alene strike. He fortified the Union mine (Lingenfelter, 1977, p. 204) and hired farm hands in Washington as armed guards. Magnuson (1968) in his book on the strike states that Joe was the manager of the Frisco Mine and mill a few miles below the Union Mine. It was the Frisco Mill that was dynamited after a gun battle on July 11, 1892 between Joe MacDonald's gunmen and the strikers. Joe smuggled the hired gunmen into the district in spite of the Sheriff's court injunction forbidding it, and the Idaho law forbidding the bringing of armed guards into the state during a strike. The sheriff and union members knowing of Joe McDonalds's plan were waiting to board the train and arrest the guards in Burke, but the train sped through town without stopping. (Lingenfelter, 1977, pp. 202-3). In Leadville, by the time the strike was over, the local sheriff as well as state officials knew they had been lied to and manipulated by Roberts managers. The strike dragged on into a third week with management refusing to negotiate. Roberts had probably sold out the last of his stock by June 10<sup>th</sup>, as on that date Keyes made an announcement he knew would drive the price down. It was that he might not reopen the mines until September 15th.

Roberts's later actions proved beyond a reasonable doubt that he used the strike to unload the last of his original Chrysolite stock. Roberts switched from booming Chrysolite stock to bearing it in July. Lingenfelter concluded that Roberts probably did not sell the last of his stock until after the strike when the mine still failed to resume shipments of high-grade ore. (1977, p. 155) Lingenfelter's comment leaves a false impression. Stock sales by Roberts after the strike were probably short sales made on the small price peaks, as he knew he could drive the price down again. Roberts started the strike as a short-term cover and thus would have used it to liquidate his original shares as well as to sell short. He knew he could not stop bad news after the strike and at best could only control its timing. Lingenfelter, on his profit estimates for the Chrysolite promotion, estimated that Roberts and his confederates made about three million on the stock, at least one million of that during the strike. This was in addition to the million or so they made in dividends from mining. (Lingenfelter, 1977, p. 155) Thus, the stock promotion yielded Roberts, at a minimum, three times the profits made in mining silver. Chrysolite stock's general trend was down from early June to the end of July going from \$20 to only \$4 a share. It had large fluctuations in price and weekly volume as high as 116,000 shares. This amounted to over half the existing 200,000 shares of Chrysolite stock. Thus, Roberts with his influence in or control of the American Mining Stock Exchange and associated Trust Company could have safely bought and sold several times the total number of shares in the Chrysolite company during this seven weeks. He made a profit on selling short at each peak, and buying on each dip following the release of new bad news from the mine. It was an almost risk free investment tactic. Anyone knowing the future can make a fortune in the stock market and Roberts controlled the future of his stocks at least on the downside. The stock value of the 200,000 shares went from a value of

4.4 million in June to 0.8 million at the end of July. The profit potential of short sales on the numerous rises and fall would be difficult to calculate, but capturing even ten percent of the short sale profit in the general decline alone would have been \$360,000. Rumors of the mine's exhaustion, Keyes departure, director resignations, and finally Roberts' own statements that the mine was worthless could all be timed by him. They must have been planned events.

When Roberts went to Leadville in late July he told the press that the Chrysolite was finished as a profitable mine. He said that its good ore was exhausted and the company was almost \$400,000 in debt. (*Leadville Chronicle* repeat of *Rocky Mountain News*, July 30, 1880, King, p. 109, EMJ, v. 30, p.37, 7/17/80 and p. 77, 7/31/80) Later it became known that the debt had been incurred largely to pay the dividends and the strike costs. There is no alternative explanation except that Roberts was 'bearing' Chrysolite stock to drive down the price. The *Engineering and Mining Journal* (EMJ, v. 30, p. 61-7/24/80 and p. 105- 8/14/80) placed the entire blame for the situation on Roberts and speculated, "which did the insiders make the most at -booming the stock up to \$40 or bearing it down to \$6?" Only Roberts could have answered that question if he bothered to keep track of such academic concerns. The EMJ attack of August 7, 1880 is probably the most succinct.

The Chrysolite Company is naturally attracting great attention, and the manner in which the "Roberts Combination" or the "California system of management," has treated the public is receiving unmeasured condemnation. The facts appear to be, that the output of ore was forced far beyond what it should have been by the management, in order to enable the insiders to pay for the property out of dividends, and the mine is therefore not now in the good condition which prudent management would have it; yet it is by no means worked out... [New management replaced Roberts people at the end of July 1880 and included Raymond, one of the three editors of EMJ.] the company is heavily in debt - presumably for money borrowed or advanced on ore not mined, in order to pay the large dividends of some months ago. The ... "California system" which is the worst enemy of legitimate mining. Mr. Roberts is blamed as the chief offender in having "manipulated" the stock, and while acting as a prominent manager of the company is said to have been "shorting" and "bearing" the stock, and, of course, depreciating the property. Now Mr. ROBERTS *appears* to have fallen out with Mr. KEYS, the manager of the mines; but how real this quarrel is, seems open to question. In any event, it is to be hoped that the experience of the "California system" which has been learned here in Little Pittsburg, Chrysolite, Bodie, Bulwer, the Tuscaroras, and other mines, has not been wasted, and that hereafter Eastern investors will carefully avoid putting money in mines under the control of men whose past reputation has been more than clouded. ... it makes no difference how intrinsically valuable a mine may be, when it is managed by tricksters and stock-gamblers it is always a bad investment. (Raymond was one of three editors at EMM and signed his articles only with the symbol "\*." There is no\* on this article, but I suspect Raymond wrote it. EMJ, August 7, 1880, v. 30, p. 85)

Richard Lingenfelter tells the story of the strike beautifully and with much greater detail, and is the source of the majority of information given here (1974, pp. 143-155). Though the Leadville newspapers figured out the cause and reason for the 1880 strike 120 years ago, few historians have pointed it out in their writings. Of the many historians who have written about the 1880 Leadville strike only two, Duane A. Smith (1973) and R. C. Dill (1895), understood and wrote about Roberts' lieutenants creating and manipulating the strike prior to Lingenfelter (1974, p.242, note 32). King (1977, p. 107-108), though he had read both Smith (1973) and Lingenfelter (1974) and lists them in his Bibliography, he chose not to clearly point the finger at

Roberts. King only gives a few vague comments from the period about Keyes and Daly's manipulation of the strike. Local newspaper editors put two and two together in 1880 after the strike and realized Roberts staged it. The editor of the *Leadville Herald* wrote, "In the light of later events it is now scarcely doubted that the strike was organized rather by certain mine managers than by the miners themselves, and for the purpose of covering up the poverty of some mines until the principal stockholders could unload [their stock]." (Lingenfelter, 1974, p. 143) Even before the strike was over the editor of the *Leadville Democrat* wrote "the present half-heart strike in Leadville is merely a stock jobbing operation, with Messrs. Roberts, Keyes and Daly in the wood-pile." (Lingenfelter, 1974, p. 151)

The Leadville strikers reduced their demands several times to essentially pre-strike conditions to try to end the strike, and each time Daly and later Keyes refused to talk with them. Thus, the strike became more of what we today would call a "lock-out" than a strike. Hundreds of strikers were run out of town early in the strike. They moved on to other mining districts including the Cerrillos District booming at that time in New Mexico. When Keyes and Daly finally got the order to end the strike it was settled quickly. Mine managers made no concessions or changes in work conditions. They simply told the miners to come back to work. Daly and the other owners black-balled prominent strikers and no mine owners were supposed to hire them. In spite of this, Keyes and Daly hired both of the strike leaders after the strike. One was hired as a shift boss, virtually a management position, so it is clear that Daly and the other Roberts people were pleased with their performance during the strike. Daly's belligerence and use of armed guards, and militia during the strike left Leadville miners and their supports with great animosity toward him. However, mine owners and their supports idolized him. By December Daly had left Leadville to manage the Robinson Mine 15 miles away.

The efforts to depress the price of Chrysolite stock continued after the new management took over at the end of July 1880. Raymond fought the repeated accusations that the mine was exhausted, with modest success. In the Fall of 1880 a fire in an interconnected mine closed the Chrysolite, driving its price down further. At the time it was rumored that it was part of the bearing effort on the stock, but the press eventually said it started by accident. In the past century if authors have suspected that Roberts was involved they have avoided stating it. Eventually the Chrysolite was made a paying proposition on lower grade ores under Raymond's management.

The three Leadville promotions, and the other Colorado operations gradually collapsed or ended for Roberts over the next year and a half. These were not disappointments or unexpected. All professional stock promoters know and plan for the eventual collapse of the promotion and to profit from the stock's fall in price. Though outside events can interfere with the planned booming period, it is much easier to control the bearing to cover short sales at the end of the promotion. Roberts learned, at some point in the 1850s that the portion of the mining business with the quickest, surest and largest profits was not the taking of ore out of the ground, but the promotion of the stock. With the proper handling of the stock you can in a few months to a year make the equivalent of any mine's profits for a decade or more. The Iron Silver, which produced a half million before Roberts bought it, never showed a profit after that. The Little Chief, in



which Roberts was listed as Vice President, did somewhat better, but when Roberts was finished he also left it in debt. George Daly, the last Roberts manager of the Little Chief, announced that it was totally exhausted of rich ore. Again the only plausible explanation for Daly's comments on the Little Chief was to help drive down the price so they could buy stock to cover short sales.

The Robinson, where Daly was manager in February 1881, met the same fate later that year. It was the sheriff's disgust with Daly's actions at the Robinson in February 1881 that forced Daly to leave the area. This made him available for Roberts to send to Lake Valley.

#### **SECTION 4: PURCHASE OF THE PROMISING CLAIMS: March 1 to April 19, 1881**

George Daly was told or ordered to leave the Robinson mine camp fifteen miles north of Leadville, Colorado on February 18, 1881. The exact nature of the disturbance there was not reported in the press. Daly, following his habit of provoking and escalating confrontation had 250 rifles and a large amount of ammunition sent to the Robinson mine from Leadville on February 17, 1881. The Leadville *Democrat* (2/18/1881 in SFDE 3/2/1881) reported the incident under the headline "George Daly in Trouble Again." After the Sheriff got the situation quieted down he was probably the individual who ordered or asked Daly to leave the Robinson mining camp and Daly left the next day. How long Roberts had been aware of the Lake Valley deposits is not known, but he took the opportunity of Daly's availability to send him to Lake Valley. Daly left Denver on February, 21, 1881 and should have arrived on February 23d or 24th at Lake Valley. Daly's assignment was to make an on-site evaluation of the deposit for a stock promotion, and if positive, to buy options on the promising claims. Roberts managed the stock market and often left it up to his lieutenants to evaluate and purchase deposits or mines for promotions. Roberts had heard enough about the Lake Valley limestone deposits to recognize it as having some potential for a stock float. Silver deposits in limestone are notoriously sporadic, with a few very rich pockets. That was the nature of many of the great silver mines of northern Mexico that were world famous for their wealth. The frequency of finding these rich pockets of silver was great enough to keep some of these mines operating for centuries prior to modern massive extraction techniques. Daly had worked for Roberts in at least three silver mines and for other promoters before that. Daly's occupation until five years earlier had been as a printer. He first went to the mining camps as a printer before switching over to being a mine manager for promoters. Daly was gregarious and a good talker and sized up the Lake Valley deposit in a few days as ideal for a stock promotion.

Daly probably knew William M. Wilson in Colorado, but if not, met him shortly after arriving in Lake Valley. Wilson claimed that Daly and a third man E. H. Wiley and he formed a partnership to acquire the promising claims along the outcrop at Lake Valley. By mid-April 1881 they had acquired options on all of the claims along the outcrop from the Kohinoor on the northeast to the Stanton on the southwest, including an option on 56,000 of the 100,000 shares of the Lake Valley Mining Company that owned the Columbia, Strieby and half of the Emporia claim in the middle of the outcrop. Thus, they optioned all six promising claims along the outcrop. Time proved their judgment to be excellent as these six claims would produce over 90 percent of the entire District's silver. Both Roberts and Wright in their responses to William W. Wilson's

lawsuit a year later claimed that there was no partnership and that Daly hired and paid Wilson to assist him in acquiring the claims. Daly would not have given Wilson almost \$30,000 in June of 1881 for one month's work unless a partnership existed. Wilson's lawsuit claimed that Daly lied to him about the profits in the resale of the claims to Wright and Roberts. Wilson said Daly was supposed to give him half of the profits on the resale of the Lake Valley claims. Roberts and Wright's responses to the interrogatories in the lawsuit were carefully worded, but showed that Daly got more stock than he told Wilson he received. Wright responded that Daly received the stock not for acquiring the claims, but "out of gratitude for pre-Lake Valley work for Roberts." Twenty-seven years later Daly's assistant at Lake Valley from April to September 1881, Bernard MacDonald (1908), wrote that Daly got one-fourth of the stock in the four companies. Wilson claimed that Daly and he had a written agreement, but that he gave it to Daly in June 1881 when Daly gave him the equivalent of \$30,000 in cash and stock. Thirty thousand dollars was a very handsome sum for less than six weeks work. In June 1881 Wilson was happy with it, especially since Daly and he had bought out the third partner, E. H. Wiley's 1/3 interest in the agreement for \$1,500. It was not until November when Wilson went to Philadelphia to see Wright that he found out that the four companies were being capitalized at twenty million dollars. Wilson realized how big the stock promotion was and that Daly must have cheated him. He immediately hired a lawyer and had a poorly researched suit filed against Wright a few days later on November 14, 1881 (Wilson vs. Wright, 1881).

Information on the negotiations for the claims between about March 1st and final agreement on April 19, 1881 is sketchy at best. The information published in the April 30, 1881 *Grant County Herald* provided a summary of purchases. The article states that it was written on information supplied by William M. Wilson. Wilson's was living in Grant County at that time but was a recent arrival via Colorado from California. Wilson claimed sole responsibility for negotiating the purchase of the claims with Miller. "The selling party is John A. Miller, who really conducted the entire transaction, and who received the sum of \$100,000 for his Lake Valley Ranche (sic.), and the first two mines mentioned, and the Lincoln and Stanton." Miller thus appears to have done the negotiation for all claim holders. Wilson mentions that he was associated with George Daly "representing George D. Roberts of New York, who is the party really making the investment." Miller had purchased all of McEvers interest in Lake Valley mining claims and probably held options to buy the interests of most other miners. Miller had been trying to sell the claims to outside promoters for six months to a year before Daly arrived. The secondary sources that have written about the sales probably are based on the *Herald* article.

The above quote indicates four mines were the sole property of John A. Miller or at least he held options for all interests in them. He had acquired a 1/3 or greater interest in four claims, the Stanton, Lincoln, on the outcrop and the Last Chance (Pinafore) and possibly the Little Boy just south of the outcrop. Wilson a year later in (Wilson vs. Wright, 1882, Bill, # 2) said that he and Wiley acquired options on some claim while George Daly was back east in May. Miller probably received very little money from Wilson or Daly for the options in April as the prices they offered were many times that of a few months earlier. It was standard practice in Roberts' promotions to exaggerate the prices paid for claims or mines. Large purchase prices were useful in demonstrating how valuable the property must be. All the public knew is what Wilson or others told the press which was the inflated price. Daly, if he wrote even close to the truth in

some of the deeds, made even more than his partner Wilson suspected in the resale of claims. In the deed Miller signed on June 9, 1881 giving Daly title to the Arizona, Silver Reef and Crown Point claims the stated price was \$30,000. Thirteen days later Daly deeded these three and two other possibly more valuable claims to Whitaker Wright for the stated sum of \$375,000. The price stated in the deed to Wright was undoubtedly exaggerated and Daly's cost for the Stanton and Golden Gate was not located. This inflated price of \$375,000 was never mentioned during the stock promotion possibly due to Wilson's law suite. These deeds were not filed and made part of the public record until 1889 so Wilson could not find them and Wright avoided mention of them in his responses in the law suite. (Dona Ana County- Mining Deeds, Book 2, pp. 309-312)

Miller bought McEvers' ranch for about \$5,000 to supply hay to the army in 1879 or early 1880. McEvers' interest in the mining claims was probably thrown in with the ranch for a few hundred dollars. According to (Courtis, 1909, p. 832) McEvers' wife was offering the ranch for sale for \$5,000, probably following an Apache raid and he thought that was about what John Miller paid for the ranch. Courtis said that Miller brought him ore samples from the Lake Valley claims to assay after he bought the ranch. Most of the assays ran about \$42 in silver per ton, but one sample assayed at \$10,000 a ton. This one rich sample may have come from the Columbia Claim, which may explain why Miller kept his 1/3 interest in the Columbia claim in 1880 when his partners sold their interests to the people forming the Lake Valley Mining Company. Miller offered Courtis a half interest in all his claims at Lake Valley if Courtis would invest \$20,000 in building a smelter. Courtis wrote that Miller's offer was declined by the investors he worked for. About one fourth of the \$100,000 Miller received in 1881 from Daly was for the old McEvers' Lake Valley ranch. The Las Vegas *Mining World* reported in June, 1881 that \$25,000 was what Daly paid for the ranch. Water was essential for the operation of a refining mill and Daly needed the ranch for its water rights. Miller may have written to Roberts or other promoters in Leadville in his efforts to sell the Lake Valley claims. In any case he must have felt delighted when he found someone willing to pay about \$75,000 for his interest in claims that had only found high grade ore in one small area on the Columbia. Less than a year earlier he had offered Courtis a half interest in all of the claims he sold Daly plus the promising Columbia claim for one fourth of this amount. Miller has generally been considered the only early claim owner in the district to receive a large amount of money (\$75,000) from the 1881 Roberts and Wright purchase. Miller owned McEver's interest in the Lincoln, Stanton, Columbia and at least one other claim on the outcrop. Only the deed from Miller for the Arizona, Crown Point and Silver Reef were found and it said that Daly paid \$30,000 for them (Donna Ana Co., Mining Deeds, Book 2, pp. 311-312).

The reported and probably exaggerated total price paid for all claims other than Miller's was \$150,000. With the exception of the Emporia none of the other claims were on the outcrop and had little or no signs of ore. Ore was not found on non-outcrop claims until the mines followed the ore beds into them years later. Thus it is not likely \$150,000 was paid for the other claims. Some if not most of that must have been paid to the individuals named for their interests in the outcrop claims Miller deeded to Daly. Dona Ana County records indicate that two of the claims listed as purchased were located in April 1881 and by Wright and Daly. The other claims listed

were the Little Boy, Turner (renamed Sumpter in June), Fairview, Little Chief (located on April 27, 1881 by J. Whitaker Wright), Bullion (located on April 17, 1881 by George Daly), Surprise, Golden Gate, and a ½ interest in the Emporium. Wilson said the claim owners other than Miller, who received the \$150,000 were Jos. Reynolds, Capt. Dawson, the Irwin Brothers, Marion Turner, Geo. Taylor, George Lufkin's, Chris Watson, E. B. Learved and Martin V. Cox. Daly returned to New Mexico with the money to pay for the claims they had optioned the first week of June. The money to pay for them had probably been raised through early sales of stock in New York and Philadelphia.

Wilson, in his lawsuit said that Daly convinced him and their third partner that the titles (options) should only be in Daly's name. Daly argued that putting the titles only in his name would facilitate the sale of the claims back east to capitalists. Daly's argument probably was that he could sign over the options to others by himself without having to send documents back to New Mexico for his two partners to sign and return. It was common knowledge in April that Daly was acting as an agent for George D. Roberts and thus the properties already had a purchaser. In the deeds located, Daly issued deeds to the claims to Wright about two weeks after they were deeded to him in June.

Wilson claimed he had to start legal proceedings in Silver City to force Daly to settle with him. (Wilson vs. Wright, 1882, # VI) Wilson, in his lawsuit, said that Daly claimed he only made a profit of \$20,000 on resale of the claims, plus 10,000 shares in each of the four companies plus 5,000 shares in the Pinafore Company. The Pinafore Company was organized by some of the organizers of the Lake Valley Mining Company to mine on the Pinafore Claim just south of their other claims. It was apparently also optioned in April. The Pinafore Claim's name was later changed to Last Chance and made part of the Sierra Bella. On June 15, 1881 Daly gave Wilson \$10,000 cash and a written memorandum ('call') convertible into stock when issued by the companies. Wilson was to receive 5,000 shares of stock in four companies plus 2,500 shares in the Pinafore Mining Company. The four companies were the Sierra Plata, Sierra Apache, Sierra Madre and the Lake Valley Mining Company. The total value of this settlement was about \$30,000. A handsome profit for less than two months work.

Only a month after George Daly's death Wilson went to Philadelphia to get Wright to verify or guarantee the calls Daly gave him in June for stock in the companies. Wright gave Wilson new notes (calls) for stock to replace the ones that Daley gave him in June on September 17, 1881. Wright converted the Sierra Madre option into an option on Sierra Grande with the note "reincorporated as the Sierra Grande." Wilson was also given an option for 10,000 shares of "Sierra Bella Mining Company (in exchange for call on five thousand shares stock in Lake Valley @ \$2 per share)." (Wilson v Wright, 1882, Exhibit B, p. 22) Wright valued Lake Valley Mining Co. stock at \$2 per share and Sierra Bella stock at \$1 per share on September 16, 1881. This indicates that Wright and Roberts were probably selling Sierra Bella stock for \$1.00 per share in September, 1881.

Before Wilson left Philadelphia he apparently learned that the companies were going to be capitalized for twenty million dollars. Wilson then assumed Daily must have made more than

sixty thousand on the resale of the claims. He filed his first law suit in Philadelphia in November 1881 and refiled it in March 1882. Wilson claimed in the lawsuit that he found out shortly after Daly's death in August that Daly got \$100,000 and 1/3 of the shares in the four companies. That is only partly true as he agreed with Wright to the thirty thousand in September and only two weeks later did he claim that Daly only got a larger amount of stock. The suit was settled out of court in the fall of 1882 and the amount paid Wilson to drop the case is not known. The amount Daly received is unknown, but it was certainly more than he told Wilson in June 1881. MacDonald (1909), Daly's assistant, remembered Daly's share of the stock as being 1/4, and he should have known, as Daly had promised him a percentage of that stock. Daly had \$79,000 in bank accounts and reportedly paid \$25,000 for Miller's Ranch (MW 6/1881, p. 10) so his assets were over \$145,000 at his death on August 19, 1881. Daly's finances were probably poor prior to going to Leadville in 1879. Daily wrote in September, 1878 that he had to borrow \$10,500 due to his losses in the 'Alta affair.' (Spence, 1970, p. 191) It has been assumed that Daly made as much as \$60,000 on Robert's Chrysolite promotion in Colorado (Lingenfelter, 1974). Wright indicated in 1882 that " ...during the lifetime of said Daly, [he] never sold any stock belonging to Daly,... except under his direction;" (Wilson vs. Wright interrogatory No.XVIII, p. 27). Thus Daly did sell stock before his death and still owned more stock than he gave Wilson as half of the profits in June 1881.

George Daly apparently remained in the Lake Valley area from his arrival in late February until all the options were secured around the 18th of April and then returned to Leadville. He talked Bernard MacDonald, superintendent of the Iowa Gulch Mining Company into going to Lake Valley for a "similar position." (MacDonald, 1909). "Owing to special inducements [promised stock options], coupled with a glowing description of the rich, undeveloped new region, I was glad to accept. I left Leadville April 20, 1881, and arrived at Lake Valley three days later." (McDonald, 1909, p. 852). Thus Daly and McDonald arrived at Lake Valley on April 23, 1881. MacDonald said that Daly only stayed there for a few days before going to New York to assist in the organization of the four companies to take over the property. Though MacDonald did not mention it, J. Whitaker Wright was also there. The location notice for the Little Chief claim was signed by J. Whitaker Wright as the locator with Bernard MacDonald as the witness and dated April 27, 1881. It was filed two days later with the Dona Anna County clerk in Las Cruces, probably by Wright as he and Daly headed east (Land Records, book 3, p. 275). On this April trip Wright and Daly filed claim locations on two claims that were included in the *Grant County Herald* (April 30, 1881) article as claims they purchased only three days later. Wilson was probably with them at Lake Valley and may have just added the two to make the list of claims more impressive. If they were purchased they were relocated, possibly with different boundaries.

The extent to which Bernard MacDonald put miners to work on the claims prior to Daly's return in June is unknown. He may have hired a few miners to start work on the Lincoln and Stanton claims. Lufkin told a reporter several years later that he operated the claims for months after the purchase option and shipped ore to the rail head at Socorro. This seems unlikely as he had only dug several prospect pits prior to selling the options in March or early April. Another problem with Lufkin's statement is that the Santa Fe railroad reached Nutt only 12 miles from Lake Valley some time in February, 1881. Thus no one would have shipped ore over a hundred

miles to Socorro to get to the railroad in May 1881. They probably did not take over the Lake Valley Mining Company until June. The only mining activity reported in the press during the spring was the work on the Columbia claim by the Lake Valley Mining Company. No indication was found that George Roberts went to Lake Valley prior to the Syndicate Trip in June 1882.

In March 1881 the workers for the Lake Valley Mining Company started digging a decline shaft on the Columbia claim. Sometime during the next month they reportedly found the first "surprising masses of solid chloride of silver." (Silliman, 1882, p. 429) The date of this discovery was probably after most of the company stockholders sold options on their stock to Wilson and Daly. Thus it probably was in April, 1881. The Columbia shaft or decline was the first real mining in the district and reached a depth of 75 feet by April 23, 1881. Silliman reported that the Lake Valley Mining Company shipped 50 tons of 500 oz/ton ore and 5 tons of 3600-oz ore to the Pueblo smelter according to the "previous owner." His informant may have been Roberts who was a 'previous owner' when Silliman visited the area in October 1881. Wright valued Lake Valley Mining Company stock at only \$2 per share in September or a total of \$200,000 so it is unlikely a bonanza equal to  $\frac{1}{4}$  of its value as reported by Silliman was found. Those numbers would have represented the production of 43,000 ounces of silver or a little more than that in dollars. One must remember Silliman had been employed by Roberts and Wright to promote Lake Valley and this was a safe hearsay statement. The Grant County Herald on April 30th reported an even larger production. It reported that the Lake Valley Mining Company shipped \$100,000 in silver between March 19th and April 19th or over 90,000 ounces. This dollar amount was a guess or an invention as ore shipped to Colorado during the month would not have been paid for yet when the article was written. Wilson was the probable source of this information and he was trying to promote the mines. The next known production and shipping of ore from the mines at Lake Valley did not occur until 15 months later in July 1882.

In the Grant County Herald story, Roberts was reported to have purchased controlling interest, 75,000 shares (75% of the stock) of the Lake Valley Mining Company for a price of \$200,000. However, George Roberts testified in response to interrogatory XLVIII in William Wilson vs. J. Whitaker Wright (1882, XLVIII) that his cost was \$150,000. In this suit, Wilson claimed he purchased an option for 56,000 shares of the Lake Valley Mining Company's 100,000 outstanding shares at only \$1.50/share and sent the contract to Roberts (1882, item #5). Thus Roberts initial cost for control of the Lake Valley Mining Company was probably \$84,000. The total cost for all shares in the Lake Valley Mining Company which he acquired by June was probably around \$172,000. This is based on the following assumptions: The initial 56,000 shares at \$1.50 = \$84,000 plus 19,000 shares at \$2.00 = \$38,000 for a total of \$122,000. He could have purchased the remaining 25,000 shares for \$50,000 for a grand total of \$172,000. Roberts traditionally exaggerated the price he paid for property. As the total capital paid into the company in December 1880 was \$25,000 or 25 cents a share the investors made a handsome profit. They made between 6 and 8 times their investment in less than 6 months, a fantastic annual rate of return of over 1,200 percent. Though true to form, Roberts did not pay them for the shares until after he had sold stock in his new company to raise the money in June 1881.

“ During the past year the real estate located in Silver City, which was taken as part payment for the original purchase money of Columbia claim, was acquired by full title by the Sierra Bella Mining Co. The property thus acquired produces a fair rental, and can probably be sold at an advance at any time by the Company may elect. The present market value of the property may be quoted at \$12,000.” (1885 Annual Report to Stockholders for the Sierra Bella Co., p. 22) At least a partial interest in this property in Silver City was traded for the Columbia Claim probably in 1881 and now the company had acquired full title. It appears that the prices reportedly paid for property in cash were partially in Real Estate. The accounts show a \$2,837 entry for the real estate for the year.

### **Section 5: Organization of the claims into Four mining companies: May and June 1881.**

Roberts, Wright and Daly made the final decisions on how to organize or distribute the Lake Valley claims in Philadelphia and New York in May 1881. At that time ore deposits had been found on only four claims, going from northeast to southwest these were the Columbia, Strieby, Emporia and Lincoln. The Lake Valley Mining Co. claims, the Columbia, Strieby and half of the Emporia were given to the Sierra Bella. The other half of the Emporia and the Lincoln were given to the Sierra Madre whose name would be changed to Sierra Grande three months later. They used the formula Roberts created for the State Line promotion in Nevada six months earlier. The plan was to create four companies, two in the middle with the known ore deposits and an additional two, one on each end that did not have any known deposits. The shaft on the Columbia had proven its value and a trench on the Lincoln had shown that it had ore. The purely speculative companies were the Sierra Apache northeast of the deposit and Sierra Plata southwest of it. There must have been a reason for reincorporating the Sierra Madre as the Sierra Grande, but why this decision was made by September is unknown. Each company was also given claims to the south or north of the ore outcrop. Thus each company was given four to six claims.

**Figure 7** is the company claims map at the time they issued a prospectus in early 1882. In spite of the Company promotions that they owned all of these claims, that was not the case. Roberts kept the title to two claims, the Arizona and Little Boy until 1884 when the Sierra Grande bought them from him for \$31,696.35. (Sierra Grande, 1884 Financial report, p. 22) Cope wrote to Silliman that it was his recommendation to the company to buy these claims from Roberts. (Silliman Papers, Cope to Silliman, 10/1/1883) The intention, as in the State Line, was to create two high priced companies in the middle and two low priced companies on the ends of the deposit.

One of the promotional tasks taken care of in April by Daly, probably in conjunction with Wright, was to collect fossils from the limestone at Lake Valley. Daly sent or took these fossils to E. D. Cope in Philadelphia for him to identify. Cope was one of Wright's major investors in his Leadville mines as well as a renowned biologist, paleontologist and geologist. Cope, by late May, had agreed to be a director of the companies they were forming, as well as to promote the fossils in the limestone. (E. D. Cope in EMJ 10/21/82, p. 214). The objective was to identify the age of the limestone as similar to that in the great silver mines of northern Mexico. If the deposit could be claimed to be like that of the great Spanish mines of northern Mexico, the public would be inclined to assume it could produce millions for many years. Not satisfied with Cope's



identification that these deposits were of the same age and type as the great Spanish silver mines, Roberts and Wright had Silliman and others confirm and publicize this finding (1882b). Cope was not a total innocent as he wrote to Silliman in November, explaining why he had not published more about Lake Valley. "I have said & written but little about Lake Valley as yet, as it is not time for a boom yet." (Silliman Papers, E. D. Cope, 11/12/1881) The question of age and nature of the limestone was widely published. Even the question of who first identified the fossils became a public discussion taking up a third of a page in the *Transactions of the American Institute of Mining Engineers* and the *Engineering and Mining Journal* (Cope, 1881a, 1881b, 1882a, 1882b; Silliman 1882a and 1882b).

The four Sierra sisters' full names as incorporated were not used except in annual reports. The press generally just referred to the companies by two words such as the Sierra Grande or often just as Grande. Thus the four sisters were the Grande, Bella, Apache and Plata. The incorporation records of each company were filed with the Territory of New Mexico as New Mexico corporations. Often the deeds to the claims they were reported to own were not filed until months and in some cases years later. The four companies were each capitalized at five million dollars, divided into 200,000 shares with a par value of \$25.00 per share just like the four State Line companies.

The incorporation of The Sierra Madre Mining Company of Lake Valley, New Mexico was notarized in Philadelphia on June 24, 1881 and recorded as a New Mexico corporation on July 20, 1881. The directors were: "Robert E. Smith M.D., William H. Smith, George Daly, Bernard McDonald of Dona Ana County, Territory of New Mexico and J. Whitaker Wright, Edward D. Cope, William Smedley and Benjamin H. Shoemaker of the City and County of Philadelphia, State of Pennsylvania who are and become stockholders in said company... shall be directors for the first three months". (New Mexico Corporation Commission index #0000810:o, no CC computer listed records, but in hard copy. Pp. 511-513, index # 081.) Territorial law required that half of the directors of a New Mexico corporation live in New Mexico thus the company had four New Mexico and four eastern directors. William H. Smith was the second postmaster of Lake Valley and replaced John A. Miller on May 4, 1881. Robert E. Smith may have been the company physician and Daly and Bernard MacDonald were the superintendent and his assistant at the mines.

The reasons why Roberts and Wright decided to replace or reincorporate the Sierra Madre as the Sierra Grande after they made this filing on July 20, 1881 are not known. The Wilson lawsuit was still three months in the future. The Sierra Madre claims referred to in the press in 1881 (MW, 7/81) and in articles even after 1881 confirm that the two companies held the same claims. The last of the four Sierra sisters to be incorporated was the replacement for the Sierra Madre, the Sierra Grande Mining Company of Lake Valley New Mexico. Its incorporation was notarized in Philadelphia on Aug 16, 1881 and recorded in New Mexico October 21, 1881. The incorporation was notarized in Philadelphia two days before George Daly was killed, but he was replaced by Leonard H. Edelew(sp?) or William G. Shedd in New Mexico and Philip C. Garrett in Philadelphia replaced Cope. (cc # 2905453:o, hard copy index # 038).

The Sierra Plata Mining Company of Lake Valley, New Mexico was notarized in Philadelphia on June 24, 1881 and recorded in and as a New Mexico corporation on July 20, 1881. Most of the directors of the four sisters were the same except Phillip C. Garrett was director of the Plata rather than Benjamin H. Shoemaker (in Sierra Madre), or Miller (in Sierra Apache). The directors for the first 3 months were: "Robert E. Smith M.D., William H. Smith, George Daly, Bernard McDonald of Dona Ana County, Territory of New Mexico and J. Whitaker Wright, Edward D. Cope, William Smedley and Phillip C. Garrett of the City and County of Philadelphia". The Sierra Plata company only lasted for 15 months as it was absorbed by the Sierra Grande at the shareholder meeting on September 7, 1882. (see corpcomm file SG) [cc # 2905487:o, no records indicated, but hard copy p.508-, index # 082.]

The Sierra Bella Mining Company of Lake Valley New Mexico's incorporation was filed in New Mexico on October 21, 1881 along with the Sierra Grande filing. This company was made from the claims of the former Lake Valley Mining Company. Its directors were Robert E. Smith MD, Leonard H. Edelew(?), William G. Shedd, Bernard MacDonald, and Felix MacDonald of Lake Valley and Edward D. Cope, J. Whitaker Wright, William H. Miller, and Philip C. Garrett of Philadelphia, Pa. Notarized in New Mexico on Oct 3, 1881 and recorded on Oct 21, 1881. (cc # 2905396:o, no records indicated, but hard copy index # 037) This Felix MacDonald living at Lake Valley is another possible brother of Bernard. See MacDonald biography in section III of the appendix. Roberts quitclaimed two and a half claims to the Bella on November 1, 1881, but this deed was not filed until 1889 (Donna Ana County, b. 2, pp. 312-313). The Sierra Bella was absorbed into the Sierra Grande on basis of one Sierra Grande share for each two SB shares in 1886 (EMJ, 2/3/86).

The Sierra Apache Mining Company of Lake Valley New Mexico was notarized in Philadelphia on June 24, 1881 and recorded in and as a New Mexico corporation on July 20, 1881. It had common directors with the other companies except for William Henry Miller. The directors for the first 3 months were: "Robert E. Smith M.D., William H. Smith, George Daly, Bernard McDonald of Dona Ana County, Territory of New Mexico and J. Whitaker Wright, Edward D. Cope, William Smedley and William Henry Miller of the City and County of Philadelphia," [cc # 0000836: some records, hard copy pp. 506-508, index # 083] It filed a change of agent on 7/31/1884 and was still a separate company when last mentioned in the annual report in 1885. The Sierra Apache was either taken over for unpaid debts by the Sierra Grande or allowed to disappear about 1887.

## **Section 6: The Sierra Companies start work at Lake Valley.**

To what degree Daly or MacDonald hired men and started mining before June is unknown. The days or months MacDonald is referring to in his article written 27 years later is not clear but is as follows:

At the time [April 23, 1881] the deepest development on the ore was an inclined shaft sunk on an ore-channel on the Columbia claim [Lake Valley Mining Company property] to the depth of 75 ft. This

shaft, with an open-cut on the "Grande" 25 feet long, reaching a depth of 12 feet, and numerous shallow cuts, none of which exceeded 5 or 6 ft. deep, was the extent of the development. Most of these openings, however, showed "pay" ore in greater or less quantity, which, in connection with an outcrop, traceable at intervals for a length of 3,000 ft. Along the line of contact above mentioned, constituted a good prospect. (MacDonald, 1909, p. 853)

The greatest development by the end of April 1881 was a 12-foot deep by 25 foot long open cut, probably on the Stanton claim of the future Sierra Grande Company. It and the other smaller five and six foot deep prospects were probably at or near the outcrop of the ore bodies on the northwest side of the small valley. Bernard MacDonald recalled their mining efforts prior August 1881 as the following:

Development was begun on the Sierra Grande and Sierra Bella properties (these showing the more favorable indications), in accordance with the theory about the stated, by commencing a row of shafts at a distance of about 75 feet from the outcrop in the direction of the dip. However, when one of these shafts passed through the fossiliferous lime, and entered the "blue" lime, supposed to constitute the hanging- and foot-walls respectively of the ore, without finding any ore, or even the gouge-matter of a movement-slip, the contact-theory, so far as it implied the indefinite downward and horizontal continuation of the ore between these two lime-deposits, was abandoned, and development was carried on under the old unscientific but much to be recommended method ... of following the ore [from the outcrop]." (MacDonald, 1909, pp. 853-4)

The great disappointment in not finding ore 75 feet from the outcrop meant that the ore body was very erratic, small, or both. It probably led to George Daly's selling of most of his stock in the companies in July or early August. "Great was the surprise of the stockholders when, soon following the death Mr. Daly, they discovered that he had sold most of his stock in the property, and was preparing to entirely abandon it..." (The Mining Review, 1/14/1882) Daly's stock sales were confirmed by the testimony of J. Whitaker Wright the executor of his estate. In the Wilson lawsuit, Wright stated to the interrogatories that the estate of Daly contained the following stock: 5,000 shares in the Sierra Madre (became the Sierra Grande), 5,000 shares in the Sierra Plata, 34,166 shares in the Sierra Apache, and 20,000 shares in the Sierra Bella (Wilson vs. Wright, 1882, interrogatory XV, p. 27). In Wright's carefully worded response to interrogatory XVIII he clearly indicates Daly sold stock before his death. Daly had bank accounts totaling \$79,100, but Wright claimed Daly was on salary and received no cash for the sale of the Lake Valley property to Roberts and himself. MacDonald wrote that Daly got 25 percent of the stock of the four companies or in other words 50,000 share in each. (Wilson v. Wright, 1882, responses to XV, XVIII and XIX; MacDonald, 1909, p. 853). Mining results up until Daly's death on August 19, 1881 had been disappointing and Daly probably did sell most of his stock in the promotion prior to his death.

Daly returned to New Mexico before June 9, 1881 as deeds transferring claim titles to him start on that date. George Daly signed an agreement with Wilson on June 15, 1881 using the printed stationary of the "Lake Valley Mining Company, Manager's Office". Thomas Ewing who took over the Robinson Mine for Roberts in Colorado after Daly left came with him or arrived within a week as he signed three of the settlement documents Wilson made with Daly on June 16, 1881. The agreements on Pinafore stock, Kohinoor Group (Sierra Apache claims) and Lake Valley

Mining Company stock. (Wilson vs. Wright et al, 1882, Exhibit C, p. 23, Exhibit D, p. 25 and Exhibit G, p. 27) These calls state that Ewing was accepting them for George D. Roberts.

J. W. Wright was the initial president of Sierra Plata and his Philadelphia friends and investors the other three companies. Roberts was in charge of the New York market and J. W. Wright in charge of the Philadelphia headquarters and market. On July 1st or 10th, 1881 the companies started record keeping at the mines and officially started operation. Roberts and Wright started selling 'calls' for stock when issued probably in May 1881. The stock suffered a decline in late July and August, 1881 while Roberts was out west checking on the Chrysolite, State Line and other ventures. J. Whitaker Wright placed a \$1 per share value on Sierra Bella stock on September 17, 1881 in his settlement with Wilson, but gave no price for the other three companies. (Wilson vs. Wright et al, 1882, Exhibit B, p. 22). Calls for stock when issued were probably being sold for around \$1.00 for the end companies and \$2.00 for the middle companies until the late August discovery of the Bridal Chamber.

After the shafts they dug several hundred feet from the outcrop found no silver ore, they took the old fashioned approach of following the ore from the outcrop down the vein. Daly and MacDonald concentrated the mining in July and August on digging a tunnel or drift from the ore outcrop following the ore bed to the south. This tunnel was on the Lincoln claim of the Sierra Madre (Sierra Grande). Digging down the declined limestone beds towards the south the ore continued to show silver but most assays were not at high levels. There is no mention of ore shipments. If ore was shipped, it was not credited to the company and may have been pocketed by the superintendents or owners. The last known correspondence of George Daly was his first "Weekly Report" to the Sierra Plata Company. It was published in Philadelphia on August 7, 1881. Daly probably prepared 'First Weekly Reports' for the other three companies as well but they were not located. J. Whitaker Wright sent this report to the *Mining World*, which published it on September 15th. It was a glowing report designed to impress potential investors and was the opposite of reality. Wright later said that at the beginning of August they were getting discouraged, and almost ready to give up. Yet Daly officially reported to Wright for publication the following comments: They had sunk almost 100 shafts, had found rich ore all over the Stanton and Crown Point claims of the Plata with many assays showing between 40 and 2,791 ounces of silver per ton, "even the dirt and weeds overlying the ore carries silver in paying quantities." "The result is, I confess, simply astounding, and almost beyond belief; ... I consider that the present actual value of the property is much in excess of \$1,000,000 or \$5 per share ... as soon as we have proper faces opened in the ore, we can take out any desired quantity." (MW, 9/15/1881) Throughout all history no ore worth mining was ever found on the Crown Point and no values higher than 20% of the reported 2,791 ounces were found until after Daly's death. Daly did say he had four men sacking rich ore, but these men would have been sacking ore from the tunnel on the Grande's Lincoln Claim not the Plata claims.

Edward D. Cope and his relatives in Philadelphia were prominent members of the wealthy Quaker community that J. Whitaker Wright talked into investing in Lake Valley stock in the spring of 1881. Edward Cope was named to the board of directors of all four companies. Though Cope had been in New Mexico many times, he had never been to Lake Valley before his

trip there in August, 1881. Cope was one of many geologists and mining experts sent to Lake Valley to write a report that could be used to promote the mines. The letter he wrote his wife from Lake Valley on August 11, 1881 indicates that the only hoisting equipment working there at the time were windlasses.

I have gotten used to looking down deep shafts - - and you have to get used to it -- & have got so far as to go down with my foot in a loop of the rope, & holding the rope with my hands, while one man turns the windlass. (August 11, 1881, from Lake Valley to his wife. Cope letter No. 246, Osborn, pp. 279-280)

The country is much more pleasant than I had supposed, but the Apaches are making it hot. I think that sooner or later the savage will give some trouble here. They have been doing mischief all around us, and in fact have been seen near the mines. I leave however today. . . **Daly our supt. is however an old Indian fighter & knows how to manage them, especially Apaches.** The day of these savages is however but short. This is a great mining region, perhaps the best in the entire West, and the mines are becoming more numerous very rapidly." [Cope also asked his wife to sell some of his Denver City stock to cover outstanding notes (checks).] (August 13, 1881 letter from Lake Valley to his wife, Cope letter No. 247, Osborn p. 280)

George Daly's bragging about being a great Indian fighter was written by Cope only 6 days before Daly was killed by the Apaches on August 19th. Daly had probably never been in an Indian fight in his life, and during the four months he spent in New Mexico he had probably seen few if any Apaches until the hour of his death.

#### Discovery of the first rich ore and the Bridal Chamber

The mining effort was concentrated on digging a drift on the Sierra Grande to find out how large the ore body was. In August, a shaft was started in front of this drift to provide for its future ventilation. This ventilation shaft was placed on the boundary between the Sierra Grande and Sierra Plata claims. Thus it was called the 'joint shaft.' After passing through the upper layer of limestone at a depth of about 25 feet the shaft found silver ore. It was not until a few days later that the shaft reached very rich silver chloride ore. This occurred only a few days after the death of George Daly. It was the first time that silver ore had been found in a shaft at any distance from the outcrop and dramatically improved the prospects for the mines. The very rich silver ores found in a drift off of this joint shaft at about a depth of 30 feet would not have been found for a week or two after finding the first silver ore at a depth of 25 feet

A drift, called the outcrop drift, [on Stanton Claim] was first started as an open-cut in the ore, and was being driven westerly parallel with the outcrop, but about 25 to 35 ft. below it; at this time the drift had attained the length of 800 feet., all in ore, and had shown the existence of a large deposit of ore, the value of which kept increasing as the drift was extended. In order to hasten the development, a shaft was sunk about 100 ft. in advance of the drift, so as to determine if the ore extended that distance. In addition, this shaft was to be used to ventilate the workings and facilitate the further development of the ore.

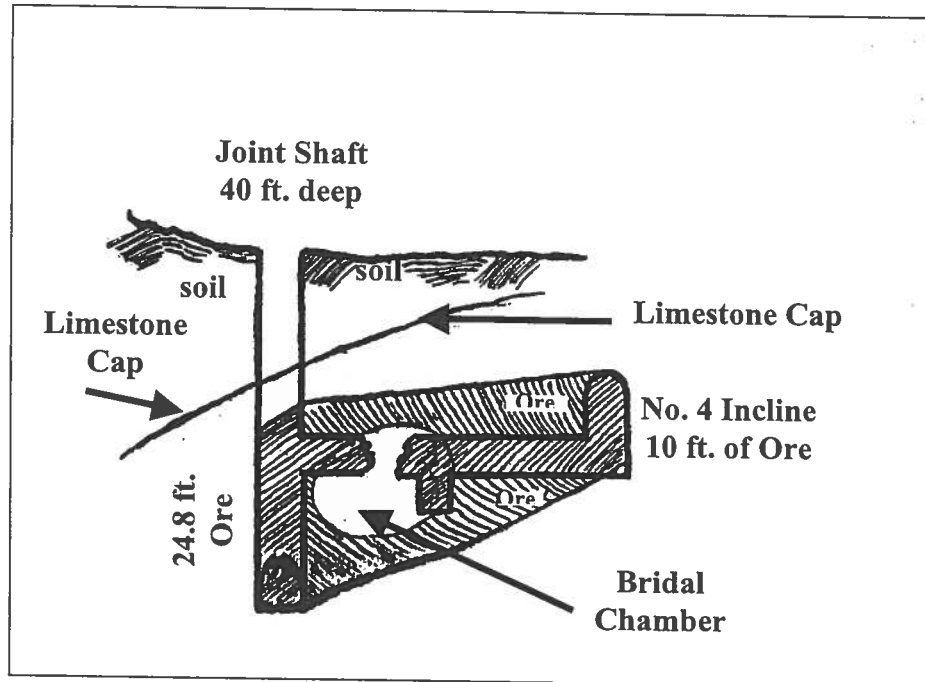
The site selected for this shaft was on the dividing-line between the claims owned by the Sierra Grande Co. And the company adjoining it to the west, and for this reason it was called the "joint" shaft, both companies being charged with its cost. The shaft site and for a considerable distance around it was

covered with a thicket of catsclaw bush, which was cleared away and the shaft commenced early in August.

The shaft passed through about 4 ft. Of detritus [dirt and broken rock] and 20 ft of the hanging -wall lime stone, a total of 24 ft. Of overlaying material before entering the ore-deposit, which was 25 feet thick at that place... An unfortunate circumstance in connection with these mines and the discovery of the bonanza ore-deposit in them was the strange coincidence, that on the very day, and almost the very hour, at which the "joint" Shaft broke the 4-ft. streak of horn silver, George Daly was killed by Indians. I named the ore-deposit cut in the "joint" shaft the "Bridal Chamber" because of the sparkling light reflected by the myriads of crystals of cerargyrite and calcite studding the roof of the open space over the chloride streak (MacDonald, 1909)

There are problems with MacDonald description of the drift dug on the Grande's Lincoln Claim that was later connected to the 'joint shaft.' Gillette's careful sketch made on January 16, 1882 (**Figure 9**) shows that the drift went in a southerly direction from the outcrop not a westerly direction. Gillette measured the distance between the outcrop and the "joint shaft" at 214 feet. MacDonald says the "outcrop drift" was 800 feet long and that the joint shaft was dug 100 feet in front of it. MacDonald possibly confused the drift to the joint shaft (214 feet long) with a much longer 900 foot drift or "open cut" along the outcrop in a east west direction. His memory on the drift was mistaken both in direction and length. MacDonald's description of the ore in the joint shaft does agree with Gillette's drawing of January 16, 1882 (**Figure 8**). MacDonald (1909) wrote that going from the top down in the joint shaft there were 4 feet of Detritus [dirt], 20 feet of fossiliferous limestone, 5 feet of 40 oz/ton ore, 3 feet of 60 oz/ton ore, 4 feet of 150 oz/ton ore, an open space of 1.2 feet, 4 feet of 15,900 oz/ton ore, five feet of 500 oz ore and then 3 feet of decomposed limestone on top of the blue limestone below the deposit.





**Figure 8: Gillette Drawing of Bridal Chamber**

D. B. Gillette's January 16, 1882 drawing of the area of very rich ore (over 400 oz/ton) and the cavity (vug) with 15,000 oz/ton ore named the Bridal Chamber. The following Figure (9) shows the location in relation to the drift from the outcrop. The No. 4 Incline connected the drift to two other shafts north of the Bridal Chamber and was the northern edge of the rich ore body. The ore body was 24.8 feet high at the joint shaft and 10 feet high at the No. 4 Incline. The width of the 400 plus ounce ore body was about 25 feet and less than 50 feet long based on Gillette's maps, but reported in press as over 100 feet long due to inclusion of the area of 100 ounce ore north of the No. 4 incline. MacDonald (1909) said the ore deposit in the joint shaft was 25 feet thick. Gillette measured the thickness of the ore at 24.8 feet in January 1882 when the company said they did not know how much further it went. This indicates they left about four inches of ore in the bottom of the Joint shaft for window dressing. Though MacDonald (1909) and all other reports clearly state that the Joint shaft was where the very rich ore was first encountered, a local miner, a year later stated that the Joint shaft was dug after the drift from the outcrop reached the rich ore. The SFDE (8/26/1882) copied a story from the Tombstone Republican that attributed its information to a Mr. Doheny. He was probably Ed Doheny, who mined in the Black Range. "The celebrated Bridal Chamber is forty feet deep. It was first opened by an incline and afterwards by the vertical shaft [Joint shaft], which, as before stated, is forty feet deep." (Gillette's Labels were changed and typed for clarity. From the James D. Hague Papers, Huntington Library).





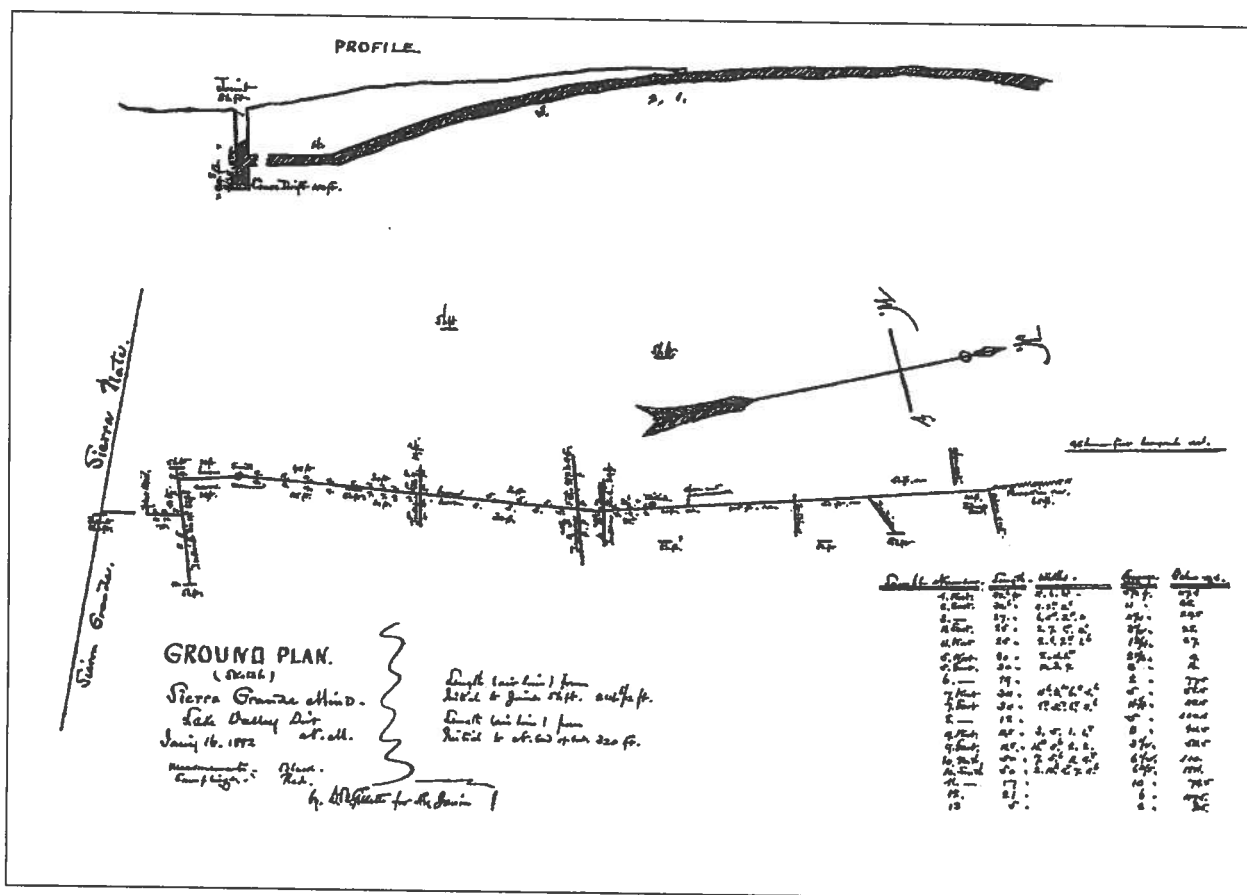


Figure 9. Gillette Drawing of the drift from the outcrop to the joint shaft

Sketch made January 16, 1882 by D. B. Gillette for Henry Janin. Daly concentrated work at Lake Valley on digging this tunnel from the outcrop in July 1881 after shafts several hundred feet from the outcrop found no ore. As Gillette's assays indicate results from the tunnel were disappointing except for one spot (47 oz) until the tunnel was over half way to the Joint Shaft which was 214 feet from the outcrop. Assays were generally less than 30 ounces per ton. Thirty ounce per ton was marginally profitable in 1881 but not something to excite investors. The first 100 ounce per ton ore was found at No. 8, over half way to the joint shaft. The side drift (no. 4, in Profile) about 50 feet from the Bridal Chamber was the northern edge of the rich ore (475 oz/ton). The amount of work done in the four months between August and January was very small. MacDonald probably limited development to the areas of relatively rich ore (50-200 oz). This was part of window dressing of the deposit. With hand drilling, you can collect the drill dust and easily limit your mining to a foot or less from the edge of the rich ore deposit. Thus leaving a veneer of rich ore around your workings so you can claim that the deposit's extent is unknown. Gillette's assays made it clear the area of 400 oz and better ore was very small, between 50 and 100 feet long and 25 feet wide. The 100 plus ore was probably only an area of twice that size. (From the James D. Hague Papers, Huntington Library).



In the book Fayette Jones published for the Worlds Fair in 1904 he wrote: "It was on the very day of the discovery of this remarkable silver deposit-the Bridal Chamber-that the General Manager George Daly was killed by the Apache Indians about six miles out from the camp in the early eighties." (Jones, 1904, p. 90). This sounds like one of those made up romantic stories of the west, but it is essentially true. It was the top of the rich ore in the "joint shaft" that was discovered about the day Daly died. The story that Jones probably read and prompted him to write this a few months later appeared in a Denver newspaper in January 1904. Following J. Whitaker Wrights' suicide, papers all over the world ran obituaries and interesting remembrances of Wright. During his trial in London Wright had reminisced about his early days in Colorado and New Mexico with a reporter. The New York reporter distributed this story after Wright's death.

After my experiences in Leadville, I invested in this group of mines in New Mexico. ... The properties were very rich on the surface and the assays were high, but on development of the mines we did not find any permanent body of ore for a long time. We were getting discouraged, and what with the high prices of supplies and troubles with the Indians, we were almost ready to give up. I was on my way back to the mines at that time, and was given an escort by my friend, General "Phil" Sheridan. Meanwhile, the work at the mines had been continued under the direction of a foreman, and just as the body of my superintendent was being brought into his bungalow in the camp a body of ore was penetrated which ran \$10,000 to the ton, and enabled us to pay dividends of \$100,000 a month for a long time. ("Chose Death Rather Than Prison," *The Denver Times*, January 26, 1904, p. 11).

Wright's lead phrase in the sentence on Daly's death that work had proceeded under a foreman refers to Bernard McDonald and indicates that the discovery of the Bridal Chamber was days if not weeks after Daly's death. What was reached days if not hours after Daly's death was the top of the silver ore in the joint shaft. It was probably a week or two before the Bridal Chamber was reached. MacDonald (1908) Daly's assistant or foreman, wrote that he named the vug or cavity of extremely rich ore found north of the joint shaft the "Bridal Chamber." The military report on the period gives the date of the battle with the Apaches in which Daly was killed as August 18, 1881 (Sheridan, 1882, p. 100). However, the incident that McKenna (1936) and Lekson (1987) reported as causing Daly to lead a group of miners to go out after the Apaches reportedly occurred on the 19th. Also Wright who was present the next day wrote only three months later that "George Daly died on the Nineteenth day of August, A. D. 1881." (Wilson vs. Wright, 1881 response, p. 2) A detachment of the 9th cavalry from Fort Cummings was at Lake Valley as part of the effort to capture the Apache band led by Chief Nana. Lieutenant Smith was in charge and did not want to go in pursuit of the Apaches. George Daly accused him of cowardice and talked about 20 miners into going out to find the Apaches. Lieutenant Smith took a small portion of his troops and followed Daly. Daly charged his miners into a deep canyon and the Apaches sprang their ambush. Daly and Lieutenant Smith were killed early in the fight. About twelve miners were wounded; one of who died the next day. The Afro-American sergeant took command when Lieut. Smith was killed and withdrew the troops to a defensive position outside the canyon. Four of the Black cavalry soldiers were killed in the fight. The battle lasted from 10 in the morning to 4 in the afternoon before the Apaches withdrew going on south into Mexico. If the Apaches suffered any casualties it was not reported.

The Joint Shaft encountered the first silver ore in late August 1881, but the Bridal Chamber would not have been located for at least a week or two after that. Roberts also dug a 'joint shaft' on the boundary of two of his company's properties in the State Line promotions as the results could thus raise the price of two companies stock. Wright probably only stayed at Lake Valley a short time in August and left the mines under the supervision of Bernard MacDonald. Bernard built locking doors on the shaft and from it into the drift to the "bridal chamber." No one was allowed to go into the area unless they had written permission from a major promoter. Hired experts were sent out to write evaluations for the companies to use in their publicity and in October, 1881 Benjamin Silliman Jr. arrived for his first visit. (EMJ 10/14/82)

The men that created the Lake Valley Mining Company in December 1880 were not the only non-Sierra company operators at Lake Valley. Henry H. Sawyer had been acquiring claims around the area for several years and owned a number of claims at Lake Valley. He maintained an office there and drew the only known claim map of the Lake Valley Mining District in late 1881, which is **Figure 6** in this report. Most of Sawyer's known claims were south or east of the Sierra companies. Sawyer's claim map shows that prospectors had staked most of the area around by late 1881. Except at the northeast end of the Sierra Apache none of these hundred or so claims ever produced anything.

### **Section 7: The Big Promotion: September 1881-July 1883**

Roberts was an experienced and talented promoter, however, J. Whitaker Wright surpassed him in his later career. Wright started a journal titled only *The Mining Journal* in Philadelphia, to promote his companies or acquired control of it in 1881. The clipping he sent to the Mining World dated September 7, 1881 was probably from *The Mining Journal*. The journal was found in the collection of the Library Company of Philadelphia, but not soon enough for inclusion in this report. They hold issues from January 14, 1882 (v. II, n. 14) to August 18, 1883 (v. V, n. 20). [Microfilming of *The Mining Journal* will not be finished until the late spring of 2001 and when available will add greatly to our understanding of Lake Valley.] The only portions of this journal studied were two clippings in the Hague Papers at the Huntington Library. When it was referred to by name in other publications it was called the Philadelphia Mining Journal. It was generally referred to by derogatory terms rather than a name. Terms such as: Wright's or Roberts's organ. The last reference found to it in other publications was July 1883 which is also the date of the last known copy. Wright probably suspended its publication after losing control of the Sierra companies in July 1883. The prospectuses issued for the Sierra companies were not located and only excerpts published in other newspapers or journals were found. The promotion of Lake Valley attracted a great deal of attention in the press and the interest of many prominent people in mining. Outside of New Mexico, most were skeptical of the claims of great wealth in the Lake Valley mines and considered the claims exaggerations.

"A Doubtful Enterprise". Daly Mining Camp, N.M., Jan. 9. - It appears strange, but it is still true, that it is impossible to over-estimate the stupidity of mankind, ... Not many months ago, when every mining man was cursing the State Line mines, certain gentlemen purchased through George Daly, considerable property in Dona Anna County, NM. A large force of men was employed to develop the supposed hidden treasures, but contrary to all expectations, instead pockets of ore were discovered.

Although the ore found in these pockets is in quality equal, or superior to any ore found in the United States, the quantity is so small that Mr. Daly soon came to the conclusion that he had largely overestimated the property. "Great was the surprise of the stockholders when, soon following the death of Mr. Daly, they discovered that he had sold most of his stock in the property and was preparing to entirely abandon it, and leave it for some one else to present to the public." B. K. (The Mining Review, 1/14/1882)

"A fair specimen of the Way Certain Eastern Editors 'Whoop em up' from *Tombstone Epitaph*. "We find in the New York Times an account of the San Bartola Mountain Mining Company, State of Jalisco, Mexico, that for indecent and barefaced exaggeration is a parallel to the stories told about the Lake Valley mine. ... contain an amount of ore in sight that is incalculable. This statement is worthy of the late lamented Daly in his healthiest days." (SFDE, 1/17/82)

Two thorough and candid investigations of the Lake Valley silver deposits were made in January 1882 for James D. Hague. They are the only known detailed and honest reports on the early developments at Lake Valley. James D. Hague was a wealthy and famous mine investor. Though he owned interests in mines all over the west he was best known for his ownership of mines on the Comstock Lode in Nevada. The widespread publicity on Lake Valley in the fall of 1881 attracted his interests. Hague lived in New York at the time and probably had spoken to Roberts about investing in Lake Valley stock. Roberts, hoping that Hague would buy a large amount of stock, gave Hague permission to send his own experts to evaluate the mines in December 1881, and notified the managers at Lake Valley to expect them.

Hague sent a letter to S. S. Robinson who worked for the Mimbres Mining Company at Georgetown northeast of Silver City, New Mexico on December 24, 1881, asking him to go and investigate the Lake Valley mines. Hague had owned \$30,000 worth of Mimbres stock since 1880 and was one of its major stockholders (Spence, 1970, p. 272). Robinson was one of his trusted employees. The Georgetown deposit was also a silver in limestone deposit and thus Robinson was an appropriate local individual to evaluate the Lake Valley ore body. Robinson met the manager, D. H. Jackson who showed him the principal mine, on the Sierra Grande. Jackson would not have done this unless he had received orders to expect Robinson and to let him sample the mine. Robinson completed his investigation and wrote to Hague on January 10, 1882. Robinson wrote on the stationery of "The Mimbres Mining Company, Georgetown, New Mexico," the major mining company at Georgetown.

The openings are a series of open cuts, four winzes [declines or shafts] ... nearly parallel to its out crop, about 300 feet away... I saw mineral all through these openings. The deposit varying from two to twelve feet thick, the ore varying greatly. ... I took in passing eight samples and give you the results. No. 1. - 52 oz, #2-2142 [oz. silver/ton], #3-15,931, #4-763, #5-12, #6-240, #7-25, #8-47.

In Nos. 2, 3 & 4 the chloride was plainly visible, but in the others I could see nothing to indicate Silver. ... No-3- Where taken from the walls would easily cou\_\_ress between the fingers like a waxy sponge, being held in walls by the traces of tough gray chloride - streaks of this from 1/8 to 1/2" thick showed plainly in the ore face at two or three places. ... fifty to seventy five tons of rich ore is sacked and piled in sheds. ... No mining is now being done. ... Of the extent of the deposit I can tell you nothing more than the work shows. ... The ground is nearly graded for a 20 stamp mill- 16 pans. When the mill is completed it will doubtless reduce fifty tons per day. ... I see no reason why they should not, if the mill produces from two to three hundred thousand ounces of bullion the first month. What a chance for a boom!! ... Were I in New York I should buy all the "bell rock" Stock I could pay

for and sell it on the first high tide of product - I would not hold it here for fear I could not sell quick enough. ... I do not believe it will stay, but there is "millions in it" - for -- Speculation. (S.S. Robinson, to J. D. Hague, 1/10/1882. James D. Hague Papers, Huntington Library, San Marion, CA)

Robinson's evaluation was that the deposit was great for a speculation and that millions could be made in speculation on Lake Valley. However, the ore deposit was probably small and the stock would have to be sold quickly before the ore ran out or something else caused its price to crash.

D. B. Gillette was an acquaintance of Roberts and a mining engineer living in New York City involved in mine promotions. He was also in charge of the Ivahoe silver mine in the Black Range being promoted on the east coast. Less than a week after Robinson left, D. B. Gillette, and Alexis Janin arrived at Lake Valley. Henry Janin, one of the preeminent mining experts of his day had sent them to investigate Lake Valley for Hague. There were four Janin brothers, all mining engineers trained in Germany. Of the four brothers working in the United States, Henry and Alexis were the most prominent. Henry Janin was probably extremely skeptical of Roberts's Lake Valley promotion. He had been hired nine years earlier in 1872 by George D. Roberts and Asbury Harpending to go to their diamond fields in northern Colorado and write an evaluation of the deposit. The salting of the diamonds was later said to be amateurish, but they tricked Janin into a quick examination and he wrote a glowing report on the diamond fields. This was one of the few times in his career that Henry Janin got totally fooled. Henry Janin's endorsement of the diamond hoax was a major embarrassment to his reputation. It was reported that "this failure was mortifying to Mr. Janin, and since then he has been less inclined to follow the business of experting." (*Pacific Coast Annual Mining Review and Stock Ledger*, Printed and Published by Francis & Valentine, San Francisco, 1878, p. 50) Though the public did not realize Roberts was behind the Diamond Hoax, and still does not, Janin must have recognized Roberts and Harpending as the true master minds. Thus, both by general reputation as well as painful personal experience Janin would have been leery of Roberts's promotion of Lake Valley.

Alexis Janin and D. B. Gillette were given full access to the mine. Gillette mentions that he had cleared their visit with Roberts and Ewing. Ewing was Roberts's partner in the Robinson Mine promotion in Colorado and probably other ventures. Gillette had promised his report would be kept absolutely confidential, which indicates that all concerned realized there were problems with the deposit that his investigation would reveal. Hague was thus probably looking at Lake Valley strictly as a stock speculation. It appears that Roberts was offering him a 'call' on a combined package of Sierra Grande and Sierra Plata stock. The price on the call is unknown but six months earlier the stock was offered to insiders at \$1.50 to \$2.00 per share while the publicly quoted price was from \$2 to \$5. Gillette indicated that the Sierra Grande looked good, but that the Sierra Plata showed very little in the way of rich ore. D. B. Gillette knew Roberts and may have worked for him in the past. We can assume that his report was kept confidential because Roberts and Wright hired him as manager of the Lake Valley operations less than 9 months later. The following is the formal report to Mr. Janin, dated January 16, 1882. Two of the drawings that Gillette made of the deposit should be referred to in conjunction with these reports. Refer back to **Figure 8 and Figure 9** to better understand Gillette's comments.

I have endeavored to make the accompanying sketch & \_\_\_\_ [Figures 8 and 9] to [ex]plain, that little

need to be added in the way of a 'report'. Both Mr. Alexis Janin & myself agree that if the ground between the 'Initial Point' & the 'Joint Shaft' failed to have brilliant results, the open cut in Northerly portion of the ground need not be sampled in detail. [This open cut may be the 800 foot long feature MacDonald recalled in 1909.] ... The 'heart' of the ore-chimney, is from the 'Initial Point' Southerly to the 'Joint Shaft' a distance in an air line of 214 feet. Near the 'Cat Hole' the strata are 'faulted' to the South West & from this point (& probably owing to the fault) occurs a large chamber of extra ordinarily rich ore. The chances of its extending far into the 'Sierra Plata' claim are, in my opinion, very doubtful - It is, however, on this chance that the 'Sierra Plata' ba\_\_ [basis?] its principal claim for consideration of value. ... [He concluded that the rich ore was confined to a small area and estimates most other ore ranging from 30 to 40 ozs per ton.] The ground (about 24 feet in length) from 'Joint Shaft' to 'Cat Hole' is very rich & is called the 'Bridal Chamber'. The East & West incline from [the] bottom of the 'Joint Shaft' is run in good ore for 30 feet. The East face being bad & West face good, but showing signs of 'feathering out' - The thickness of pay, where cut to vertical [at the] Joint Shaft is 24 feet & 8 inches. ... [He personally took careful samples from Joint Shaft to Initial Point and then gives his assays and tonnage estimates for the rich area.] 4,000 tons - having an average assay value of 138 ozs. To this may be added say 3,000 tons of 30 to 40 ore which is likely to come from Northerly portion of ground & from underlying stratum. (D. B. Gillette to Mr. Janin, New York, 1/16/1882)

If Alexis sent his brother a report on Lake Valley it was not located in the Hague papers. Gillette's report indicates that 30-40 ounce ore was found at the 'Initial Point', the pit first dug near the outcrop. From that pit at the outcrop it was 214 feet south to the Joint shaft. The No. 4 Incline was dug down at the very north end of the rich ore body. Though a local miner, Ed Doheny, said the drift found the rich ore body before the Joint shaft was dug. The rich ore pocket in the layer between the limestone was only 25.5 feet below the surface at the joint shaft. The Joint shaft was still only dug to the bottom of the ore body at a depth of 40 feet in January. Thus the joint shaft had deliberately not been extended beyond where they found the bottom of the ore body 3 to 4 months earlier. This was a typical Robert's window dressing development of an ore body. It allowed his staff and visitors to tell the press that they still had not penetrated to the bottom of the ore body. Gillette said they had 24.8 feet of vein exposed, but had no idea how much thicker the vein was. MacDonald (1909) wrote that the total thickness of the deposit was 25 feet so he left only 4 inches of ore in the bottom as window dressing. Gillette's calculated silver content of the 'Bridal Chamber' ore body was 552,000 ounces, and other ore areas up to 120,000 ounces. Thus his estimate was that Sierra Grande had about \$700,000 in silver, but the Sierra Plata probably had an insignificant amount of silver. He later said he may have underestimated the Bridal Chamber, as he could not tell how much of the very rich ore was in it.

Gillette's second letter sent with his report letter on January 16, 1882 was both more frank and personal and he addressed it "My dear Henry." Gillette stressed the need for Janin to keep his report secret as he had pledged Ewing and Roberts that his report would be kept in "absolute secrecy". Gillette's other comment made it clear that this was to prevent his report from interfering with Roberts's stock promotions. Gillette's "My dear Henry" letter of January 16, 1882 follows.

I have pledged myself to Ewing & Roberts as to the absolute secrecy of my report to you, & at [name not deciphered: possibly Tom's or Jon's] request again ask you to be especially guarded. There is not



a shadow of doubt, but that they intend to make a big deal. Prof. Silliman & others have been here & there are some Flaming reports out.

The discrepancy between Hoffman's [not decipherable] & Jim's statements \_\_\_ use of the results of my own sampling I am utterly at a loss to account for. But (in strict privacy,) I begin to suspect Jim of having had intimate business relations with Geo. & Jno. Roberts for some time past. Keyes also told me that he thought there was a million in the Grande Ground, but as he told me that the ore would sample from 126 to 146 ozs at the door & thence increase going South - I have copied his statements. I may have underestimated the Bridal Chamber, as \_\_\_ of the ore, which is horribly rich, is from \_\_\_ to 15,000 ozs. I avoided - other portions of the Sampling are as Correct as I can possibly be by taking very large averages, & g\_\_\_ating very carefully. ...

It is a beautifully large & solid looking ore streak & nothing but sampling will show its weakness. The chances are big for the owners to get away with the street - as they can Knock out this rich ore very cheaply & ship it to Denver & increase their mill production Enormously by such shipments. Ewing has written Roberts only that I like the Grande very much indeed but would probably report adversely on the Call, on acct. [account] of the Plata. May I suggest that if you meet Roberts You take Similar grounds. There is not the slightest use in our making Enemies - Ewing's man Hammond is bulling the Mexican mine for him & his statements are very big - 18 feet rich ore on the 300 level & \$20,000 a week in bullion shipments with 7 stamps etc. Yours faithfully, D.B.G. (D. B. Gillette to My dear Henry [Janin], New York, 1/16/1882, James D. Hague Papers, Huntington Library, San Marion, CA)

Some of the people mentioned in the letter are identifiable and others are not. Ewing was Roberts's partner in the Robinson Mine promotion in Colorado that Daly left to come to New Mexico. (SFDE, 7/7/1882) Ewing's role in Lake Valley is not mentioned in the press, but he was involved and assisted George Daly in obtaining clear titles to the claims in June, 1881. Daly had Wilson sign his call for 2,500 shares of Pinafore stock and the Sierra Apache stock to Roberts with a note at the bottom "Deliver to order of Thomas Ewing." (Wilson vs. Wright, 1882, Exhibit C and E) Thomas Ewing signed three documents along with Daly and Wilson so he must have been in Socorro where they were notarized on June 16, 1881. Ewing's Santa Maria Mine in Mexico which John Hayes Hammond was working on was discussed previously. The person referred to only as Jim is not known. The Keyes is probably Winfield Scott Keyes who was Roberts's manager at Leadville until the late summer of 1880. The "Jno. Roberts" is George D. Robert's brother John. John was seldom mentioned in the press, but was an operative for his brother in many projects including working at the diamond fields in 1872. What Gillette meant by "nothing but sampling will show its weakness," is that observers would be fooled into thinking the 15,000 ounces per ton area of ore was much larger than it was, unless they did extensive sampling. Robinson pointed out in his letter of a week earlier to Hague that it was impossible by color or texture to tell the rich ore from much lower grade due to iron [and manganese] content masking the silver. The "Call" must have been an option Roberts was offering the "street," meaning the professional mining stock promoters/speculators/brokers, in New York for a combined package of Grande and Plata stock.

Gillette's reports (1/16/1882) to Janin as well as that of Robinson (1/10/1882) directly to Hague clearly state that Lake Valley was a fantastic deposit for a stock promotion and should make millions for its promoters. However, the ore found to date was fairly small, and the ore deposit's

true value was yet unknown. It was a great promotion as it had a nicely displayed pocket of very rich ore, the Bridal Chamber, which could be turned into dividends. These reports show that an experienced mine examiner in a few days could correctly evaluate the property as only having a proven value of a million dollars or less. However, various Sierra Company press releases claimed, 7, 68 and as high as 144 million in ore in sight. In January 1882 the Sierra stocks prices quoted to the public varied from two to six dollars per share. Hague could have probably bought a large block of stock at 20% of the quoted price with the hope that prices would continue to rise for six months to a year before the crash. It is unknown if he did so or not. No items were located by Robert Eveleth (NMBMMR) in the Hague Papers indicating whether Hague invested in Sierra stocks or not.

It was pointed out in the press that even the new mine manager, Jackson, who took over operations from Bernard MacDonald prior to January 1882 had a shady background. "The General Manager at the [Lake Valley] Mines, we observe, is our old friend D. H. Jackson, M.E. hero of the North Bonanza swindle in the Flowery District..." (SFDE, 1/25/1882). The initial M. E. stood for 'Mining Engineer.' Until around the end of the 19<sup>th</sup> Century it did not necessarily mean someone who had graduated from a mining school, but rather someone who claimed experience in mining. It was almost true that "It was claimed by every person who can wheel a barrow or drive a span of mules over the road that he was an M. E. (letter printed in the *Mining Journal*, 12/30/1871, p. 1173). In January 1882, *The Mining Journal*, the journal created by Wright to promote the Lake Valley mines, announced that the prospectus was available. This prompted another attack by the *Daily Exchange*.

We learn from the Philadelphia *Mining Journal* that the new litter of untamed kittens, which Mr. George D. Roberts has been suckling down in New Mexico for the Philadelphia market, have about got their eyes open. ... Four of them we observe by the Journal, to wit; the Sierra Apache, Sierra Bella, Sierra Grande, Sierra Plata, are each made the subject of a flaming and high sounding prospectus. Each is organized with capital of \$5,000,000, divided into 200,000 shares, and each is provided with a long and imposing list of officers whose names we presume are used as files to dull the claws of the kittens as they grow to maturity.

In another part of the *Mining Journal* we see the following, purported to be copied from the DAILY EXCHANGE: "We were shown specimens of ore from the Sierra Plata and Grande Mining Companies of Lake Valley, New Mexico. The ore assays from \$14,000 to \$17,000 per ton, and there is fourteen feet of the same kind of ore. Colonel Osbiston is said to have offered to give \$500,000 for working the claims for thirty days." [This is the first time this often-repeated story appeared. Latter reports attribute it to different people such as the governor of Arizona.]

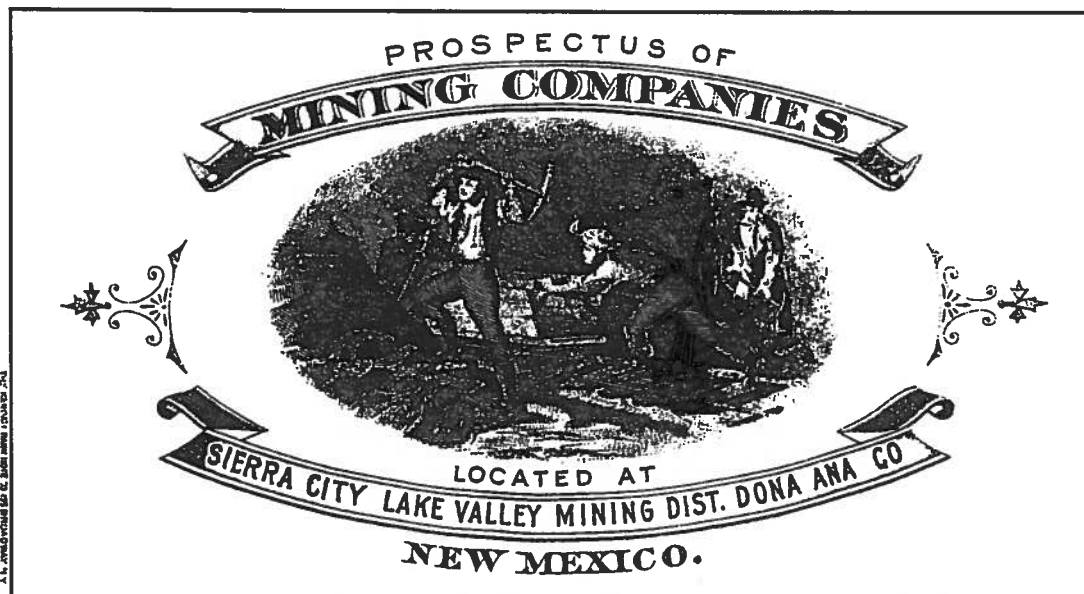
The above is miscredited, the item having been published in another journal. What the EXCHANGE did publish was what Colonel Osbiston said concerning the mines, which was that they were "a beautiful gamble. They are situated on a blanket vein, beneath a limestone cap. A large number of prospect holes had been sunk into the blanket, but care had been taken not to sink them more than a few feet, for fear, as we know from what Mr. Osbiston said, of running through the vein and exposing its weakness. In short, every stroke of work done on the various properties was done with the sole idea of the deal, which we see by the *Mining Journal* is now under way." (SFDE, 1/25/82)

The promoters started placing advertisements in the mining journals in January 1882. *The Engineering and Mining Journal* advertisement ran in most issues through at least May 1882. The advertisement in EMJ for the four companies is shown in Figure 10. Figure 11 gives the officers of the companies in 1882 and was probably the covers for two of the company prospectuses. Figure 7 is probably the map from the prospectus showing the claims of each company. Though no copies of the prospectus were located, portions of them were paraphrased in newspapers. The prospectus claimed that there was 144 million in silver ore in sight. Ore in sight was the term used by promoters to convey to the public the impression of proven ore reserves, measured values of ore already exposed, in the mine. It was an expression used because it was legally safe. If they were later sued they could argue it was only an opinion and thus protected by the right of free speech rather than an actual claim of proven value in the mine. However, the general investor was fooled into believing it meant proven ore values.

APRIL 8, 1882.] THE ENGINEERING AND MINING JOURNAL. III	
<p><b>THE SIERRA APACHE MINING COMPANY,</b> OF NEW MEXICO. MINES SITUATE AT Sierra City, Lake Valley Mining District, Dona Ana Co. <b>CAPITAL, \$5,000,000.</b> SHARES, 200,000. PAR VALUE, \$25 EACH. Stock Full-Paid and Non-Assessable. OFFICES: SIERRA CITY, DONA ANA CO., N. M. TRANSFER-OFFICE: EXCHANGE BUILDING, PHILADELPHIA.</p> <p><b>DIRECTORS:</b> EDWARD D. COPE, SAMUEL L. SMEDLEY, JOHN S. HAINES, C. R. MIDDLETON, JOHN W. WRIGHT, PHILIP C. GARRETT, J. WHITAKER WRIGHT, WILLIAM H. MILLER, HENRY A. DUHRING.</p> <p><b>OFFICERS:</b> President, EDWARD D. COPE; Treasurer, SAMUEL L. SMEDLEY; Secretary, GEORGE L. SMEDLEY. General Manager at Mines, D. H. JACKSON, M.E. Registrars of Transfer and Eastern Bankers, Guarantee Trust and Safe Deposit Company.</p>	<p><b>THE SIERRA BELLA MINING COMPANY,</b> OF NEW MEXICO. MINES SITUATE AT SIERRA CITY, Lake Valley Mining District, Dona Ana County. <b>CAPITAL - - - \$5,000,000.</b> Shares, 200,000. Par Value, \$25 each. Stock Full-Paid and Non-Assessable. OFFICES: SIERRA CITY, DONA ANA COUNTY, N. M. TRANSFER-OFFICE: EXCHANGE BUILDING, PHILADELPHIA.</p> <p><b>DIRECTORS:</b> WILLIAM H. MILLER, PHILIP C. GARRETT, JOHN W. WRIGHT, HENRY A. DUHRING, JOHN S. HAINES, BENJAMIN H. SHOEMAKER, SAMUEL L. SMEDLEY, EDWARD D. COPE, J. WHITAKER WRIGHT.</p> <p><b>OFFICERS:</b> Pres., WILLIAM H. MILLER; Treas., PHILIP C. GARRETT; Sec., GEO. L. SMEDLEY General Manager at Mines, D. H. JACKSON, M.E. Registrars of Transfer and Eastern Bankers, Guarantee Trust and Safe Deposit Company.</p>
<p><b>THE SIERRA GRANDE MINING COMPANY,</b> OF NEW MEXICO. MINES SITUATE AT SIERRA CITY, Lake Valley Mining District, Dona Ana County. <b>CAPITAL, \$5,000,000.</b> SHARES, 200,000. PAR VALUE, \$25 EACH. Stock Full-Paid and Non-Assessable. OFFICES: SIERRA CITY, DONA ANA COUNTY, N. M. TRANSFER-OFFICE: EXCHANGE BUILDING, PHILADELPHIA.</p> <p><b>DIRECTORS:</b> BENJAMIN H. SHOEMAKER, JOHN C. SINCLAIR, J. WHITAKER WRIGHT, PHILIP C. GARRETT, HENRY A. DUHRING, WILLIAM H. MILLER, EDWARD D. COPE, JOHN W. WRIGHT, SAMUEL L. SMEDLEY.</p> <p><b>OFFICERS:</b> President, BENJAMIN H. SHOEMAKER; Treasurer, JOHN C. SINCLAIR; Secretary, GEORGE L. SMEDLEY. General Manager at Mines, D. H. JACKSON, M.E. Registrars of Transfer and Eastern Bankers, Guarantee Trust and Safe Deposit Company.</p>	<p><b>THE SIERRA PLATA MINING COMPANY,</b> OF NEW MEXICO. MINES SITUATE AT SIERRA CITY, Lake Valley Mining District, Dona Ana County. <b>CAPITAL - - - \$5,000,000.</b> Shares, 200,000. Par Value, \$25 each. Stock Full-Paid and Non-Assessable. OFFICES: SIERRA CITY, DONA ANA COUNTY, N. M. TRANSFER-OFFICE: EXCHANGE BUILDING, PHILADELPHIA.</p> <p><b>DIRECTORS:</b> PHILIP C. GARRETT, HENRY A. DUHRING, SAMUEL L. SMEDLEY, EDWARD D. COPE, J. WHITAKER WRIGHT, BENJAMIN H. SHOEMAKER, JOHN W. WRIGHT, WILLIAM H. MILLER, JOHN S. HAINES.</p> <p><b>OFFICERS:</b> Pres., PHILIP C. GARRETT; Treas., HENRY A. DUHRING; Sec., GEO. L. SMEDLEY General Manager at Mines, D. H. JACKSON, M.E. Registrars of Transfer and Eastern Bankers, Guarantee Trust and Safe Deposit Company.</p>

Figure 10. EMJ Advertisement for Sierra companies

The advertisement for the four Sierra companies that appeared in *The Engineering and Mining Journal* during the spring of 1882. Starting in January and continuing at least through May. Note that Cope and Wright and several others were directors of all four companies.



**SIERRA PLATA**  
**MINING COMPANY**  
OF NEW MEXICO

MINES SITUATE AT  
SIERRA CITY, Lake Valley Mining Dist.  
DONA ANA COUNTY.

**CAPITAL, \$ 5,000,000**

200,000 SHARES, PAR VALUE \$ 25 EACH.  
*Stock Full paid and Non-Assessable.*

OFFICES  
SIERRA CITY, DONA ANA CO  
NEW MEXICO

TRANSFER OFFICE, 18 EXCHANGE BLDG. PHILAD.  
**President**  
PHILIP C. GARRETT

**Treasurer Secretary**  
JOHN W. WRIGHT | GEO. L. SMEDLEY

*All Communications on the Business of this Company should be Addressed to the Secretary.*

**GENERAL MANAGER AT MINES, D. H. JACKSON, M. E.**  
Registrars of Transfer and Eastern Bankers.  
**GUARANTEE TRUST AND SAFE DEPOSIT CO.**

**THE SIERRA GRANDE**  
**MINING COMPANY**  
OF NEW MEXICO

MINES SITUATE AT  
SIERRA CITY, Lake Valley Mining Dist.  
DONA ANA COUNTY.

**CAPITAL, \$ 5,000,000**

200,000 SHARES, PAR VALUE \$ 25 EACH.  
*Stock Full paid and Non-Assessable.*

OFFICES  
SIERRA CITY, DONA ANA CO  
NEW MEXICO

TRANSFER OFFICE, 18 EXCHANGE BLDG. PHILAD.  
**President**  
BEN J. H. SHOEMAKER.

**Treasurer Secretary**  
JOHN C. SINCLAIR | GEO. L. SMEDLEY

*All Communications on the Business of this Company should be Addressed to the Secretary.*

**GENERAL MANAGER AT MINES, D. H. JACKSON, M. E.**  
Registrars of Transfer and Eastern Bankers.  
**GUARANTEE TRUST AND SAFE DEPOSIT CO.**

Figure 11. Sierra Grande and Sierra Plata Prospectus cover pages and Vignette.  
Only these cover pages of the prospectus were located.  
From Library Company of Philadelphia.



The prospectus gave a very long list of fossil species found in the limestone of the new mines. Cope and Hague's identification of these fossils were all obtained and published in scientific journals (Cope, 1881a, 1881b, 1882a, 1882b; Hague's by Silliman, 1882b and EMJ, 10/21/1882, p. 214). Daly and Wright had recognized the importance of the fossils in April 1881 and collected and sent them to Cope when the claims were first optioned. The prospectus stated that the fossils were "of importance as paralleling the formation with the rich argentiferous limestone of carboniferous age of Arizona and Chihuahua." The Spanish mines started in the carboniferous limestone deposits in northern Mexico had produced literally hundreds of millions of dollars in silver during the preceding three centuries. They were the richest silver mines in the world outside of Potosi and the Comstock.

Each of the four Sierra Companies was estimated to have 36 million in ore at a minimum according to the *New York Stock Report* paraphrasing of the prospectus. The *San Francisco Daily Exchange* pointed out the unbelievable magnitude of this claim by comparing it to the two largest silver producers on the Comstock Lode. "Here are four properties having altogether, \$144,000,000 in sight, or nearly twice as much as the amount of dividends paid by Con. Virginia and California." It continued by ridiculing the absurdly low price the stock was being offered at if in fact the four companies had anything even close to these amounts of ore. "The stock is for sale at the mere bagatelle of \$5 per share. ... Verily, George D. Roberts is the humble medium, through which Humboldt's prophecy is to be fulfilled, the wealth of the world will be found in New Mexico and Arizona." (SFDE, 2/4/1882 from the *New York Stock Report*)

This reference to Alexander von Humboldt's, *Political Essay on the Kingdom of New Spain* (1811) was used by Roberts and many other mine promoters in their southwestern stock promotions. In spite of the book's title it contained the best and most extensive study of the silver mines of central New Spain at the end of the colonial period. Humboldt did not come to New Mexico during his 1804-5 study of Spanish silver mining, but received reports on the area.

The *Mining Record* continued its attacks on Roberts with a blunt quote from an unnamed New York paper. "... Every property with which the name of Mr. George D. Roberts has been associated in the New York market has been a grievous loss to the investors; and properties which his hands have touched, never recover. It is certainly timely, thus to lay bare these facts of the mal-odorous history of these people and of their schemes." (MR, 3/11/82, p 218). Silliman apparently owed stock in all of the Sierra companies as J. Whitaker Wright responded to a request from him for the current prices. Wright wrote that the prices quoted were Plata and Grande \$5, Bella \$2.50 and Apache \$2. A calculation at the bottom of a page, probably by Silliman totaled these up with a total value of 1.9 million. (Silliman Papers, W. Wright, 1/28/1882) The total payment to Silliman was still not agreed to or paid as Wright wrote him two months later, "Your Report rec-d - it is got up (three abbreviated words not legible) I told Prof. Cope he won't have to try again." Apparently he was referring to a prior request for Cope to improve his report beyond just saying "millions in ore in sight." "Let the matter of honorarium rest until Roberts returns." (Silliman Papers, W. Wright, 3/28/1882)

An example of Roberts's manipulation of the press with telegrams sent by his mine managers

was printed in the *Mining Record* under the headline, "Lambs Beware! The Wolf Abroad Again." It reads "The peculiar enginery by means of which the State Line stocks Nos. 2 and 3 were lifted above thirteen dollars, and those of the Robinson to above fourteen dollars a share, is at work again as may be seen from the following significant special telegraph to the [New York] *Tribune* newspaper of this city:"

Nutt, N.M., March 7. - The Bonanza vein in the Sierra Plata and Sierra Grande mines is opened 1,000 feet in length, and is from eight to twenty-six feet thick. Average assays 200 ounces per ton. There [are] 2,000 tons on the dump: assays average same as above stated. Sierra Bella is taking out sand carbonates yielding average assays of 300 ounces per ton, with fifty-five per cent lead. The mill will begin crushing ore on June 1. (MR, 3/11/1882, pp. 219-220)

The *New York Times* on March 15, 1882 announced the lawsuit, William M. Wilson verses J. Whitaker Wright et al as executor of the estate of George Daly. This suit over Daly's cheating Miller out of money in their original purchase of the Lake Valley claims was discussed earlier. A major reason for the attention given to Roberts and his promotions is that many considered his State Line Company scandal in Nevada the major black mark on the reputation of mining in 1882. The State Line stocks had collapsed from the booming highs in late 1881 to less than a dollar by early 1882. They replaced the 1880 collapse of Little Pittsburg, and Roberts's six Colorado companies as the most prominent scandal on the East Coast mining stock exchanges. Due to the break up and animosity within the group of stock promoters working the State Line promotion in 1881, more information on it had become public knowledge by 1882 than almost any other Roberts operation. One of Roberts's lieutenants, the State Line Mine manager Farrish, or someone else leaked information on Roberts final bearing stock manipulation. The San Francisco *Daily Examiner* in a story headlined THE STATE LINE MINES highlighted the scheme floated by George D. Roberts and Alfred (sic. Asbury) P. Harpending, and quoted a long story from the *New York Truth* of March 13, 1882. (SFDE, 3/24/82) The story of the State Line promotion is a blue print of what occurred with the Sierra companies only months later. Only the names of the mines and managers are different. The same events occurred at Lake Valley, New Mexico three to twelve months later than they did at the State Line in Nevada.

Roberts sent Asbury Harpending to Nevada in 1879 to evaluate the mining claims of a small and relatively remote mining district just across the state line from Death Valley, California. Harpending judged the deposits as a good one for a stock promotion. Due to the lack of water, remoteness, poor grades of ore, and small size of the deposits the owner was willing to sell at a low price. Harpending had suffered tremendous financial loss when he sold all of his property in California at fire sale prices in 1872 in a matter of weeks. Harpending expected to be sued on the diamond company stock float and liquidated all his California property so it could not be attached for damages in a law suite. Having not been indicted on that caper, Harpending was back in the business. Harpending bought the almost worthless and poorly developed claims for \$33,333 and a note for \$77,777, but reported it as a \$100,000 cash purchase. Roberts and Harpending sold stock to other promoters in 1880 to raise the money to pay for the property and develop it. They bought a twenty stamp mill and built twenty miles of water pipeline to the mines. Almost thirty experts were hired to write glowing reports on the potential of the mines during 1880. The four State Line Companies were finally floated on the public in March 1881

with a par value of \$20,000,000 or five million per company. This was exactly the same time Daly was buying options on the claims at Lake Valley. Just like Lake Valley, the promoters initially held all of the stock at virtually no cost. Once the stock was being traded the State Line Mine manager alternately sent in glowing reports or negative ones depending on whether Roberts wanted the price to go up or down. (Lingenfelter, 1986, pp. 145-152)

The claims were incorporated as four separate companies, lined up in a row going across the deposit from one end to the other. They were named the State Line Gold Mining Company No. 1, No. 2, No. 3 and No. 4. The capital of each company was put at \$5,000,000, in 200,000 shares of the par value of \$25. The No. 2 and No. 3 companies were in the middle and had the promising prospects, and the two end companies Nos. 1 and 4 had almost no ore on them. Roberts also created two packages, consisting of combinations of stock in two of the four companies, which he also sold and which were listed on the exchanges. These two company combinations led some observers to believe there were six State Line Companies. Roberts did have two other promotions six miles east of the State Lines. They were the Miller and the Oriental Gold Mining Companies, each capitalized at five million and also in the Gold Mountain Mining District of Esmeralda County, Nevada. (Lingenfelter, 1986, p.152) The Oriental and Miller were also sold as a package. The companies with poorer prospects at the edge of the deposit would appeal to the smaller investor with less money. Until recent times most investors bought a round lot, or 100 shares of a company, thus a low priced stock appealed to smaller investors. Roberts quoted the early prices as \$14 for Nos. 2 and 3 and \$4 for Nos. 1 and 4. At Lake Valley in spite of the 1882 claims that the Plata had rich ore, very little was found there until after the combining of the Plata and Grande. The promoter's originally did not expect to find significant ore on the end claims of the Plata or Apache as the surface outcrop ended before their claims. Five of the six claims the Plata owned never produced any silver ore. In their original evaluations of these properties little if any ore was expected to be found on the end companies. Thus, Lake Valley mimicked the State Line Company set up.

The *Daily Exchange* (SFDE, 3/24/1882) article provides a portion of the prospectus for the State Line which promoted the major development on the four companies' property as a joint shaft sunk on the boundary line just as was dug at Lake Valley. Before the prospectus was printed and the stock offered to the public, a respectable board of directors was assembled. Included in it were Roberts' operatives the public would not recognize, but who could maintain his control such as Harpending's cousin, Lee R. Shryock as Vice-President and Dominick F. Verdenal as secretary of all four companies. Roberts and Harpending owned all but 24 shares of the 800,000 shares when the companies were incorporated. (Lingenfelter, 1986, p. 149) Their early sales to other promoters meant they probably had almost no money invested in the operation. They sold options for future stock to raise the development costs and Roberts costs if any were less than 25 cents a share. In the Lake Valley promotion the pattern was the same and early stock sales in Philadelphia probably provided the money to pay for the claims in June 1881. Lingenfelter's book, *Death Valley and the Armagosa*, gives a long and extensive discussion of the State Line promotion and he provided copies of his research materials to the author for this paper.

The *Daily Exchange* (SFDE) article also said that the float of the four companies of the State



Lines started with selling stock to professional promoters and cappers, at prices ranging from \$1.50 to \$2/share, who then promoted them and sold them to the public. Promissory notes for stock, referred to in the 1880s as "calls," were given to people and could be converted to stock certificates later when the stock was issued by the companies. The "street" meant the stock exchanges which were worked by the original promoters: Roberts, Harpending and one or two others, while the professional cappers laid the rails up-town. The man about town had the hotels allotted to him, the church-going man worked the pious families, and the mercantile man worked his commercial friends throughout the county. The pool had agreed to hold the stock until it reached \$25/share, but a member of the pool broke ranks and sold at \$14/share while Roberts was out of town and the stock crashed to \$6/share before Roberts returned to New York and stopped the decline. (SFDE, 3/24/1882).

Roberts threatened to get even with the State Line Pool members who sold prematurely as he still had a large amount of stock. Roberts began the process of pushing the stock back up in order to get a better price. Roberts replaced Colonel Taylor, the first superintendent of the mines who had sent many glowing letters and telegrams about the mine, with a new superintendent, Farrish, whose professional reputation helped raise the stock price. He also hired more experts to write glowing reports. The article says Taylor "suddenly resigned his position, having cleared, it is said, some \$100,000 on the operation." Roberts paid his lieutenants well and Daly was rumored to have gotten \$60,000 from the Chrysolite promotion. In spite of the mill failing to function and the water line breaking and other problems or excuses for there being no production, Farrish promised that the mill would be running by the end of 1881. The report of the Roberts experts that the ore was from \$4 to \$400 per ton was expected to be confirmed by Farrish. William A. Farrish resigned in December and returned East, and he claimed to be too sick to write a report for the company. Mr. Andrew Gill, a reporter for the *New York Truth*, learned about two meetings between Roberts and Farrish at Farrish's home in Newark, New Jersey. Reportedly it took two meetings for Roberts to get Farrish to sign a very unfavorable report after which Farrish's health returned and he went out West again. The Farrish report caused the stock to fall to 90 cents. One of the directors of the State Line was quoted as saying that the company had fallen among thieves. Roberts then sent out a third superintendent, Jim Selover, known as a Roberts's man, and the stock went back up by 55 cents reaching \$1.85 on assurance that Selover would push the work at the mines. The 55 cents a share was a nice little plum to the manipulators, who had bought in at the 90 cents low caused by the negative Farrish report and now sold out on a rising market up to \$1.85. (SFDE, 3/24/1882)

Roberts apparently unloaded the last of his stock at this high as the mines new manager Jim Selover, had sent no reports East during his first three months of 1882 on the mine. The stock continued to limp along and its price on March 23 when the above story appeared had fallen to 67 to 69 cents for No. 2 and 3. The company stocks became worthless as the mill never operated and the operation closed down. Roberts was finished with that promotion and let the entire property be taken over for \$17,702 in unpaid debts. Roberts took a gigantic beating compared to what he would have made if the pool had held together and gotten the price up to \$25. Roberts appears to have sold much of his stock for \$2 or less per share. However, Roberts probably did very well on his short sales on which he made 50 cents or more per share. Even if Roberts's

cost per share to create the stock was on the high side of 25 cents a share he got back close to eight times his investment in less than two years. Mining was never and never will be as profitable as mining stock promotion, except in extremely rare cases. It was inevitable that both Lake Valley and the State Line were similar, as Roberts planned them virtually at the same time, just at different locations with different associates. Again Roberts was prevented from maximizing his return, not just by other promoters prematurely selling stock, but by the growing public attacks on his reputation.

The San Francisco *Daily Exchange* attacked what they believed was another Roberts operation. "Santa Maria is the next scheme George D. Roberts and Alfred [sic. Asbury] P. Harpending intend floating. ... These gentlemen may be scrupulously honest - we do not question it here; they may only be unlucky in their ventures. Still, people who are chronically unlucky should be avoided, especially if they are getting rich at it." (SFDE, 3/24/82). The novice Eastern mining investors, if aware of these attacks, were swayed by the promise of great riches coming from the Lake Valley Mines. The president of one of the four companies said that all 800,000 shares of the Sierra companies could be paid "at least a dollar a share dividend a month." (SFDE, 3/25/1882).

The two major industries in New Mexico in the 1880s were ranching and mining. Most leading citizens, including newspaper owners, had mining investments. Thus, both the regular newspapers and the *Mining World* in Las Vegas promoted Lake Valley with all the propaganda put out by the promoters. In April 1882 the attacks on the wild stories being put out in the New Mexico press in support of the Sierra mines continued in the *Daily Exchange*. It ran a story headlined, MR. ALADDIN'S CAVE "New Mexican Mining Wonders - George Roberts Cat Hole and Bridal Chamber - Wonderful Tales of the Earth's Riches. It will be remembered that these are the wonders that Mr. George D. Roberts bought for \$10,000 (or at least he said he paid that sum), stocked at the rate of \$80,000,000, and are now selling in Philadelphia at \$5 a share, or \$3,000,000 for the whole (we don't mean hole but whole)." (SFDE, 4/5/82). The error of giving the par value as 80 rather than 20 million was corrected in a later issue of SFDE. The editor of the *Messilla, New Mexico News* said that Governor Stafford [of Arizona] offered \$50,000 to work 12 hours in the mine.

Over 200 of the leading capitalists, mine owners and experts of American and Europe have visited these mines, and all say that it is the richest ore and largest bodies ever discovered in the world of knowledge at this present day. The ore is divided into four classes: From \$5000 to \$20000 [per ton] is first class; from \$1000 to \$5000 is second class; and \$100 to \$1000 third class; under \$100 is fourth class, which is too low a grade for them to bother to work, and they will sell it to the sampling works. (*Messilla, News*, SFDE, 4/5/1882)

The *Messilla News* said that about 100 men were working for the company building the mill or mining and Tabor's sampling works was under construction. Mr. Jackson has about twenty assays a day made to keep track of the fourth class ore. Jackson gave the *Messilla* editor some assay results which he published, but they were only from the Sierra Apache and Sierra Bella. (SFDE, 4/5/1882) Thus he was not given any sample results from the Bridal Chamber. The joint shaft between the Plata and Grande was not one inch deeper than it was three months earlier

(Figure 7). Manager Jackson kept the joint shaft locked and at the bottom each drift had a second locked door. The drift to the north led to the Bridal Chamber and just north of it, the second vug was now called Robert's Cat Hole. It was reported that a second rich ore body had been found, but its location was not given. The editor of the *News* reported one layer five feet thick that assayed from 170 to 28,000 ounces per ton yet at another point said the average grade of ore was \$29,000 a ton. (SFDE, 4/5/1882)

The promoters had issued their prospectus and printed the stock certificates. The public phase of the promotion was now underway. The advertisements in the *Engineering and Mining Journal*, Figure 10 and covers of the prospectus, Figure 11 of the four Sierra Companies show some changes in officers since their incorporation in 1881. J. Whitaker Wright, Cope and several others were still directors of all four companies. Cope was now president of the Sierra Apache, but Wright was no longer listed as president of any company. The two offices listed for the companies were Sierra City, Dona Ana County, New Mexico and Philadelphia.

The *Mining Record* on April 15 announced that the Sierra stocks were on the market with the following quoted prices: SP \$4.75, SG 4.75, SB \$1.50-1.75, and SA 1.70-1.80 for total current market value of \$2,600,000. It went on to comment that generally early purchasers of stock in Roberts promotions made money if they got out before the crash at the end of the promotion. It also speculated that at these prices Mr. Roberts and his associates were sellers of the stocks.

The Lake Valley mines were not the only new stock promotion criticized in the press and linked to Roberts. "There has been a good deal of quiet trading during the week upon the floor of the Exchange in the new group of Roberts stocks, and they are beginning to attract the attention of dealers, although not yet listed. Among them are the Santa Maria, capitalized at \$10,000,000 in 1,000,000 shares at \$10 each; Sierra Bella, Sierra Apache, Sierra Plata and the Sierra Grande. Those who have heretofore gone in with Mr. Roberts at the commencement and sold out in time, are understood to have made money, and as the prices of the stocks are unquestionably to be worked up much higher, there is some disposition to trade in them." (MR, 4/15/82) Roberts was also accused of being associated with the Carorca operation in Sonora, Mexico and the *Mining Record* pointed out that Mr. McDermott who was working on it had previously floated the Bradshaw stock. (MR, 2/25/82, p. 170).

An article in the New York *Truth* on April 14th warned a leading mining engineer about being involved with a Roberts project. "Professor and Superintendent Deidesheimer that be, whose name will recall the famous report made by him on the Consolidated Virginia mine some years ago... has left for the Santa Maria." It concluded that Diedesheimer's Freiburg reputation would not be safe down there. (MR, 4/15/1882) Philip Deidesheimer was a graduate of the world's preeminent mining school in Germany, Freiberg. The Ophir Company on the Comstock Lode hired him in 1860. He developed the "Square-set Method" for mine support, which was one of the major 19th Century improvements in mining. This solved the support problems in large stopes or cavities and made mining on the Comstock successful. It was adopted worldwide and is still used.

Mining Stocks ... the fizzling out of two such transparent swindles as South Pacific and the State Line group have proved to be, has not been calculated to attract the attention of the outside public to this class of speculation, and it would be well to bear this in mind in view of the proposed listing of the Lake Valley stocks, representing the latest scheme hatched out by the unprincipled Geo. D. Roberts. (MR, 6/3/1882, p. 514 & 525)

The MR (6/3/82) copied a story from the newspaper the *Lake Valley Target*. No copies are known to have survived and it is not listed in the New Mexico Newspapers Project listing or Grove et al. (1975). The Lake Valley mill designed by Town was inappropriate for the type of ore, which was not free milling. Two years later, the *Engineering and Mining Journal* described the smelter built by the Sierra Grande later that year as “of a pattern that would have done credit to a museum of antiquities.” (EMJ, 10/3/1885). It is hard to believe that Roberts, Wright and the mine managers were all so ignorant of mining and metallurgy that they accidentally ordered and built refining systems that worked poorly. The mill and the later smelter provided the reasons that could be published as excuses for poor silver production. The article closed with the comment that “there will be as disastrous a result to those who have adventured their money in these schemes as there was in connection with the State Line group.” (MR 6/3/82, p. 520) The State Line stocks by June 1882 had lost 99% of their value from December 1881. The Nos. 1 and 4 combination had fallen from \$5.00 to 5 cents and the Nos. 2 and 3 combination from \$14.00 to 18 cents.

#### The Syndicate Trip to Lake Valley: June 1882

Taking a page from the promotion of the Little Pittsburg in 1880, Wright and Roberts chartered a group of train cars to take their dignitaries and consulting experts to Lake Valley. Benjamin Silliman Jr. did not want to go on the trip. Four days before the trip Wright pleaded with him to go and ended his letter with, “Can I tempt you with a little call on some Plata?” (Wright to Silliman, 5/26/1882, Silliman Papers) It worked, as Silliman went on the trip. The *Mining Record* quoted from *The Mining Journal* of June 1, 1882 sarcastically referring to it as the ‘daily court-journal’ in this city of Mr. George D. Roberts. “A large party of capitalists and mine operators left here at nine o’clock this evening in special hotel cars... The trip will occupy about three weeks.” The editor of the *Mining Record* closed the article on the trip with some ridicule of Roberts. “After having visited the Lake Valley properties which their corypheus, Mr. Roberts, has administered with so notable an avoidance of all stock manipulation or fictitious values, and with so strict a regard to prospective dividends; quite as prospective, indeed, to-day as twelve months ago - the four State Line Mines, for example, the Oriental and Miller, and also the Robinson, not to speak of the O.K. Consolidated.” (MR, 6/10/1882) This was a partial list of Roberts other stock promotions of the past two years that were disasters. This was to make it clear to the readers that his previous sentence on Roberts’s promotion of Lake Valley was ridicule.

*The Mining Journal* announcement of the trip was carefully worded and said “the trip will occupy about three weeks.” As it only discussed Lake Valley, it gave the impression of a very long stay there to examine the mines. In reality, there was no intention to spend more than a few days. How many days the group stayed at Lake Valley is not clear. They probably stopped

along the route at places other than Santa Fe as it took them 8 days to get to Lake Valley. The EMJ (6/17/82, p. 319) copied a telegram sent to the New York *Tribune*, from Lake Valley on June 9, 1882. That telegram said the group arrived on June 9th and remaining examinations will be completed to-morrow. Roberts was in San Francisco before June 15, 1882 so he could not have stayed more than three days. "He is a trifle grayer perhaps, and somewhat stouter than when he went away to found the California Colony in New York." (SFDE, 6/16/82) The reporter who talked to him went on to say that the Lake Valley stocks were soon to be listed and a good deal of the stock had already been sold in Philadelphia. The chartered train cars probably took most of the others directly back to Philadelphia while Roberts went West to check on other properties. The syndicate stopped at Santa Fe on June 7, 1882 and Cope wrote his wife that:

Roberts has 23 of his mining friends along, who have California manners - i.e., a little loud and profane... The Philadelphians are the best of the lot - decidedly. Thee knows Bro. Philip & Ben. Shoemaker." (E.D. Cope Papers, # 257). They arrived at Lake Valley on the 8th and were well pleased with what they found. "The mill started yesterday, and worked without a hitch, which was more than we had expected - As a consequence Grande has gone to \$8.00 and Plata to \$5.00, which is a pertty good profit on what thee paid, vig.[?]: \$2.50 & \$1.50. (E.D. Cope Papers, #258, 6/9/1882).

This letter gives us the wholesale offering price for these two companies in the spring of 1881 when Cope made his first purchases. Thus, the early insider prices were \$1.50 for the Sierra Plata and \$2.50 for the Sierra Grande. If the two stocks had risen in price within 24 hours of the mill starting it should have been apparent to Cope that Roberts and Wright were setting the price at Lake Valley. A telegram could not have been taken to Nutt, 14 miles away, and gone to New York and the market changed there and information returned to Lake Valley within 24 hours. The newspapermen did their appointed job and sent telegrams back to the New York papers. The story printed in the New York *Tribune* was a transcript of its telegram from Lake Valley on June 9th. A small portion of it follows.

The mill was started this morning and works as smoothly as a clock. It is a double mill, arranged to run 20 stamps, 16 pans, and 8 settlers, and cost \$100,000. It is built on the most improved plan, and so economically arranged that with eleven employees from 60 to 100 tons can be milled daily. ... Developments on the Plata and Grande are limited thus far to an extensive cut in the outcroppings and shafts from 40 to 125 feet deep at different points, including a joint shaft between the Plata and Grande, which penetrates a marvelous ore-body in what is called the Bridal Chamber. This body of ore has been followed over 70 feet, and is from 10 to 30 feet thick. It is so rich and porous that at many points a candle-flame will melt it into silver globules. From the working-shaft of the Grande, the vein dips distinctly toward the Plata. Professor Silliman, the eminent mineralogist of Yale College, today estimated the ore in one mine and piled on the dump at 5000 tons, of an average assay value of 100 ounces, and the sacked ore in the storehouse at 250 tons, averaging 1000 ounces. (EMJ, 6/17/1882)

The mill was shut down less than two weeks later, either for required repairs or to assist in a 'bearing' of the stock. Local reporters also wrote great promotional stories. The *Optic* and *Mining World* in Las Vegas, New Mexico carried the following story, claiming that Lake Valley was now a greater deposit than anything ever found in California or Nevada.

Fabulous Wealth and Vastness of the Lake Valley Mines.  
The organizers may be the most extraordinary proposition to the companies of selling them the mines

and personally guaranteeing with their own funds to place them upon a paying basis. ... the first class ore which averages very high from \$20,000 to \$30,000 per ton has been stored under cover and lock. The second class runs over \$1,000 to the ton and all the ore which has been sorted will run over \$50 to the ton. The development on the Sierra Bella Co's property consist of an incline on the vein all in pay ore for a distance of 225 feet. The records in the assay office of one hundred and ten tests made since April 1st show an average of over 100 ounce. Prof. Silliman visited the mine and estimates that in this one drift there is fifteen thousand tons of ore in sight. [That would be  $15,000 \times \$100 = \$1,500,000$  in silver.] Ore was turned into the crushers on Thursday for the first time in the presence of the officers of the companies... Gov. Tabor and Prof. Wurtzebach have erected sampling works near the companies mill, which will be in operation within a few days. ... It is announce that a dividend of fifty cents per share will be declared by both the Sierras Grande and Sierra Plata companies early in August ... Certain are we that New Mexico can to day show to the world in the Lake Valley mines a marvel of wealth which neither California nor Nevada ever approached. (MW, 7/15/82 from the *Optic* of Las Vegas, NM)

The *Mining Record* wrote the following in response to stories about the group visit to Lake Valley. "Judging from the published reports of the results of this examination, it would seem to have been appropriate and highly proper, if Senator Chaffee and his *high hat* Pittsburg party could have been included among the number. [Reference to the 1880 chartered train trip to the Pittsburg mine during its promotion.] ... Undoubtedly, the Lake Valley mines have a very large body of ore beautifully displayed, and the court journals representing the interests of **Mr. George D. Roberts**, may be expected to publish shortly many glowing accounts from distinguished and experienced experts, as well as disinterested examiners, who on other occasions accompanied this same gentleman when he officially and in state visited **Freeland, O. K., Chrysolite, State Line and a certain diamond field.**" [bold used by newspaper](MR, 6/17/82)

The Messilla News listed 37 people as being on the Syndicate trip at Lake Valley. Thirteen of these joined the 24 who came on the train from the East Coast to Lake Valley.

The Editor of *The Messilla News* [6/10/1882, p. 2, c. 1] opened his Register Book and obtained the autograph, residence and profession or occupation of the special train of visitors at the Lake Valley mines, Dona Ana co. N. M. For the day: viz:

1. G. D. Roberts, 115 Broadway, N.Y., Capitalist.
2. J. Whitaker Wright, Exchange Building, Philadelphia, Capitalist.
3. Benj. H. Shoemaker, Philadelphia, Pa. Importer, Prest. Sierra Grande M. Co.
4. Philip C. Garrett, Germantown Philadelphia Prest. Sierra Plata M.Co.
5. Prof. E. D. Cope, Member of the National Academy of Science of the U. S. and Editor American Naturalist, Prest. Sierra Apache M. Co. 2100 Pine st. Philadelphia Pa.
6. B. Silliman Prof. Chemistry Yale College, New Haven, Conn.
7. Saml L. Smedley, Chief Engineer and Surveyor, Sec'y Sierra Cos. Mines Phila. Pa.
8. Dr. C. S. Middleton, 646? 10 st. Phila. Pa..
9. Joseph Ashbrook, 409 Chesnut st. Philadelphia, Pa. Insurance.
10. W. F. Shaffer 115 Broadway N.Y. Broker.
11. M. G. Gillette, 15 East 59th st. New York, Miner, Supt. Ivanhoe [located at Grafton near Chloride, NM]
12. H. E. Nash, 31 Broadway, N.Y. Broker Nash & Hebbeord Brokers.
13. John Tracy, 312 Stock Exchange Place, Phila. Stock Broker.
14. Edwin A Pue?, No. 113 south 20th st. Phil. Pa Capitalist.
15. H. ? Dickinson, 43 Exchange Place, New York *Dickinson Bros. & Bruzierie?* Bankers.
16. John A. Sleicher, Editor Times, Troy N. Y.
17. F. A. Chittenden, 181 Washington st. Chicago of McGeo?h, Everingham and Co. Grain Dealer.

[This third Chittenden's relation to George B. of the Lake Valley Mining Company and the D. who gave a report on Lake Valley (SFDE, 8/10/1882) is not known.]

18. F. T. Chapman, Hot Springs Las Vegas N. M. of Los Cerrillos Smelter and Reduction Co. and the Sierra City Sampling Works.
19. Wm. S. Chapman, San Francisco Cal. Mining Operator
20. Marlon D. Paxson, Philadelphia Pa. Stock Broker
21. S. [Solomon] Heydenfelt Jr., San Francisco Cal. Lawyer. [This man or his father was a director of the Pyramid Range Silver Mountain Mining Company. The English company of Roberts' 1870 scam near Lordsburg.]
22. J. M. Harper, New York City Miner?
23. W. F. Leon Belmont? Nevada Miner
24. M? P. Boss, 379 ? st. San Francisco Mill, Engineer patentee Boss Process
25. Wm. C. S?ceod?, Silver City Mining Operator.
26. J. P. Weit?, A. T. [Arizona Territory] Mining Operator.
27. Geo. ? Lawrence, Kan. R. R. Operator
28. John Wartzebech, of Tabor & Wartzebech ore Reduction Works-Managing Director Los Cerrillos M. & R. Co.
29. Walter Hadley, Las Vegas NM Journalist
30. W. T. Thorton Santa Fe, N. M. Attorney [President Cleveland's cousin and later governor of NM 1893-97]
31. Clinton Rice, El Paso Tex. Land and Mining counsel and representative of eastern mining capital and mine owners, Supt. U. S. & Mexico syndicate of the Two Republics.
32. H. C? Callahan, Daly, N. Mex. Miner.
33. A. M. Janes, Daly, N. M. Miner.
34. J. Mills, Supt. Telephone Co. Las Vegas N.M.
35. Ira M. Bond, Ed. & Propr. Messilla (N.M.) News, Director Sierra Rica Mining Co.
36. H. H. Sawyer, Southampton Mass. Merchant, Mine owner.
37. B. [Bernard] McDonald, Silver City Mine owner. [Lake Valley superintendent 8/1881 to 1/1882]

As expected, the newspaper coverage of the visit in the first week of June led to a rise in stock prices. The prices rose to: SG 7.75, SP 6.25, SB 3.25, SA 2.25. Then a rumor circulated in New York that the patented pans at the mill had broken and that the mill had to be shut down until they were replaced. Prices of course fell in response to this news to SG 5.25, SP 5.25, SB 2.10, SA 1.60. The *Mining Record* presented these events with the phrase: "the ball of manipulation is already beginning to roll". (MR, 7/1/1882, MINING STOCKS) The \$2.50 a share loss in the high-priced Sierra Grande down to the 65 cents in the poor-boy Sierra Apache was a drop of about 30 % in a few days. This was a thirty-percent profit in a week for any short sellers at the peak. As the Sierras were not yet listed, the volume was unknown. It was reported that large numbers of shares in Lake Valley stocks were being traded even though the Sierra companies were not listed. Insiders indicate

...these stocks will not be listed until dividends are declared on two of them - Sierra Grande and Sierra Plata ... a joint shaft penetrates a large body of ore, making it difficult to separate Plata's ore from the Grande's. At the suggestion of Mr. J. Whitaker Wright, of Philadelphia, a large owner in both properties, it was wisely resolved by the trustees of both companies to pool [the two] issues and run the mill on joint account of both companies. The effect has been to bring the market value of the stocks up to equal prices - about \$6 per share, which makes the two properties selling in the market at \$2,400,000. (SFDE, 7/7/1882 quoted from the Boston Economist)

Thus, the stock price by the second week of July had been pushed back up the 30% it lost in late June. The separation of the ore from the Plata and Grande was not a significant problem. Wright's most probable reason for combining the two companies was that Roberts and Wright

owned a much larger percentage of the Plata stock than they did the Grande stock at this point and could thus benefit from combining the two companies. As the directors of both were under their control the combining occurred without difficulty.

The *Boston Economist* article then pointed out through an analysis of the various claims made by experts for the Sierra companies on the June trip, that either the stocks were being sold at ridiculously low prices or the claims were not true. Professor Silliman and other experts claimed that 250 tons of ore that would yield \$10,000 per ton were in the ore sheds. If that were the case this ore alone was worth over \$2,500,000. This was \$100,000 more than the combined value of all Sierra Plata and Sierra Bella stock at \$6 per share. The 2.5 million ignores the silver still in the mines and all the other grades, some as high as 100 oz/ton piled outside the mine. Regarding the claim that the companies could soon start paying 50 cents a month (2% of par value of the stock) in dividends the following was reported: "The June 9th report that the mill would be crushing 60 tons of 100-ounce silver ore per day gives in round figures \$6000 per day, or \$180,000 per month. Deduct \$30,000 for expenses and we have netted \$150,000. But that is not enough to pay 50 cents per share on 400,000 shares, says an inquiring shareholder. No, say the managers, but we'll ship from our ore house a carload of 10 to 20 tons, and that will give us a big surplus over the dividend." The SFDE (7/7/1882) then added the sentence: "There certainly were never mining properties in the market that promise so well. Dividend No. 1 should be earned and declared before July 20th and paid in August." George Roberts was still in California, but was reported to be returning to New York about July 12th. Difficulties getting the mill to function apparently caused Silliman to write to Wright, but all we have is Wright's response. Wright responded that the manager had been ordered to ship ore to the Pueblo smelter. "I think everything will run O.K. now." (Silliman Papers, W. Wright, 7/10/1882)

Even the *Engineering and Mining Journal* questioned the validity of Silliman's evaluation of the Sierra mines and pointed out that he had a poor record of evaluating mines. Silliman's ore estimates suggested a production of over 3.5 million a year without the finding of any new ore.

Some time since, George D. Roberts, whom the investing public should thoroughly appreciate as a manipulator of mines, obtained control of the Sierra group of mines... and the public is now asked to invest in them on the strength of reports by Prof. Benjamin Silliman. While Professor Silliman's standing as a scientist and investigator is above all question, his record as an expert in the examination of mines is such as to make it necessary to receive his estimates with extreme caution. ... [Lists Silliman's estimates of different ores at Lake Valley.] The gross shipments of rich ores are to foot up to \$3,500,000 in one year. We have no authority to dispute the accuracy of these statements, and feel convinced that there is rich ore in the Sierra mines. But with a report by Professor Silliman, and with George D. Roberts really, though not officially, at the helm, we must warn investors not to touch the stock. (EMJ, 7/15/1882)

When the uniform support in the local press for Lake Valley was broken by a newspaper in Socorro, it infuriated superintendent Jackson and he threatened to retaliate against the entire town of Socorro. "Boycotting a Town - One of the newspapers published in Socorro, New Mexico, having dared to say unfavorable things of the property of the Lake Valley quartette of mining companies... Superintendent Jackson plans to punish Socorro for negative newspaper story by no



longer using it as the *entrepot* for his supplies.” (MR, 7/8/82, PP 26-27)

There is a strong suspicion prevalent which makes them [Sierra stocks] slow in going off [from rising in price.] that these sacks contain about all that ever will be divided, and that the changes are that when their contents are put through the mill, the proportion of chaff remaining will not be found so exceptionally small as at present predicted. Seriously speaking, anecdotes about bridal chambers, silver lakes, globules, high assay weeds, \$144,000,000 in sight, cellars stocked with sacks of ore, etc., [claims made in friendly press reports] while pleasant to read, will not, in this matter of fact age, draw ducats into mining stocks. Even a dividend or two should hardly suffice to induce purchases at high figures. ... Sierra Grande is now quoted as selling at \$7 on a basis of \$1,400,000 valuation. Sierra Plata at \$6, or \$1,200,000; Sierra Bella \$3 or \$600,000; Sierra Apache \$2 or \$400,000. Here is a grand aggregate already of \$3,600,000. (SFDE, 7/20/82)

### Copy Cat Sierra Companies

Constant newspaper stories about the stock of the four Sierra Companies selling for a total price of almost three million in the spring of 1882 led to a number of copy cat companies being formed to sell stock on other claims in the Lake Valley District. They used the fame of the Sierra name in naming their companies. Though formed earlier they started to attract attention after the big June trip. *The New York Stock Report* warned the public about the new companies with Sierra in their name being formed at Lake Valley. It did not name them, but said care should be taken not to confuse them with the original four (SFDE, 7/20/82).

The most widely publicized and promoted of these was the **Sierra Bonanza Silver Mining Company** which the press reported was headed by the Washington D. C. promoter, Lester A. Bartlett. Bartlett had been the vice-president of the Lake Valley Mining Company which Roberts bought in 1881 and whose claims became the Sierra Bella. The Sierra Bonanza owned the New Era and Long Nancy claims immediately east of the Sierra Apache claims. Its incorporation was filed on June 19, 1882 with the New York Secretary of State. It was filed in New Mexico, vol. 2 corporations pages 225-8 [New Mexico No. #2905420:o). It was capitalized the same as the Roberts Sierra companies with a total of five million dollars par value, in 200,000 shares at \$25 a share. The directors at the time of incorporation were: Alexander Mc Donald, U. S. Lowe, G. O'Hara, Clarence Sackett, Allison C. Mc Donald, of New York, NY and George O. Manchester, Alfred Ennis, Elam E. Burdack and Frank M. Smith of Topeka, Kansas. Their agent at Lake Valley was Elam E. Burdack. This was a second company formed by Bartlett at Lake Valley following the sale of his first company to Roberts. Bartlett was not mentioned in the incorporation probably because he knew the silver deposits owned by the Sierra Bonanza were extremely small in comparison to his price goal of five million for the stock. The Sierra Bonanza was mentioned in the *Mining World* in August (MW, 8/15/82). J. P. Ennis, secretary and treasurer of the Sierra Bonanza stopped in Las Vegas on his way back to New York in September. The editor of the *Mining World* wrote a short article on the company. "Amongst the companies recently organized to develop the inestimable wealth of Lake Valley, is the Sierra Bonanza Mining Company, of New York, ... They have 250 feet of shafts and drifts with 250-300 tons of staked ore of 100-16,000 per ton value. No stock is for sale." (MW, 10/1/1882) The Sierra Bonanza probably had little success in selling stock, as it did not attract

attention in the national press or local after 1882. Small crews worked these mines for years, but production is unknown. The claims were maintained by the company and annual assessment work was done through 1900. The EMJ (4/25/1891) reported a new strike of very rich horn silver outside of the major companies' claims in 1891, but did not give the exact location. Bartlett probably acquired these claims from Henry H. Sawyer. The proof of labor filings on the New Era and Long Nancy claims as late as 1900 are in the name of The Sierra Bonanza Mining Company (Donna Anna County, Proof of Labor, Book G, p. 366). John W. Baldrige of Kentucky filled the P of L for the last several years in which he indicated several months operation each year and listed the two or three men's names hired to do the work. Thus the Sierra Bonanza lasted as long or longer than the other Sierra companies. The New Era claim was then taken over by the Mine Development Association for a few years.

The **Sierra Rica Mining Company** was a New Mexico corporation with Sierra in its name. It was created by New Mexican residents, mostly from Lake Valley. The Sierra Rica was also capitalized like the Roberts companies with 200,000 shares at \$25/share for a total of five million. Many of the founders of this company were Lake Valley miners who traded their mining claims for stock in the company. (MR 6/3/82, p. 520, from the newspaper *Lake Valley Target*). The editor of the *Messilla News* listed himself as a director (6/10/1882). There may have been other companies operating around Lake Valley capitalizing on the fame of the Sierra name. The **Sierra Blanco Gold and Silver Mining Co.** was reported as owning the Manchester, June Bug, Mattie B. and Winoski claims. Professor James F. Mace of Las Vegas was president and general manger. The company was capitalized at 4 million and was offering stock at par value. (MW, 8/15/82) These claim names are not on the 1881 Lake Valley map and it was apparently operating some other place in New Mexico.

Jackson's efforts against the rumor that the mill had closed down in June 1881 included announcements in the El Paso and Santa Fe papers that it had never shut down since the day it started. Later, after it no longer mattered to stock prices, it did come out that the mill was shut down in June for a week and the reason given was a temporary shortage of water. "Mr. Jackson, general manager of Lake Valley mines wrote to Judge Rice of this city that, notwithstanding the statements of the MINING RECORD (NY) a paper bitterly antagonistic to Geo. Roberts and the Lake Valley mines, that the mill had broken down and stopped, that it has not stopped a day since it began running when Professor Silliman and party had examined it." (p. 98 from *El Paso Times*) The *Mining Record* stated that the Jackson letter was re-published by the Santa Fe New Mexican in two places in the same issue and that it had not published a story that the mill was closed in June, only that a report was afloat on the floor of the Exchange that the mill was closed. The Mining Record concluded with another attack on Roberts.

Of course, in view of the history of Mr. George D. Roberts with mining ventures here in the East, ever since he floated the Chrysolite, we could not, without dereliction, fail to remind our readers of the methods which have characterized his connection with each and every mining company that he has controlled; methods which have involved enormous losses to all who have trusted in the statements which, by his procurement, have been made, not only by the superintendents whom he has employed over the properties under his control, but by mining engineers who have been sent, with high professional reputations, and with an atmosphere of fiduciary obligations about them, to examine and

report upon his schemes, and have these reports accepted as reliable, which they have proved not to be. (MR, 7/29/82)

The *Mining World* in Las Vegas attacked the east and west coast press attacks on Roberts including publications not examined for this report such as *The New York Daily Stock Report*. (MW, 8/1/1882). George Roberts remained in the West a total of seven weeks and did not return to New York until the last week of July. This was bad timing for the Sierra Company promotions. His associates, including Wright in Philadelphia, could not manage the market in his absence and the stocks declined in price in spite of the glowing reports from the syndicate trip to Lake Valley. Though many factors were possible causes, the major factor was probably a break in the pool of brokers floating the stock. This also had occurred in the Chrysolite promotion when Roberts was not in New York to manage the market.

George Robert's Lake Valley mining scheme seems in danger of pre-mature collapse, and that probably is what makes necessary such high-falutin dispatches as that which was sent across the continent yesterday. [This SFDE article gave no particulars, but many be referring to an August 25, 1882 telegram to the New York office of the Sierra Companies discussed later.] We see by the Eastern papers that the stock in all the various "Sierras" is steadily declining, and the Boston *Advertiser* furnishes an explanation as follows:

The decline in Sierras – Grande, Plata, Bella, Apache – is the result of the following facts: The reports, and particularly the ore measurements, made by the visiting syndicate, show that the examination was superficial and the conclusions mere guessing; the lode is a blanket and not a fissure; a deposit and not a channel; the mill is a failure, the ore probably requiring treatment by fire; and, finally the inside is unloading.

That's about it – "exaggerated reports," "milling process a failure," and "insiders unloading." The last is the most natural proposition of any, and in itself is enough to account for the milk in the coconut if not for the hair outside." (SFDE, 8/1/1882)

A week later the SFDE carried an article about Roberts return to New York taken from an article by D. F. Verdenal in the Boston *Economist*.

The return of Mr. George D. Roberts of New York, after a seven-weeks' absence, created considerable stir in mining circles. Mr. Roberts has a number of stalwart enemies and a legion of friends and between the two, being recognized as a power in mining operations commands quite a share of attention. Mr. Roberts while objecting to any special interview, chatted in a good-humored way with his visitors on the subject of mining in general, and his impressions of the future in mining interests in New York and elsewhere. During his absence he visited a number of mining properties in California, Nevada, and Arizona, but evidently has not made up his mind specially as to whether any of them are adapted to the present hot temperature of the Eastern and Atlantic States. He speaks with great confidence of the richness of the Sierra mines, but is guarded in his opinion as to when the dividend era will be entered upon. (Boston Economist, SFDE 8/9/1882)

This article as many others appeared in the Boston *Economist* under the byline of D. F. Verdenal or very often as only the initials D.F.V. Vendenal was dependant on Roberts for a moderate portion of his income. Company secretary was a minor occupation, but almost a profession for a small number of individuals. Besides other company duties the job included signing along with the president or vice-president company stock certificates and overseeing the issuing of the stock

certificates. It was a modest but reliable income. Roberts employed D. F. Verndenal as secretary of at least six of his companies during 1881-1882.

Dominick F. Verdenal was a well known California journalist before moving to New York City about the time Roberts did in 1879. He was part of Roberts publicity apparatus for promoting stock in the press. Though not part of the elite of the "California Colony" in New York he made his living with them. Roberts made him secretary of the Robinson Consolidated Mining Company when it was formed in March 1880 (Dempsey and Fell, 1986, p. 124) In 1881 when Roberts created the four State Line companies he made Lee R. Shryock, Harpending's cousin, president and Verdenal secretary of those four companies. Verdenal and Shryock's signed State Line stock certificates as late as February 16, 1882 (State Line No. 1, #A3774, author's collection). In the spring of 1882 the second and final crash in State Line stocks occurred and it quickly became worthless. Verdenal was also secretary of Roberts' Miller Gold Mining Company in Nevada (certificate A3491, 12/7/1881). Verdenal was mentioned at least once as "an intimate" of Roberts in the SFDE (3/24/1882). This intimate relationship would not have been readily apparent to the public and Verdenal wrote as though he were only a casual acquaintance.

Verdenal continued the article that Roberts left shortly after returning to New York to meet with J. Whitaker Wright "manager of the Philadelphia market, and discuss the issues and profits of the Sierra mines." Verdenal then discusses a telegram sent from Lake Valley to the New York office on August 25, 1882. It said that the Sierra Grande-Plata had just made a shipment of \$25,000, and that the recently announced new discovery [Jackson's Baby?] "promises to exceed in extent and richness the already far-famed Bridal Chamber." This is probably the telegram from Lake Valley that the SFDE (8/1/1882) was attacking.

Verdenal wrote after his meeting with Roberts that "It is rumored in connection with the Sierra mines that Superintendent Jackson has asked to be relieved, and that Colonel M. G. Gillette will be appointed *ad interim*." (SFDE, 8/9/82) Replacing superintendents when it would help the stock price was a standard Roberts's technique though in this case it happened due to an option given to an English Syndicate. A new superintendent offered stockholders the hope of better management of the mine and often helped raise prices. Verdenal described the change as "Col. Gillette has all the experience, intelligence and *savoir faire* necessary for the position, and if the change is made it will be satisfactory to the stockholders." The Gillette that Verdenal wrote the *Boston Economist* was going to replace Jackson as manager at Lake Valley was incorrect or at least got changed within a week or two of his meeting with Roberts. M. G. Gillette's career was not researched, but he apparently was a prominent and well known mine superintendant. He signed a Savage Mining Company check as Superintendent and it was a major mining company on the Comstock Lode four years earlier. (Wells, Fargo & Co's Bank, Savage Mining Company check No. 177, May 14, 1878). He had been superintendent of the Ivanhoe Mine forty-five miles north of Lake Valley for at least a year when he was invited to join the Syndicate trip to Lake Valley in June, 1882. He gave his address as 15 East 59<sup>th</sup> Street, New York. M. G. was thus probably a member of Roberts' "California Colony." In any case it was a D. B. Gillette who showed up in August at Lake Valley to take over management there rather than M. G. Gillette.

The relationship between the two Gillette's was not found, but they may have been brothers.

One of the few cases where the SFDE (8/10/82) printed a favorable report on Roberts and Lake Valley was their interview with D. Chittenden. Chittenden was a well-known Nevada and California mining man who had recently visited the Southwest and Lake Valley. He was probably related to the George B. Chittenden who staked claims around Lake Valley in the fall of 1880 and helped form the Lake Valley Mining Company. His glowing report was thus probably to help a relative. One of the sub-headlines was "What Superintendent Chittenden Saw- The Biggest Thing Ever Seen off the Comstock - Over 25,000 Tons of Rich Ore in Sight. He spoke well of Tombstone and Shakespeare; but Lake Valley beats anything in the way of newly developed properties that he ever saw." Chittenden told the reporter that he had "no professional interest in the [Sierra] property". He did say, "I may have in some property adjacent." It is not clear what claims he or George B. Chittenden owned at Lake Valley at that time. D. Chittenden stated that the Bridal Chamber was struck 25 feet north of the joint shaft. A few days before he got to Lake Valley they had drifted west and struck another rich ore body [on Plata ground] and were now stoping it [removing the ore]. He went on to say that most ores were carbonates but this latest discovery was native horn and ruby silver. Contrary to his description of the ore, neither carbonates nor ruby silver are known from the Lake Valley deposit. He gives his calculations of the volume of ore exposed in the mine as 20,000 tons and that staked up at the shaft at 5 to 6 thousand tons. In addition there was 250 tons of the very rich ore locked in ore sheds. He said he had seen the Silliman report and it was not exaggerated. Chittenden then added some critical comments that lent credence to his positive comments. "The mill is poor and can only handle 30 tons/ day not the reported 60, most income will come from shipped ore as it requires smelting." The old saying that a rising tide raises all ships is especially true in a mining district. Thus, D. Chittenden who owned claims at Lake Valley had a personal interest in seeing the fame of the district raise claim prices.

The press announced in August that a new town had been surveyed 1/4 mile east of the smelter to be called Lake Valley City. (MW, 8/15/82) The original camp in the valley northwest of the mines and mill was generally call Sierra City. The government when it created the first post office there on November 1, 1881 gave the post office the name of Daly, N.M. Thus the P.O. and town had different names. The prospectuses for the companies issued in January 1882 still gave their location as Sierra City, Lake Valley Mining District, Donna Ana County. The government changed the P.O. name from Daly to Lake Valley, N.M. on August 23, 1882 within a few weeks of the movement of the town to the new location. A small note was put in the August 12th issue of EMJ (8/12/1882, p. 88) that a court case was to be filed by the heirs of one of the prospectors who sold a claim to a Sierra company. It was claimed that he had not been paid the \$10,000 owned him for the claim. The company person involved denied it. No one was named but the company person must have been either Wright or Roberts.

S. P. Williams wrote a letter to the *Territorial Enterprise* in Virginia City, Nevada that he was working in the assay office at Lake Valley with Charles Hillman. He wrote that they melted 240 pounds [3840 oz.] of ore today and got 1900 ounces out of it. In the same story in the SFDE are excerpts from the *Denver Tribune* on comments sent by Superintendent Jackson that they had

smelted 200 pounds of ore in Governor Tabor's sampling works from the new discovery [Jackson's Baby], it ran 75% silver and made a bar worth \$2500. The two reports were printed together to show Jackson's exaggeration. An article in *The Mining Record* (8/19/1882) gave the assay results from the Denver Exposition and it shows that Jackson exaggerated on value by 25% and that the silver content of the ore was 50% rather than 75%. Williams' letter continued and shows how small the amount of ore being worked at Lake Valley was. "We Shipped 40 bars this month, averaging 1800 ounces each, value about \$30,000 net." (SFDE, 8/17/1882). Jackson went on to say that he had shipped the bar and ore samples to Denver. Jackson was shipping ore and silver bars not to the U.S. mint to generate cash but to the Denver Mining Exposition for publicity. The *Denver Tribune* ran an article on the three display cases the Sierra Companies had at the Exposition. "The new arrival of ores surpasses anything in the shape of silver ores that has been seen yet. The contents of the three cases, which are comparatively small ones, are worth \$12,000. ... one chunk of it weighs 640 pounds, and contains \$7,600 in silver. A pure silver brick in the same collection weighs 1,904 ounces silver, 990 fine, and its coin value is \$2,169.14. The ore from which this brick was made is black sulphurets or horn silver, and was melted in an ordinary lead crucible. New Mexico has still further astonishing exhibits on the way." (*The Mining Record*, 8/19/1882). The small size of the total amount of rich ore sent, only \$12,000, is surprising and Jackson tried to correct that defect in their publicity.

MR (8/19/82, p. 184) copied a story in the *Mesilla News* defending against the attacks that the mines at Lake Valley were not being worked. "As to the lie that the mines are not being worked; they have 7,000 tons of ore on the dumps, employ a hundred men, which gives a living to 300; and if the Sierra Companies had a second twenty-stamp, \$100,000 mill, could keep both and Tabor's works all busy for two years to come with ore they have on the dumps and in sight in the mines." This was more than just a slight local exaggeration as the mill had only produced \$30,000 during the past month. "The mill under the efficient management of Superintendent Town is being gotten down to solid work, with very few interruptions or delays scored against it." (*Mesilla News*, 7/29/1882, 8/5/1882) Town was only in charge of the mill of which he had also supervised the construction.

The *Mining and Scientific Press*, the leading west coast mining journal, seldom ran negative stories on Lake Valley or other properties. However, it printed a story titled "Lake Valley Laid in the Shade," which pointed out the remarkable discrepancy between claims of rich ore and actual silver production at Lake Valley.

For over a year now, the New Mexico papers, as also some of the leading Eastern journals, have been blowing about the unparalleled richness of the Lake Valley mines, of which the late George Daly was superintendent, and who in his ever memorable report, said that even the weeds growing over the mine give large assays in silver. Not content with a subservient press, the ubiquitous manipulators of these stocks have, upon frequent occasions, pressed the wires of the associated press into their service to give them prominence. Notwithstanding all of this blowing, all the bullion thus far reported is \$49,000, so small an amount that it would cut but a sorry figure in the bullion reports from Tombstone district. (M&SP, 8/19/82, p. 119 from *Tombstone Republican*)

The total reported production from the four Sierra Companies from July, 1881 to mid-August

1882, 13 months, was only \$49,000. For a mine with reportedly millions in proven reserves and over 50,000 tons of staked ore running 10 to 30 thousand dollars per ton, that is remarkable. The explanation is probably of some of the following possibilities. The only ore produced was sold by officers and mine superintendents for their own account as well as high grading by common miners. Reports on the ore were grossly exaggerated in quality as well as quantity, the mine was not being worked or the superintendent was incompetent.

The *Mining Record* (MR, 8/26/1882, p. 207) copied three stories from different issues of area newspapers. The *Tombstone Republican*, the closest major silver mining community stated that the Stanton Claim now had a shaft 50 feet deep, with ore during much of that depth and its bottom was still in ore. "They have a twenty-stamp mill, which has been running for the past three months, not continuously, however, a portion of June the water failing, and then it has been found that their four retorts are not sufficient to reduce the amalgam to crude bullion. The retorts are run night and day, being charged as rapidly as they cool off after a charge is withdrawn. They have several hundred thousand dollars in store at the mill. Mr. Doheny says they could turn out one million per month if they so desired." This article states that the reason for the shut down of the mill in June shortly after it opened was lack of water, but that problem was soon corrected. It is hard not to consider that June shut down a deliberate event. The retort problem is now implied as the reason for only a small mill production. A second Lake Valley story from the *El Paso Lone Star* in July contained an interview with Superintendent Jackson. Jackson said that he expected the mill to produce \$100,000 in July and probably double that in August. The Sampling Works Company (Gov. Tabor) had a contract with the Sierra Companies for all the ore wanted, the contract stipulating that Tabor and Wurtzebach shall have the preference over all other bidders at the same price. An excerpt from a letter to the *Tombstone Republican* of August, 16<sup>th</sup> read as follows. "I have been to Lake Valley, and was all through the mines ... There is one rich spot-a sort of cave, called the Bridal Chamber, in which there is about a million dollars in sight. You can take your knife and wherever you stick it in, it feels like pushing it into a bar of lead. But outside of this rich bunch, I don't think it is as good as represented. The ore - that is the average ore - is very refractory; full of manganese and iron; besides, the mines are now selling for twenty millions and there is not over two millions in sight; so I think they would rather sell stock than work the mine. ... I think there is something fishy about Lake Valley. Wages are \$3 and \$2.50." (MR, 8/26/1882) The writer of this letter was using the par value of \$25 per share. Most people in New Mexico were probably not aware of the market prices of the stocks.

Superintendent Jackson sent a telegram to New York on August 19th. It was given to the newspapers and read, "We took out one piece of solid horn silver to-day weighing 10,000 pounds, worth over \$60,000, and over \$50,000 in horn silver besides. We also shipped from mill over \$53,000 in bars." (MR, 8/26/1882) Jackson resigned on Sept. 1<sup>st</sup>, twelve days after sending the telegram, and turned over the operation to D. B. Gillette.

Roberts's mine managers often had their own promotions on the side. One example of this is Jackson's purchase and development of a mine for himself near Kingston. The SFDE (8/31/82) reported a private letter sent to someone in San Francisco from Lake Valley dated August 25th.

"DH Jackson turns over Sierra property to Colonel Gillette on September 1st, has some outside interest that will make him very rich. Six (sic. almost 25) miles from here [Lake Valley] he and two others have a mine from which they have just sent in 25 tons to the sampling mill which will yield \$10,000.. Jackson says there are \$100,000 in sight in the mine." Wurtzbech, the superintendent of the Tabor Sampling works had just bought a mine close to Jackson's. They may have been working together on either the management high-grading at Lake Valley or promotion of the Kingston mines. It is possible that the \$10,000 in ore from Jackson's Kingston mine came from the Sierra Company stockpiles. It seems ironic that Jackson could produce and refine 20% of the total silver produced by the Sierra companies in a year from a newly discovered prospect in only one month. "The Bullion Mine on the Perche [near Kingston] is reported as shipping 400-oz ore to the Sampling works. Sierra Grande and Sierra Plate shipped 58 silver bars up to August 20th, valued at \$125,000." A later letter dated August 27th said an additional 23 bars were shipped on the 25th.

The *El Paso Lone Star* (8/29/1882) mentioned the big \$10,000 piece of horn silver. Another Lone Star article of 8/30 corrected some items on the Tabor mine purchase. The mine was 22 miles northwest of Lake Valley and was purchased for \$100,000, but reportedly only discovered in August. The St. Clair and Solitaire claims were three miles from Iron King claim. (MR, 9/9/82)

"On Sept 7, 1882 stockholders of S. Grande will vote on question of doubling the stock." (MR, 9/2/82, from *Socorro Miner*) The vote to combine the companies was approved on September 7, 1882. "Much of ore from Bella Group is smelting ore, and is being sold to the sampling mill from which it is shipped to the smelter at Cerrillos." Tabor owned the Cerrillos smelter as well as the sampling works at Lake Valley. The Sierra companies employed a total of 65 men, but most of these worked on the surface. Only a small force working in the mines. There were 5 men working in the Apache, nine in the Bella, none in the Plata and the number underground on the Grande was not given. (*Santa Fe New Mexican*, 8/29/1882)

A small effort was being made to claim that the Lake Valley deposits contained gold as well as silver. "Just over a little hill to the right of the arroyo on the Arizona and Little Boy claims, ore has been found near the surface, running an ounce and a half of gold and thirty ounces of silver to the ton - notable as the only gold yet discovered in the vicinity." (*Santa Fe New Mexican*, 8/29/1882) The New Mexican carried a story from the August 22, 1882 Eureka Sentinel, "It is but fair to print the following: Superintendent Rickard, formerly of the Richmond, on his return from the Arizona and New Mexico section, says he visited the Lake Valley mine, belonging to George D. Roberts. He speaks of it as really a very rich affair, and says he saw one section of the vein thirty feet in length and depth, which gave an average assay of \$3,000 in gold to the ton." (*Santa Fe New Mexican*, 9/9/1882) The comment that the Lake Valley ore contained gold was an error and should have read silver.

#### 1882 Effort to sell the Sierra Mines to an English Syndicate

The quickest way for stock promoters to liquidate at a profit was to sell all of their stock to other



promoters. Selling to English promoters was a common practice. Roberts had tried to sell his silver mines near Lordsburg to English promoters in 1871. It was probably Wright, with his English contacts, who sold a group of English mining stock promoters an option on the Sierra stocks in the summer of 1882. Press reports on this option conflict with each other regarding the amount of stock covered as well as whether it applied only to Sierra Grande or to all the Sierra companies. The option price given in the press was ten dollars per Sierra Grande share. This price was probably inflated to aid the English promoters in the resale of the stock in England. The amount of stock promised in the option was probably 55% of the Sierra Grande stock. The reason for merging the Sierra Plata into the Sierra Grande, completed on September 7, 1882, was probably to assemble 55% of the stock for the option. The earliest reference located in the press to the English option was on September 12<sup>th</sup>, and it stated that members of the English syndicate were on their way from London to examine the mine. In fact they had already been to Lake Valley a month earlier. The *Santa Fe New Mexican* (8/11/1882) ran a letter to the Albuquerque Journal on the wonderful Lake Valley mines, "The Richest Mine in the World." The letter mentions that a mining expert and two Englishmen were there, touring the mines. D. B. Gillette later told Henry H. Sawyer that the only reason he accepted the manager job at Lake Valley was because of the English option on the property (Silliman Papers, H. H. Sawyer, 1/19/1883). D. F. Verdenal wrote in the Boston *Economist* that Roberts said in a conversation upon returning to New York in July that M. G. Gillette (A different and more prominent mine manager with the name Gillette.) would be appointed superintendent at Lake Valley. (SFDE, 8/9/1882). Thus the English option existed by July and it is probably more than coincidence that it corresponds with the start of ore shipments from the mine. The company did not sell so much as one dollars worth of ore for eleven months after the discovery of the Bridal Chamber, but you can rest assured that highgraders sold many thousands of dollars worth to the Sampling Works. D. F. Gillette arrived the first week of August probably with the two Englishmen who then went on to Clifton, Arizona. and took charge though not officially in charge until September 1, 1882. Jackson continued to send press releases, but it was later reported that Gillette was essentially in charge three weeks before he officially replaced Jackson on September 1<sup>st</sup>.

"It is stated that negotiations are pending with a party of English capitalists, who are now for the second time visiting Lake Valley, accompanied by Mr. Rickard, formerly of Eureka, Nevada, looking to the purchase of a controlling interest in the Sierra stocks. In the latter there is now absolute stagnation." (EMJ, 9/9/1882, p. 141) Absolute stagnation refers to there being no trading in the Sierra stocks. The brokers Watson & Gibson of New York quoted the following prices on the Sierra Stocks for the previous week even though not listed. Apache \$1.10 bid, \$1.20 asked; Bella \$1.85 bid, \$1.90 asked and both the Grande and the Plata \$4.65 bid and \$4.75 asked. The meeting at Lake Valley to merge the last two companies was held the end of that week on September 7, 1882. Mr. Rickard was working with the English Syndicate, negotiating for control of the Sierra companies. The *Daily Exchange* (SFDE, 9/25/1882) reported two weeks later that the English Syndicate negotiating for Lake Valley had purchased copper mines at Clifton, Arizona. The only English company formed in 1882 to operate copper mines in the Territory of Arizona listed by Spence (1958, pp. 68-69, 230) was the Arizona Copper Company Limited. Spence gives no details on the company or the names of the individuals involved. However, the Arizona Copper Company Limited was one of the most successful of the British

mining companies in the west, paying 3.5 million pounds in dividends between 1882 and 1914. The EMJ reported at the same time that Mr. George J. Johnson, consulting engineer of the Arizona Copper Company, the purchasers of the Long Fellow and Metcalfe mines at Clifton, had just returned from a visit to the mines in company with Mr. F. L. Underwood, President of the Merchants National Bank, of Kansas City, the financial agent of the company. (EMJ, 10/28/1882, p. 230) These two men may have accompanied Rickard and the English syndicate to Arizona and returned via Lake Valley in early September. If they sent their dispatch to EMJ from Nutt, New Mexico it would explain why the paragraph on Johnson and Underwood's trip to Arizona was placed in the New Mexico section rather than the Arizona section in EMJ.

Dominick F. Verdenal, Roberts' associate, wrote in the Boston *Economist* that there was very little trading in the Lake Valley stocks possibly due to an offer by the promoters to sell control to an English Syndicate. He had heard that the option to buy was at \$10.00 a share or a total of 4 million [400,000 shares] until September 25th. Also that members of the syndicate were on their way from London to visit the mines. (SFDE, 9/11/82) "It is rumored that George D. Roberts will retire from the mining business in the event of a sale of the Lake Valley mines to the English syndicate, and devote his time and capital to the postal telegraph, and railroad enterprises." (SFDE, 9/12/82) Thus by September 1882 Roberts realized his reputation had caught up with him and that he needed to change businesses.

More details about the English Syndicate were published in the *Boston Economist*. (SFDE, 9/25/82) "The Sierras are poking along, handicapped by the bond given to the English syndicate for the purchase of fifty-five percent of the capital stock...." The option was reported as good until October 15th and was to buy 55% of all three Sierra Companies stock at the following prices: SG \$10, SB \$4, and SA \$2/share for a total price of \$2,750,000. Trading in the Sierra Grande was dull, but the price was firm at \$5 per share. The English syndicate option may have been the major reason for combining the Plata and the Grande companies. The New Mexico press continued to promote the stock with comments such as, "The Lake Valley District is certainly the richest mining district in the world." (MW, 10/1/82, p. 35) From other sources the SFDE learned that the English syndicate had bought the Clifton Copper mines for 2 million. Clark Spence reported that the British records for the Arizona Copper Company Limited showed that it was capitalized at 875,000 pounds par value. That equaled \$4,375,000 dollars, or a little over twice what they reportedly paid for the Clifton mines. Doubling even of the inflated prices paid for mines was not uncommon for British mine promoters.

"Col. Gillette goes East next week to attend to personal business, and close on sale of large ranch to an English syndicate." (SFDE, 10/27/1882) This was probably Miller's Lake Valley Ranch that Daly purchased as its water rights would be needed for a mill at the mines. Gillette went east, but whether to consult with the syndicate or to sell them or other Englishmen a ranch is not known. A month later the press in New Mexico said the option had expired, but if that was true a new option was issued. "The party of English gentlemen that were about to purchase the majority of the stock failed to secure it, and the present directors say the property will not get into the Britishers hands for double the amount asked." (MW, 11/22/1882) Only a week later the *Mining World* reversed this

story following an interview with Gillette on his return from the east. It reported that Gillette said that the "Sale of property to an English company is about to be consummated." (MW, 11/30/1882). Almost a month later this exact phrase was again used by a reporter after talking with Gillette at Lake Valley. "Sale of the property to an English company is about to be consummated." (Georgetown, Colorado *Miner*, MR, 12/30/1882) Thus, at least until late December Gillette expected the option to be exercised by the English promoters. Wright's exercise of options to purchase Grande stock in December indicate he also felt the deal would be consummated.

Some insight into the English rejection of the option is given by an article published by the *Daily Exchange* (SFDE, 2/8/1883). This article compared the 1871 Emma Mine and other swindles of the 1870s to the Sierra Grande, Henrietta and La Plata, which promoters were trying to sell in England. The *Financial and Mining News* in New York a correspondent newspaper with *London Money* sent a telegram to London on December 18, 1882 which read "Sierra Grande stock sent to London syndicate at  $\equiv 2$ , not worth 10s., warn public." (SFDE 2/8/1883, reprinted from *Financial and Mining News* of 12/19/1882) This was reportedly published in *London Money* a day or so later. On January 13, 1883 *London Money* published another private cable from Philadelphia warning "the Sierra Grande mine is an overrated scheme to unload stock in England." The following week another cable "from our New York correspondent, the *Financial and Mining News*, to the effect that the Sierra Grande was being sent to a London syndicate at  $\equiv 2$  [\$10], and is not worth 10s [\$2.50] ... [and] had been hawked about in New York at 18s [\$4.50]." The English paper the *London Money* summarized these warnings which it had printed against the Sierra Grande stock being promoted in England in an article whose date was not given. The article was excerpted in the *Daly Exchange* on February 8, 1883. The SFDE article mentions nothing indicting the English option had lapsed by February, but no later mention of the option was found. Probably the option was declined in late January as the bad press in London would make sale of the stock there impossible.

The *Financial and Mining News* on December 19, 1882 stated "We believe, from private advice just received, that the Sierra Grande mine will not declare four more dividends." Their source was remarkable accurate! Only four more monthly dividends were paid before Roberts announced the end of the monthly 25 cent dividend following the one in April, 1883. The Sierra Grande in the rest of its history to June, 1887 only paid another 40 cents in dividends. The article in the SFDE (2/8/1883) summarizing press coverage of the English option commented that American mining promotions sold to the English had often promised large dividends, but that dividends ended with the promotion. The Emma Mine was brought out in November 1871 by the English promoter Albert Grant, and immediately paid dividends at the rate of 1.5% of par value per month (18 % a year). The dividends lasted for thirteen months, and then the mine closed. That was the last dividend the Emma paid. (SFDE, 2/8/1883) During the governmental hearing of the Emma scam it was shown that the promoter paid most of the dividends from the money he got from the sale of stock. The press reports in England that the Sierra Grande was another scam being fostered by Americans on the British market is the likely reason the

English syndicate did not exercise the option. Newspaper accounts agree on the price as \$10, but disagree on the number of shares, ranging from 50,000 shares to 55% or 220,000 shares of Sierra Grande stock. It was probably the higher figure as even though Wright reportedly bought out Roberts in September he needed more stock. Wright had brokers buy options for Sierra Grande stock from any stockholder who would agree to sign up on a special form he had printed. It must have been a very cleverly worded option as stockholders including experienced stock brokers interpreted it as promising them nine dollars per Sierra Grande share when the option was exercised. However, Wright exercised the options in December at half that price, paying the stockholders only \$4.50 per share. Sawyer wrote Benjamin Silliman they should be thankful that his effort to option their Sierra Grande stock did not get completed because of this trick. (Silliman Papers, Henry H. Sawyer, 12/30/1882)

#### Events at the mines during the English option

In August 1882, the 'National Mining and Industrial Exposition' opened in Denver, Colorado with exhibits from all the major mining districts in the western United States. One of Colorado's claims to fame was a sign in their display claiming the record for one day's production in a mine. Eight men in 17.5 hours at the Robert E. Lee mine removed \$118,500 in silver ore. Commissioner Reed was given a telegram from the Lake Valley mine sent to Haskell, the New Mexico commissioner at the exposition:

LAKE VALLEY, N. M., August 20, 1882

Dr. Geo. H. Haskell:

We took out a piece of horn silver to-day; weight, over 10,000 pounds; worth over \$60,000. If they can beat the piece already there I will bring this up. I took out to-day altogether, with only eight men in eight hours, over one hundred and thirty thousand dollars.

D. H. Jackson, Superintendent. (MW, 9/15/82, from *Denver Times*)

One may excuse this story as part of a boasting contest between New Mexico and Colorado, but the production Jackson claimed for one shift at Lake Valley was repeated in many newspaper stories. Comparing the reported eight-hour shift's production on August 20, 1882 with the total production for that month shows its lack of truthfulness. Jackson claimed that 8 men in one shift mined \$130,000 in silver, beating the Colorado claim of \$118,500 in two shifts. This was a gross exaggeration as the total production reported for the month of August was only \$134,000.

*The Mining Journal* announced that the Sierra Plata was merged into Sierra Grande at the September 7th stockholder meeting. (MR, 9/18/1882) The *Mining Record* questioned the fairness of this merger. If the two companies were not equally valuable or not owned equally by the same people, someone got the best of the deal. The editor knew that Sierra Plata was always a lower priced stock than Sierra Grande, but Jackson had been putting out stories about a great new discovery on the Sierra Plata. This may or may not have been true, but must have been designed to make the companies appear equal in value. Lake Valley stock prices crashed after the merger of the two companies, but only for one week. "The Lake Valley stocks have recovered from the break of last week, which it is now learned is due to the fact that Mr. George D. Roberts has sold

out to the Philadelphia parties, his friends disposing of their stock on learning of it. The Philadelphia interest, it is understood, has now stepped in to keep the stock up.” (EMJ, 9/28/1882, p. 231) The Sierra stocks, after recovering, were Sierra Grande \$4.35 bid, \$5.00 asked; Bella \$1.15 bid, \$1.25 asked and Apache 58 cents. The Sierra Plata had been merged into the Sierra Grande two weeks earlier and Wright had not gotten them back up to the pre-merger prices. Roberts apparently sold his stock to Wright about the date of the annual stockholder meeting on September 7th. Indications are that Wright individually negotiated the option with the English Syndicate for control of the Sierra Companies. They were to buy the stock from him, and Wright continued to buy stock for months to assemble the 55% interest in the companies. Foreign corporations were prohibited from owning mining claims in the United States, unless patented, until a law change in 1887. (Spence, 1958, p. 67) Thus, the English were buying control of a U. S. Corporation, not the claims.

A respectable broker in Philadelphia reported that the Sierra Companies posted in their offices that production in July was \$105,000, August \$208,000, for a two month total production of \$313,000 (MR, 9/23/1882). *The Mining Record* quoted from the “newspaper organ” (*The Mining Journal*) of September 20, 1882 that the first dividend on the Sierra Grande would be declared Oct. 15th for at least 25 cents, and declared monthly thereafter. The stock will be listed on the Philadelphia and New York exchanges next month. The Grande mill is turning out \$200,000 a month and mine is out of debt. The Sierra Bella is shipping ore and its debt of \$45,000 will soon be liquidated and work will be vigorously pushed on the Sierra Apache. “The rumor of a proposed sale of the Sierra mines to an English syndicate is officially denied. The rumor probably arose from the fact that an option of a block of stock at ten dollars per share was purchased by some English gentlemen from Whitaker Wright, a Philadelphia stockholder.” (MR, 9/23/1882 from *The Mining Journal*, 9/20/1882) Wright was clarifying that the English option was for a block of stock not the entire company. The July, and August effort to mine ore for the first time since operations started a year earlier may have been to get out as much as possible before the sale to the English syndicate

The Philadelphia *Mining Journal* reported following the September meeting of the Sierra Grande Company directors that production in September up to the 22nd was \$211,773.61. Manager Gillette expected total production for the month to reach \$250,000. A drift was being dug from the Bridal Chamber toward the mill and it showed ore throughout its length. The company was out of debt and they had signed a contract to build a smelting works and a cupell furnace. Both were expected to be completed in 60 days. (SFDE, 10/2/1882)

The first issue of the *Lake Valley Herald* (date not given, SFDE, 10/14/82) said that \$75,000 in 40 bricks were shipped on October 1st. “The Englishmen have until October 28th to decide if they will buy 55% of S. Grande stock at \$10 per share. Latest indications are that they will do so. John W. Mackay, the Bonanza king is due to visit next week. George Hearst [major western mine owner and father of newspaper tycoon Randolph Hearst] visited last week. Long list of visitors: George Hearst, John W. Mackay [Comstock king and later the namesake of Nevada School of Mines- no record of his visit was found at the Mackay School of Mines], Senator John A. Logan [of California] and Governor L. A. Sheldon [New Mexico]. The Lake Valley Mill is to

close down for 7-10 days for repairs.” (SFDE, 10/14/82)

Excerpts from “the newspaper sheet in Philadelphia, printed, as we believe, in the interests of speculators in the stock of the Lake Valley properties, we extract the following:” (*The Mining Journal*, no date, in the MR, 10/14/82, pp. 362-3). This was probably an issue of Wright’s journal prior to the one quoted in the SFDE of October 14<sup>th</sup>. It quotes the total official income received by the treasurer of the Sierra Grande as \$39,000 in July, \$134,000 in August, and through September 14<sup>th</sup> \$136,000. The grand total of all production to date was \$310,389.47. All debts had been paid, and a surplus was in the treasury. Removal and sale of ore at Lake Valley did not start until July 1882 and was increased as rapidly as possible to pay off the development debts and produce cash for dividends. The timing of the start of production was probably related to the option given to the English syndicate. The editor of the *Mining Record* then attacked “those newspaper parasites who have transferred their fealty of former days from the State Line properties to these Lake Valley concerns.” The editor then gave considerably higher figures for July and August production from a letter he did not publish until two weeks later. He said that some parties in Philadelphia reported \$105,000 was produced in July and \$208,000 in August. He concludes with the comment that if these figures were correct, then no man would be willing to sell out his stock at ten dollars a share as that would be tantamount to giving it away.

The *Mining Record* (MR, 10/28/82, printed a letter to the Editor from George Madeira dated 10/8/1882 from Lake Valley). Madeira toured the mine with William Skyrme, Gillette’s foreman. He as many others repeated the story that on August 20<sup>th</sup>, 8 men in 10 hours produced \$130,000 worth of ore. Madeira also said the farthest north mine being worked was the Sierra Bonanza. This was Bartlett’s new company at Lake Valley working on the New Era and Long Nancy claims. Madeira said only a few men were working on the Sierra Bonanza, but that it had more or less ore in all of its workings.

“The new town site has been laid out below the sampling mill, in the mouth of the arroyo, where it widens out to the plain on a gentle slope - a very pretty location. Sierra City is to be moved down to the new town - that is the buildings and inhabitants - this week.” (*Santa Fe New Mexican*, 8/29/1882) This story would indicate that Sierra City was to have been moved the second week of September. That the move occurred in early September is confirmed by George Madeira’s letter to the *Mining Record* dated October 10, 1882, Lake Valley, NM. “It is an embryonic town only six weeks old. ... accommodations to be found here are not first-class and they are crowded at that.” (MR, 10/28/82) It appears that the change in name from Sierra City to Daly may not have ever occurred. The post office when created at Sierra City in 1881 was named Daly in honor of George Daly. The post office name was changed to Lake Valley within weeks of the move to the current location in August, 1882. *The Mining and Scientific Press* used the new name and for a while it may have also had “City” attached to it. “Lake Valley - The new town, is composed of hastily built houses of wood, adobe and canvas. It must have at least 500 to 600 inhabitants. Lake Valley City is supplied by water wagons.” (M&SP, 11/11/1882) The new town grew rapidly based not just on mining but also its role as a transportation center for the Black Range and cattle rustling. The area had been a center of cattle rustling since 1881 and the

rustlers were accepted members of the community. The raid on Lake Valley by the Territorial Militia in March 1883 to exterminate the rustlers is discussed in Section IV of the History Appendix.

H. H. Sawyer, one of the first experts to promote Lake Valley just returned to Philadelphia according to an article in Mining World published in Las Vegas, New Mexico. It quoted Sawyer as saying "I simply say that I never saw so much ore exposed as to-day." (MW, 11/22/82) Sawyer was quoted with positive comments on the operation of the mines, which are in sharp contrast to his letters to Benjamin Silliman Jr., which have survived. Henry Sawyer, from Easthampton, Massachusetts, maintained an office and staff at Lake Valley in 1882 and possibly as early as 1881. He had stationary printed with the letter head "Henry H. Sawyer, Lake Valley, New Mexico." He had a number of mining ventures in the west and owned claims around the Sierra companies at Lake Valley. Sawyer was the maker of the claim map of all Lake Valley claims in late 1881 or early 1882. This map was referred to in the Wilson v. Wright et al. Law suit in March 1882 and is **Figure 6** in this report. Silliman (1882, p. 439-40, TAIME) describes Sawyer's work on his Hopeful Claim. On the only copy of Sawyer's map, all the claims east of Columbia and Virginia are shaded including the Hopeful, so Sawyer may have owned many of them at some point in 1881-2.

The Hopeful claim was later re-staked and renamed the Jim Finch Claim. It was patented in 1932 (Mineral Survey No. 1745). Sawyer had just gone to Lake Valley after several months' absence and now quickly returned East. Though he told a Las Vegas newspaper that the Sierra mines were in great shape, that was the opposite of his real opinion. He did that because he was a large stockholder in the Sierra Grande and was trying to sell his stock. He told Silliman that he had not yet received Silliman's code and thus could not telegraph him. In Sawyer's October 28, 1882 letter to Silliman he wrote:

"I have a letter from Prof. Cope accusing me of hammering the market to buy in Grande with Bartlett, some stuff which Wright probably started." Bartlett and Sawyer had formed the Sierra Bonanza Company together in June and both were also large Grande stockholders. The first day after his return to Lake Valley, Sawyer wrote Wright a favorable report on the Grande. However, he went back the next day and discovered that the mine had suffered and left immediately to inform Wright in Philadelphia and explain his mistake. "I suppose Wright had sought to cover his tracks by throwing mud on me, writing him favorably and telling his directors the opposite." He wired Wright of his date of arrival in Philadelphia, but Wright gave excuses not to see him for several days and then left town. Wright gave Sawyer's positive report to the Sierra Grande Directors even though he knew it was not correct. At some point Wright told Cope of Sawyer's negative findings, which led Cope to accuse him of 'bearing' the stock. Sawyer continued "You better than others can understand how impossible it is to detect barren from fertile rock in the Sierras." Sawyer said that a lot of work had been done in the few months of his absence and only on the second day did he assess how much and of what quality of ore was left in the mines. "The bonanza is cleaned out and that in the grossest and most extravagant way..." This indicates that most of the rich ore in the Bridal Chamber had been removed by late October. He ends with offering Silliman part of a 2-year lease on the Richardson at Central City,



Colorado. He mentions also that he bought a 1/12 interest in the Victoria district [Gage, New Mexico, 50 miles SW of Lake Valley] for \$1,000 and under Harper it may make a mine. (Silliman papers, Henry H. Sawyer 1882, Oct. 28)

Three days later Sawyer again wrote Silliman: "Mr. Cope evidently agrees with you that all men are liars." Sawyer continues that if Cope accuses him of wrongdoing he would immediately question his buying Grande. He then says that he does not think Cope has bought Grande stock since October 24th. Thus we know that Cope was still buying Grande stock at \$5.00 a share or more in price. Sawyer apparently met Cope at Lake Valley as Cope's letters show he was there from September 10th until at least the middle of October 1882. Most of the letter discusses the Richards mine and then says he can not loan Silliman money at this time, but soon will be able to help. Sawyer discusses a large block of stock he was trying to sell that belonged to both Silliman and himself. He does not name the company, but the context indicates it was Sierra Grande stock. The broker selling the stock for them was buying all the Grande he could at ten dollars per share; the reported price to be paid by the English Syndicate. "Am awaiting intelligence from Mr. Temart [spelling?] by wire whether they take the block of stock of mine (including yours) at the price of 1 & \$9 per share the \$1 being commission they exact. If they can be kept profoundly in the dark I think they will take the stock or the first installment." Both Temarnt [sp?] and -- [abbreviation not legible] borrowed this side all the money they could get to put into Grande & hence they are individually interested to get the stock up. ( Silliman Papers, Sawyer to Silliman, Oct. 31, 1882). The broker had telegraphed Wright to send him the papers to sign. Those papers would have been stock option papers agreeing to sell the Grande stock. We thus know that Wright had to buy stock from other stockholders in order to put together 55% of the Grande stock for the English Syndicate. Perhaps it is true that the English were really going to pay \$10/share in spite of the open market price being only half that. At least some brokers felt this was the case. Sawyer and Silliman were trying to get in on this high price and sell their Sierra Grande stock. Silliman had received thousands of shares as part of his fee for the two examinations of Lake Valley. Sawyer probably got his shares by trading some of his Lake Valley claims for stock.

"The securities committee of the New York Mining Exchange has recommended to be listed the stock of the Sierra Grande Mining company. ... The company claims to have expended \$350,000 to \$400,000 on the property in surface and underground improvements: steam hoist, 20-stamp mill, and 30-ton smelter. They report a surplus in treasury of over \$50,000 after providing for the dividend of November 1, of \$100,000." (MW 11/22/82, from a story in *the Daily Stockholder*) Because Roberts had only given the Sierra Grande ten thousand dollars in working capital the net profit to October 15, 1882 after paying debts was only \$150,000. The first dividend of 25 cents a share was declared to stockholders of record, to be paid on November 1, 1882. Wright most likely received the largest share of that dividend as Roberts had sold his stock to Wright.

An interview with J. Gist who just returned from Lake Valley was printed in the *El Paso Lone Star* on October 21st. "It is said by some that the town [Lake Valley] is not as lively as it was 3 months ago, owing, probably to the floating population going in a body to Percha [Kingston



area].” The Lake Valley mill has started up again after being thoroughly repaired. The discoveries of the silver mines around Kingston in the fall of 1882 caused many miners to leave Lake Valley. Jackson and Wartzebach bought several mines there and sent their ore to Wartzebach and Tabor’s mill for refining at Lake Valley. “The Lake Valley stocks, although not listed upon either exchange, have nevertheless attracted considerable attention and there has been a good deal of active trading in them.” (MR, 11/4/1882, p. 443, and p. 448)

Reliable authorities have testified to the unparalleled richness and extent of the ore vein of Sierra Grande and contiguous claims, so that with reasonable care and honesty in their management there seems to be every prospect of handsome profits being realized for the owners, but as we have repeatedly pointed out, the unfortunate reputation of those who promoted these schemes has led the public to flight shy of them, but little credence being heretofore given to the extravagant accounts that were at first made public. The connection of Mr. Roberts with some of the most barefaced deals that have ever been perpetrated upon this market cannot so easily be forgotten, or the memory of the losses occasioned thereby so quickly wiped out, and accordingly there is a natural hesitation to again follow his lead. (MR, 11/4/1882)

Roberts reported leaving of the Lake Valley companies was considered a major improvement in the prospects of the Sierra companies. *The Mining Record* story continued that if the companies were managed for the benefit of stockholder rather than to manipulate the stock price in the market this would soon be recognized by the public. However, if the previous experiences with Roberts were attempted at Lake Valley there would be further withering of support for the stock, leaving little but dry bones to rattle.

George Maderia who had sent the letter to the editor of the *Mining Record* wrote an article for the *Mining and Scientific Press* titled “Recent Discoveries in the Black Range.” He had just visited Lake Valley and Kingston and talked with manager Jackson. Madeira wrote that the big lump of silver chloride ore, “Jackson’s Baby,” part of which was sent to the Denver Exposition was from a second drift on Plata Ground rather than from the Bridal Chamber. October production was \$210,000 and sixty tons of ore were being mined every day. He said the refurbished mill was a first-class mill and that the new machinery was made by Prescott, Scott & Co., of San Francisco. Water is now pumped from the lake four miles distant to the mill. Madeira went to Kingston and then a mile and a half to the Bullion Mine “the finest body of ore yet struck in the vicinity. Shaft is now 75 feet deep.” (M&SP, 11/11/82, vol. XLV, No. 20, p. 305)

Twenty-four tons of this ore from above the first 18 ft. was worked at the Lake Valley mill, and returned \$10,400. As the Bullion shaft was now 75 feet deep, this ore was extracted months earlier. “The [Bullion] mine is owned by J. E. Wurtzebach [manager and co-owner with Tabor of Lake Valley sampling works], D. H. Jackson [manager of LV until 9/1/82], J.W. Southwick, Col. James C. Logan [Senator] of California, E.D. Town [who built and managed the Sierra company mill at Lake Valley], and F. M. Chapman, who is superintendent at the mine.” It is odd that these Lake Valley men could have produced as much silver ore from a newly discovered prospect they owned in July 1882 as the Sierra Grande produced. The Bullion did develop into a major silver mine, but it is hard to believe that there were not some underhanded deals between these men who we know were not adverse to such acts. Between Jackson, Town and

Wurtzebach they had total control of Lake Valley prior to September. "Eighty feet from the Bullion is the Superior owned by Gov. Geo. C. Perkins, Col. James E. Logan, Capt. Thomas Burns and others.... Four miles from these mines is St. Clair and Solitare mine recently bonded by Governor Tabor of Colorado." (M&SP, 11/11/1882)

*The Mining Record* reprinted a letter from a Mr. Weaver to the *Denver Tribune* (11/9/1882). Weaver had a number of facts mixed up on the Lake Valley mining history, but some interesting comments from Lufkin. He said that the present owners started work July 1, 1881, which was only the date they started keeping records for company accounts. The mill was closed down from October 1st to the 14th for repairs. He said that the Bridal Chamber was still not worked as the ore was being held for refining in the soon to be completed smelter. As the Bridal Chamber was cleaned out by the end of December, they must have quickly started after Weaver left. The stamp mill was processing about 45 tons per day of 60 to 120 oz. ore. Mr. Weaver talked with Colonel G. W. Lufkin who is now running a lodging house in Lake Valley. Lufkin said he was the original locator. The claim names were Lincoln and Stanton, and Daly and Roberts purchased them from him in April 1881 for \$125,000. Weaver then wrote that Lufkin worked the mines with fifteen to twenty-five men for several months and shipped the ore by ox teams to Socorro and then to Pueblo by rail and realized a handsome profit. This is not likely as the railroad was at Nutt only 14 miles from the mine by February and thus ore would not have been shipped a hundred miles by ox team to reach the railroad. The work mentioned sounds like the work on the Columbia claim in the spring of 1881 rather than on the claims owned by Lufkin. Lufkin said that he had not gotten into the rich body of ore, which had since been discovered. (MR, 11/18/82) This also argues against Daly's claim that rich ore starting at the surface. This was the first time *The Mining Record* printed a positive story on Lake Valley. Many papers began to change their attitude with the reported leaving of Roberts from the Sierra Companies. The *Mining World* said that the *Daily Stock Report* is less hostile to the Lake Valley mines "since withdrawal of Col. Roberts from the management." (MW, 12/1/82)

The Sierra Grande paid its second dividend of 25 cents a share on December 1, 1882 and told the press it was producing sixty to seventy tons of rich ore per day. Even the editor of the *Mining Record* now accepted and printed the glowing reports. "One of the most important features of the week has been the listing of the Lake Valley properties. ... [They] contain one of the most wonderful deposits of ore that has been uncovered in recent years. Competent and reliable authorities who have visited and carefully examined the Sierra Grande, describe the deposit as commencing in the grass roots and extending downward to a depth of forty feet, which is as far as the vein has been penetrated a month ago, varying in width from two to twelve feet or more. The best opinions say there are many millions in this vein. ... Without an exception, the testimony of those who have examined these properties is in support of the enormous reserves of the ore deposit, and if properly and honestly managed, their addition to the call list is a valuable acquisition at the present low state of the tide upon the mining stock market." (MR, 12/16/1882) The price of mining stocks on the two New York exchanges started to fall in December 1882 turning into a crash the next year. Sierra Grande stock was listed Thursday on the exchanges, which would have been December 14, 1882. On the first day of trading Sierra Grande traded 14,000 shares, on the second day 4,600 shares. It opened at \$4.75 traded up to \$5.00 and closed

Friday, the second day, at \$4.95. (MR, 12/16/1882)

The *Mining Record* (12/30/1882 quoted from the *Lake Valley Herald* of 12/21/1882) that the new hoisting works was finished and powered by a 35 horse power steam engine for a deep shaft being dug to strike the vein at a depth of 200 feet. This was the first steam hoist at Lake Valley. The same issue of the *Mining Record* quoted an article sent to the Georgetown, Colorado *Miner* by their correspondent who had just visited Lake Valley. He was shown around the mill by Gillette, but not shown the underground workings. Colonel Gillette told him the mines had produced a million dollars in ore. The mill had twenty stamps and sixteen amalgamation pans designed for simple wet amalgamation. The correspondent wrote that "The usual amount of chloride of silver in mineral treated occasions some trouble in separation. Tailings are all saved, and assays show that these are worth \$300,000." Thus, Gillette was well aware of how poorly the mill functioned. Gillette also told the reporter that the sale of the property to the English company was about to be finalized. (MR, 12/30/1882)

Henry H. Sawyer returned to Lake Valley in December and sent a telegram from Nutt, New Mexico on December 29, 1882. Sawyer now had Silliman's code and sent the telegram in code. "Magnolia molster abiding send pellucid to investigate." On the back of the telegram is written the translation. "Mine is being badly managed - There is nothing in company about it - All wrong send Philadelphia party to investigate." The telegram had been forwarded from New Haven to Silliman in New York and thus some of the words may have been miscopied but it was still legible to Silliman. The next day Sawyer sent a letter to Silliman: "Thanks to good luck that J.W.W. [J. Whitaker Wright] did not get my stock tied up in that pool. It is all called at fair price (\$4.75) unless a few hundred shares remain. Of all badly managed ventures this Sierra Grande is the worst." (Silliman Papers, Henry H. Sawyer 1882, Dec. 30) Sawyer was rejoicing that his and Silliman's Grande Stock had not been optioned from them by the broker for Wright. Apparently the stock option to purchase was worded in such a way that Wright exercised the option at the market price of \$4.75/share rather than the sellers expected price of \$10/share. The exact date when the English syndicate rejected the Grande stock option is unclear but this letter indicates it was before December 30, 1882. This indicates that Wright bought a large amount of Sierra Grande stock in December for \$4.75 a share giving him solid control of the company. It is unknown if Wright did this before or after the English promoters dropped their option.

High-grading, the proverbial right of miners to take as much rich ore for themselves as they can get away with, was not mentioned in the press reports on Lake Valley. Though regarded as stealing by mine owners in the United States, it has existed since antiquity and goes on to this day. High-grading at some gold mines, such as Goldfields, Nevada was so profitable that miners had to bribe mine managers to get a job in their mine. High grading at Lake Valley must have been rampant in 1881 and 1882 in the great silver chloride vug ores. If you assume the ore value was only \$0.50/ounce that is \$8 per pound. Any experienced miner could take out several pounds per day without being obvious and could make a week's wages each day in high grading.

High grading was blatant at Lake Valley. Sawyer wrote in December, 1882 that "Ore has been stolen by the sack full - Miners pay for drinks as lumps of Sierra chloride. ... Men steal \$2300.00

ore and melt it down in a forge on the hill and the camp assayer picks up 650 oz. in the ashes." Sawyer was saying that stolen ore was smelted so primitively in home made forges on the hills that the slag left behind still contained 650 ounces of silver per ton. Silver ore with 2,300 ounces per ton would have been worth about \$1.25 a pound in 1882. It would have been more profitable to sell the high graded silver chloride ore to Wurtzebach at the Sampling Works than to try smelting it with this 28% loss and that is what many did. "The furnace of sampling works of Tabor & W- furnishes a convenient place for running out bullion. Men run away with ore while the watchman is drunk and while the manager plays pitch with a drunken crowd in the Sierra office." (Silliman Papers, H. H. Sawyer, 12/30/1882) Haley (1934, p. 179) perhaps was including high-grading when he wrote, "It is estimated by persons acquainted with the earlier history of the district that ... [production not included in company reports] for 1878-1893 yielded about 500,000 ounces of silver."

This dismal picture of high grading out of control was matched by the total ineptitude of the mill operation. The grinders were set wrong and the pans had holes eaten in them from letting the chemicals sit in them. "Waste, thievery could not be worse if it was plotted openly. There is not a man in the Mill now who ever was in a Mill before." Sawyer had not gone in the mine, as he was too disgusted with the mill. "I was so disgusted when I got to the mill I went no further, if inclined I could go in [to mine]." He concludes his evaluation with: "Gillette seems to be far more ignorant than was Jackson." He then laments the poor Philadelphia Quakers who are being humbugged. "I don't wish to wrong anyone but it is the duty of any honest man to decry, not side with fraud, and having warned those Philadelphia people I am astonished - they do nothing but suck their thumbs..." Sawyer lamented the probable further decline in Grande stock and wrote "My Colorado property will bring me out of my Loss here."

He continued with bad news, "Tabor & Wurtzebach have brought suit agt [against] Grande for \$200,000.00. Eight attorneys are said to be engaged. Jackson it is said will aid Wurtzebach and G.D.R. [George D. Roberts] they expect to testify agt [against] the Corporation. With ignorance, fraud, theft and little ore at the mines, and Lack of public confidence, based upon known mismanagement here and a suit against the property of disappointed thieves poor Grande stock will go down I am afraid." (Silliman Papers, H. H. Sawyer, 12/30/1882) Sawyer had written some of this to Cope and hoped as the strongest of the Philadelphia directors that he would do something to correct the situation.

Sawyer wrote Silliman another letter on January 19, 1883 in which he said the ore was getting scarcer in the mines and most of the ore on the dumps had been removed. "They could catch the management here in a hundred ways if they set at it." Without being explicit Sawyer was saying that Gillette or his subordinates, except the assayer Hellman, did not conceal fraud and waste. Hellman had refused to cut down the silver values he reported in the tailings in spite of being pressured to do so. "I am sick of the whole business and nothing but an Emitic which Expels the whole gang will purify the management." Sawyer's own mine at Lake Valley was progressing well. His post-script at the end of the letter explains why Gillette came to Lake Valley the previous August. "Gillette told me he never would have come here Except for the Englishmen. If he comes back it will be at G.D.R's request for a deal." This seems to indicate that Roberts was

still involved in Lake Valley.

Cope did not accept Sawyer's observations and continued to believe the mine was in good shape though the mill may not be. Cope was still optimistic in March when he wrote Silliman that the mill problems had been corrected. "A new metallurgist has gone to run [the mill] (Tyson), and [there] will be no more nonsense in the mine, mill or smelter." (Silliman Papers, Cope, 3/19/1883) It was not until early summer that Cope recognized that Wright was dishonest and the major source of problems.

Late in December Wright's Philadelphia *Mining Journal* published the Sierra Grande treasurer's statement for 1882. It listed all receipts from July 21 to Dec. 30, 1882 giving a grand total of \$838,258.84 and said that another payment was expected before the end of 1882. (MR, 1/6/1883) Roberts's bad reputation continued to plague the Sierra Stocks long after he reportedly left the company. However, several of the earlier critics including the New York *Daily Stock Report* (3/21/1883) changed their attitude toward the Sierra Grande. The New Mexico papers continued to support the mines and blamed Roberts for giving Lake Valley a bad reputation. The *Albuquerque Democrat* wrote:

Roberts is well known in this Territory, being for a long time the leading man in the Lake Valley mines. His career has surely been a marvelous one, for it soon became as a truth, that when he was found in any scheme, no matter what it was, the scheme was a bad one. This [Lake Valley] was the first time that Mr. Roberts really had something, but whether his intentions were good or bad we do not know. ... George Roberts is all together out of the Lake Valley companies now, but his former connection with them is more detrimental to the stock than half a dozen dividends of \$100,000 each can wash away. (SFDE, 4/4/1883)

Portions of a letter from a Lake Valley resident to the Eureka *Leader* (M&SP, 4/14/83, v. 46, p. 250) discussed the low wages, \$3 to \$3.50 a day, and the poor design and operation of the new cupules (small smelters) and stamp mill. The mines were also not producing enough ore to keep the mill running. "It has one furnace, which runs but a portion of the time, as the ore is not found in sufficient quantities to keep it going. Two cupels have been erected, but are a failure, and but one at a time is put in operation... there are a number of Eureka's here who could build good ones, but for some reason or other the company will not permit them to make a trial." The letter ends "all in all, a good place to stay away from." Thus, it appears that Wright's management of the mine was no more efficient than Roberts' in many respects.

The Sierra Grande's most famous literary stockholder was Walter Whitman the famous poet. Robert Pearsall Smith a long time Sierra Grande director and his family met Walt Whitman during the Christmas holidays in 1882 and became friends. Smith's daughter Ann had met Whitman at Smith College that fall. On February 26, 1883 Sierra Grande Mining Company of Lake Valley, New Mexico stock certificate No. 5004 for two hundred shares was issued to Walt Whitman. William White's (1969) article "Walt Whitman and the Sierra Grande Mining Company" discusses Whitman's one venture into capitalism. It is also discussed further in the biography of Smith in the appendix. Walt Whitman kept notes and dividend notices for the Sierra Grande in his papers. The stock certificate has disappeared from the Whitman Papers since

White (1969) wrote his article and the papers were transferred to the National Archives. Smith was vice president and then president of the Sierra Grande in 1883.

Following the monthly board of directors meeting on March 15, 1883 Cope was still hoodwinked by Wright. Cope defended the conditions at the mines in a letter to Benjamin Silliman Jr. a few days later. "Reports to the contrary notwithstanding, matters at Lake Valley are more healthy than ever. We have been finding out our men & will make a clean Sweep. A new metallurgist has gone to run [the mill] (Tyson), and will be no more nonsense in the mine, mill or smelter." (Silliman Papers, Cope, 3/19/1883) Cope was still totally under Wrights' influence and he did not start fighting Wright for control of the Sierra companies until a few months later. The company released an eight page Financial Report, designed to show that the financial health of the company was excellent, in spite of the directors voting on March 15th to change from monthly to quarterly dividends. The financial report covered income and expenses from the start of the companies, now given as July 20, 1881 (rather than July 1, 1881) to March 16, 1883. (Sierra Grande, 1883a)

The report shows that the only working capital given to the Sierra Grande was \$10,000. This is the out-of-pocket ten thousand that the company cost Roberts. If you assume that the average sales price Roberts received for the stock of the combined Sierra Grande and Plata was \$2.50 then his profits were about one million. (The combined 400,000 shares times \$2.50) That does not consider his dividend income or possible profits on equipment sold to the company. The costs of development were very high and were all paid for by the company. Total sales to March 1883 were \$1,085,703.11, when you deduct the ten thousand in working capital. Cash on hand and bullion totaled \$140,877 as of March 16th. It contained the same comments aimed at impressing the naive investor as the prospectus. Such as the mine "shows a silver deposit to be there located of great extent, equaling if not exceeding in richness any yet discovered in the United States." (Sierra Grande, 1883a, p. 4) It also announced that Robert Bunsen, M. E. would take over as superintendent of the mines on April 1, 1883. It announced and gave a variety of reasons why a change from a monthly to a quarterly dividend was in the best interest of the stockholders and the company. It also announced dividend No. 6 to be paid on April 2, 1883 of 25 cents a share. After paying the April dividend the company would only have \$40,000 in its treasury, but that fact was not pointed out in the report. This was the last regular dividend the company would pay. (The Sierra Grande Mining Company: March 1883 in Yale University Library and a summary was printed in EMJ, 4/14/83, p. 205)

The *Rio Grande Republican* of June 4th ran a positive article on the Lake Valley mines, stating that they will always pay dividends and should be held. "We understand that the greater part of the stock is held by the company themselves, and is not for sale..." This was not true. The *Kingston Tribune*, of June 5th reported on a meeting with the previous manager, Jackson and his view of the mines. Jackson made a number of positive comments on Bunsen's new management and the prospects for the mines and said that another new rich body of horn silver had been discovered the previous week up the hill from the old workings. He did say that "the ore bodies which were first opened have been worked out, that the mill tailings pile had been sold and was being shipped to the Pueblo Smelter and that it was probable that the mill would soon be started

up to work the lower grades of ore, but that shipments of the higher grades would continue." (MR, 6/16/83, p. 472)

### The 1883 Mining Stock Market Crash

Wright's inability to raise Lake Valley stock prices after Roberts's departure or even maintain their value beyond the December 1882 listing was not due to his lack of experience or competence. The mining stock markets went into a decline that eventually was called a crash. **Figure 12** is a table of the Sierra Grande stock price during 1883. The price fell from around \$5 in December 1882 to \$1.50 by June 1883. In Clifford's book, *YEARS OF DISHONOR, or the causes of the Depression in Mining Stocks, also THE REMEDY* (1883) he lays the blame on mining stock manipulators. Clifford did not name Roberts or anyone else, but referred to the Years of Dishonor, 1879-1883 as starting "When Leadville was discovered it opened a glorious field for the broken-down Nevada manipulator, who, after impoverishing widows and children, ... turned their faces to the East." (Clifford, 1883, p. 5). Clifford's description fits Roberts's background and activity.

Clifford, though not naming manipulators, then lists the major overcapitalized stock promotions that all failed in this period and caused Easterners to stop buying mining stocks. Three of the first four companies discussed are Roberts's floats, the fourth being the Little Pittsburg. Of the total of eleven major companies discussed four or six depending on how you count the State Line are known Roberts offerings. (Clifford, 1883, pp. 10-17). He gives the prices of the stocks at their peak during the promotion and in the summer of 1883. Roberts's offerings went from the following promotional highs to the following lows in 1883. Chrysolite \$40.00-\$1.10; Little Chief [high not given- but was \$14]-\$0.70; Robinson Consolidated \$15-\$0.85; State Line 2&3 and 1&4 from \$15 and \$5 to less than 25 cents. The crashes in these major stock promotions and the many smaller ones lead to a general distrust and avoidance of mining stocks in the eastern markets. There was no way Wright could maintain the Sierra stock prices in face of this general decline. The stockholders in the Sierra companies blamed their corporate directors and Cope started forming an alliance of stockholders and directors to get rid of Wright by the summer of 1883.

### **1883 SIERRA GRANDE MINING COMPANY Weekly Share Prices**

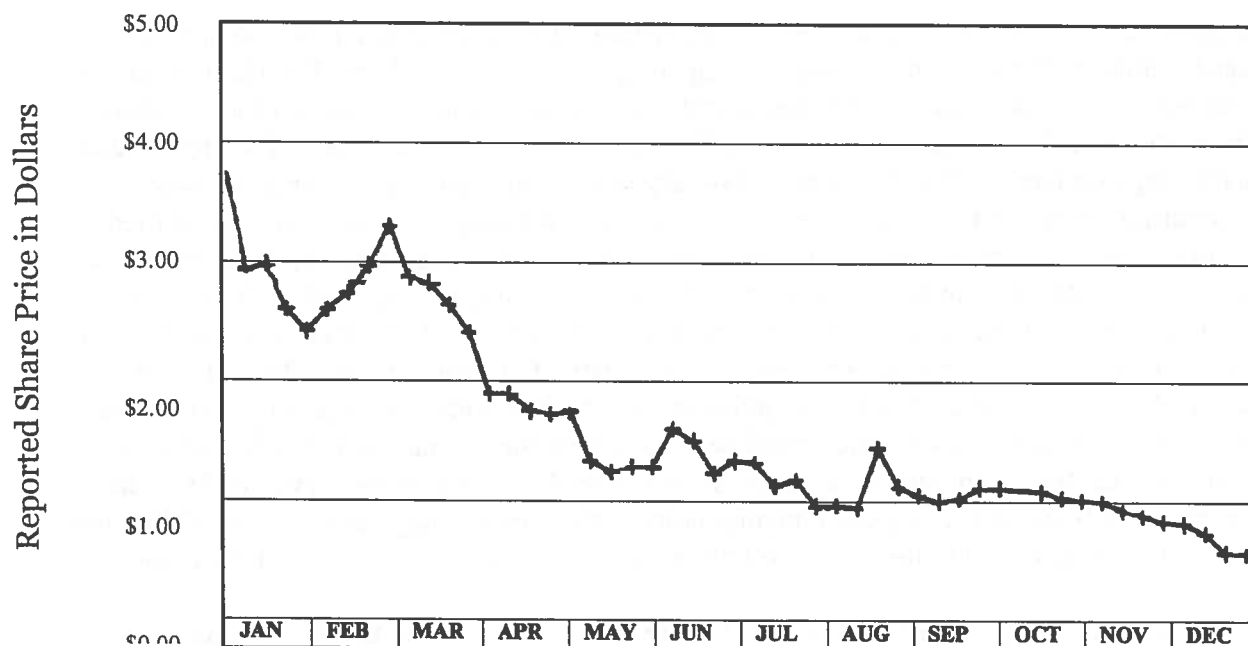


Figure 12, Compiled by Jeremy Mouat in 1997

### Sierra Grande 1883 Stock prices

The general stock market decline starting in December 1882 in mining stocks turned into a crash in 1883. The peak Sierra Grande price of \$7 in the fall of 1882 declined to \$4.50 a share in December after consolidation with the Sierra Plata. The basis of the late February rise is unknown, but the fall in late April was due to the suspension of the monthly 25 cent dividend. The August 50% rise was associated with Cope's taking of control from Wright on August 15th and the battle for control of the company. Modified from Jeremy Mouat's graph of Sierra Grande and Denver City 1883 stock prices.



The magnitude of the mining stock crash is demonstrated by the price of a reputable and well managed mining company. The leading mining company of South Dakota, The Homestake had paid almost two million dollars in dividends, but fell to a point where the value of all its shares combined (total market valuation) was only \$750,000 by the summer of 1883. The Homestake is still a thriving company and its Uranium subsidiary was a major mining company in New Mexico during the uranium boom. Clifford's book was a warning that unless the government made laws against deception and fraudulent promotion to get rid of the unscrupulous promoters, investors would not trust the mining industry. Without that trust, mining could not raise the capital needed for its long-term success. Clifford wrote in his 1908 book that he wrote *Years of Dishonor* in 1882. He was working in 1882 for the relatively unknown New Mexican, one of our greatest 19th century characters and manipulators, Steven B. Elkins, and others in Guanajuato, Mexico. Thus it is likely Lake Valley stock was not yet on the exchanges when he wrote the book and thus he did not include it as one of the great stock manipulations. Twenty five years later in his 1908 book on mining stock manipulations, the Sierra Companies of Lake Valley were the only companies named in the entire 400 pages of the book from this period of dishonor.

The San Francisco *Daily Exchange* (SFDE, 7/9/1883) carried an article titled "A Bubble Busted", in which it quoted from *The Mining Journal*, published by Wright to promote the Sierra Companies. Exactly when the battle between Cope and his allies to oust Wright started is not clear. It was sometime between the March 15<sup>th</sup> Board of Directors Meeting and the end of June 1883. The only explanation for Wright's captive journal publishing an article that said that the company was in very bad condition, was to drive down the stock price. This would allow Wright to buy enough stock at a cheap price to maintain control.

The latest issue of *The Mining Journal* stated the following about the Sierra Grande. Several large stockholders have been making desperate efforts to advance the price of this stock (in order to unload their holdings) by circulating false stories about the amount of money now in the treasury, the enormous shipments of ore from the mines, and the determination of the Directors to declare a dividend at an early day. The latter canard about the dividend has been circulated from week to week in spite of the repeated announcements by the President to every stockholder making the inquiry, that a dividend was utterly out of the question, there being no money whatever in the treasury where with to make one.

The cash in the treasury at this writing (Friday, 3 P.M.) Is less than \$500; in other words, next to nothing. Indeed, the Secretary informs us that had it not been for the liberality of Whitaker Wright, drafts on the company would have gone to protest fifty times during the past three months. (The Mining Journal, date not given, SFDE, July 9, 1883, p. 2)

The SFDE followed this quote with its own comments ridiculing Wright. Probably the SFDE was convinced that Wright was 'bearing' the stock. "It appears that all past dividends are due to the munificent Whitaker Wright, who advanced the company money whenever the treasury needed it, to be paid when the ore was taken out of the mine. Mr. Wright is certainly the most accommodating capitalist we have ever heard of, and the discovery of such a philanthropist is another evidence of Mr. Robert's great shrewdness." It also said that the Sierra Grande was \$75,000 in debt as well as only having \$500 in cash. An article from the Leadville *Herald* of July 28<sup>th</sup> reported that the Sierra Grande had \$215,000 in cash (EMJ, 8/4/1883). Though this

may have been an exaggeration the company was not broke in June when *The Mining Journal* published that it was broke. The August 1884 Report of the Board of Directors to the stockholders gives the cash on hand as of August 15, 1883 as \$52,911 (p.20). Thus either *The Mining Journal* story was a lie or July 1883 was a very productive month. The only likely explanation is that Wright was trying to drive down the stock from its already low levels. Wright's 'bearing' efforts appear to have been partially successful, causing the stock to lose a third of its value. **Figure 12** shows that the Sierra Grande stock price fell from \$1.70-1.50 in early June to only a dollar in July.

SFDE (7/21/1883) claimed that George Roberts made enough money on Lake Valley stock to give \$100,000 to Salmi Morse's show business in San Francisco. The SFDE (7/24/1883) quoted from *The Silver City Enterprise* the story of Miller taking back the Columbia Claim. When Roberts organized the Sierra Bella he knew that John A. Miller still owned one third of the Columbia Claim. John A. Miller finally sued for his 1/3 interest in the Columbia Claim and one third of all past production. In May the Dona Anna Court awarded Miller 1/3 of the past production, estimated at \$100,000. Miller went to Lake Valley to collect and manager Bunsen offered him complete title to the Columbia Claim in exchange for his 1/3 share of past production. Bunsen could not have done this without Wright's approval and that of the president of the Sierra Bella. Miller put a crew to work on the Columbia and in June discovered a new rich pocket of ore. (MR, 6/16/1883, SFDE, 7/24/1883). *The Republican* (7/7/1883) newspaper in Las Cruces gave a detailed account of Miller's take over of the Columbia Claim from the Silver City *Southwest* titled "Excitement at Lake Valley."

Mr. Robert Bunsen, superintendent and agent for the company, made the proposition that Mr. M. should take a deed for the entire mine for the damages for which he had obtained a decree, giving a receipt in full of all claims. ... On Saturday, Mr. M. put his men to work ... [and] in a very short time a large body of fabulously rich ore was struck, running into the thousands [of ounces of silver per ton] and equal to anything ever found in the district. The news spread like wildfire, and soon reached the ears of the Sierra Bella people. Prof. Endlich, assistant superintendent, with a force of men was at once sent to the ground, and in a preemptory manner demanded that Mr. Miller yield possession. This was promptly refused and the doughty professor had his men bring timbers and threatened to cover over the shaft, which was the only means of exit from the mine, to bury Mr. Miller and his men alive, unless they came out and yielded to his demand. The threatened parties remained firm, however, and retiring into the mine went on with their work. Finding that Mr. Miller was not to be bluffed, and further, that he (Mr. M.) had the sympathies of the miners who had gathered about, Prof. Endlich finally gave up the attempt at force. ... We presume the matter will now go into the courts. (*The Republican*, 7/7/1883, v. III, # 7)

Ownership of the Columbia Claim went back into the courts and the claim was put on the auction block. "The Columbia mine at Lake Valley, has been sold at auction to the Sierra Bella [sic. Grande] Company for \$30,500." (EMJ, 11/3/1883) The Sierra Bella did not have any money and later company reports show that the Sierra Grande bought the claim. Over a year later when the Sierra Bella had funds the Sierra Grande sold the Columbia back to it.

"The organ of the Sierra mines [*The Mining Journal*, probably the same late June issue that

attacked the Sierra Grande.], published in Philadelphia, bitterly attacked the Sierra Apache and Sierra Madre [sic. Sierra Grande or Sierra Bella] the other day, and showed that the financial affairs of these companies were in a most deplorable condition.” (SFDE, 7/21/1883) This was also part of Wright’s stock manipulation to force down price so he could buy enough stock to maintain control of the company. Though it may sound unrelated, Wright apparently got his friends in Silver City to put out a story to support his ‘bearing’ efforts. “New Mexico will receive another undeserved black eye ... [unless] the newspapers of this territory, and the mining journals in general, should expose the fraud to the public so thoroughly that the [Lake Valley] stock would become as worthless on the market as it is in reality.” Silver City *Enterprise* (SFDE 7/24/1883)

Valueless properties are thrown upon the market, and, by incessant newspaper puffs, and fraudulent reports, are sold to confiding speculators. We have an example of this in the Sierra mines of New Mexico, the stock of which was floated in Philadelphia by our old California operator, George D. Roberts, and which since have proven to be utterly worthless. If Mr. Roberts did not know the Sierras were frauds, he certainly was prudent enough to sell every share of stock he owned in them before the bubble burst. ... We are sorry to say that mining experts can always be found who will cook reports, and doctor maps, and “salt” assays at the direction of their employers. ... Smooth, plausible agents slip across the continent with a supply of maps and experts’ reports of worthless properties, and are greeted on the other side [of the country] by men as unscrupulous as themselves. The mine is sold to a syndicate or else put into a company at a fabulous rate, the stock manipulated until it is all unloaded at a big figure, when the promoters and the mine go out of sight together. (SFDE, 7/27/1883)

### Section 8: After the Stock Promoters: August 1883 to 1900

Rossiter Raymond took over management of the Chrysolite mining company in Leadville in 1880 to save his reputation. He gradually developed it into a paying mine on low-grade ores. The Chrysolite was one of the few cases out of the dozens of Roberts promotions where a mine later became a paying proposition after it had been gutted of high-grade ores during the Roberts promotion. The hope of the Sierra Companies was to follow the Chrysolite example and develop an efficient mine. The Roberts and Wright’s set-up at Lake Valley deceived Cope as it did most amateur observers and many professional miners and geologists. In 1881, Cope estimated that there was 70 million in silver ore there. Less than two million had been mined by the summer of 1883. Raymond had salvaged his reputation by showing that his estimates of the Chrysolite were not a lie and Cope also desired to defend his reputation. (MR, 8/4/83)

However, unlike Raymond, Cope had invested a major portion of his wealth in the Sierra company stocks. Cope continued to buy stock long after his initial purchases in the spring of 1881 and at least as late as October 1882 when the price was around \$5 per share. Cope’s financial survival depended on Lake Valley succeeding. In the summer of 1883, Cope and his relatives led a battle to remove Wright and his cronies from the management of the Sierra Companies.

News stories in *The Mining Journal* and other actions by Wright were blatant bearing of the stock and drove Sierra Grande stock down 40% from \$1.70 to \$1.00 in June 1883. Wright apparently had

to resort to these obvious tactics to get the price down. Wright apparently sold his large Sierra stock holding and probably made short sales around the early June high of \$1.70. He had to lower the price in order to cover short sales and to own enough shares to maintain control of the company. Wright's bearing of the stock was the last straw for Cope and a number of other stockholders and directors. Wright's most obedient directors for unknown reasons did not attend the July Board of Directors meeting. Cope and his relatives had a majority of the votes at that meeting and elected him president of the Sierra Grande. *The Mining Record* (MR, 8/4/1883) copied the announcement from a July 28<sup>th</sup> issue of the *Leadville Herald*. The article mainly poked fun at Cope for past overstatements on the amount of ore in sight, but said Robert Bunsen was retiring from the management of the company. EMJ (7/28/1883) had already said "We have it from a good source that the mine is pretty thoroughly 'cleaned out.' The manger, Mr. Robert Bunsen will leave Lake Valley on the 15th ult." [of August] (EMJ, 7/18/83) Bunsen was a loyal Wright man and was apparently fired by the new officers the moment they took over the company. His assistant Endlick was put in charge and Bunsen for purposes of appearances was given a month to get out of town. Again the departing manager did his Lake Valley boss's last command to 'bear' the stock at least two weeks before he had to be out of town. Wright made Bunsen superintendent of his Leadville mines after he left Lake Valley.

Cope's continued control was not certain. He had to survive the August 15th board of directors meeting and then the annual stockholders meeting in September which would elect new directors. How he managed to keep a majority at the August directors meeting is unknown. They may have meet at an unusual location. A year later the 1884 annual report (page 3) traced Copes election only back to the August 15<sup>th</sup> meeting. That may have been for accounting reasons as they apparently did not get control of the company books until around August 11, 1883. The battle to get enough proxies for the annual membership meeting in September raged on for a few weeks, but by September 1st Wright gave up the battle and withdrew his proposed slate of directors. Wright accepted defeat and for the first time the management of the Sierra companies concentrated on mining rather than stock manipulation. Bunsen though a Freiberg graduate and of good reputation was a Wright man. Bunsen immediately 'beared' the Grande stock upon leaving Lake Valley, telling the Socorro newspaper that all the rich ore had been removed. He then returned to working for Wright as general manager of Wright's two Leadville companies. Bunsen was still manager of the Denver City Consolidated and the Lee Basin when he died in 1887. EMJ's obituary for him said he was a close relative of the famous chemist who invented the Bunsen Burner. (EMJ, 10/1/1887)

Cope left for the west shortly after the August 15, 1883 board of directors meeting, and after doing business elsewhere, got to Lake Valley on September 23rd. The cover letter sent stockholders with the proxy for Cope's slate of candidates for the annual meeting stated simply, "We are authorized to announce that the ticket nominated by Mr. J. Whitaker Wright, has been withdrawn." (Sierra Grande, 1883b). A copy of the proxy, the form sent to the stockholders to sign and send back to the company giving their vote for directors at the annual shareholder meeting on September 26, 1883 at Lake Valley is **Figure 13**. The proxy lists the Cope slate of directors which were elected.


Examples of the various types of Sierra Company stock certificates are **Figures 14, 15, 16 and 17**. Due to the size of the certificates their captions follow the caption for **Figure 13**.

Cope only served as president of the Sierra Grande for three months. R. Pearsall Smith was elected vice president at the July coup d'état and the new board of directors elected on September 26<sup>th</sup> named Smith president at their first meeting on October 15, 1883. For the first time the new management at Lake Valley tried systematically and seriously to pursue mining on a long-term basis. Any equipment that was not necessary was sold. Efforts were made to reduce production costs in order to make low grade ores (40 ounce/ton or less) profitable and increased efforts were put into exploration.

Cope spent two weeks at Lake Valley, from September 23 to about October 9th (E. D. Cope Papers, letters #283 to # 287). Though Cope had been hostile to Wright for months, other investors still had to be convinced of Wright's manipulations. "It must be apparent very soon what a swindler Whit. Wright is, and how weak or mistaken are those who believe him honest." (E. D. Cope Papers, letter #283 to his wife, Annie, September 19, 1883 [# 283 - misdated by Osburn (1931, p. 287) as Sept. 10th])

"When I came here I expected to find things at a pretty low place. ... I will not go [to] the poor house yet a while though I know some people that ought to go to jail. As I suspected, the talk about the situation of the properties now [spread around for] the object to frighten stockholders into selling out, so that the mine miscreants could get possession & roll in ill-gotten gains. I take to myself the credit of having broken their game, & the same ver\_\_ [vermin?] will not try it again, if I can help it, anywhere, on anybody. Several of them, including W. W. [Whitaker Wright] dare not show their faces in this part of the country." (E. D. Cope Papers, letter #284, 9/24/1883, Osborn, 1931, p. 288) [miscreant -Someone who engages in evil or criminal acts. (Webster II, New Riverside Dictionary, Office Edition)]

Cope indicated to his wife that Bunsen was in on the manipulation and that the election of directors on September 26, only 7 days away, would keep his group in control. He felt that the Sierra Grande could be made into a profitable mining company and his investment salvaged. "There is a great deal of valuable ore here, & it is now being [developed?] on the principles, I first laid down. New exposures of it are being worked every day. We will have steady dividends." (letter #284, 9/24/1883, Osborn, 1931, p. 288) Cope still owned some of the Denver City stock, which was his first investment with Wright back in 1879 and he told his wife to tell a friend not to sell hers. However, by 1883 it was only worth a few cents per share. The Cope papers show that he returned to Lake Valley in April 1884 and again in February 1885.

<p><b>DIRECTORS.</b></p> <p>—</p> <p>JOHN S. HAINES,  WILLIS P. HAZZARD,  W. J. JENKS,  JOHN W. WRIGHT,  E. H. YARNALL,  E. D. COPE,  R. PEARSALL SMITH,  D. BRANSON,  STUART WOOD.</p>	<p><i>Know all Men by these Presents That</i></p> <p><i>of _____ do hereby</i></p> <p><i>appoint _____</i></p> <p><i>to be _____ Substitute and Proxy for _____ and in</i></p> <p><i>name and behalf to vote for the persons named on the margin hereof,</i></p> <p><i>at the election of Directors of</i></p> <p style="text-align: center;"><b>THE SIERRA GRANDE MINING COMPANY</b></p> <p style="text-align: center;">OF NEW MEXICO,</p> <p><i>at the meeting of the Stockholders of said Company, to be held for</i></p> <p><i>that purpose at Lake Valley, on September 26, 1883, and also to vote</i></p> <p><i>upon all questions submitted to said meeting, as fully as</i></p> <p><i>might or could were _____ personally present, hereby revoking all</i></p> <p><i>former proxies.</i></p> <p><i>In witness whereof, _____ have hereunto set _____ hand and seal</i></p> <p><i>this _____ day of _____ 1883.</i></p> <p style="text-align: center;">Witness present,</p> <p style="text-align: right;"></p>
---	---

**Figure 13: Sierra Grande 1883 Election Proxy Form.**

At the board of directors meeting in July Cope and his allied directors took control of the company and elected him president. In order to maintain control they had to defeat the pro-Wright directors at the annual stockholders meeting on September 26th at Lake Valley. This is the proxy sent to stockholders on September 4, 1883. It accompanied the cover letter mentioned in the text which told stockholders that Wright had withdrawn his slate of candidates. Copy from Robert Eveleth.

On the pages following these captions are examples of various stock certificates **Figures 14-17**

**Figure 14: Sierra Apache Stock Certificate, No. 654** To W. J. Martin for 100 shares dated April 26, 1882. Signed by J. Whitaker Wright as "V." [vice] president and Smedley as secretary. The advertisements appearing at this time (Figure 10) list Wright as a director of all four companies, but do not list a vice president for any of them. Wright may have been vice president of all of the companies. Copy from H. Milford

**Figure 15: Sierra Apache Stock Certificate, No. 1283** To W. J. Martin for 100 shares dated December 5, 1882. Signed by Cope as president and Smedley as secretary. Copy from B. Eveleth.

**Figure 16: Sierra Grande stock certificate - No. 5951** To H. Carlton Adams for 500 shares, stamp signature, Whitaker Wright as "v." [vice] president, by Geo. L. Smedley secretary, April 3, 1883, \$25 dollar par value. This certificate is not endorsed or canceled. Thus, it appears that the company issued new certificates when the par value was reduced and did not require that the old certificates to be handed in. Copy from B. Eveleth.

**Figure 17: Sierra Grande stock certificate - No. 17455** To H. Carlton Adams for 500 shares, signed by Vice President Jenks on July 12, 1886. New certificates were printed and issued following the reduction in par value from \$25 to \$5 dollars in July, 1884. New stock certificates were not printed following the merger with the Sierra Bella. Only a red stamp was put on the certificate that on February 4, 1886 the number of shares was increased from 400,000 to 500,000 shares. The additional 100,000 Grande shares were exchanged for the Sierra Bella stock. This certificate is not endorsed or canceled. Indicating that Adams did not pay the 30 cents a share and endorse his certificate over to the group forming the new company in May 1887, The Silver Mining Company of Lake Valley. About 20 percent of the Sierra Grande stockholders did not pay the assessment and get stock in the new company. Which was a prudent move as the new stock often sold for less than thirty cents, but eventually paid a total of 60 cents in dividends. Copy from B. Eveleth.



THIS CERTIFICATE REPRESENTS

*H. D. Martin.*

654

★ ONE HUNDRED. ★

SHARES

100-

COUNTED AND RECORDED BY THE GUARANTEE TRUST & SAFE DEPOSIT CO. THIS DAY OF APR 28 1882

250,000 SHARES  
PAR VALUE  
\$25 EACH

ON THE CAPITAL STOCK OF  
THE SIERRA APACHE MINING COMPANY

CAPITAL STOCK  
\$5,000,000.

MINES LOCATED AT  
LAKE VALLEY, NEW MEXICO  
COMPANY

shall be paid and unassessable, transferable only on the Books of the Company in person or by attorney on the surrender of this Certificate.

In Testimony Whereof the said Company has caused this Certificate to be signed by its President and Secretary and sealed with its Corporate Seal.

Philadelphia: Pa. 28th April 1882

*Wm. L. Emswley*

Secretary

*Wm. D. Wright*

President

INCORPORATED UNDER THE LAWS OF NEW MEXICO.





THIS CERTIFICATE ENTITLES

*W. J. Martin*

NUMBER  
1283

SHARES  
100-

★ ONE HUNDRED. ★

THE GUARANTEE TRUST & SAFE DEPOSIT CO.  
DA. OF DEC 8 1882

200,000 SHARES  
PAR VALUE  
\$25 EACH

ON THE CAPITAL STOCK OF  
**THE SIERRA APACHE MINING COMPANY**  
MINES LOCATED AT  
**LAKE VALLEY, NEW MEXICO**  
CAPITAL STOCK  
\$3,000,000.

Full paid and unassessable, transferable only on the Books of the Company  
in person or by attorney on the surrender of this Certificate.

In Testimony Whereof the said Company has caused this Certificate to be  
signed by its President and Secretary and sealed with its Common Seal.



*Philadelphia Pa. 5th Dec 1882*  
*Wm. L. Emsdley* Secretary  
*Edw. J. Cooper* President

INCORPORATED UNDER THE LAWS OF NEW MEXICO.





108

THIS CERTIFICATE ENTITLES

*W. C. Adams*

*Five hundred* Shares

SHARES  
- 500 -

NUMBER  
5951

CAPITAL STOCK  
\$10,000,000.

DEMINO OVERLAND STOCK CO.

400,000 SHARES  
PAR VALUE  
\$ 25 EACH.

THE SIERRA GRANDE MINING COMPANY  
MINES LOCATED AT  
LAKE VALLEY, NEW MEXICO

paid and unassessable, transferable only on the Books of the Company in person or by Attorney on the surrender of this Certificate.

In Testimony Whereof the said Company has caused this Certificate to be signed by its President and Secretary and sealed with its Corporate Seal.



Philadelphia, Pa. 3<sup>rd</sup> April 1883

*Geo. L. Smedley*

Secretary

*Michael Wright*

President

INCORPORATED UNDER THE LAWS OF NEW MEXICO.

RECORDED - INDEXED - DEPOSITED

THE GUARANTEE TRUST & SAFE DEPOSIT CO.  
COUNTED AND RECORDED BY  
DATE OF FILING





INCORPORATED UNDER THE LAWS OF NEW JERSEY

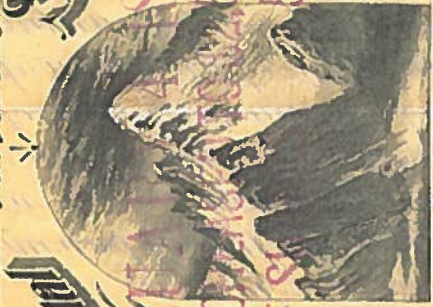
Authorized under the Laws of New Jersey

This Certificate  
entitles *H. Carlton Adams*  
to *Five Hundred* Shares



CAPITAL STOCK  
\$2,000,000

400,000 SHARES  
PAR VALUE  
\$5 EACH.



Stock of

GRANITE

SILVER

MINING

COMPANY

full paid and unassessable, transferable in person or by Attorney only on the books of  
the Company on surrender of this Certificate.

In Testimony Whereof, the said Company has caused  
this Certificate to be signed by the President and Secretary.



*Philadelphia, Pa. July 12 1886*

*E. H. Garrall*

SECY.

*Wm. J. Seale*

VICE PRES.

THIS  
CERTIFICATE  
NOT VALID  
UNLESS  
COUNTERSIGNED  
BY THE  
GUARANTEE TRUST  
AND SAFE  
DEPOSIT CO.  
OF PHILADELPHIA.

THE GUARANTEE TRUST & SAFE DEPOSIT CO.  
PHILADELPHIA  
DAY OF JULY 1886  
COUNT SIGNED AND REGISTERED BY  
SECRETARY





### Lake Valley and Cope's Financial Ruin

Cope's heavy investment in Lake Valley combined with his losses in Wright's other promotions, Denver City and Lee Basin caused his financial ruin. Biographies and articles on Cope state that by the late 1880s Cope had lost his fortune due to investments in mining stocks without naming the stocks. The Cope biography in the appendix gives more information. Cope's comments to his wife Anna were optimistic and indicate that his financial condition was mainly dependent on his Lake Valley stocks. He wrote, "I will not go [to] the poor house yet." (letter #284, 9/24/1883), based on his new found hope in Lake Valley. The continued decline in Lake Valley stocks in the next few years was the final blow to the fortune his father left him in 1875.

Ultimately Cope was forced to sell his fossil collection to the American Museum of Natural History, which changed the course of American Paleontology. Paleontology had been dominated by a few wealthy men such as Cope, who developed their own personal collections. The sale of his collection led to research institution fossil collections becoming the dominant factor in Paleontology. Thus Lake Valley is responsible for the American Museum of Natural History becoming the dominant institution in Paleontology in the United States. Lake Valley also led to Coelophysis, recently voted by the New Mexico State Legislature as the New Mexico State Fossil, being in New York. (Spencer Lucas, New Mexico Museum of Natural History paleontologist, personal communication, 1997) Coelophysis is the symbol of the New Mexico Museum of Natural History and the most widely known vertebrate fossil associated with New Mexico. Coelophysis was discovered by a Cope employee northwest of Espanola, New Mexico and named and described by Cope (1889).

Cope wrote to Benjamin Silliman after being in Lake Valley ten days that he had examined the Last Chance and Comstock Claims as the new concept of the ore body indicated it might be under them. "These claims belong to [the] series west of the R.R. [Rail Road] ["& justified" - crossed out] my communication to the companies to buy them of Roberts is now justified." (Silliman Papers, Cope, 10/1/1883) This statement could refer to a recommendation as early as 1881 as these claims were reported as owned by the companies then. However, as G.D. Roberts's deeds to many claims were not filed with the Dona Ana County clerk until 1884 it is possible that Roberts kept title to them until 1883. The Sierra Grande purchased the Arizona and Little Boy claims which it had claimed title to since early 1881 long after the mill was built on them. The 1883 Annual Report states that unnamed claims were purchased and the 1884 annual report names them. Thus apparently Roberts did not surrender the title to them until paid additional money for the two claims. The Sierra Grande paid \$31,000 for them sometime between August 1882 and August 1883. Cope accused Bunsen of coordinating with W.W. to "freeze out the stockholders". Cope felt Bunsen worked with Wright from April to July to decrease production in order to prevent dividends and that Bunsen dug the drifts above and below the vein and walled up good ore faces. "In this W.W. & B. were aided by our late [Sierra Grande] president who was completely hood-winked by W.W., & wrote Bunsen that ours (sp.) smassatring (sp.) [two words not legible] from W.W. must be considered as coming from him!" (Cope Papers, letter #283) Cope believed there was good ore in the mine and that Endlich was shaping up the operation.



The press poked fun at Cope's taking over of the Sierra Companies. "Professor E. D. Cope elected president of Sierra Grande Company. Having reported 70 Million in sight less than a year ago and only 2 removed. He should have no difficulty removing the other sixty-nine [sic. 68]." (MR, 8/4/1883, from *Leadville Herald* of 7/28/1883) The Leadville paper praised Robert Bunson's management and that he would leave cash on hand for the new management to pay in a dividend. These statements, probably from Bunson, were in conflict with other statements he gave the press.

The EMJ (9/22/1883, p. 189) reported very little trading in the Sierra Grande stock was occurring, but the price was steady at \$1.10 a share as the September 26<sup>th</sup> annual meeting approached. The *Messilla News* reported a total work force of 200 men and that Endlich was about to start prospecting with the diamond drill. (MR, 9/29/1883, p. 252). This was not the first use of diamond drills in New Mexico as they had been used two years earlier by the Plymouth Rock Company near Silver City. (EMJ, 2/14/1880)

A few diehard Wright supporters made hostile comments at the annual meeting at Lake Valley, but Cope's allies had more than enough proxies to elect their slate of directors. (The Republican, 10/6/1883) The new directors elected at the annual meeting were Edward D. Cope, John S. Haines, William J. Jenks, Ellis H. Yarnall, Joseph P. Brosius, Samuel Alsop, Jr., F. M. Endlich, F. W. Taylor, G. G. Posey and R. Pearsall Smith. They did not elect new officers replacing those elected in July until October 15, 1883. R. Pearsall Smith was elected president, but resigned from the board in December. Ellis H. Yarnall, vice-president, became president in December. Jenks was treasurer and Francis Bacon secretary. The Cope group had been in control for nine weeks and prepared and sent out dividend notice number seven, with the same date as the annual meeting, September 26, 1883. They may have promised this dividend in order to get support from some wavering stock holders and to try to get the stock price back up to its early June level of \$1.70. The dividend notice carried apologies for past mistakes and a summary of the financial condition.

The Managers of the Sierra Grande Mining Company express their regret that in the spring they yielded to the earnest wish of a portion of the Stockholders and Managers for too frequent dividends... and the developments necessary for maintaining a future supply of ore were not fully made. ... the mill required a large amount of repairing, and entirely new prospecting work had to be done. A detailed financial statement and report are in preparation. ... the company is entirely free from debt. ... Cash in Bank and at Mint [plus September receivables for the last of the tailings pile and ore to be shipped to Pueblo will be] \$229,000 (Sierra Grande M.C., Dividend Notice No. 7, 9/26/1883).

Thus after paying the \$100,000 dividend they approved, they were down to only \$129,000 in cash. The dividend notice announced the arrival of a diamond rock drill which would save greatly over the old method of having to sink a shaft to discover new ore bodies.

The report to the Stockholders prepared a year later in August 1884 gives the best summary of events since the Cope management took over, but starts accounting on August 15, 1883 rather than July. The exploration effort found at least one new moderately rich deposit in the fall of 1883. "The Sierra Grande Shaft No. 11 has yielded 166 tons over 100 ounces, located 1/2 way

between office and boarding house under the road.”(EMJ, 12/1/83, p. 46) Efforts to economize also made some progress. The mill was only able to process 40 tons of the low-grade ore per day and thus ore had piled up at the mines. Endlich received orders not to mine any more low-grade ore except as necessary to remove high-grade ore that could be sold to the Pueblo smelter. This decreased the need for labor and Endlich discharged 25 men from Sierra Grande, 35 from the Sierra Bella and 10 from the Sierra Apache. "The force at present is 120 men on the Grande, 30 on the Bella and 10 on the Apache."(MR, 12/15/83, p. 433 reported in the *Lake Valley Herald*). The November ore production was 590 tons from the Grande, 131 from Bella and 10 from Apache.

A letter to the *Las Cruces Republican* reported that the Frazier & Chalmers dump cars had arrived which could be run directly into the mill from the mines. (MR, 12/22/1883, p. 450) This would save considerable labor as ore would no longer have to be reloaded into wagons to take it to the mill. The laying of track between the shafts and the mill allowed cars to carry the ore from the mine to the mill and these cars were one of many economizing actions taken. [One of these Frazier & Chalmers dump cars is still in a partially collapsed stope northwest of the Bridal Chamber.]

The public was periodically reminded of the bad history of Lake Valley, but attacks in the national press ended. An article titled "Wild Cats" in the *Mining Record* (12/29/1883, p. 458) named the State Line group as *primus inter pares* - or the first among equals. It did not name Lake Valley but said four of these predatory classes of mining stocks were still on the exchanges. After dividend 7, no more were forthcoming and the stock continued its decline, falling another 35% by December 1883. The New Mexico Press continued to support Lake Valley. The *Deming Tribune* ran a long letter stating that the mines now looked very well managed. This article and a letter were sent to *The Mining Record* which then wrote that the "Sierra Grande stock has been run down to 70 cents, as it claims, by misrepresentation of a member of a former management, who once measured up in the mine \$5,000,000 in sight, and so reported." (MR, 12/29/1883). Other accusations of mismanagement by outsiders were also reported. The general mining stock market was in collapse, but apparently someone was still 'bearing' Grande stock.

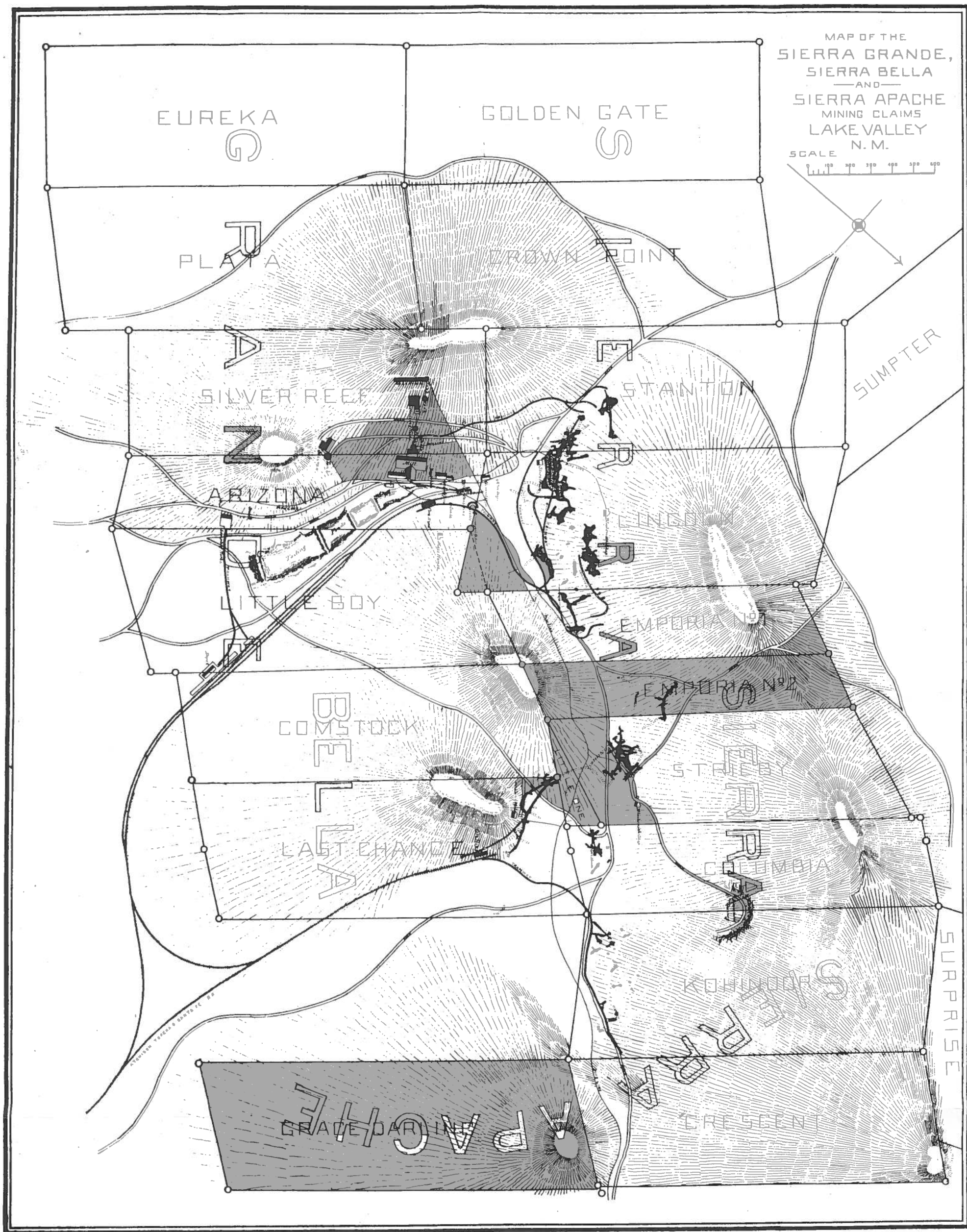
The grading for the branch railroad from Nutt to Lake Valley started in the fall of 1883. (MR, 12/29/1883, p. 462-3). The railroad would greatly reduce transportation costs, which were in the low twenty-dollar range per ton. Thus, it only paid to mine high-grade ore until the mill functioned better. Endlich, by February 1884, had lowered operating costs by reducing the labor force and more improvements were expected.

The total expenses of all the mines has been reduced to \$32,000 a month, of which \$22,000 is on account of the S Grande. There will be a further reduction of \$2,500 when the railroad reaches the mines and of \$1,500 additional when the tramways are in operation. S. Bella now out of debt with \$40,000 in treasury. Dr. Endlich proposes to mine systematically that is why large amounts of rich ore have not been removed. (SFDE, 2/19/1884 from *Lake Valley Herald*).

The railroad was finished in the spring and *The Black Range* (4/18/1884, p. 3) reported that there were now two separate passenger trains making the round trip from Nutt to Lake Valley each

day. Prior to that passenger cars were simply added to the freight trains. In a possible claim to local fame the *Engineering and Mining Journal* reported, "A movement has been started in Lake Valley to create a New County." (EMJ, 2/23/1884) Thus it is possible that Sierra County's name comes from the Sierra Companies of Lake Valley, but this question was not pursued with historians of Sierra County.

In late August 1884 the directors of the three Sierra Companies issued a 50-page report covering the developments and financial reports of the three companies. It also had a two-page map of the properties showing all of the tramways, roads, railroad and the areas that had been mined. This map is **Figure 18** in this report.



**Figure 18: 1884 Map of the Sierra Company claims and mines.**

Large folding map from the "Report of the Board of Directors of the Sierra Grande, Sierra Bella and Sierra Apache Mining Companies of Lake Valley, New Mexico, to their stockholders, for the year ending August 10, 1884." This map shows the underground mined areas in black. When the 1893 map published in Clark (1895, Plate IV) which is Figure 4 in this report is compared to this map it shows the areas mined during the last nine years of major silver mining. During these years the mines were extended further down the ore beds from the outcrop areas mainly on the Emporia 1 & 2, Last Chance and Stanton claims. The T. & W. Sampling works is on the east edge of the Arizona claim and connected by a tramway to the railroad station. The post-1882 townsite is to the left of the Little Boy and Comstock Claims. From the Library Company of Philadelphia.

A summary of this report was published in the *Engineering and Mining Journal* (EMJ, 9/27/1884, pp. 206-207) and a copy of the report is in the Library Company of Philadelphia collection. Most of the officers of the three companies were common to all of them and consolidation of the three companies was recommended to the stockholders. The companies had gone to an accounting year of August 11 to August 10 following the take-over by Cope in July 1883. Brief summaries of the three company reports are as follows.

The Sierra Grande Mining Company 1884 Annual Report (pp. 1-23)

The board was organized on October 25th, 1883, and the officers after Smith's resignation were President, Ellios H. Yarnall; Vice-President, William J. Jenks; Treasurer and Secretary, Francis Bacon. The year was said to have largely been spent on preparation and re-organization for systematic mining. That so much work had to be done to accomplish this that it was not until May 1884 that a decided increase in production occurred. The successes of the year were the diamond drill and the Frue Vanners, for concentrating the product at the mill. The smelter built by the past management was in such disrepair and of such an antiquated design it was not worth repairing. Thus the company made a contract with the Pueblo Smelting and Refining Company and has shipped all of their smelting ores there. This has been a major source of income even though transportation costs are a major problem. Recently a contract had been made to ship low-grade ores. The railroad from Nutt Station was completed about April 1st. The Sierra Grande loaned the A.T. & SF \$15,000 and the Sierra Bella \$10,000 for this construction, most of which has been now recovered in freight credits. Tabor and Wurtzebach were paid \$21,900 to settle their law suite on the sampling works. [Abe Spiegelberg, the Santa Fe merchant was also a stockholder in the sampling works (*The Republican*, 10/6/1883).] On July 2, 1884 the directors decided that enough funds were available for a dividend and declared a \$0.15 per share dividend. The meeting of stockholders on July 1st approved a reduction of the capital from ten million to two by changing the par value from \$25 to \$5 per share. There were 286,301 shares cast for the reduction in par value and none against. "The reduction has been completed and the par value of each share is now five dollars - the number of shares (400,000) of course remaining unchanged. The effect of this change upon the credit of our Company has been even more marked and more favorable than was expected." (p. 6)

All expenses were fully paid out of the past year's earnings and there were no debts. The company had about \$84,000 in the treasury and \$172,000 in ore delivered to Pueblo but still unpaid for. The closing optimistic summary was that the mines were in the best condition ever. The gross values of ores produced, excludes refining losses and shipping costs were: ores shipped \$578,580 and milled \$100,000 and the ore on hand was estimated at \$240,000. The actual amount earned from ores shipped for smelting was \$481,070 and the bullion from the mill was \$64,893. The mill silver losses and operating cost used up 35% of ore values. The ores smelted produced 8 times the return from the mill.

The Sierra Bella Mining Company 1884 Annual Report (pp. 26-37)

The board organized on October 25th, 1883 was: President, Ellios H. Yarnall; Vice-President,

Edward D. Cope; Treasurer, William J. Jenks and Secretary, Francis Bacon. Last September when the new management took over the debt was \$26,000 and it increased until December due to low production. In December a large body of rich ore was struck in the Last Chance and by March the company was out of debt. The Columbia Claim, which the Sierra Grande bought back from Wilson at the court sale, was acquired from the Grande by paying all of their costs of acquisition, which was \$33,550. On May 1st a dividend of 15 cents a share was paid. This was the first dividend ever paid by the Sierra Bella, Dividend No. 1 totaling \$30,000. At the July first stockholders meeting 2/3 of the stock was voted to reduce the par value from \$25 to \$5 per share. A branch railroad from the line to Lake Valley has been made to the Bella mine and tramlines built to other workings. A diamond drill has been purchased. The rich ore body on the Last Chance was exhausted in June, but low-grade ores are being worked in the Columbia and Strieby Claims and sold to the Pueblo smelter. A steam hoist was erected at shaft No. 2 on the Last Chance and water pipes were laid to the new steam boiler for the shaft hoist. During the past year extensive work has been done on the Bella properties, amounting to about 4,000 linear feet of shafts and drifts. The cash return for the year from ores shipped to the smelter was \$237,675 and from the mill experiment \$4,043. The present low output is expected to only be temporary. (pp. 30-37)

The Sierra Apache Mining Company 1884 Annual Report (pp. 38-47)

The board organized on October 25th, 1883 was: President, Edward D. Cope; Vice-President, Ellios H. Yarnall; Treasurer, William J. Jenks and Secretary, Francis Bacon. As the mines failed to turn out sufficient shipping ore to pay expenses they were ordered closed on May 31, 1884. The only work since that date had been exploration with a diamond drill which to date has not discovered any high-grade ore. The new contract with the smelter will make a considerable amount of low-grade ore profitable to ship. The majority of the ore on the property is of too low of a grade to pay to ship. It is recommended that the stockholders of the Sierra Apache consider consolidation with the Sierra Grande as it owns the mill and water supply system. Work on the property prior to August 1883 was largely confined to the bed on the Kohinoor and Crescent claims. Income for the year was \$17,401 plus about \$2,035 in ore receipts sold to the Benson [Arizona] Smelting and Refining Company prior to October 1883.

The *Engineering and Mining Journal* in addition to the 1884 Annual reports had some communication with the Lake Valley manager. The article summarizes the situation by saying that the "Bonanza Craze" is over and the companies are now concentrating on making a profit out of lower grade ores. Endlich said 25 oz. ore was profitable, but 15 oz. ore was not profitable as it cost \$17 to \$18 per ton to process ore at the mill. The old waste piles at the mill contained 60 ounces of silver per ton or a total of about \$500,000. These piles were produced when the prior management operated their Boss process. [The estimate of 60 ounces of waste per ton by the old mill was high, but it shows why ores of less than 60 ounces per ton were not profitable to mine unless shipped.] The Frue concentrators have paid for themselves in 3 ½ months of operation. Cost of shipped ore is \$22/ton so only ore over that are of any value. Low-grade ore (less than 40oz/ton) made up 75% of last year's production. Endlich listed the high-grade pockets found in the past as: Grande No. 7, 10 and Bridal Chamber, Columbia mine on Bella and



No. 1 on the Apache. The total income for the three companies for the year (9/1883 to 9/1884) was \$453,055.89. The product of the mill with the concentrator was given as \$211,000. Major expenses were \$131,000 for operations and \$160,000 for div. 7 and 8. The diamond drill cost, \$4,500 and \$21,900, was paid to Taber & Wurtzebach to settle their lawsuit. (EMJ, 9/27/1884, p. 206-7):

The Mining World in November reported that there were 300 men working in the mines producing 50 tons of ore a day and that the monthly pay roll was \$30,000. "These mines have produced more silver than any other district in the territory and the mines have never presented a more favorable showing for continuance of a large output than at the present." (MW, 11/1884) This optimism was short lived and production fell dramatically a few months later. Declining ore values in the spring of 1885 lead to bullion production not equaling expenses and the mines were shut down on May 14th until a new lixiviation plant could be installed. (EMJ, 5/19/1885 from Socorro *Bullion*) The declining grades of ore made refining by the old amalgamation process in their mill or their smelter no longer profitable. The estimated cost of a chlorination and lixiviation plant to treat the low-grade ores profitably was estimated to be \$40,000 to \$50,000. (EMJ, 6/20/1885). An informal meeting of stockholders in July voted that they should spend the necessary funds to build a leaching-works, on Russell's improved process, as that was the only way to make the lower grade ores profitable. They were told it would cost less than 2/3 of the cash surplus of the company, which was \$91,000. The meeting also recommended that the Sierra Bella be consolidated with the Sierra Grande on a basis of one Sierra Grande share for every two Sierra Bella shares. (EMJ, 8/29/1885)

Cope and his allies had total control of the company until 1886. The last listing of officers located is in the August 1885 Annual Report. Ellis Yarnall, Cope's cousin was president of the Sierra Grande and Sierra Bella and VP of the Sierra Apache. Cope was president of Sierra Apache and VP of Sierra Bella and a director of the Sierra Grande.

Endlich pursued an active exploration program with the diamond drill on the property of all three Sierra companies from September 1884 through April 1885. On the Sierra Grande a total of 1,012 feet of drilling was done which located a total of 146 feet of ore (1885 Report, p. 9) On the Sierra Bella 2,327 feet of drilling located 65 feet of ore (1885 Report, p. 22) and on the Sierra Apache 423 feet of drilling located 16 feet of ore (1885 Report, p. 29).

There was a steady decline in the grades of ore mined, partly due to Endlich's reversing the previous practice of only removing the richer grades of ore. They now mined all of the ore and stacked the lowest grades for late use.

Starting in October 1884 the expenses of the Sierra Grande exceeded the income from ore sales. They had been employing between 120 and 165 miners, but the board voted on April 1, 1885 to reduce the work force due to the operating loss. The work force was reduced to 50 men on April 1<sup>st</sup>, but the continued loss caused the board to entirely suspend mining on May 13, 1885 when all miners were dismissed. Endlich had introduced a number of changes during the year to reduce operating costs. He had continued to extend the tramways, the rail lines from mines to mill

which now totaled 3,710 feet of tracks. The tramway and the small hoisting engines he acquired reduced handling and transport costs. Endlich wrote that he had reduced the water supply costs by about 30 percent since he took over two years earlier. He had done this by extending and improving the water recovery in the mines. The pumping station about a mile from the lake continued to be used. Two efforts were made to increase water sources. The company had purchased with "U. S. Government scrip nearly the whole of the body of water known as 'The Lake,'." (p. 10) The mine foreman, Ferguson had located the Annie P. Claim and turned the property over to the company for a nominal consideration. The Sierra Grande now held a total of 12 claims. The Annie P. had been acquired not for its mining potential, but as a possible site for a good well. Endlich built a bunkhouses capable of housing 70 men during the year as well as a new underground powder-magazine capable of holding 40,000 lbs.

Faced with the declining value of ore mined the company lowered the only expense which could easily be reduced. The company reduced the miners wage from \$3.50 to \$3.00 per day and laborers from \$3.00 to \$2.50 per day (1885 Report, p. 8). This apparently occurred without a strike or comment in the press. Probably due to it occurring at the same time they drastically lowered the work force in 1884 or possibly due to the use of a large number of Mexican miners. Wage reduction was a common practice in western silver mines as ore values or prices declined. Labor strife and strikes were more often the result of management lowering of wages than a demand for new increases. Miners wages were gradually reduced from \$4 or more to \$3 or less in the last three decades of the 1800s.

The August 10, 1885 Annual Report to Stockholders gives a detailed discussion of production, costs and income. The Sierra Grande shipped 13,820 tons of ore which contained 458,000 ounces of silver. "For this amount of ore, the sum of \$204,295.29 was received in payments. It therefore cost \$19.85 per ton to covert the ore into cash." (p. 11) The \$19.85 per ton was total costs, mining, overhead, transportation to Pueblo and the smelting. The gross value of the silver shipped was put at \$495,000 which indicates that the price of silver they used was \$1.08 per ounce. The receipts from the Pueblo smelter were \$317,351 which was \$113,056 more than the \$204,295 reported on page 11 as ore income. (p. 14 and 17). No reconciliation or explanation for these contradictory numbers was found or could be made. The total cost of mining supplies and wages for the year was given as \$169,749 (p. 16), but total monies sent to the mine manager (Endlich) during the year as \$254,461 (p. 17). Receipts for the year were 317K, and total costs 274K leaving a net profit of 43K. The balance sheet for the year gave expenses plus dividend No. 9 of \$100,000 on September 5, 1884 a balance of \$74,922 dollars in the treasury. This was ten thousand dollars less than they started the year.

The table listing assets and expenses during the year gives the costs as carried on the books of the Sierra Grande. It shows they paid \$31,696.35 for the Arizona and Little Boy claims, and as these claims are not listed under assets in the 1884 Annual Report it is assumed they purchased them during the year from Roberts. The company had told the public they owned the claims since its founding in 1881, but apparently Robert did not hand over the deeds until years later. Another entry in the list of company assets is the "Othello Mine - \$7,635.20" (p. 16). The only known Othello Mine in New Mexico is the patented claim of that name in the Cooks Peak



Mining District, eighteen miles by road southwest of Lake Valley. The Othello claim was a galena deposit mined only for its lead content. It had been selling lead to smelters since 1881. In order to smelt most Lake Valley ores you had to add lead to them. Probably the Sierra Grande purchased the Othello Mine in anticipation of increasing smelting at Lake Valley. This reference in the annual report was the only item found linking the Othello Mine with Lake Valley. The costs and book value placed on improvements was as follows: Smelter and cupel furnace - \$17,724, Mill and machinery - \$105,976, Sampling mill- \$21,863 [The price paid Tabor and Wartzebech to settle their law suit.], Water Works - \$56,546. The importance of a water supply to the company is demonstrated by their having spent half as much on it as the mill

The 1885 Sierra Bella Annual Report said their work force was cut to 12 men in late 1884 and that these were released when the mines closed on May 13, 1885. Mining was mainly carried out on the Columbia and Emporia No. 2 claims and no ore bodies of significance were discovered. They shipped 2,547 tons of ore whose gross value was \$85,106 and for which they received \$35,056. (p. 23) However, balance sheets give total receipts from ore sales as \$36,579 (pp. 24-25) so apparently \$1,500 was obtained from ore not shipped, which may have been refined at Lake Valley. Expenses for the year exceeded income by two thousand dollars leaving a cash balance of \$22,590. Under a heading of "Law Suits" was the following. "During the past year the real estate located in Silver City, which was taken as part payment for the original purchase money of Columbia claim, was acquired by full title to the Sierra Bella Mining Co. The property thus acquired produces a fair rental and can probably be sold at an advance at any time the Company may elect. The present market value of the property may be quoted at \$12,000." (pp. 22-23) In the table of assets is "Real Estate Silver City (payment on account) - \$2,837.00" If the "original purchase money of Columbia claim" refers to the 1881 Roberts purchase of the Lake Valley Mining Company then the Silver City property was part of payment for its stock that was somehow recovered. It could also refer to the law suit by Miller.

The Sierra Apache 1885 annual report said they had done no mining on their property during the year. They had leased the property to A. W. Geist of Pueblo, Colorado in December 1884. He had worked the property continuously since then, probably even after the Sierra Grande and Sierra Bella companies let all of their miners go in May. Geist's output was small. He only shipped 2,787 tons of ore and about 450 tons remained on the dumps. They had received only \$1,000 from Geist. However, that exceeded their expense during the year and reduced their indebtedness to the Sierra Grande to only \$9,803 in August 1885.

An Informal meeting of the stockholders of the Sierra Grande and Sierra Bella companies in Philadelphia on May 14, 1885 approved the merger of the two companies. The meeting also approved the building of a new mill to work low grade ores. In July a contract was awarded to the Colorado Iron Works in Denver to build the mill at a cost of \$42,000. (1885 Report, pp. 5-6) The *Mining World* announced the directors elected by the three Sierra companies at their annual stockholders meeting at Lake Valley on September 30, 1885. The Sierra Grande directors elected were: E. H. Yarnall (Cope's cousin), Joseph P. Brosins, Wm. J. Jenks, Wm. C. Smyth, T. W. Guthrie, G. G. Posey and W. C. Hadley of New Mexico. The board elected for the Sierra Bella were: J. Haines, E. D. Cope, W. J. Jenks, E. H. Yarnall, W. C. Smyth, J. B. Mellor, of

Philadelphia and G. G. Posey, J. B. Guthrie and W. C. Hadley of New Mexico. The Sierra Apache directors elected were: J. H. Haines, E. D. Cope, N. A. Duhring, W. Jackson, C.I. Middleton, I. Wood, of Philadelphia, and G. G. Posey, J. B. Guthrie and W. C. Hadley, of New Mexico. (MW, 10/?/1885) Though J. B. Mellor was only elected a director of the Sierra Bella he apparently became a director of the Sierra Grande when the two companies were combined in February 1886 and was elected president of the Sierra Grande before September 1886. The stockholders also passed resolutions for the consolidation of the Sierra Grande and Sierra Bella and commended Endlich for his management of the mines. Cope's election to the board of directors of the Bella and Apache in the fall of 1885 is his last known role in management of the companies.

No copies of annual reports were located after the August 1885 Report and information is sketchy for the remaining year and nine months of operation. The August 1884 Sierra Grande dividend No. 8 of 15 cents a share was followed on September 5, 1884 with dividend No. 9 of 25 cents a share (\$100,000). Dividend No. 9 was the last dividend ever paid by the Sierra Grande, thus there were little or no profits after September 1884. The silver content of the ore continued to decline and Endlich was overly optimistic on the operation of the new mill in 1884. In December 1885 the *Mining World* reported that the mines were only worked eight months during the year 1884-1885. That exact period covered by these comments is not clear, but the companies dismissed all their miners on May 14, 1885. The *Mining World* story said that the Sierra Grande and Sierra Bella combined produced 23,000 tons of ore that averaged 27 ounces/ton. By December 1885 there was only \$67,000 in the treasury. This money was to be used to build a new mill to handle ore at the rate of 100 tons per day. The ore on the dumps was reported to be worth \$115,000. (MW, 12/1885)

In the spring of 1886 the consolidation of the Sierra Bella into the Sierra Grande was completed. This consolidation of the two companies was approved at the annual stockholder meeting in September 1885. The Engineering and Mining Journal reported that the merger was expected to be completed in one month (EMJ, 10/10/1885), but was not completed until February 4, 1886. The Sierra Grande issued 100,000 new shares of stock for the 200,000 shares of Sierra Bella stock. Some contemporary reports incorrectly reported that the Sierra Grande purchased the Sierra Bella. The two companies consolidated, with the Sierra Bella stockholders getting one share of Sierra Grande for every two shares of Sierra Bella stock they owned. This increased the total number of Sierra Grande shares to 500,000. The Sierra Company did not print new stock certificates after the merger with the Sierra Bella. The old stock certificates issued after the reduction in par value to \$5.00 continued to be used. Stamped on the certificates in red was "FEBRUARY 4, 1886, CAPITAL INCREASED TO \$2,500,000, NUMBER OF SHARES 500,000." This is seen on Sierra Grande certificate No. 17455 to H. Carlton Adams, dated July 12, 1886, **Figure 17**.

No mention of the Sierra Apache company was found after the 1885 annual report; it just disappears. The Sierra Apache was the poorest of the original 4 sisters, and often in debt to the Sierra Grande. Its debt as of August 1885 to the Sierra Grande was \$9,803. It may have been purchased for a very small sum by the Sierra Grande or foreclosed on for unpaid debts. All but

one or two of its directors had always been directors of the Sierra Grande and there may have been an informal transfer of property. It may also have simply gone out of existence as proof of labor was apparently not filed on its claims, allowing them to lapse. When the claims lapsed was not located in records. Walter C. Hadley who had been manager at Lake Valley for the Sierra companies and whose responsibility it would have been to file the proof of labor on claims each year may have deliberately let the Sierra Apache claims lapse. Less than a year after the creation of the Silver Mining Company of Lake Valley Hadley filed a new claim on the Kohinoor claim on March 24, 1888 and changed the claim's name to the Apache Claim. On the same day he filed a new claim on the Francis Bacon, named for a Sierra Grande secretary and changing its name to just Bacon Claim. Thus the property of the Sierra Apache company became that of the Silver Mining Company of Lake Valley by virtue of new claims. Hadley also failed to file proof of labors on at least four Sierra Grande claims on which he filed new claims in 1886 and 1887.

The inappropriateness of the earlier mills kept being mentioned in the press along with the plans for a new leaching mill. The Boss continuous process mill in 1881 was built "under the mistaken notion that the ore was all free-milling and easily crushed." The tailings from this mill were reported to contain as high as 60 ounces per ton of silver and the tailing were later sold to the Pueblo smelter. In addition, the owners did not recognize that their ore did not have enough lead to be smelted without purchasing lead. Roberts and Wright first built an amalgamation plant when their ores were not suitable for amalgamation and then an archaic type of smelter that functioned poorly. The press reported that the new leaching plant should be appropriate to the Lake Valley ores.

The new plant was built to use "Russell's Improved Process" by the Colorado Iron Works in Denver and shipped on November 3, 1885. (EMJ, 8/29/1885, 11/21/1885) It was not completed until February and was rejected after a ten-day trial run, but was conditionally accepted in March 1886 by the committee appointed to approve it. This committee consisted of Walter C. Hadley, John B. Miller and C. H. Russell (EMJ, 2/6/1886, 3/13/1886, 3/27/1886) C. H. Russell may have been the inventor of the process which later was known as the "Russell Process." The chlorination-lixivation process did not work at Lake Valley and was never perfected well enough to be widely used. (Bob Eveleth, P.C.) The ore treated at the lixivation-works was taken from the old dumps at the mines and the only mining was a small amount of prospecting. Walter C. Hadley replaced Endlich as manager on June 1, 1886. Endlich experimented with the Russell process mill for two and a half months before he left and the total cost for treating 1250 tons of ore was \$19,013 or \$15.21 a ton. The silver recovery from pit charges was 80 to 85 percent. The results improved toward the end of this experimental period. Endlich said the flue-dust chambers were not large enough and that most of the flue-dust was put in bags for later treatment to extract its silver. He also stated that the roasting-furnaces would require reconstruction. Hadley closed the mill down after Endlich left for two weeks to make some of these changes. (EMJ, 6/8/1886) The mill ran continuously after being started up on June 26th and was treating 20 tons of low-grade ore per day. The Russell process was reported as saving about 80 percent of the silver and putting out about \$500 per day in bullion. Over \$10,000 was produced in July and plans were to start milling higher-grade ores. (EMJ, 8/7/1886)

These optimistic reports in the press ended six weeks later in August 1886. Milling costs failed to be reduced significantly below \$20 per ton, and as that was about the value of the ore stacked at the mines, the company was losing money on every ton of ore they refined. Once again a new milling process that initially was reported as working well proved to be a failure and by September 1886 the crisis was obvious to the management in Philadelphia. President Mellor of the Sierra Grande at the annual meeting of stockholders on September 29, 1886 said that the principal defect was in the rolls that crush the ore. The two furnaces will chlorinate 100 tons of 40-mesh ore to 90% in twenty-four hours, but will not chlorinate over 30 to 40 tons of 20 mesh ore at only a 75% recovery of the silver. The mill with the current 20-mesh ore is thus not profitable to operate. Also the silver content of the ore in the dumps was not as high as represented. The correction of this mechanical defect in the mill will cost about \$6,000. (EMJ, 10/9/1886, p. 254).

Very little was learned about John B. Mellor who played a dominant role in the companies from 1886 to 1900. He apparently was a Philadelphia based man of some wealth with more than a little stock promoter in him. He was elected a director of the Sierra Bella on September 30, 1885, and probably became a Sierra Grande director with the merger of the two companies in February 1886 and president of the Sierra Grande prior to September 15, 1886. He owned the entire company in 1900, when he lost it in a poker game. On September 15, 1886 he sent to all the large stockholders in the Philadelphia area the following announcement.

CIRCULAR OF INFORMATION TO STOCKHOLDERS OF THE SIERRA GRANDE  
MINING COMPANY OF New Mexico.

Dear Sir: You are most earnestly requested to meet the Board of Directors of the Sierra Grande Mining Company, at their office, No. 119 South Fourth Street, on Friday, 17th inst., at eleven A.M., to consult in regards to the present crisis of the company. Do not fail to attend.

Respectfully,

JOHN B. MELLOR, President.

Francis Bacon, Secretary of the trustees wrote a report on the meeting and sent it to the *Engineering and Mining Journal* (EMJ, 10/9/1886, p. 255). President Mellor told the stockholders and trustees "That we are in debt; that the mill was running at a loss; that several thousand dollars wages were due and must be paid; that \$10,000 in judgments had been entered up against the property, and that immediate action was necessary... That \$20,000 more will be advanced on judgment notes ... making the total indebtedness of the company on judgments \$30,000." The stockholders did not respond to this appeal and the stock was non-assessable and the meeting adjourned until the 24th. In the meeting on the 24th an alternative was considered and adopted. The concept was that a new corporation should be formed by the current stockholders to buy the company for its outstanding debt. Stockholders would have to surrender their stocks and pay a small fee that would be used to pay off the debt in order to get stock in the new corporation. The holders of 80,000 shares had already agreed, but the trustees would not proceed until the holders of 200,000 shares had agreed. This plan was approved at the regular annual meeting on September 29, 1886. The financial Report for the period Aug. 11, 1885 to August 10, 1886 showed that the company had exhausted its cash reserves. The company went from \$74,000 cash on hand to only \$2,000. Expenses were reported as \$117,000. Of the \$96,000 in ore produced during the year the newly acquired Sierra Bella produced \$22,000. -- Joseph P

Brosius, Treasurer. (excerpts from the 1886 Annual Report published in EMJ, 10/9/1886, p. 254)

The owners of the 500,000 shares of Sierra Grande stock were given until May 31, 1887 to deposit their stock with the syndicate, sign the reorganization, and pay a 30 cent assessment per share to get stock in the new company, The Silver Mining Company of Lake Valley (EMJ 5/28/1887, p. 389). Some later reports incorrectly gave the conversion charge as 10 cents per share. The starting date for the Silver Mining Company of Lake Valley New Mexico was June 1, 1887. The incorporation was signed on May 2nd in Philadelphia and filed with the State of New Mexico on May 20, 1887. The company directors listed in the incorporation were: G. G. Posey, A. W. Harris and James B. Fraley of New Mexico; John B. Mellor, T. Morris Perot, William C. Smyth, Joseph P. Brosius and Henry A. Duhring of Philadelphia and Albert G. Buzby of New York. Only Perot and Buzby of the eastern directors had not been Sierra Grande directors. It was filed as a New Mexico corporation on May 20, 1887. (NM cc. # 0007666) John B. Mellor was elected president.

Thirty cents per share for conversion to shares in the new company was a steep price for a stock that had been selling for about that price. Only about 80% or 400,000 Sierra Grande shares were converted. H. Carlton Adams was one of those who did not pay and convert his Sierra Grande stock (**Figure 17**). The Silver Mining Company of Lake Valley's stock fell after conversion to less than the cost of conversion. It ranged in price from 10 to 27 cents a share in 1887 after its creation (EMJ, 1/28/1888, p. 84). Even after the company paid a dividend six months later in June 1888 the price was only 43 cents. (EMJ, 6/9/1888). Assuming that 400,000 shares of Sierra Grande stock paid the 30 cents it provided about \$120,000 to the new Silver Mining Company of Lake Valley. Debts were probably well above \$30,000 by June, 1887 leaving less than \$100,000 in working assets. The new company was capitalized at 500,000 shares at a par value of \$1 each. Of the 500,000 shares there were still 98,000 in the treasury a year later (EMJ, 6/23/1888). The shares not acquired by Sierra Grande stockholders may have later been sold. If they were not sold the two dividends paid by the company in 1888 were probably only paid on 402,000 shares. The amount of the two 1888 dividends was not located.

The company let all of its miners go during the crisis between the fall of 1886 and summer of 1887. It then leased the mines to them or other interested miners. This was a chaotic period at Lake Valley and even the annual assessments (proof of labor) was not filed on many claims. In July 1887, a month after the new company took over, the 140 miners working at Lake Valley were still all working under the lease system. Most of them were working in pairs for themselves. The best grades of ore were being found in the Sierra Bella, but all mines were being worked. About 40 railroad cars of ore were being shipped each month, which indicates that the mill was not being operated. (EMJ, 8/6/1887) It is not clear if they ever got the Russell Process chlorination mill to work economically. By the spring of 1888 the Silver Mining Company of Lake Valley was beginning to revive company-mining operations at Lake Valley. It had about 40 men working for it, but they were still outnumbered by lessees working the mines. All machinery that was not needed was sold, including the old 6-inch water line, which was sold to a company in Arizona. (EMJ, 11/3/1887, 6/23/1888)

The Silver Mining Company of Lake Valley did not get around to filing a change of agent form with the Territory until 1888. However, it was dated October 7, 1887 by President John B. Mellor. It named Walter C. Hadley as their agent at Lake Valley. (NM Cor. Record, vol. 4, page 214). Hadley had been superintendent (agent) for the Sierra Grande since June 1886 and continued in that role for the new company. No later changes of agent for the SMCLV company are in the corporation records for New Mexico, though he was replaced by 1892. All the superintendents and their period of office at Lake Valley are given in section III of the history appendix at the end of this report.

Apparently the mill was not being used and ore was only being refined locally by smelting. It was reported that the sampling works had been temporarily shut down resulting in the accumulation of ores at the mines in March. (EMJ, 3/17/1888) Probably due to the almost disastrous error of not filling annual assessments in 1886 on many of the claims the company decided to patent the claims so this would not happen again. It was Walter C. Hadley responsibility as superintendent for the Sierra Grande to file the proof of labors, which he did not do. He staked new claims on the old lapsed ones in his own name in 1887. It is not known if he gave or sold them to the Silver Mining Company of Lake Valley. Short of a law suit against him for malfeasance the company would have had no recourse but to buy them from him if he chose to demand that. It is known that he died with considerable assets as his widow endowed a laboratory at the University of New Mexico. (Eveleth, P.C.) Hadley, when he made new claims on the lapsed Sierra Apache claims in 1888, put them in the name of the Silver Mining Company of Lake Valley. In many cases Hadley changed the claim names and that is why many of the patented claim names are different from pre-1887 claim names. Claim history is covered in section I of the Appendix. By March 1888 the mineral surveys for the patent application were in progress and it was reported they would be patented as soon as they were finished. (EMJ, 3/17/1888). However, patents were not completed on many until years later.

The EMJ (6/9/1888) accused the Silver Mining Company of Lake Valley (SMCLV) of paying the June dividend out of the previous years assessment on stockholders. This may or may not be true, but Mellor wrote EMJ that the dividend was totally from income and that they had money in the treasury after the dividend. (EMJ, 6/16/1888) A correspondent reported in June 1888 that the Silver Mining Company of Lake Valley had turned the operation around. He stated that he was a stockholder and that most other stockholders were also dividend seekers, not speculators. The company had \$80,000 in the bank and was making about \$5,000 a month in profits. That about 10,000 tons of ore per month was being shipped from Lake Valley. He claimed that all expenses at the mine had been reduced to \$10,000 per year after deducting profits on supplies sold to lessees. Expenses could only have been that low if all mining continued to be done by lessees, but the next sentence indicated some miners were working for wages. "The company only works 8 or 10 mines and lessees operate the others." (EMJ, 6/23/1888)

In the summer of 1889, manager Hadley installed a new stamp mill to replace the rolls that did such a poor job of fine crushing the ore. Hadley claimed in September that his experimental runs of the lixiviation process showed it could handle 60 tons per day. He also said that he was getting an average of 83% recovery of the silver. The new stamps produced the finer ground 20-

mesh feed ore, which had been mentioned a year earlier as needed to make the mill profitable. (EMJ, 9/14/1889). Hadley had also installed a compressed air plant that was supplying the mines with air for the pneumatic drills. Though Ingersoll drills had been present at the mine for several years there was no general use of them. Most drilling prior to this date, except for the diamond drill used in exploration, had been hand drilling. Company employees now outnumbered lessees and apparently leases were not being renewed. Seventy men worked for the company and there were only about 30 lessees left. It was claimed that lessees had not done very well, but this is probably not true. "The lessees have never met with very good success, although the average value of the ore shipped [by lessees] is from 75 to 83 ounces. One car of ore [about 40 tons], besides that treated in the mill, is shipped every four days." (EMJ, 9/14/1889) The 75-83 ounces per ton ore reportedly shipped by lessees was almost three times as good as that reported as mined by the company. The fees charged lessees is not known.

Operations at the mines improved, though no additional dividends were declared between June 1888 and January 1889. In January 1889 a dividend of 5 cents per share or \$25,000 total was declared for payment in February. Mellor, the president of SMCLV, confirmed to EMJ (2/23/1889) that there was still \$70,000 in the treasury. However, the stock price did not improve and continued to be in the forty-cent range during the spring of 1889. No stock prices were found for the fall of 1889, but in April of 1890 the price was 40 to 42 cents and the small number of sale were "reportedly to people living near the mines." A body of rich ore was found in early 1890 and the locals at Lake Valley bought stock at 40 cents before management back east found out about the discovery. Before July the word got out about the discovery and the stock price almost doubled. The EMJ (7/12/1890) reported that 1,000 shares sold at 75 cents that week, which was a very high volume for the SMCLV. Most weeks there were no trades in its stock or only 100 shares. "This stock is pretty closely held and appears hard to obtain at moderate figures." In August the trading continued to be active and it was reported that information was hard to obtain on the company. "Insiders are said to be buying all the floating stock as low as they can - easy to believe." (EMJ, 8/10/1890) Dividends of 5 cents were paid almost every month after February 1890. The price seemed to be steady at 75 cents a share, but volume was generally only a few hundred shares per week. It finally came out in August that the company was working a rich ore body and had produced \$100,000 since July 1st. The EMJ table of dividend paying mining companies in the U.S. listed the SMCLV as having paid out \$150,000 in dividends in 1890 by September (EMJ, 9/13/1890, p. 314). That was probably six dividends of 5 cents each. The SMCLV incased its dividend three fold in September and declared a dividend of 15 cents a share to stockholders of record on September 16th, payable on the 23rd. This was a monthly dividend at a rate of 15% of the par value of \$1.00. Only 100 shares trade that week, but at a price of \$1.05. (9/13/1890) The combined dividends and good reports on the mine had driven the price up and president Mellor finally revealed the reason in October. It appears that Mellor had more than a little of the stock promoter in him and probably the dividends were so generous in order to help his promotion of the company to English speculators. "It is reported that an English syndicate has offered to buy the stock of the Silver Mining Company of Lake Valley, at \$2.50 per share. The officers of the company have addressed letters to the stockholders asking for their consent to the sale and for their power of attorney [to sell]." (10/25/1890, p. 490) No further mention of the English syndicate was found



and they must not have exercised the option.

The EMJ table of mining company dividend payments listed the SMCL as having paid a total by November during 1890 of \$200,000 (EMJ, 11/1/1890). *The Needles Eye* (3/25/1893) reported that a total of \$300,000 in dividends had been paid by the Silver Mining Company of Lake Valley from its inception in 1887 to its closing of the mines in 1893. If correct, this came from several dividends in 1889 and the \$200,000 paid in 1890. There were probably no dividends after 1890 due to declining ore values and silver prices.

Though the final crash in silver prices that closed most silver mines did not come until 1893 prices started declining in the late 1880s. Starting around 1887 the only way for silver mines to remain profitable with declining prices was to reduce operating costs. Other than searching for more economical milling methods the solution had to be in reducing labor costs. The efforts to reduce labor costs led to the labor conflicts and miners strikes of the early 1890s such as the Coeur D'Alene strike of 1892 in which Joe MacDonald played such a prominent role (Section II, Appendix II). Though the Silver Mining Company of Lake Valley (SMCLV) still had miners working for wages by the summer of 1890 lessees were again doing the majority of mining. Some of the lessees were reportedly making a fortune. July 1890 production from a single rich ore body was reported as \$100,000 and it seems to be implied this was by a lessee rather than the company. (EMJ, 8/23/1890, 8/30/1890). However, as 1890 was the last bonanza year for the company, this pocket of rich ore was probably a company discovery. Even though superintendent Hadley installed new equipment in the mill in 1889 and was optimistic on its performance (EMJ, 9/14/1889) it was a failure and the mill was soon closed. The 1893 Sanborn Fire Insurance Map for Lake Valley has a caption that states the mill was closed four years earlier, which would have been 1889, and that all equipment had been removed by 1893. The SMCLV sold most if not all of the mill equipment in the summer of 1890. The Last Chance Mining Company bought the stamp mill of twenty 1,000-pound stamps, 16 pans, 8 settlers, the Boss continuous system and all improved appliances. (EMJ, 9/13/1890, 10/11/1890) The original costs of all of the equipment was around \$200,000. The sales price was only a small fraction of that, but it helped boost income in 1890 in the effort to sell the property to an English syndicate. The chlorination mill did not work significantly better on Lake Valley ore than the two earlier mill processes tried at Lake Valley. Only the very rich chloride ores at Lake Valley were suitable for free amalgamation and these were always refined more profitably by smelting. The lower grade ores were not suitable for amalgamation and Roberts's staff must have known that from prior experiences in silver mining. The comment on the Boss mill at the time of its sale was that the mill was completely built "before the management discovered that its ore had to be smelted." (EMJ, 10/11/90) It is likely that Roberts deliberately built the 1882 Boss amalgamation mill as an excuse to give for poor silver production rather than due to ignorance about the nature of the ore.

In 1892 the company signed a contract with the El Paso smelter to ship ore there for smelting. (EMJ, 2/27/1892). El Paso was less than a third of the distance to Pueblo, Colorado and would have thus greatly reduced railroad transportation costs. Production was low but another rich section was found in the Jones shaft that summer. (EMJ, 7/23/1892) The temporary rise in silver



prices in 1887-8 reversed and by 1891 production was declining at Lake Valley. In 1892, production was reported as very light. In late 1892 a program of drilling was "commenced in the heart of the town in the hope of finding another bonanza like the Bridal Chamber." (EMJ, 1/14/1893) Output was reported as "inconsiderable" in the press. With the final end of government silver purchases in 1893, silver prices fell drastically and the majority of silver mines closed throughout the west. The final closure of the Silver Mining Company of Lake Valley's mines was announced in March 1893. Though Ellis Clark stated it was not closed until August 1893, that may have only been to give an exact 15 years between the date of Lufkin's discovery in August 1878 and the closing. (Clark, 1895, p. 138)

*The Needles Eye* (3/25/1893, vol. 5, No. 18, p. 1) in a cover page story on March 25, 1893 ran an article on Lake Valley. "Ten [sic. twelve] years ago some wonderful discoveries were made at Lake Valley, New Mexico. George D. Roberts and Whitaker Wright got hold of the properties. ... It is now announced that the Silver Mining Company will close down indefinitely." The article stated that the Silver Mining Company of Lake Valley had paid \$300,000 in dividends and that the Sierra Grande had paid \$860,000, while it owned the property. These numbers may be slightly incorrect, but give a dividend total of \$1,160,000 and there was one small dividend by the Sierra Bella. Thus less than 1.2 million was paid in dividends out of over 5 million dollars in silver mined. Using an assumed average price of \$1/ounce for the five million ounces of silver Clark (1895, p. 150) estimated the companies mined. This indicates that expenses consumed about 87% of the ore values.

John B. Mellor was probably the company president through the entire period from 1886 to 1900. A possible explanation of his becoming president in 1886 of the Sierra Grande is that he was the source of loans that kept the company going until stockholders paid 30 cents a share for the conversion of their stock into the Silver Mining Company of Lake Valley in 1887. At some point prior to 1900 he probably again loaned money to the company and later foreclosed on the company. That is probably how he acquired total ownership of the Silver Mining Company of Lake Valley before 1900. He lost the company in a poker game in Denver, Colorado in 1900. (Personal communication from Sharon Agar, widow of the winner's son, 1997)

## **Section 9: The Transition from Silver to Manganese Mining and to Ghost Town: 1900-2000**

Although the company mines closed in 1893, unlike many other small silver mining towns, Lake Valley did not quickly become a ghost town. In fact its last resident did not leave for 101 more years. Many miners as well as store keepers felt they owned their homes and businesses and were reluctant to leave if they could survive there. Lessees and or trespassers dug a little silver to help themselves survive, but the towns major economic base was that it continued as a transportation center for the southern Black Range as it was the closet railhead. Lake Valley residents as well as the occasional passing prospector occasionally worked the mines. In *Black Range Tales*, James McKenna tells of taking an old friend, Danny, to the Bridal Chamber and helping him set up to dig ore from its roof to get a grubstake. The date of this is not given, but was after the mines closed in 1893. McKenna wrote that it was 30 years before he saw Danny

again after this event (McKenna, 1936, p. 103). Since McKenna wrote the story sometime between 1925 and 1934, he must be referring to an event around 1900. In this same story he wrote that a goat was the first thing to fall through the roof of the Bridal Chamber. Much of the roof was less than 20 feet thick and McKenna said it was only 5 or 6 feet thick in places. (p. 101). No record of when the roof of the Bridal Chamber collapsed was found. Based on the large diameter of the stalls the School of Mines 1924 field trip photo labeled Bridal Chamber (*New Mexico Geology*, August, 1997, Figure 5, p. 68) was probably taken in the Savage Stope or another post railroad mined area. The early (pre-railroad, 1884) stopes are timbered with 8 to 12 inch diameter logs (stalls) where later stopes have 12 to 24 or even larger diameter stalls. It is possible that the Bridal Chamber was remined and larger stalls introduced, but the ore body was described as only 25 feet wide and tall.

In addition to being the area's transportation center Lake Valley was also the business center for area ranches. It was the closest railroad to the towns of Hillsboro and Kingston and all goods and people went by wagon to or from Lake Valley. Its population dropped from 500 before the mines closed to 150 in 1903 (Sanborn Fire Insurance Maps, 1893, 1904). The company may have leased portions of the mines to individuals on occasion and many people did a little prospecting or mining in the old workings without leases between other jobs. Periodically there were also mining efforts organized by outside interests. With the advent of the automobile and the loss of the railroad in 1941 the town ceased to be a transportation center and was reduced to a store, filling station and a few dozen homes by mid-century. It had a brief revival of mining in the 1950s and then continued to decline. By 1975 only two families lived in Lake Valley. Its school closed with the advent of school buses that took ranch children to Hillsboro. However, the schoolhouse continues to serve as the social center for the surrounding ranches and its cemetery their final resting-place. As happened in a number of mining towns the original developer of the town site which was probably one of its promoters of the Sierra companies did not file the proper papers with the government to gain title. However, residents did not know this and deeded houses to each other for over a century. The majority of the town remained government land. The Bureau of Land Management (BLM) recognized Lake Valley as a major cultural resource and has worked on stabilizing buildings since 1991. It is the major attraction on the BLM's Scenic Byway in this area and there is a volunteer caretaker living at Lake Valley.

The last regular residents of Lake Valley were Pedro Martinez and his wife Sabina. Pedro reportedly came to Lake Valley in 1906 as a miner and was born in Zacatecas, Mexico. The Martinez's moved to Deming in 1994 and Pedro died there a few years later. It seems a fitting end for New Mexico's greatest silver mining town that Pedro was its last resident, for this State's first governor was also a silver miner born in Zacatecas, 445 (1994-1549) years before Lake Valley became a ghost town.

John B. Mellor was the last president of the Sierra Grande and the major force in the creation of the Silver Mining Company of Lake Valley in 1887. He was its first and only known president. He acquired title to the entire company at some point after 1894. Mellor was playing poker in the [Brown Palace?] in Denver, Colorado in late February or early March 1900. Being short on cash and wanting to raise his bet he offered the Silver Mining Company of Lake Valley to cover

his raise, which the other players accepted. Mellor lost the poker hand and on hotel stationary wrote a promissory note for the company to Lucius G. Fisher. (Sharon Agar, widow of one of Fisher's sons, personal communication, 3/11/1997) A week or two later Mellor wrote out a formal deed to L. G. Fisher giving him title to The Silver Mining Company of Lake Valley and all its property. Mellor signed this deed on March 12, 1900 (Dona Ana County Records). Not aware of the poker game, four years later Jones described events as follows:

In April 1900, the entire property was sold at a private sale to L. G. Fisher of New York, who had been associated with the original companies and who organized in 1901 the Lake Valley Mines Company. New developments began a little later under the direction of John Hays Hammond, consulting engineer, with E. H. Bickford, general manger. Considerable ore has been taken out and shipped under this new organization. The ore lies well down in the blue limestone, as was observed recently by the writer, and is of a mangano-ferruginous character, running low in silver values. (Jones, 1904, p. 91)

The note of title from the poker game is still in the Company papers, which have not been organized. (Sharon Agar, PC, 3/11/1997) Lucius G. Fisher did not incorporate a new company to operate the property until October 26, 1901. Fisher named the new company the "Lake Valley Mines Company." The Illinois incorporation was signed October 26, 1901 and filed with the Illinois Corporation Commission and with New Mexico on 12/31/1901 (NM Corporation Commission # 0029751). The capital was \$50,000 divided into 500 shares of \$100. Lucius G. Fisher held 498 shares, Walter Page one share and Miles J. O'Kelly one share. The company office was in Chicago, Ill., and a George E. Ruther was a third incorporator. Fisher was president and Page secretary of the company. Only two changes of agent in New Mexico were filed for the company. A change from E. H. Bickford to J. B. Nelson was filed on 10/20/1915 and from J. B. Nelson at Lake Valley to A. W. Pollard in Deming on 1/25/1918.

L. C. Fisher died in the early 1930s and a trust for his wife and children took over Lake Valley and was called the L. G. Fisher Mine Trust Limited Partnership. The Lake Valley Mines Company incorporation was canceled on September 3, 1936 following the formation of the trust. L. C. Fisher had eight children, and the death bed wish of his wife was that they never sell Lake Valley. Several of the children promised to respect this request and the trust still owns the property (Sharon Agar, agent for the trust).

Very little information has survived in New Mexico about Fisher's Lake Valley Mines Company efforts to revive silver mining at Lake Valley. Sharon Agar has indicated that the company files may be made available for research which will fill in this important gap in Lake Valley history. From 1894 to 1910 there are no production records for the Lake Valley District, only combined records for all of Sierra County. (Harley, 1934, p. 179) Harley continued his discussion of production with the comment that "it is estimated by persons acquainted with the earlier history of the district that various odd-lot shipments during this time and some few others not included in the above tabulation for 1878-1893 yielded about 500,000 ounces of silver." (Harley, 1934, p. 179) This phrase has been misinterpreted by later authors: Jicha (1954, p. 73), Farnham (1961), Howard (1967, p. 135), Nutt et al. (1998, p. 51, Table 6) as referring to the 1894 to 1910 period. They all thus reported 500,000 ounces as produced between 1894 and 1910 when Harley was referring to unreported production prior to 1894. The production from 1894 to 1910 is not

known. The amount produced by lessees, trespassers and early Fisher efforts was probably less than 100,000 ounces. The 1894 to 1910 period was one of very low silver prices. The price of silver declined from the pre-1893 level of around a dollar to the fifty-cent range around 1910. Jones (1904) reported that Fisher hired one of the most widely respected and well-known consulting mining engineers of the period, John Hays Hammond to evaluate the site. This would have been a very minor job in Hammond's career and his biography and papers were not consulted. E. H. Bickford was the resident superintendent at Lake Valley from 1901 until 1915 and managed efforts to locate new ore bodies.

Since 1881, other operators had periodically worked small mines northeast of the company claims. From 1882 until 1900, the Sierra Bonanza Mining Company started by Lester A. Bartlett continued to maintain the New Era and other claims. The last Sierra Bonanza proof of labor was filed in 1900 and thus that company lasted longer than the original four Sierra sisters.. The New Era claim was quickly taken over by a new group of miners called the Mine Development Association. They were working the New Era Mine in 1903. It was reported that they had over 300 feet of drifts and were deepening the main shaft. They intended to set up a Cameron pump to handle the water problem and were working as deep as 250 feet. (EMJ, 1/10/1903) No shaft 250 feet deep is now or has been reported in the past on the New Era Claim, so at least part of this announcement is questionable. This same announcement was repeated in EMJ a week later. (1/17/1903) Little was reported in the press about Fisher's operations and until his company records are available we will have to rely on later secondary sources.

Charles Gordon visited and studied Lake Valley in 1909 and wrote that there was a small amount of mining from 1900 to 1905, when a shaft used for removing water caved in, causing a suspension of operations. He wrote that between 1905 and his visit in 1909 there was practically no production (Lindgren, et al., 1910, p. 281). An effort of some type was made in 1910 to restart mining as the *Engineering and Mining Journal* reported: "The Company is planning to place the smelter in repair and treat the low-grade siliceous ores on the dumps and in the stopes." (EMJ, 6/4/1910). World War I created an increased demand for manganese for the hardening of steel. Harley (1934) concluded that the planned activity in 1910 was not productive and that the mines were essentially idle between 1910 and 1917. In 1917 the first mining of ore primarily for its Manganese content started at Lake Valley due to World War I demand for that metal.

Harley (1934, pp. 170-184) reported the production for 1910 through 1931 as 46,261 tons. With the railroad connection to the mines, transportation costs were low. The majority of the ore mined and shipped was for its value as flux material to smelters or its manganese values rather than the silver content. However, Harley estimated that out of the total of 46 thousand tons of ore shipped, 275,000 ounces of silver were recovered. That is an average of only 5.94 ounces of silver per ton.

Between 1910 and 1931 it was reported that production was 46,261 tons divided as follows: Silver or silver-gold ores, 2,658 tons; lead or lead-silver ores from the Emporia incline section of the district, 210 tons; manganese ore high in manganese with some iron and silver... 1,239 tons; basic flux material

with low silver content and high in manganese... 21,791 tons; and siliceous furnace material low in silver, etc. 20,363 tons. (Harley, 1934, pp. 178-179)

The mines were not active in 1931 when Harley studied Lake Valley, but had been active in the late 1920s. During the depression locals and probably outsiders worked the mines as a means of survival. Howard (1967, p. 137) in Table 26 reported silver production during the six years from 1934 to 1940 totaling 9,940 ounces. No silver production was reported after 1940. Total Lake Valley silver production from 1881 to 1940 is estimated at between 5 million and 6.25 million ounces, but well over 90% of this was prior to 1893. (Farnham, 1961; and Nutt et al., 1998, p. 51, Table 6). As a byproduct of silver, and later flux shipments, it has been estimated that about 500,000 pounds of lead and small values in copper were produced. (Nutt et al., 1998, p. 51, Table 6). A small amount of copper may have been in the ore, but was probably not recovered.

### Manganese Mining At Lake Valley

James McKenna (1936) did not mention it in his book, but he and many other people filed and maintained claims on the BLM portions of Lake Valley in the 1920s and up to the 1990s. Local residents and visitors probably continued to high-grade the pillars of the old workings. The increased demand and price for manganese in World War I led to a new commodity becoming the basis of mining at Lake Valley. The demand for manganese for hardening steel in the war effort caused the first manganese mining in 1917.

Harley (1934, 178-179) indicates that only 1,239 tons of ore was shipped prior to 1932, primarily due to its high manganese content. Much larger tonnages were reported by others for the early 1917 to 1921 period. J. R. Finlay in *Report of Appraisal of Mining Properties in New Mexico* (1921-1922, p. 90) reported that Stauber and Wright leased the property in 1919 and 1920 and reported to the state tax commission 1918-1920 production of 4,676 tons of manganese ore and 96,495 ounces of silver with a combined value of \$121,379. Farnham (1961) gave 8,000 tons as the total manganese production prior to 1942. Howard (1967, p. 135) gives 23,030 tons as pre-1932 production and 8,000 tons as the 1932 to 1942 manganese ore shipments. However, a typewritten draft report date 3/20/1975, possibly prepared by the U. S. Bureau of Mines, gives a much higher figure. (C-M, 3/20/75, p. 19) The following is an outline of manganese production from Howard (1967, p. 135 & 138) and anonymous (3/20/1975, pages 18-21). This draft of a report, possibly for the U.S.B.M. was obtained in 1995 from the Las Cruces office of the BLM.

### Summary of Reported Lake Valley Manganese (Mn) Production

**1917- 1931:** most reasonable estimates are between 8,000 and 23,030 tons, most produced prior to 1921- Stauber and Wright lessees 1919-1920, but others not known, manager Colin McIntosh.  
**1932-1942:** about 8,000 tons - lessees not known, but produced primarily for flux material. Apell, et al (1947, p. 5) estimated this period and 1943 as over 33,000 tons, which is less than reported 1942-43 production. Nutt, et al (1998, p. 53) gave 8,000 tons as total pre-1942 production.

**1942-1943:** Newalpitt Corporation, Pittsburgh, PA, shipped 37,224 tons averaging 20.8% Mn to wartime Metal Resources Stockpile at Deming.

**1953-1955** The Haile Mines Inc. shipped 57,301 tons of concentrate prior to filling their quota on November 30, 1955. This concentrate came from 152,300 short tons of wet ore treated by their mill. They reported production in their 1956 annual report, but that may refer to late 1955. Haile Mines relinquished their lease and sold the mill in the fall of 1957. The Sierra Metals Co. of Pittsburgh, Pennsylvania held a lease on the Stone Cabin and adjacent unpatented claims in 1947 and may have done the Mn mining in that area following the 1953 start of the strategic stockpile program. The 'Good Luck 1953' production of 316 tons of Mn ore reported by Nutt, et al (1998, p. 53) may refer to part of this company's operation. However, its location was on the unpatented Virginia Claim, which was reclaimed in the 1950s as the "Good Luck Claim."

**1958-59** Frank and Robert Hill leased the Fisher Trust property and between August 1958 and January 1959 shipped about 2,000 tons of ore. This ore was treated at another location and produced about 500 tons of concentrate that was sold to the Socorro Manganese Company. Nutt, et al (1998) counted both the ore and also the concentrate as separate production records.

### Summary of Manganese Production

Total manganese ore production can only be estimated due to the uncertainty of pre-1932 production. Haile mines produced 57,301 tons of concentrate out of 152,300 short tons (135,982 long tons) of ore processed at their mill. A considerably larger tonnage was mined and not processed. This waste rock formed the large dump east of the mill, which is the major mining feature visible from the ghost town. Howard (1967, p. 138) summarizes Lake Valley Manganese production with a total of 185,678 tons mined after 1931. Howard's production for 1953-1957 is 138,454, which is greater than just the Haile Mines production. Adding to this the estimated earlier production of 23,030 long tons gives a total of 208,708 long tons. Converting that to short tons of 2,000 pounds gives a total of 233,752 short tons of manganese mined at Lake Valley. The calculations given in Nutt et al. (1998, p. 53) of 45,540 long tons of manganese did not include the 1917-1932 production (23,030) or the Haile Mines 135,982. If those two records of production are added the total would be 204,552 long tons mined or only 2% below that calculated by Howard (1967) and Farnham (1961). The total tonnage shipped from the Lake Valley district was less, due to the Haile Mines concentrating ore prior to shipment. They reduced 135,982 tons of ore into 57,301 tons of concentrate. Total shipments of Mn in the 20th century thus were 130,027 tons of ore and concentrate between 1917 and 1959.

The U. S. Bureau of Mines and the U.S. Geological Survey did a cooperative exploration for manganese at Lake Valley in 1941-1942 in support of the war effort. This study resulted in the Creasey and Granger map, which was not published until 1953, and the Apell, et al report (1947).

These two reports give extensive data on all the mine workings as they existed in 1942. This data was probably available to the WW II mining operation though not published until after the war. The start of the Strategic Stockpile program in 1953 led again to manganese mining being profitable in New Mexico and the United States. Under that program only 10,000 tons were purchased from any one source which limited mining at Lake Valley. The Haile Mines Inc., a mining corporation that operated internationally, set up an office at Hillsboro and built a 500 ton

heavy-media beneficiation plant on the site of the 1882 mill at Lake Valley.

Partial records of the Haile Mines, Inc., company records and its operations around the world are in the papers of one of its eastern executives, (W. Lungsford Long Papers) at Duke University in Durham, North Carolina. The portfolios containing Lake Valley materials are folders 190 to 192. These were only partially checked during a 1996 visit on another New Mexico mining project. Various yearly reports and many weekly reports from the Hillsboro Office to people in the central office in New York City are in these boxes. The central office's major concern was that Congress continue the government Strategic Stockpiling Program that made manganese mining profitable in the U.S. One of the government's three sites for purchasing manganese was Deming, New Mexico, only 45 miles away which minimize transportation costs from Lake Valley. The company had leased the property from the L. G. Fisher Trust for a royalty of 46 cents per ton.

According to the Haile Mines, Inc. Annual Report for 1956, the company's profit on the Lake Valley operation in 1955 was \$9,003 and in 1956 only \$5,704. (Folio 191-g) S. J. McCarroll Consulting Engineer, wrote an untitled report on the stationery of "HAILE MINES, INC., P.O. Box 2008, Henderson Nevada." It was an assessment of the Lake Valley property costs and recommendations dated 9-10-1956. He recommended the immediate sale of all equipment, as profitability was projected to decrease. McCarroll's report is part of a larger, 71 page report on the status of the mining operation at Lake Valley (folio 192-k, 71p. and 2 mine maps). McCarroll said, "There were 109,000 short dry tons of manganese ore with an average grade of 14.2% Mn blocked out, or probable, at Lake Valley. By a combination of Heavy Media, Flootation and Sintering, an overall recovery of 68.7% can be made. The recovered manganese sinter per ton of ore will contain 8.70 long ton units, with a value of \$19.28. ... Total mining, treatment and general expenses at Lake Valley without New York charges, will be \$18.42/ton." He predicted that a new mill and other equipment needs would cost \$328,095 and if amortized over the projected additional future production would be \$2.23 per ton. This would leave only a profit of \$0.30 per ton, excluding New York office costs. Items of interest in the financial analysis are: Royalties - 0.46 per ton, operating costs Sept.-Nov., 1955 - \$8.62 per ton and projected costs for continued operation beyond the fall of 1956 were \$10.49 due to the cost of new equipment and operating costs. The projected profit was only \$0.30 per ton. Projected annual profit if everything went as planned would be about \$30,000, but that was optimistic. McCarroll concluded with, "Salvage value of the plant and mine equipment could be as much as \$75,000. Unless an expanded manganese purchase program is being planned, I recommend that the equipment be disposed of as soon as possible." (Folder 192-K, "Lake Valley Report, September 1956," W. Lungsford Long Papers, Duke University)

Frank and Robert Hill leased the Fisher property in 1958 and mined manganese on the western edge of it until January 1959. This was the last known mining, extraction of ore, at Lake Valley. Several companies did exploration at Lake Valley for silver after the 1950s. There was a tremendous increase in interest in Lake Valley as in all silver deposits in 1979-1981 when the Hunt brothers tried to corner the world silver market. They drove the price of silver from around \$2/ounce up to about \$47/ounce before it crashed back to around \$2/ounce. During that period

there were exploration leases at Lake Valley, but the bubble did not last long enough for extensive exploration or development.

Perhaps the Lake Valley Boys lives can be summarized by silly mottoes, but mottoes equally as good as that of Paladin's western TV program in the 20<sup>th</sup> Century. George Daly and Joe and Berni MacDonald could have been "have gun, will travel to your mine to resolve disputes or labor problems." Benjamin Silliman Jr.'s "have report showing an inestimable amount of ore in sight, will travel to your mine." George Roberts and J. Whitaker Wright's motto "have a great stock promotion, will look at any mine for sale." When all was over they were richer or poorer, miners were dead or intimidated and though the investing public was poorer by millions, the history of the West was more colorful than portrayed in the movies.



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MSP: *Mining and the Scientific Press*, San Francisco

MR: *The Mining Record*, New York

*Mining Review* not abbreviated, Chicago

SFDE: *Daily Exchange: San Francisco*, San Francisco

TAIME: *Transactions of the American Institute of Mining Engineers*, New York *The Mining Journal*, Philadelphia

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## Appendix II: Mining History Appendix

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### Section I Major Claims of the Sierra Companies

This section lists the major claims of the Sierra companies and may be helpful in understanding the various maps in the report. It does not include all of the claims held by Roberts and Wright, only the major claims transferred to the Sierra companies at various times. The earliest map is that of H. Henry Sawyer, undated, but made after November 1881, who owned many of the claims on the northeastern part of the district. Someone later marked on this copy of the map the claims of the four Sierra companies, except the Sumpter claim of the Sierra Grande, which were acquired later. A mineral survey (MS) is a preliminary step in obtaining a patent from the government on a mining claim.

#### Sierra Plata Company

Six claims four of which were later patented:

**Plata:** Patented under that name as MS 717-A.

**Silver Reef:** Patented under that name as MS 717-B.

**Crown Point:** Patented under the name of **South Carolina**, MS 657.

**Stanton:** Patented under the name of **Carolina**, MS 657, but prior MS 140

Claims not latter patented were the **Golden Gate** and **Eureka**.

The Stanton Claim was the only one with significant silver mining.

#### Sierra Grande Company (Sierra Madre until September 1881)

Four claims, of which one was a half-sized claim, all later patented.

**Arizona:** Patented under that name, MS 717-C

**Little Boy:** Patented under that name, MS 717-D

**Lincoln:** Patented under the name of **North Carolina** MS 656 but prior MS under Lincoln, MS 139.

**Emporia: No. 1-** the western 2/3 of the original claim. Patented under that name, MS 717-H, but prior MS 138. The original claim was split between two Sierra companies.

#### Sierra Bella Company

Five claims, of which one was a half-sized claim, all later patented.

**Comstock:** Patented under that name, MS 717-E.

**Last Chance:** Patented under that name, MS 717-F, but possibly enlarged to cover part of original Comstock.

**Strieby:** Patented under that name, MS 717-G, but previous MS 135

**Columbia:** Patented under that name, MS 893, but previous MS 136.

**Emporia No. 2:** Eastern 1/3 or the original claim, MS 717H.

**Little One:** small claim on 1880s maps between Last Chance and Strieby purchased by the company

and made part of Strieby before patent application.

**Slim Jim:** 1880 strip on north side of Emporia and Strieby, between them and the Hidden Treasure (location of the first town site). It may have been included in 1887-1888 relocation of the claim boundaries.

#### Sierra Apache Company

Four claims, only two of which were patented.

**Kohinoor:** Patented as the **Apache** claim, MS 894.

**Grace Darling:** The name was change to Francis Bacon and patented as **Bacon**, MS 892. This claim was a triangular claim in 1881 and was later expanded to include part of the 1881 Coney Island. The 1884 boundaries are essentially the same boundaries as the patent.

**Surprise:** Not patented

**Crescent:** Not patented

All of the Sierra Apache claims and many of the Sierra Grande company which included all three of the other original Sierra companies in 1886 apparently did not file proof of labor on their claims for the year 1886. Thus new claims had to be made. When the new claims were filed in 1887 and 1888 for the Silver Mining Company of Lake Valley new names were given to many of them. The last claim patented was the Compromise, patented in 1921 at the north end of the town.

#### **NOTES ON OTHER CLAIMS:**

A few of the claims that were actively mined in the 1880s but not owned by the Sierra companies are the following.

**Virginia Claim:** This claim between the Sierra Bella and Sierra Apache claims was not acquired by Roberts and Wright. It has both early silver mines and some 1950s manganese mines. The identity of the early miners on this claim is not known. It was held by the Rebate Mining Company at least from 1915 to 1919 (Donna Anna Co., book K, p. 608, L, p. 301). New claimants in the mid-1900s changed the name to the Goodluck claim.

**Hopeful Claim:** Patented as the **Jim Finch** claim, MS 1746. This claim was the only claim of H. Henry Sawyer that information was located on. During mining on this claim in 1882 his miners struck water at 155 feet and had to wait for a pump before they could continue. (Silliman, AIME, 1882, p. 439). There was a large shaft on this claim, which was bull dozed by the rancher who owned it, MacGregor, in 1995 and was probably used as a well until recent times.

**Stone Cabin Claim:** patented as MS 1122, There was a major change in boundaries after the 1882 map on which it would have been St. Lawrence and part of the Coney Island. Probably also the south end of Babe Claim.

The **Compromise Claim**, MS 1810, in 1881 was called the "Esmeralda" claim. The Compromise mineral survey, MS 1810 map shows a large section of the town of Lake Valley when the MS was done in August 1919.

#### **Partial Record of Claim Titles from Dona Ana County**



Sierra Plata Company {Stanton Group}

Six claims four of which were later patented:

**Plata:** Located by Bernard McDonald 11/29/81 - Wright to SP 6/9/82

**Silver Reef:** Miller to Daly 6/9/81 to Wright 6/22/81 to SP 9/21/81

**Crown Point:** Miller to Daly 6/9/81 to Wright 6/22/81 to SP 9/21/81. Refiled on by Hadley as South Carolina 6/25/1887.

**Stanton:** located 8/78 by McEvers and Lufkin. Lufkin sold 1/4 to Dawson 12/13/79 to Reynolds 12/29/80 - Daly to Wright 6/22/81 to SP 9/21/81

**Golden Gate:** Daly to Wright 6/22/81 to SP 9/21/81. Refiled by Hadley with same name 9/29/86.

**Eureka:** Located by Bernard McDonald 11/25/81 - Wright to SP 6/9/82. Refiled by Hadley with the same name 12/20/86.

Sierra Grande Company {Lincoln Group}

Four and ½ claims, all later patented.

**Arizona:** Miller to Daly 6/9/81 to Wright 6/22/81 to SG 6/9/82 [deed says the claim was located 12/28/1881. A new claim location was made 6 months after the first sale either to change boundaries or to perfect title.

**Little Boy:** located 12/28/81 -?- Roberts to SG 6/10/82

**Lincoln:** located 8/12/78 by McEvers and Lufkin. Wright to Sierra Madre (SM) 9/21/81 to SG 11/16/81. Refiled on by Hadley as North Carolina 6/25/1887.

**Emporia:** (No. 1 - west half) located 4/19/79 by M.V. Cox & A. McLean, this part was from Cox's interest which he sold on 4/13/81 to ?, Wright to S. Madre 9/21/81, signed by J.W. Wright as VP of Sierra Madre on 11/16/81 to SG

**Sumpter (Turner):** Wright to S. Madre 9/21/81 to SG 11/16/81

Sierra Bella Company {Columbia Group}

Four and ½ claims, all later patented.

**Comstock:** located 12/28/80 - Roberts to SB 6/10/82

**Last Chance (Pinafore):** Roberts to SB 6/10/82

**Strieby:** LVMCo. To Roberts 9/7/81 to SB 11/1/81

**Columbia:** LVMCo. To Roberts 9/7/81 to SB 11/1/81

**Emporia:** (No. 2 - east half) history under No. 1; LVMCo. to Roberts 9/7/81 to SB 11/1/81

**Little One:** small claim on 1880s maps between Last Chance and Strieby. G. B. Chittenden to Bartlett 3/11/1884 apparently later made part of Strieby.

**Triangle;** A fraction of an acre at south end of Strieby: James A. Moorhead to SB 7/10/1884

Sierra Apache Company – {Kohinoor Group}

Four claims only two of which were patented.

**Kohinoor:** located by William F. Clark 1/?/80 - Roberts to Wright 7/27/81. Relocated by Walter C. Hadley as the Apache claim filed 3/24/1888 in Sierra County.

**Grace Darling:** Roberts to Wright 7/27/81 to SA 9/21/81. Relocated with new boundaries by Walter C. Hadley as the Bacon claim filed 3/24/1888 in Sierra County.

**Surprise** Roberts to Wright 7/27/81 to SA 9/21/81

**Crescent** Roberts to Wright 7/27/81 to SA 9/21/81

**Sunset (old Surprise)** W. B. Jones to SA 1/1/1884

### Other claims not put into the Sierra companies

**Little Chief:** This claim east of school house-became part of the 1882 townsite. It was located by J. Whitaker Wright on 4/27/81 and on the same day George Daly located the Bullion claim to its east

**Hidden Treasure:** The first town site, Sierra City, was on this claim. It was sold by Lufkin on 8/9/82 to the **Sierra Rica** Mining Co. Lufkin also traded another claim to this company for 5,000 shares.

Most of the Claims were deeded from John B. Mellor, president "The Silver Mining Company [of Lake Valley] to Lucius G. Fisher of Chicago, Cook County, Ill. ... for \$1 ... March 12, 1900 (Sierra County- Mining Records, Book A, p. 493-)

**Jim Finch** Claim (H.H. Sawyer's Hopefull of 1882) was patented in 1918 by D. S. Miller.

**Compromise** Claim (Ezmerelda of 1882) was the last patented in the district in 1921 by the Lake Valley Mines Company.

## Section II Biographies of Major People at Lake Valley

The individuals covered in this section are Clifford, Cope, Daly, Endlich, MacDonald, Roberts, Silliman, and Wright.

### **Henry B. Clifford**

Henry B. Clifford was born April 28, 1859 in Louisville, Kentucky. As a young man he worked for the government in Washington D. C., where he met a number of western miners including Sutro of Comstock tunnel fame. He went west in 1875 and learned mining from Col. Robert G. Ingersol, whose papers are in the National Archives. Ingersol controlled several mines in New Mexico, including the Ivanhoe Mine near Chloride in the Black Range. In 1879 Clifford worked for Raymond Chaffee on the development of the Little Pittsburg mine at Leadville (Clifford, 1908, p.257). He apparently left the Little Pittsburg at the start of its great stock promotion since he said he came to New Mexico in 1880.

"In 1880, he made an examination of the mining regions in New Mexico and... Arizona. He lived in Silver City, N.M. and worked at the "Seventy-six mine, and was employed in the Bremen mill at that place." In 1881 he went to Tombstone. "In 1883 to 1885 he was employed by the now United States Senator, Stephen B. Elkins, and others, to make a report on the Guanajuato mines, of Mexico, and remained in that Republic for three years, ... He constructed the first American stamp mill ever erected in the State of Guanajuato. His report on that district has since been verified by the success that has followed the American mining invasion. ... In 1893, Mr. Clifford prepared, at the request of President Cleveland, the statistics of "The Cost of Producing Gold and Silver," an article which has added much to his reputation as an authority on mines and mining. ... In 1902, Mr. Clifford made an examination of the Cananea Copper Belt in Sonora, Mexico. (Clifford, 1908, pp. 233-235) [Elkins made large investments in Cananea about this time.]

Clifford was living in Silver City, New Mexico in 1880 and working there or in Tombstone, Arizona when he wrote a report on Lake Valley. At that time he was a young man and was probably hired at minimal cost to examine and report on Lake Valley. A version of his report was published in the journal that J. Whitaker Wright started in Philadelphia in 1881 to promote the Lake Valley mines. Copies of *The Mining Journal* between January 14, 1882 and August 18, 1883 were located in Philadelphia, but could not be microfilmed in time for this report. Compared to other reports,

Clifford was fairly mild in his claims for Lake Valley, but did say that they were “almost a fac simile... to the famous *Plachis de Plata* in north-east Sonora.” That is the ‘Arizonac’ site where silver nuggets weighing hundreds of pounds each were found in the early 1700s. He said he did not want to estimate the amount of very rich silver ore but said that 5000 tons of “this kind of ore would be worth 40 million.” He said that “an estimate of \$6,000,000 in sight may not do the property justice.” (*The Mining Journal*, page 6, date unknown) Clifford and Cope’s reports in Wright’s journal were the only ones located. Clifford said that he was working for Chaffee at the Little Pittsburg mine in Leadville, Colorado in 1879. In 1879 Roberts controlled the mines on one side of the Little Pittsburg and Wright controlled the mines on the other side. Roberts and Wright probably knew Clifford from Leadville.

Clifford’s two books (1883, 1908) on mining stock promoters and how to correct the problems unscrupulous promoters create are discussed in the text. In the 1883 book, he lists a number of Roberts’ operations as examples of bad promotions. In spite of Clifford’s statement in his 1908 book that it was written “without individual reference to [any unsound] man or mine” he mentioned one man, J. Whitaker Wright, and one mine, Lake Valley. (Clifford, 1908, p. 175 and 233). He probably felt safe in doing this as Wright committed suicide in 1904 after a conviction on fraud charges. Clifford may also have felt some guilt even 27 years later for his early mistake in aiding promotions like Lake Valley.

“In 1882 [sic. 1883] the writer published his maiden work. It was only a little book called *Years of Dishonor in Mining*. The Lake Valley Mines of New Mexico were being floated by the late Whitaker Wright ... If there were years of dishonor, from 1880 to 1884 we may class that period as the crown of them. People were told that the ore bodies were unlimited, that the values increased with depth and that millions would positively result from mines, that, even to this day, are non-commercial. ... My little book [1883] was of a limited issue ..., but I was a marked man. Hon. Stephen B. Elkins, at that time laying the foundation of his fortune in West Virginia coal, characterized the book as the enemy of the ‘cheese-grabbers of Wall Street.’ ... those promoters; they were the wisest lot that the West ever knew. The promoter of to-day is a butcher when compared to the handlers of the fine stiletto that those men plunged into the vitals of the public.” (Clifford, 1908, pp. 233-235)

### **Edward Drinker Cope 1840-1897**

Cope was born into a wealthy old-line Philadelphia Quaker family. In 1872 he became the paleontologist for the U.S. Geological and Geographical Survey of the Territories led by Hayden. Cope visited most of the states west of the 100th Meridian (Missouri) during the 1870s. When his father died in 1875 he left him a reported inheritance of a half million dollars. Cope was a very well known geologist and paleontologist before becoming involved with Lake Valley in 1881. Numerous books describe his contributions to American Science and his battle with the other leading paleontologist, Marsh, who was hired to examine the Little Pittsburg in 1879. A few of these books are: Henry Fairfield Osborn, *Cope: Master Naturalist*, Princeton, Princeton University Press, 1931; Edwin H. Colbert, *The Great Dinosaur Hunters and Their Discoveries*, Dover Publications, New York, 1968; Marcus Benjamin, “Edward Drinker Cope,” pp. 312-340, in David Starr Jordan, ed., *Leading American Men of Science*, New York: Henry Holt & Co., 1910; Richard A. Bartlett, *Great Surveys of the American West*, University of Oklahoma Press, 1962; William H. Goetzmann, *Exploration and Empire: The Explorer and the Scientist in the Winning of the American West*, New York: Norton, 1978; Uri Lanham, *The Bone Hunters*, New York: Columbia University Press, 1973; Shor, Elizabeth Noble, *The Fossil Feud between E. D. Cope and O. C. Marsh*, Hicksville, N.Y.,

Exposition Press, 1974; Desmond, Adrian J., *The Hot-Blooded Dinosaurs: A Revolution in Paleontology*, London: Futura, 1977; Reingold, Nathan, ed, "Cope and Marsh: The Battle of the Bones," pp. 236-250, in *Science in Nineteenth-Century America: A Documentary History*, New York, Hill and Wang, 1964.

J. Whitaker Wright went to Leadville, Colorado to develop mines in 1879 for Cope and other wealthy Quakers. Cope was a major investor in Denver City, and also in the adjacent Lee Basin mining company that Wright developed on Fryer Hill. Cope was precocious and published his first scientific paper when he was 18 years old. His family's wealth allowed him to pursue his interests and he became an expert on modern fish, amphibians and reptiles. He is "sort of [the] patron saint for those men who study the 'lower' vertebrates." (Cobert, 1968, p. 72). After his death the Society of Ichthyologists and Herpetologists named their journal, *Copeia*, in his honor. He was an extremely prolific writer of scientific articles, with about 1,400 publications. Both he and his employees did extensive geological and paleontological fieldwork in the west. Wright knew Cope from his investments in the Leadville mines and probably sought him out for his scientific reputation as well as for money for Lake Valley. Wright persuaded him to make major investments in the four Sierra companies in April and early May, 1881. He sold stock to Cope at the insider price of one-fifty to two dollars a share. The wealthy Quaker community was the major target of Wright's solicitations and well-known individuals were sought out for the board of directors of the companies. The incorporation of the Sierra Madre was signed in Philadelphia on June 24, 1881. Cope was listed as one of the directors for the first three months but was replaced by his brother-in-law, Phillip C. Garrett when the Madre was reincorporated as the Sierra Grande in Philadelphia on August 16, 1881. Both Cope and Garrett were listed as directors on the incorporation of the Sierra Plata, which was also signed on June 24, 1881 but only Cope was listed on the incorporation of the Sierra Apache done the same day. The Sierra companies were a major investment for at least two of Cope's relatives. Cope's cousin, Ellis Yarnall, who several years later was a director of Sierra Grande and Sierra Apache, was a major investor as was Phillip Garrett. By the time the four Sierra companies were formally offered to the public in January 1882 Cope and Garrett were two of the nine directors of all four.

Though Cope had probably been in New Mexico many times, his first visit to Lake Valley was from August 6th or 7th to the 14<sup>th</sup>, 1881. Cope's letters to his wife from Lake Valley are discussed in the text. George Daly treated him with the respect due a visiting director and he left Lake Valley less than a week before Daly's death. His August letters from Lake Valley indicate that he was impressed, but that nothing spectacular like the Bridal Chamber had been found. He remained a director of most of the Sierra companies from incorporation in 1881 until the last listing in 1886. He often served as president or vice president of more than one of them at a time. Cope took control of the companies at the board of directors meeting on July 15, 1883 and led the movement to remove Wright and his supporters. One of the Sierra Apache stock certificates reproduced in this report was signed by Cope as President. In September 1883, when he came to Lake Valley for the annual election of officers, he was still optimistic and wrote his wife that "he was not in the poor house yet."

This was the stockholder meeting at which Cope's removal of Wright's people from the company was confirmed. Cope's optimism was not confirmed and the company's fortunes continued to decline and with them the price of their stock. Between his losses in Wright's Denver City and the Sierra Companies, Cope lost most of the half million he had inherited from his father. Though Cope

initially bought Sierra stocks at two dollars or less he continued to buy Sierra Grande as high as five dollars. In 1886, when he probably sold most of his Sierra Grade stock, it was selling at between 20 and 30 cents a share. Though not poverty stricken, Cope “realized he had lost his fortune” and was forced to sell his home and move to a small house which also functioned as his laboratory. (Osborn, 1931, p. 583)

When the Sierra Grande was reorganized as the Silver Mining Company of Lake Valley in 1887 Cope was not listed as a director for the first time since 1881. He had finally given up and sold his stock in Lake Valley. Cope’s financial ruin had a beneficial effect on the development of American Paleontology. Before 1885 only the wealthy could afford to finance the collection or purchase of fossils. Cope was one of two or three people in this category. He was forced to sell his fossil collection to the American Museum of Natural History in New York, which became the first major institutional fossil collection. Though not clearly stated in most books this was confirmed by the paleontologist Spencer Lucas at the New Mexico Museum of Natural History.

Cope continued to do fieldwork and publish, but finances forced him to sell his large home and take a professorship at the University of Pennsylvania. Cope put New Mexico fossils on the map and before his death in 1897, published forty-seven articles dealing with fossils in New Mexico. David Baldwin, a professional fossil hunter working for Cope in an area three hundred miles north of Lake Valley, wrote the following: “Label Sack 2, Box 1 Prof. E. D. Cope Contains Triassic or Jurassic bones all small and tender. ... All in this sack found in same place about four hundred feet below gypsum stratum ‘Arroyo Seco’ Rio Arriba Co New Mexico February 1881. No feet-no head-only one tooth. D. Baldwin-Abiquiu.” Colbert (1968, Figure 24, p. 140) felt this was an important enough event in the history of paleontology to reproduce the label in his book. Cope studied these fossils during the years of his Lake Valley involvement and in 1889 he described the dinosaur and named it *Coelophysis*. It was considered the oldest dinosaur found in the western United States. Complete skeletons of *Coelophysis* were found at this site in 1947 by a crew from the American Museum of Natural History. The Museum made a cast of one of the complete skeletons. The New Mexico Zoological Society obtained a cast of *Coelophysis* in 1974 for a paleontology exhibit in the new reptile house at the Rio Grande Zoo. Two years later when the New Mexico Zoological Society created a committee to obtain Legislative support for a New Mexico Museum of Natural History it chose *Coelophysis* as its symbol. Much later the legislature voted *Coelophysis* the ‘New Mexico State Fossil.’ Cope’s fossil collection is at the American Museum of Natural History, along with his fossil notes and personal papers used in this report. The finding aid for those papers lists Philip Garrett as Cope’s brother-in-law. Ellis Yarnall is mentioned as a cousin of E. D. Cope in Joyce L. White, “Biographical and Historical Background of the Yarnall Library of Theology; Ellis Hornor Yarnall: Biographical Sketch,” *The Library Chronicle* (University of Pennsylvania), vol. 43, n. 2, p. 138, (Winter, 1997). Other Cope papers are at the Philadelphia Academy of Natural History.

**George Daly** 1850s? -1881 See endnote for references<sup>1</sup>

Being killed by Apaches was the 19th century form of martyrdom in the southwest. With it came the status of sainthood. That fate gave George Daly instant distinction in New Mexico and mining circles in 1881. The mining camp at Lake Valley, Sierra City was either renamed Daly, in his honor or just commonly referred to as Daly because that was the name given to its post office. In the

national mining press as well as the New Mexico press George was revered from that day onward, except in a few mining camps like Bodie where he had operated. This changed in 1974 when Richard Lingefelter's book "*Hard Rock Miners*" traced George's career as a scoundrel who was kicked out of at least two of the mining camps he had lived in during his brief career in mining.

George Daly's father was an Episcopal minister who was a missionary in Honolulu, Hawaii. George was probably born there in the late 1850s. As a young man, George came to the mainland and learned printing in the Farmer's Job Office in Portland, Oregon. He moved to San Francisco where he worked in the *Alta California* print shop. McKenna (1936, p. 287) in *Black Range Tales* wrote that George Daly was the brother of Marcus Daly of Butte, Montana mining fame. The lack of evidence for this statement is discussed in an endnote<sup>2</sup>. The longest obituary found for him was in *The Homer Mining Index*, a newspaper that served an area that included Bodie, California. George Daly had been run out of that town in 1879, and thus the obituary was hostile to him. It referred him as "one of the most despicable of characters." The entire article from *The Homer Mining Index* is as follows:

George Daly

The journals of this coast are discussing, or rather speculating as to what was the birthplace of the late Geo. Daly - some saddling the questionable honor upon Portland, Oregon, and some upon the continent of Australia.

"Seven Grecian " cities claimed the Homer dead-  
Through which the Living Homer begged his bread."

But it is scarcely probable that there will be such a scramble among cities or continents for the honor of having given birth to George Daly. Daly was the son of an Episcopal clergyman of ability and high standing (now retired from the ministry on account of old age), and George was born in Honolulu while his father was stationed at that place. George learned the art of printing in the Farmers' Job Office in Portland, Oregon, and soon afterward, in San Francisco, became notorious as what honorable printers term a "rat" - one who secretly gnaws at the framework of the system which gives him support." (The Typographical Union, an international organization having branches wherever the English language is printed, for the purpose of maintaining a fair rate of wages, caring for the sick and burying the dead), who undermines a fellow-workman in order to get his situation, and who voluntarily intrigued and conspires with the employer to cut down wages, solely for the purpose of ingratiating himself into the good graces of the employer and securing a foremanship at increased wages, at the expense of his fellow employees and their families - certainly one of the most despicable of characters, and one which George Daly carried into and maintained conspicuously in his mining operations. Some of our contemporaries give Daly credit for having possessed a high order of courage. Aside from personal knowledge that the contrary was true, for true courage to be an attribute of such a character would be a moral paradox; but, being a pariah, a marplot and an Ishmaelite from his boyhood, always at war (in the bush or out of it) with those with whom he ought to have co-operated and associated fraternally, George Daly was always armed, always in trepidation, and hence acquired the species of desperation and cautious bravado that is born of the consciences of a life more than half forfeited - that subtle desperation that is frequently mistaken for courage. (*Homer Mining Index*, 9/3/1881, p. 1, col. 1)

The obituary in the EMJ (8/27/1881) said that George Daly went to Virginia City, Nevada in 1873, but this was probably as a printer rather than as a miner. It did say that Daly was superintendent of the Florida and one or two other mines in 1876. It quoted the Virginia City *Enterprise* as saying that he went to Aurora, Nevada in December 1878 as superintendent of the Real del Monte Mine and later took over the Mono and Jupiter mines in Bodie, California. The EMJ also reported that he went to San Francisco in October 1879 and sold his print job office to a man named Sutherland and left



November 1, 1879 for Leadville, Colorado where he became the superintendent of the Little Chief Mine. George Daly's involvement in mining prior to 1878 was not confirmed by other sources. George seems to have been involved in the printing trade as much as in mining and did not sell his printing plant in Virginia City until November 1879. His transition from the printing business to mining thus spanned three to six years, either 1873 or 1876 to 1879. More is known about his activity starting in early 1878 when he was managing mines for James R. Keene. George was involved in some manner in an armed dispute between two adjacent mines on the Comstock Lode in January 1878. Either because of this or for other reasons, he left Virginia City around the time of that disorder and moved to Aurora, Nevada. Later that year, 1878, he also started managing two other mines just across the border at Bodie, California for the mining stock promoter James R. Keene. He was accused of a conflict of interest by some stockholders in the Real Del Monte Mining Company, the company he managed first in Aurora, Nevada. The charge was that he could not also manage a mine for another company without a conflict of interest. He wrote that he managed the affairs of the Real Del Monte company more carefully than his own. That "in all attempts to injure or assail the Co's property, I have, without any regard for my personal popularity, or even safety, fearlessly stood up for our rights, and maintained them at all hazards... That some stockholders will growl is natural, for some would growl if I worked for them 20 hours a day, for my board." (George Daly to Henry M. Yerington, Aurora, Nevada, September 13, 1878, Yerington Papers, box 1, Bancroft Library, Spence, 1970, p. 191)

In this letter to Yerington he also wrote he needed money to support his ailing wife and four young children. No other mention of his family was found and the 1882 probate of his will in Philadelphia has not been located. Daly wrote that his finances were in bad condition and that he had to borrow \$10,500 due to his losses in the "unfortunate Alta deal of last winter." The unfortunate Alta Mine deal that Daly referred to was a dispute between the Alta and Justice Mining Companies on the Comstock in 1877-78. Daly's role in this is unknown, but it may be the site of his brief experience as a foreman on the Comstock that Lingenfelter found mentioned in the press. The Bodie miners union's animosity toward Daly a year later would have additional justification if Daly was the foreman of the "shotgun miners" hired by the Alta or Justice companies in January 1878. The Alta affair is discussed by Lingenfelter (1974, pp. 56-58). In brief, the Alta mine struck a rich ore body on the boundary between the claims of the two companies in December 1877. The Justice Company claimed the area and a number of lawsuits were filed. In the meantime both companies mined toward each other and by mid-January their workers could hear each other underground. The press reported that each company had hired "a party of professional fighters, armed with shotguns and revolvers, ready to commence hostilities as soon as the connection was made." These gunmen or "shotgun miners" were paid \$20 a day or five times the regular miners wages. Sam Cutis, the superintendent of the Justice Mine, built a bulletproof mine car with portholes to shoot through called the "monitor." He planned to invade the Alta and capture its workings. The Sheriff said he could not do anything until violence occurred. The local press including the *Territorial Enterprise* called for the miners union to help prevent the impending bloodshed. The Gold Hill Miners' Union asked the two mines to remove the gunmen, but got no results. Finally the union took matters into its own hands and on January 17, 1878 hundreds of miners marched on the mines. They went to the Alta Mine first and forced the "shotgun miners" to leave. By the time they got to the Justice Mine its gunmen had already been taken out and discharged. The victory was swift and bloodless and the companies agreed to pay \$4 a day for union men to stay at the two mines as "watchers" to ensure

that the gunmen did not return. What Daly's role in the "Alta affair" was and how it cost him so much money that he had to borrow ten thousand dollars is unclear. One possible explanation was that he financed the hiring of the gunmen for one of the two mines and was not repaid and thus had to pay the gunmen out of his own funds. In Daly's September 1878 letter to Yerington mentioning the Alta affair he also gave him insider information on a mine for use in stock speculation. (Spence, 1970, p. 269)

Lingenfelter, in tracing Daly's career, wrote that he went to the Comstock as a foreman and then was the proprietor of the printing or job shop for the *Enterprise* newspaper. Then Daly "became an agent of stock shark James R. Keene, and in 1878 with no experience in mining he was made superintendent of the Jupiter and Mono mines in Bodie [California] and the old Real del Monte in neighboring Aurora [Nevada]." (Lingenfelter, 1974, p. 137) Lingenfelter based this on a number of newspaper stories of the period. Most individuals in the press assumed in the 1880s that Daly was a mining engineer. Most historians since then including Spence (1970) and Dempsey and Fell (1986) have made the same assumption. Daly's experience in mining was confined to about the last five years of his life. He was not a mining engineer in any real sense of that term. He was only a mine manager and like many other mine manager of the period he had a limited background in mining. Spence (1970), in describing the mining engineering profession between 1849 and 1933, used George Daly's behavior repeatedly as an example of the least professional behavior in a mining engineer. Spence uses Daly as a bad example for the following: stock manipulation, pp. 165-166, 269; bad labor relations, p. 179; providing confidential information, p. 191, and offering to promote mines for a fee, p. 261. Daly should not be considered as an example of unscrupulous behavior in the mining engineering profession, because he was not one. His supervisory positions in all the post 1877 jobs were to manage mines for stock promotion, not mining, which is the production of ore. In all probability when more is learned of his first two years in mining they will prove to be the same.

In July, 1879 at the Jupiter mine, which he managed for Keene, the neighboring miners on the Owyhee Claim started sinking a prospecting shaft near the claim line with the Jupiter. Daly told them they were on Jupiter ground and to get off. They refused. Rather than go to court Daly quietly armed his men. On the evening of July 22, 1879 after the five Owyhee miners had gone to their cabin Daly's foreman, Joe McDonald, put a prefabricated cabin over their shaft. Throughout the night, MacDonald and his men exchanged gunfire with the Owyhee miners in their cabin several hundred feet away. At daybreak Joe and his men rushed the cabin, killing one and wounding two of the five Owyhee miners. The Owyhee miners surrendered and Joe took them into Bodie. Joe asked the sheriff to arrest them for trespass, but he refused. The Bodie Miners' Union was outraged, and aware of the Alta Affair of January 1878, they took matters into their own hands. Hundreds of miners marched on the Jupiter mine. They rolled Daly's cabin on the Owyhee claim down the hill and burned it. All of Bodie was outraged at Daly's and Joe MacDonald's behavior in killing and wounding neighboring miners. Daly and several of his men were arrested for murder and taken to the county seat and put in jail. A few months later they were acquitted by a grand jury and released and returned in triumph to Bodie. Rumors that the grand jury was fixed circulated around town. On Saturday, September 20, 1879 the Bodie Miners' Union held a general meeting. A resolution was made that George Daly, Joe MacDonald, Bernard MacDonald and Daly's other four men be given 12 hours to get out of the Bodie Mining District. The vote was 500 in favor of the resolution and 3 against. Daly scoffed at the miners action and fortified the Jupiter mine and brought in more

gunmen. In order to avoid a gun battle a committee headed by attorney Ferguson went to the mine. Ferguson convinced Daly to surrender their guns to the sheriff and negotiated a more liberal expulsion agreement. Daly agreed he and his men would leave the Bodie District within 48 hours, but he had the right to return in the future provided he stayed less than 24 hours in the district on any visit. This incident attracted comment in the press across the region. Some papers attacked the Bodie action of expelling Daly and his men and others supported it. Daly resigned his superintendence of the two Bodie mines and the Real Del Monte in Aurora.

The press reported that Daly went east to convince investors to withdraw their support from all mines in the Bodie District. (Lingenfelter, 1974, pp. 137-139) In another letter to Henry Yerington, October 9, 1879, two weeks after his expulsion from Bodie, Daly wrote that he was going to address the Bullion Club in New York. He told Yerington "you may be sure I will place all properties you are interested in as favorable a light as possible." (Yerington Papers, Box I, Bancroft Library, Univ. of California, Berkeley, Spence, 1974, p. 261) Daly expected to be compensated for his efforts and if he did talk to the Bullion Club he may well have met George D. Roberts there. No record of Daly's movements and activity between November, 1879 and April, 1880 was found. Keene probably recommended Daly to Roberts and between those two dates he switched to working for George Roberts. The EMJ obituary (8/27/1881) said he went to San Francisco in October, sold his printing plant, and then left for Leadville on November 1, 1879. It is not clear if he first went to Leadville or New York. In April, 1880 Daly purchased the Gilpin Mine about 15 miles north of Leadville. It was incorporated as the Gilpin Consolidated Mining Company and sold to eastern investors later in 1881. (Dempsey and Fell, 1986, p. 74) Though Dempsey and Fell give Daly total credit for developing the mine and its promotion that seems unlikely. Daly had no known past experience in stock promotion and thus he was probably working for or only a front for Roberts on the Gilpin Mine promotion. It appears Daly managed the Gilpin mine for less than 7 weeks as he was working for Roberts in Leadville before May 26, 1880.

Keene was an old California mine promoter and he and Roberts probably worked together on many promotions. However, only one was located. In 1874 or 1875 they formed the Justice Silver Mining Company with John W. Pearson and John T. Bradley. Bradley filed a suit against his three partners, claiming they told him they only got 4,000 shares to split between them in addition to cash when they sold the property. He found out later they got 10,000 shares and thus Keene and Roberts had cheated him out of 1500 shares. Bradley filed the suit in 1875, but it was still in progress in 1882. (Mining Record, 3/18/1882) Lingenfelter bluntly refers to Keene as a "stock shark" (Lingenfelter, 1974, p.137). Unlike Roberts, Keene appears not to have moved his operations to New York. Like Roberts however, he recognized the potential of Leadville and tried to acquire mines in the new booming silver camp in 1879. Though no record of Roberts' involvement with the Little Pittsburg mine in Leadville has come to light, there is a record of Keene's efforts to buy part or all of the Little Pittsburg in March, 1879. Since Daly was Keene's superintendent of two mines in Bodie at that time he may have been aware of Keene's efforts in Leadville. In February, 1879 George Roberts told the press the Little Pittsburg was essentially worthless just before Keene's effort to buy it. Roberts would not have done this without a reason. Either he or a friend must have been interested in buying it. Smith (1973, pp. 110-111) discusses Keene's hiring of experts including James Hague to go to Leadville and evaluate the mine for him. Hague was given full access to all the records of the Little Pittsburg, something that would not have been done unless there were serious negotiations for its

sale to Keene. Hague's report to Keene is in the Hague Papers at the Huntington Library along with Hague's materials on Lake Valley. Keene was a promoter and would not have been negotiating with Moffet and Tabor for anything short of control. If he made an offer it has to be assumed that it was rejected (Smith, 1973, pp. 337-338, and other pages). The big promotion of the Little Pittsburg was started in April 1879, the same month that Hague made his report to Keene.

Between November, 1879 and April, 1880 George Daly arrived in Leadville and switched employers. After Daly worked at the Gilpin Mine George Roberts put him in charge of the Little Chief Mine, one of the three mines Roberts had purchased in 1879 on Fryer Hill. George Daly was superintendent of the Little Chief and his Bodie foremen Joe and Bernard MacDonald were working again as his foremen. In the famous Leadville miners strike of May 1880, Daly and the MacDonalds again incited violent confrontation. Daly again hired gunmen and fortified Roberts' three mines within 24 hours of the walkout by the miners. Roberts' managers deliberately started the strike as is discussed in section 3 of the report under 'Roberts Engineers a Strike in Leadville.' It is discussed in greater detail in Lingenfelter (1974, pp. 144-155). Daly was not only responsible for starting the strike along with Keyes, but deliberately tried to raise the level of animosity and promote violence amongst the miners. At the same time he formed an armed militia for the owners to intimidate the miners. During the strike he was a major leader in the owner's committee to crush the strike. Thus during and after the strike he was glorified by the press controlled by the owners. The pro-miner and neutral press in Leadville attacked him and animosity toward him amongst the miners was very high.

A few months after the strike, rumors abounded that Daly was going to leave Leadville and take over the Robinson Mine near Kokomo. Daly's reason for leaving is unknown, but may well have been the Leadville miners animosity to him. The Robinson mine was about 15 miles north of Leadville and was another Roberts promotion. Press reports do not indicate that Daly had control there until the first week of December. Daly fired the foreman there on December 4, 1880 and made Joe MacDonald, his most violence-prone assistant, the foreman. George Roberts reached an agreement with the mine's owner George B. Robinson to promote the mine in the summer of 1879. Robinson got a  $\frac{3}{4}$  interest and Roberts a  $\frac{1}{4}$  interest for doing the promotion. Roberts sent experts to write glowing reports for the prospectus in the fall of 1879. One was his old friend and soon-to-be general superintendent of all of his Leadville mines, Winfield Scott Keyes. Roberts, Robinson and Stafford, the ex-governor of Arizona who gave the press glowing comments on Lake Valley a year later, incorporated the Robinson Consolidated Mining Company in New York on March 5, 1880 and started the public phase of the promotion. There was another individual who claimed title to the mine and rumors circulated that he was going to send gunmen to take over the mine. Robinson, who lived in Leadville, kept direct control of the mine and ran for and was elected Lt. Governor of Colorado in October. Tensions increased after the election as rumors increased of a coming attack on the mine and on the night of November 27<sup>th</sup> Robinson was accidentally shot by one of his own men at the mine. George Daly assumed it happened during an attack on the mine and started to arm a group of men in Leadville to counter-attack, before the truth was known. Robinson's mine foreman, Evens, and many dignitaries including George Roberts attended Robinson's funeral in Michigan. When Evens returned, George Daly told him he was fired and appointed Joe MacDonald foreman. Tensions continued and one night the guards at the mine spayed the camp with hundreds of bullets.

In this atmosphere of tension, a disturbance of some type occurred and on the morning of February 17, 1881 George Daly telegraphed Leadville for two cases of Winchester rifles and 2500 rounds of ammunition, which were sent to him. The Leadville *Democrat* ran the story on February 18th and the *Daily Examiner: San Francisco* (3/2/1881) ran the story under the headline, "George Daly in Trouble Again." A dispatch to the *Democrat* on the 18<sup>th</sup> said that the sheriff had restored order and both sides acknowledged his authority. It continued "George Daly has been warned to leave the camp," but did not say by whom. As the warning was apparently taken seriously it may have been the sheriff who warned or told Daly to leave. The next day, February 19th, Daly was already in Leadville on his way to Lake Valley. "George Daly, manager of the Robinson mine, was in the city yesterday, and left last night for Denver. He thence proceeds to New Mexico, to examine some important properties in which George D. Roberts is interested. Mr. Daly will be absent about ten days." (Leadville *Daily Herald*, 2/20/1881, p. 4). Assuming Daly did not stop in Denver or anywhere else along the route, he would have arrived in Lake Valley on February 21 or 22, 1881. Another possible reason for Daly's departure was the purchase of Robinson's 150,000 shares in the company by Ewing and Waddingham, old Roberts cronies, which was completed on February 21<sup>st</sup>. Ewing probably did not take over as mine manager until March, and his appointment is not a reasonable explanation for Daly's hurried departure on February 19th. Dempsey and Fell (1986, pp. 155-157) assumed Daly was a mining engineer and credited him with a number of improvements in the Robinson Mine operation, which more likely were due to Joe MacDonald or others who had more practical mining experience.

The events of the next and last five months of Daly's life are covered in the report. The last correspondence found of George Daly's is his "first weekly report" to J. Whitaker Wright, President of the Sierra Plata Mining Company", dated August 7, 1881. Wright sent a copy of this report, which was probably published in his mining journal, to the editor of the *Mining World* in Las Vegas, New Mexico, which published it on September 15, 1881.

According to the *Mining Record* (1/14/1882), Daly sold most of his stock in the four Sierra companies before his death. This was due to his discouragement caused by finding only relatively small amounts of low grade ore at Lake Valley. This is supported by Bernard MacDonald's (1908) statement that Daly got a fourth of all the stock in the four companies and Wright's responses to the interrogatories in the Wilson vs. Wright et al. case (1882). George Daly left a decent fortune to his wife, if she was still alive, and his four children. He had \$79,100 in bank accounts at his death and even if the executor of his will, J. Whitaker Wright, sold Daly's remaining 64,166 shares of stock at a modest price the total would have been around \$200,000. (Wilson v. Wright et al., 1882, Interrogatory responses, Cope's, No. 7, p. 2 and Wright's, XIX, p. 8.)

Reports differ on the exact day of George Daly's death. However, the conflict is only between August 18th and 19th, 1881. The 19th is probably the correct date as J. Whitaker Wright who was at Lake Valley the following day wrote four months later in his sworn response that "George Daly died on nineteenth day of August" (Wilson vs. Wright, 1881, J.W. Wright response, p. 2). Lekson (1987) gives the date as the 19th when Daly led about 20 miners from Lake Valley into what was an obvious ambush. The cavalry only entered the gulch to save the miners and the fight lasted from 10 in the morning to four in the afternoon. Thus, Daly's body was probably not taken to Lake Valley until the next morning. Daly and Lieutenant Smith were killed at the start of the battle. An African-

American Sargent commanded the troops during the six-hour fight and four soldiers died and an unknown number were wounded. A number of miners were wounded one of which died the next day. Only a portion of H Company of the 9th Cavalry from Ft. Cummings under Lt. Smith followed the miners as most were left at Lake Valley to protect the camp. Lekson gives the incident with a local rancher, from McKenna's Black Range Tales, as the cause of Daly's foray, which would indicate that it happened on the 19th. However, MacDonald (1909) wrote that Daly led the group out after the Apaches due to the raid near Kingstons, which was on the 18th. The official U. S. Army book on Apache actions gives the date of the battle as August 18, 1881. (Sheridan, 1882, p. 115.) An interview with J. Whitaker Wright published in the *Denver Times* 22 years later linked Daly's death to the discovery of the rich ore deposit. "We were getting discouraged... almost ready to give up," on the Lake Valley mines. "I was on my way back to the mines... and the body [Daly's] was brought in when rich ore was discovered." (*The Denver Times*, January 26, 1904, p. 11, "Chose Death Rather Than Prison.") Thus at the earliest, rich ore was probably found the day after the fight, and was the top of the ore body in the Joint Shaft, not the Bridal Chamber. It would have been a week or two before mining reached the Bridal Chamber. MacDonald (1909) also wrote that the two events occurred at the same time. References for these events are in note one at the end of this appendix.

There were numerous favorable obituaries for George Daly printed in New Mexico and across the country saying that George Daly was a great and courageous man. (EMJ, August 27, 1881) Possibly for the only time in the 19th century, evening prayers in mining camps like Bodie thanked God for the Apaches. The following was written after the 1880 Leadville strike and shows the hatred felt for George Daly.

A Leadville letter says: 'George Daly is a bigger man here than Hancock or Garfield.' We wonder what kind of people those Leadvillians must be to worship this dirty, little cub, whom every decent man in California and Nevada could not pass without an involuntary desire to kick him? He is a toady by nature, a scrub by instinct and a bully on general principles, as all men of his stamp are. He is always ready to lick the boot of a superior, and is just as ready to kick one of an inferior position he has no inferiors in manhood. His success shows what a man can obtain by sycophancy, cheek and a willingness to do any sort of dirty work for his masters. If he had been anything but the creeping, malicious bug-sucker that he was the respectable citizens of Bodie would never have let him be run out of town. ... He knows no more about a mine than a pig does about a blow-pipe - and if he had not accidentally fallen in with men who needed his debased services, he would have naturally become a pimp or barkeeper in a cellar dive. (*The Homer Mining Index*, c. 3, p. 1, 7/17/1880)

George Daly was admired by many who did not know him and many that worked with him for Roberts and Wright, but passionately hated by those who felt they knew his dark side.

### **Fredric M. Endlich**

Endlich had a number of degrees from prestigious European mining colleges. He worked on the U.S. Geological and Geographical Survey of the Territories west of the 100<sup>th</sup> Meridian led by Hayden in the 1870s where he probably met Edward D. Cope. He also held a position at the Smithsonian Institution in Washington D. C. until 1880. After that he pursued a career in mine management and smelter construction in the West. (EMJ, 7/20/1899, Spence, 1970, p. 59). Less than three years into this career he took the job as assistant manager at Lake Valley, under Robert Bunsen.

When Cope took control of the company on August 15, 1883 he immediately dismissed Bunsen who was a Wright crone and appointed Endlich manager of the mines. Endlich was the first manager to last more than 8 months and the first in the post stock-promotion period. He served almost three years as manager from September 1, 1883 to June 1, 1886. He introduced a number of innovations to increase the efficiency of mining in order to make the mines profitable on low-grade ore. His efforts were not successful as ore grades continued to decline. At least one mineral, Endlichite, bears his name.<sup>3</sup>

Endlich apparently remained in or returned to New Mexico in the years after Lake Valley.

Three years later he wrote an article on northern New Mexico. He made several broad comments on the nature of mining camps and miners which must to some degree be based on his three years at Lake Valley. In his discussion of the lost San Lazaro mine which he assumed the Indians covered up in 1680 he gave a footnote. "The writer has had occasion to mine an ore deposit within which he unexpectedly struck old Spanish workings underground: selecting, on the surface, a point which commended itself by its 'natural' appearance, another shaft was sunk, only to strike workings a second time, after digging a few feet. The skill with which all evidence of former work had been obliterated was truly admirable." (Endlich, 1889,\* , p. 730) Endlich is making the point that some old Spanish mines were extremely skillfully covered up and could not be detected on the surface. There is no reason to think this is a reference to Lake Valley and must be a reference to some other location in New Mexico where he worked. Through his British connections he may have worked for a group preparing mines in the Cerrillos Hills for sale in Britain. Company such as the Cerrillos Mining Company, Ltd. or the Grand Central Silver Mines, Ltd. as he makes brief reference to Spanish silver mines in the section talking about that area.

A few references to his career are in the following: Merrill, George P., *The First One Hundred Years of American Geology*, Hafner Publishing Company, New York and London, 1964 (Facsimile of the 1924 Edition). There is a photo of Endlich on page 517, and comments on pages 518-519 and 522. Gotzman, C. B., *Exploration and Empire*, New York, Knopf, p. 497, 1966. Lanham, Url, *The Bone Hunters*, New York: Columbia University Press, p. 245, 1973. Shor, Elizabeth Noble, *The Fossil Feud between E. D. Cope and O. C. Marsh*, Hicksville, N.Y., Exposition Press, pp. 241-243, 1974.

### **MacDonald (a.k.a. McDonald), Bernard (Berni) and his brothers**

Bernard had at least two brothers that worked with him in mining. Joe worked with him in Bodie, Leadville and possibly at Lake Valley. The last location found for Joe (Joseph) was in Idaho in 1892. Bernard's brother M.E. MacDonald wrote that he did not go into mining until after Bernard left Lake Valley. M. E. said his career in mining started in 1883 at an unspecified location in the Rocky Mountains (Martin, 1906, p. 249).<sup>4</sup> The Felix MacDonald living at Lake Valley who was named along with Bernard as a director of the Sierra Bella in its incorporation document notarized on October 3, 1881 was a trusted member of the operation and a relative if not another brother. (New Mexico Corporation Com. # 2905396:o, hard copy index # 037) Bernard told the editor of the Mesilla newspaper in June, 1882 that he was an independent miner whose home town was Silver City, New Mexico. M. E. MacDonald may have gone to work with Bernard there and that was the



possible location of M.E.'s first experience in mining. M. E. MacDonald later worked in Colorado, Idaho and Montana as a mine superintendent until 1898, when he went to Zacatecas as a mine manager for the San Cristobal Mining Company. In 1899 he went to Guanajuato as manager of the Sirena Mine and later as general manager for all of the Guanajuato Consolidated Mining and Milling Company mines. He still held the position of general manager in 1906. There was also a T. A. McDonald working for Joe MacDonald in Idaho in 1892 that was probably a relative and may have been a brother.

Bernard MacDonald was born around 1850 in Belfast, Ireland of Scotch-Irish parents. (Martin, 1906, p. 252) After his family immigrated to the United States, Bernard started working in mining in Grass Valley, California in 1874 (Martin, 1906, p. 250). This town was where George Roberts entered mining and had his early operations in the 1850s. From 1874-1878 Bernard worked in other areas of California and for the major mines on the Comstock as well as in other areas of Nevada. (Martin, 1906, p. 251) In 1878 and 1879 Bernard MacDonald and his brother, Joe, worked as 'thugs' under George Daly who was superintendent of two mines in Bodie, California for the notorious mining stock promoter James R. Keene. (Lingenfelter, 1974, pp. 137-139, 147) Joe and Bernard killed a miner, which led to their expulsion from Bodie in the fall of 1879. The MacDonalds next appear in the press in May 1880, working for George Roberts. They were assistants to George Daly at Roberts' Leadville, Colorado mines. Bernard said his first job there was as superintendent of the Little Chief in 1880. However, Leadville newspapers in May and June reported that Daly held that position. Bernard was the foreman under Daly at the Little Chief in June, but may have held the superintendent position later in 1880. Bernard had moved on to the Iowa Gulch Mine by April 1881 before coming as Daly's assistant to Lake Valley (MacDonald, 1909). On December 4, 1880, Daly appointed Joe MacDonald, Bernard's brother, foreman of the Robinson mine (Dempsey and Fell, 1968, p. 153).

Bernard MacDonald (1909, p. 852) wrote that he was superintendent of the Iowa Gulch Mining Co. in Leadville in April, 1881 when Daly recruited him to go to Lake Valley. Bernard took the job as assistant manager or foreman of the Lake Valley mines and arrived there the last week of April. He filed as locator or as witness of a number of claims made in 1881 that were transferred to one or another of the four Sierra companies. Bernard was in charge from late April until June, 1881 when Daly returned to Lake Valley. Following Daly's death in August Bernard was in charge of Lake Valley until a new superintendent arrived in late December. Though little record of this three month period was found Bernard said that he was "engaged as Superintendent of the famous Lake Valley Mines of New Mexico." (Martin, 1906, p. 251)

Bernard as well as Jackson, who followed him as Lake Valley manager, staked or purchased claims at the newly discovered deposits by Kingston. He was part of the local group on the big Syndicate tour of the Lake Valley mines in June, 1882. In the wave of interest in Wright following his suicide in 1904, Bernard said that he "knew Wright for 24 years." (*The Spokesman-Review*, 1/29/1904, p. 8) This would mean he first met Wright in 1880 in Leadville. In reviewing his career from 1883-1904, Bernard indicated that early in this period he went as manager to reopen "the famous Santa Ana Mines of Sonora, mentioned in Ward's *History of Mexico*." Afterwards he continued mining in Montana, Idaho and British Columbia. (Martin, 1906, p. 251) The name of the mine Roberts was promoting in 1882 in Sonora was given as the Santa Maria in the SFDE (3/24/1882) but may have

been the same mine Bernard referred to as the Santa Ana. Thus Bernard was probably working on a Mexican promotion for Roberts in 1882, with Silver City being his home residence in the United States. Bernard stated that he worked at Gibbsonville, Idaho on evaluating the cyanide and chlorination processes for different mines. (Bernard MacDonald, "How Cyanidation Was First Applied to Silver Ores," EMJ, v. 119, n. 25, pp. 1003-1004, 6/20/1925.) Bernard was not mentioned in the two books consulted on the 1892 Coeur D'Alene strike.

The next location identified for Bernard is in Nova Scotia, Canada where he went in 1898 to build a mill. Bernard published two articles on his work at the Dufferin Mine on the Salmon River in Nova Scotia. This area never became much of a gold mining area, but the world was riding a crest of mining stock euphoria and promoters could sell anything. Bernard MacDonald's first article was titled, "Mining Plant of the Dufferin Gold Mine" (Canadian Mining Review, v. 18, n.1, pp. 15-18, January, 1899). In this article he was described as from Butte, Montana and "the company's consulting engineer, under whose direction the finest new plant illustrated in this issue of the REVIEW has been installed." A major portion of that issue of the Canadian Mining Review was devoted to the Dufferin Mine and discussed its history (pp. 14-15), the new mill (pp. 15-18), the mines new owners for whom Bernard worked (p. 11) and included a photograph of Bernard (p. 3). The caption for the photo read "Bernard MacDonald, Montreal, Consulting Engineer to the Montreal-London Gold and Silver Development Company, Limited." One of the companies directors was Robert Jaffray a Toronto based financier and stock promoter. There is no known relationship of this company to J. Whitaker Wright, but apparently the mine ended operation after the stock promotion. (Mouat, personal communication) Two months later Bernard published another article on his work at the Dufferin mill, "An Improved Method of Introducing Feed Water to the Stamp Mill Mortar" (Canadian Mining Review, v. 18, n. 3, pp. 71-73, March, 1899). Within the year Bernard was again working for his old Lake Valley boss, Wright.

By late 1899 Bernard was working for Wright as manager of the LeRoi Mine in British Columbia. The LeRoi Mine had recently been bought by one of Wright's holding companies, the British American Corporation, which had floated the Le Roi Mining Company for twenty million dollars U.S. (4 million Pounds). This grossly overcapitalized company had financial problems from the beginning and Bernard did an extensive study of the economics of the mine. Bernard did not publish his study until two years later after the collapse of Wright's empire when it could no longer hurt the stock promotion. Bernard found that the declining ore values in the Le Roi meant they were losing \$2.64 per ton of ore mined and refined. The only solution was to lower production costs, which meant he had to eliminate or at least reduce the power of the Western Federation of Miners Union. In a confidential report to his superiors in London in March 1900, located by Mouat (1995, p. 92), Bernard wrote, "something has to be done-the power of the Union has to be broken and workmen reduced to a reasonable subordination." Bernard, with Wright's other mine manager in Rossland, used many of the old tricks from Leadville to intimidate miners, including heavily armed guards. They issued an order prohibiting union representatives from entering the mines and started importing foreign (recent German and Italian immigrants) miners from the U.S. who would work for lower wages (\$2 vs. \$3.50/day). (Mouat, 1995, pp. 57-59, 94-101) Of course a strike ensued on July 11, 1901. This was not totally unwelcome since as at Chrysolite, it gave the company a valid reason why it could avoid paying dividends. Mouat (1995, pp. 98-99) quotes a conservative politician at the time as saying that the strike was due largely to the desire of the men managing over-capitalized

properties to make the labor unions the scape-goats for their own sins.

By the time of the strike the Le Roi company and all the other Wright company prices were crashing in London. Wright had 41 companies in his empire which disintegrated in 1901 and some are listed in Mouat (1995, Appendix I). These 41 companies were capitalized at 22,335,000 English pounds or one hundred and eleven million U.S. dollars. Though estimates on how much investors lost varied, the *New York Herald* estimated it had to be over 37.5 million U.S. dollars. (Mouat, 1995, p. 167) Though the Le Roi was only one of forty-one Wright discredited stocks around the globe it was long remembered as the worst scam in British Columbia. It was mentioned as late as the 1930s as giving all mining in B.C. a bad reputation with English investors. Bernard continued managing the Le Roi after Wright's empire started to collapse in December, 1900. Bernard published three papers on his evaluation and work at the mine after it would not hurt stock prices. "Hoisting and Haulage in Mining Operations: A Description of the Plant on the Le Roi Mine, Rossland, B.C.," *Journal of the Canadian Mining Institute*, v. 5 (1902), pp. 309-342, "Mine Timbering by the Square Set System at Rossland, B.C.," *Journal of the Canadian Mining Institute*, v. 6 (1903), pp. 129-141 and "The Ore Deposits of Rossland, British Columbia," *EMJ*, v. 76 (8/8/1903), pp. 198-199.

When Bernard's management ended at the LeRoi mine is not known. He was still manager in June, 1902 as the paper carried his speech along with that of McKenzie the other Wright mine manager ("The Managers of the Rossland Mines Speak," *Rossland Miner*, 6/2/1902). He left Rossland about the time of Wright's conviction and suicide in January 1904. Bernard wrote that he arrived in Guanajuato, Mexico in February 1904 to work on building a cyanide mill for the company managed by his brother M.E. MacDonald (MacDonald, *EMJ*, 6/20/1925, pp. 1003-04). Bernard and his brother M. E. MacDonald were part of the American mining elite in the famous old Spanish silver mining town of Guanajuato. When the famous mining engineer, T. A. Rickard visited in 1905 he posed with them for a photograph that he put in his book on the area. (T. A. Rickard, *Journeys of Observation*, 1907, p. 177) In 1904 or 1905 Bernard and his brother M. E. formed the "Mines Selection Company of Mexico," to provide confidential consultation on the value of mines in Mexico. He wrote that they arranged the sale of the famous Real del Monte Spanish silver mines at Pachuca to the consortium of American corporations. This group incorporated the "Real del Monte Mining Company" in Maine in 1906 and operated them until the mid-1900s when they were confiscated by the Mexican government. It is unknown when Bernard moved his headquarters from Guanajuato, but it must have been prior to 1924 when he listed himself as a consulting mining engineer living in Parral, Chihuahua. (*EMJ*, v. 18, n. 26, 12/27/1924, p. 32) E. M. Hamilton in his book *Manual of Cyanidation* (McGraw-Hill, New York, 1920, 277p.) discusses five agitators "which have attained to some prominence" in cyanide mills. "The Parral tank, devised by Bernard MacDonald and named after the town in Mexico where it was first used" is one of the five discussed. (Hamilton, 1920, p. 96-97). In 1925, now 75 years old, Bernard had returned to the United States and gave his address as Oceanside, California. (*EMJ*, 6/20/1925). In spite of his somewhat shady entrance into the mining profession Bernard made significant contributions to its history.

### **Joe (Joseph) MacDonald**

Bernard's brother Joe fought with him at Bodie in 1879 and was almost his coequal in manipulating and suppressing the Leadville strike in May 1880. He probably visited Lake Valley, but no record of his working there was found. Joe's claim to fame, if that is the appropriate term, comes from his

actions while manager of the Frisco and Union mines between Gem and Burke, Idaho in 1892, long after his work with Daly and Roberts. As in Bodie and Leadville, he tried to use armed force to intimidate miners and was largely responsible for the violence of the famous Coeur D'Alene strike. Joe laid off all the Frisco miners, after some went out on strike seeking a raise from \$3.00 back to the old wage of \$3.50 a day. (Magnuson, Richard G., 1968, *Coeur D'Alene Diary*, Metropolitan Press, Portland, p. 286) American newspapers of the time shortened the family name to McDonald, but Canadian papers used the correct spelling. Joe fortified the mine and mill and his illegal importation of armed guards is discussed in the body of the report. The guards (gunmen he imported from the state of Washington) at the Frisco mill got into a major gun battle with strikers on July 11th. The strikers sent cases of dynamite down the ore chute into the new mill and blew it into oblivion. This is the most notorious incident in the strike and photos of the mill before and after are in Lingenfelter (1974). The guards had gone to the old mill next door whose ore chute had been blown up earlier in the fight. The only person killed in the dynamiting of the new Frisco Mill on July 11, 1892 was A.T. McDonald, who stayed behind to defend it. A.T. was probably a relative and may have been another MacDonald brother. Magnuson does not mention any possible relationship between the two McDonalds (Magnuson, 1968, p. 220, 228). However, since Joe MacDonald was the general manager, the A.T. who fought and died at the company's mill was very likely a relative. A.T.'s body was not found until July 13th and he was buried on the 14th in Wallace, Idaho, the same day the National Guard marched into town to quell the violence. Lingenfelter (1974, p. 204) only mentions Joe's management of the Union Mine, and Magnuson (1968) only mentions his management of the Frisco Mine and mill.

#### **George D. Roberts Circa 1829 –12/24/1901**

Roberts' death was barely noted in New York, which had been his home for most of the last twenty years of his life. He got only a small obituary in the *New York Times* (12/25/1901, p. 7). "George B. [sic. D.] Roberts, who is well known in mining circles, died yesterday morning at the Aldine Hotel, formerly the Huestis House, on Fourth Avenue, near Thirtieth Street, from a complication of diseases. He was seventy-five years old, and had been ill for about four weeks." Roberts obituary in *The Engineering and Mining Journal* was a little longer.

George D. Roberts, one of the best known mining men in California and the West, who had been connected with the development of several of the celebrated mines, died December 24, after a short illness in New York City. He was 73 years old. Mr. Roberts was born in Kentucky. In 1852 he went out to Grass Valley, Cal., and started the first newspaper of that section. He was also the first to start quartz mining there. In 1869 he went to Virginia City, Nev., and soon afterward became engaged with others in the development of the Comstock Lode, in which he is said to have made a fortune."(EMJ, v 73, n. 1, p. 58, (January 4, 1902).

Roberts immigrated to California in his early 20s, somewhere between 1850 and 1852. He was somewhat successful as a miner, but in a few years realized that there was a great deal more money to be made in the promotion and sale of mines or mining stock than in mining. Some have even credited him with finding the solution to one of the most difficult problems faced in faking mine evaluations. This was the so-called 'shotgun' salting technique for gold placer deposits. No effort was made to research his early career in California as that was not practical from New Mexico. The EMJ obituary said that he moved his mine promotions to the Comstock Lode in Nevada in 1869,

however he continued to live in San Francisco where he was active in real estate and other non-mining promotions. By 1869 he had operations going well beyond the borders of California for in that year he started his first mining promotion in New Mexico. The hundreds of claims staked by his employees in New Mexico were organized into two silver mining companies in 1870. In spite of glowing testimony in the prospectus that the Burro silver deposit was the "Pater Argente" (Father of all) silver in the world, capable of producing as much silver as the management wanted to produce and inexhaustible for centuries, he had little success in selling the stock in California. Roberts negotiated an option on the Burro mines with an English promoter and Harpending went to England to help form a British corporation to buy the mines. This company was exposed as a fraud only two days after the stock was offered to English investors, and a month later Roberts closed the Burro Mines. The amount of silver at the mines was so low it would not come close to paying the cost of mining.

Roberts deserves a biography and it would take that level of research in California and Nevada to uncover his numerous promotions before he moved to New York in 1879. The most famous of his early promotions is now referred to as the "Great Diamond Hoax of 1872." If it had succeeded it could have made a profit in the five to ten million dollar range. Harpending and Cooper brought the diamonds to New Mexico in October, 1870, but when the Burro mines were exposed as a fraud in 1871 Cooper took them back to San Francisco. Roberts and Harpending chose to move the site of the 'salting' or planting of the diamonds to northern Colorado and they did not start the promotion until a year later. It was exposed as a hoax before it got to the public phase of the promotion and only Roberts' cronies and a few big time San Francisco investors lost money in the diamond company.

A number of factors lead to Roberts' decision to leave California in late 1878 or January, 1879. The Comstock Lode and other West Coast mines and their stock prices were in decline and everyone was talking about the big new silver discoveries around Leadville, Colorado. Very likely more important than mining events were stock market events. Though not enacted until 1880, there was discussion in California of the need for new laws to correct the worse abuses of mining stock promoters. Probably most important was the great rise in interest in mining stocks on the East Coast. Robert and others saw it as a great opportunity to combine a new mining area, Leadville, with a new and naive group of mining speculators in a rising stock market. Taking advantage of an ideal combination of events for his profession, J. D. Roberts went to New York City along with a group of other California mine promoters and were known as the 'California Colony.' They created the American Mining Stock Exchange at 63 Broadway and a trust company to finance margin trading in their stocks. They were also involved in the more staid New York Mining Stock Exchange at 62 Broadway, associated with the major exchange of that name. Rossiter Raymond, the editor of EMJ who had been duped or taken by Roberts in the Chrysolite Mine deal warned people repeatedly in 1880 of Roberts mining promotions. He even referred to them once as "disgraceful and criminal." (EMJ, 8/7/1880)

In 1880 Roberts was in the end phase of his Chrysolite Mine promotion, but had at least another five mine promotions well underway in Colorado. Roberts was running what today would be considered a major corporation, with several levels of experienced managers that could be transferred to new companies when he acquired them and who knew how to help maximize the bottom line. Profit sharing (stock options) were a common fringe benefit and managers were allowed to start new

companies (mines) of their own while managing Roberts' mines. Many of the country's respected experts were on call and could be brought in to write reports for prospectuses or later in the operation to boost the stock price. Roberts concentrated on managing what could be called the corporate headquarters in New York. Supervising public relations and press releases, working the trust company to fund public stock purchases in his companies, etc., all of which were crucial in keeping control of his many companies' stock prices before and after their listing on the exchanges. Thus after 1879 Roberts seldom visited his mines more than once a year. He had confidence in his managers to evaluate property for purchase, develop the mines to showcase their ore bodies, and provide on request the reports needed to drive the stock price up or down. Since all unscrupulous promotions sooner or later get exposed as frauds, Roberts was always looking for new mines. In 1880 he sent his old crony Asbury Harpending to evaluate the Gold Hill District in Nevada. Harpending liked it and the option to purchase all of the major claims in the district was completed in September, 1880. (Lingenfelter, 1986, p. 146) Roberts made these claims into the four State Line companies in 1881. He created two more companies out of claims eight miles away in 1881. Besides the dozen plus companies in Colorado and Nevada he had an unknown number in California and at least one in Mexico besides the four at Lake Valley in some phase of operation in 1881 and 1882. All of these combined had a capitalization (stock par value) of around one hundred and twenty million dollars. The inflation of the past 120 years makes it difficult to appreciate the size of Roberts' operations. Using the overly simple hair cut inflation index, the cost of a hair cut has gone from two bits to 32 bits (\$0.25 to \$8.00) in this period. Thus, Roberts in less than three years capitalized 3.84 billion dollars worth of mining stocks in today's dollars. In 1881 his Nevada companies alone accounted for over a sixth of all stock trades on the New York mining exchanges. (Lingenfelter, 1986, p. 155.) Roberts was running the largest operation of its type in the United States and probably the world between 1879 and 1882. He sent George Daly to evaluate and purchase the claims at Lake Valley just as he had sent Asbury Harpending to evaluate the Nevada claims five months earlier. Roberts planned Lake Valley on the same plan as the State Line, which it followed by five months.

Every Roberts promotion researched to date during the 25 years before Lake Valley turned sour for the general investing public. As one would expect with that record Roberts reputation had been under attack for decades by the time of Lake Valley. A decade before Lake Valley, the financial editor of *The Times* in London used a company's being linked to Roberts as a prime reason the public should not invest in it. (*The Times*, London, January 30, 1871, p. 7) Attacks increased in 1879 and 1880 as his promotions became many of the major stocks on the New York exchanges. The press, which Roberts could influence or control, responded with glowing defenses of his character. His promotions seemed not to be hurt in the United States by the bad press until 1882 when his reputation started to depress the price of his stocks. He was attacked so frequently and violently in the press that it severely hampered the profitability of his companies. As would any good corporate leader, he at least publicly withdrew from all the companies he was associated with by the late fall of 1882. He apparently did withdraw from the four Sierra companies before the end of 1882. However, he may have kept title to some claims at Lake Valley until 1884. He said he was switching to other industries such as telegraph and railroads. No estimates of his net worth were found, but he certainly was a millionaire by 1883. One paper claimed he gave \$100,000 to help a San Francisco entertainer promote his plays. Roberts success was minimal after 1882 when he switched to industries he did not know.

He reportedly lost heavily in his investments in other industries. Only one casual mention of his visiting a mining district was noted in a superficial search of the 1880s issues of *The Engineering and Mining Journal*. (EMJ, v. 45, p. 120, c. 2, 1888) In the 1890s he returned to mining stock promotion where he had been so successful earlier in life. There was a revival of interest in mining stocks around 1894 caused by the great new discoveries in western Australia. Even though 12 years had passed since Lake Valley, Roberts had not been forgotten. A mining journal wrote "old-time operators, who never fish, except when the fish are ready to bite are now active. ... Geo. Roberts sniffs the battle from afar, and has buckled on his armor." (*The Mining Industry and Review*, August 15, 1895, p. 40) Records of Roberts's activities in 1895 were not located and the next and last known promotion started about 1899. Following the start of the Alaskan Gold Rush in 1897 came the discovery of gold in the ocean sands at Nome. Roberts probably came to the simple conclusion that if there was gold on the shore of Alaska there should be gold across the Bearing Sea in Siberia. Roberts went to London and with financial help there, formed the "East Siberian Syndicate of London." Roberts went to Russia and obtained a 99-year concession from the Government to explore and develop gold deposits on the eastern shore of Siberia. He returned to the U.S. and hired a boat and crew in San Francisco to explore the Siberian coast. He no longer had a large crew of experienced assistants as in the Lake Valley days and he led the expedition to Siberia himself. They found some gold but after two months, government officials seized his boat. Roberts and his crew in turn seized another boat and sailed to Nome, Alaska arriving there on August 18, 1900. The Siberian venture was a disaster and was abandoned by the British investors. It is unknown if Roberts tried any other ventures in the remaining 15 months of his life. He died poor, if not in poverty, back in New York in a second rate hotel room the day before Christmas, 1901. His Lake Valley partner, J. Whitaker Wright, fared only a little better. He committed suicide in a London Courtroom three years later, but died rich. He also got long obituaries in most of the world's leading newspapers, not just a couple of lines in a few.

Roberts was close to, if not the equivalent of, the great men of the late 19th century labeled "Robber Barons" by some historians. Those men manipulated stocks just as unscrupulously as Roberts did, but are probably more revered because they also ran real long-term profit making businesses. They built the great corporations in oil, steel, coal and railroads, where the great conglomerates in hard rock mining were created by others after Roberts' peak years. Roberts was ahead of his time and recognized that the greatest profit was in the stock market and not in the business end of the operation. The product he concentrated on producing were stocks that appealed to the dreams of investors or speculators. Roberts and his associates ran the promotions to maximize the current quarter's bottom line just like the stock market of today demands of corporate leaders. The individuals who monopolized other industries in the late 19th century have all had biographies detailing their careers. Roberts was certainly as interesting a character as any of them. His professional life spanned the California Gold Rush to the Alaskan Gold Rush with many a clever if not always successful mining promotion in between. He 'shafted' as many people as the best of the Robber Barons and deserves, but still does not have, a biography. Until he gets one, the hard rock mining history of the U.S will have a major hole in it. Lingenfelter (1986, pp. 145-155) provides the bluntest description of Roberts and an extensive discussion of his 1880-1882 operations in Nevada. King (1997) provides an overview of most of his 1879-1883 Colorado companies, Smith (1973) gives a discussion of his Leadville mines, and Dempsey and Fell (1986) the Robinson Mine in the



Ten Mile District north of Leadville.

**Benjamin Silliman Jr. 1816-1885**

He started his career as an assistant to his father, Benjamin Silliman Sr. (1779-1864) who was professor of chemistry and natural history at Yale College and was the originator of scientific consulting for companies in the 1830s.<sup>6</sup> Following in the footsteps of his father he became the best-known consulting geologist of his generation and also held a professorship at Yale from 1846 to his death in 1885. Of the half-dozen leading geological or chemical consultants from the 1840s to the 1880s Benjamin Silliman Jr.'s consulting reports were described as "the most relaxed of these consultants with regard to ethical standards." (Lucier, 1995, p. 251). Early in his career he produced numerous first class reports, including the first scientific evaluation of petroleum in 1855.<sup>7</sup> The annual salary of a Yale professor was around \$2,000 a year when Benjamin Jr. spent nine months in California, Nevada and Arizona in 1864 writing 24 mining consulting reports for which he received \$50,000. Benjamin Silliman Senior and Junior were leading American Scientists of the 19th Century and deserve the veneration they still receive from virtually all historians. However, Benjamin Silliman Jr., is not entitled to the unblemished reputation of his father. Like most other consultants involved with the Lake Valley Mines the only reasonable conclusion is that he was compromised by the mine promoters and his report can not be accepted at face value. Benjamin Jr.'s most famous false reports were those of October 1871 and February 1872 on the Emma Mine in Utah. They indicated tremendous silver reserves in a mine whose ore body was exhausted and helped the promoter sell about five million in stock in an almost worthless mine. During the governmental inquiry into the Emma Scandal, Benjamin Silliman Jr. admitted that his fee was "based on the value to the company."<sup>8</sup> The Emma Scandal, combined with several other false reports, led to an effort in 1873 by some of the members of the National Academy of Science to expel him even though he was a founding member of the Academy (Webb, 1994, p. 13). Of the two consulting reports he did in northern New Mexico in 1880, one contains what must be false assays and the other is nothing short of blatant lies.<sup>9</sup> It was common practice for geological consultants to accompany mine officials and owners to the mines as Silliman did on his second trip to Lake Valley in June, 1882. It was also common practice for them to publish articles in Science Journals on their consulting jobs. Edward D. Cope wrote Silliman in November, 1881 that he had not published on Lake Valley yet as it was not yet time for the "boom." (Silliman Papers, E. D. Cope, 11/12/1881) Unfortunately Silliman's report to the mine owners of Lake Valley has not been located and only excerpts published by the company and released to the press are known. He did publish a broader article in 1882 on the mines of Southern New Mexico (Silliman, 1882a) and a clarification on the people who had studied the fossils from Lake Valley (1882b). Silliman's article (1882a, p. 434) was based on his first visit to Lake Valley in October 1881 and contained his assays on the various grades of ore with results as high as 10,289.69 ounces per ton in the Bridal Chamber. Silliman was cautious in the published article not to give a clear estimate of the total amount of ore at the mine. The consulting reports often contained a great deal more information than the articles published in journals. Some of the letters sent to Silliman on Lake Valley by Cope, Wright and others from the Yale Collection are discussed in the report.<sup>10</sup>

**J. Whitaker Wright 2/9/1845- 1/26/1904**

J. Whitaker's father was a Methodist minister in England and he also was a Methodist minister for a short time before leaving England. About 1870 J. Whitaker immigrated to the United States. Within a few years he was living in Philadelphia and may have speculated in Pennsylvania oil.<sup>11</sup> Little is known of his activity until he purchased mining claims in Colorado in 1879. With funds provided by Philadelphia capitalists he purchased a group of mining claims next to the Little Pittsburg on Fryer Hill in Leadville. In 1880 he incorporated them as the Denver City Consolidated Silver Mining Company and the Lee Basin Mining Company with himself as president. He spent a great deal of money on equipment and improvements for these companies, but they produced little in the way of ore. He probably met George D. Roberts in Leadville in 1879 or 1880. George Roberts owned mines on the other side of the Little Pittsburg Claim only 600 feet away from Wright's and was floating three mining companies on his claims. Roberts mines, along with the Little Pittsburg, were the major operations at Leadville in 1880. Wright could not have avoided becoming friendly with Roberts lieutenants and admiring Roberts stock market success. The Denver City mine was not doing well and Wright agreed to join Roberts in promoting the Lake Valley mines in April 1881. Roberts was to oversee the market in New York City and Wright with his Philadelphia contacts was to run the Sierra company headquarters in Philadelphia and the stock market there. In April 1881 Wright went with Roberts' assistant George Daly to Lake Valley to complete the final arrangements for the options to buy the claims. According to the claim records Wright was the locator of at least one claim to put into the companies they were to form at Lake Valley on April 27, 1881. Wright then went east with Daly and in May 1881 with Roberts he formed three of the four companies they were to promote. All four companies had their eastern headquarters in Philadelphia with Wright as a director of all four and vice-president of some of them. Though mining journals and many others recognized that Roberts was behind the operation, Wright tried to make the operation look like he was in charge. Except for the Sierra Grande, Roberts or Daly deeded most claims to Wright, who then deeded them to the companies. The incorporations were all signed in Philadelphia with Wright and his investors as directors. However, much of the press continued to refer to it as another Roberts bad promotion. Between September and late December 1882 Roberts either sold his stock to the public or to Wright. Wright ran the four Sierra companies until Cope seized control from him on July 15, 1883.

Lake Valley was the second mining stock promotion in the career of Wright, who was destined to become possibly the world's leading mining stock promoter in the 1890s. Though Wright may have learned the niceties of the profession from Roberts, he operated differently. Roberts tried to maximize his return in as short a period as possible. He avoided public links to his companies and gutted his mines to produce dividends in the six to twelve months of their public promotion. Wright operated on a longer time frame and tried to form companies that could produce dividends for at least five to six years. This reduced Wrights' exposure to charges of fraud. Wright's Leadville mines had little success and he was president of the Lee Basin until 1884 and the Denver City until 1885. In 1885 Wright was the major stockholder in both companies and sold all his stock to a German syndicate giving them control of both companies. (EMJ, 10/31/1885, p. 310) The mining stock markets remained depressed after 1883 for a decade and Wright may have bought stock back in his Leadville companies for pennies in 1884-5 before selling to a syndicate. Wright remained active in the stock market and was chairman of the Philadelphia Mining Exchange as well as the consolidated exchange in New York. George Smith wrote that he was more than a millionaire by the age of 31, which would have been in 1876.<sup>12</sup> This does not seem correct and that status was probably

not reached until after Lake Valley. He lost heavily in stocks in the late 1880s. He returned to England in 1889, but had little success there until a new mining stock boom developed in 1894. For the next six years he had success after success in launching mining stock promotions in Australia, Canada and South Africa. In an age of wild speculation and few stock market controls, he amassed millions of dollars from stock sales in mining companies. The press mentioned him as one of the wealthiest people in the world, equal to Vanderbilt and the other great capitalists of the day. The Boer War in South Africa closed the mines there and led to a stock market crash. As prices declined, Wright's mining trusts and companies collapsed one after another. Disgruntled stockholders charged him with fraud and in 1903 he fled back to the United States. He spent four months in jail fighting extradition and then agreed to return to England for trial. In 1904 his luck ran out and he was convicted of stock fraud. He poisoned himself with cyanide before leaving the courtroom and his death was front-page news around the world. "After bilking an innocent public of millions, the fraudster admitted his crime by ending his own life." (Mouat, 1995/1996, p. 9).

Wright was interviewed during his trial in London by a reporter for a New York newspaper. Wright summarized his downfall as follows: "I could not stem the tide of depression, which followed the Boer War. I failed to accomplish the impossible. I gave up a fortune in the attempt, but I could not stand alone against the entire London Stock Exchange." ("Chose Death Rather Than Prison," *The Denver Times*, January 26, 1904, p. 11) He apparently did suffer great losses trying to save his empire as his estate was only valued at \$741,000, a small fraction of its value before the collapse. However, most great American Industrialists (Robber Barons) left estates of only a few million so his wife was not left in poverty. That sum was the equivalent of more than twenty million in today's dollars.

Wright's empire included forty-one companies when it collapsed and investor losses were estimated at over 37 million U.S. dollars. (Mouat, 1995, p. 167) A young American mining engineer (Herbert Hoover) was sent to western Australia to help salvage Wright's mines. His first independent work as a mining engineer had been in western Grant County only 80 miles west of Lake Valley. Hoover made his fortune with the help of the new flotation processes which helped salvage Wright's Australian companies. This wealth allowed Hoover to devote himself to humanitarian efforts in WWI and ultimately to enter politics. Mouat's book on mining in British Columbia (1995), article on the start of the flotation process (1996) and article "The Great Tycoon" (1995/1996) provide additional information on Wright's life. Mouat has been working on a biography of J. Whitaker Wright for a decade but no publication date has been set.

### **Section III      Lake Valley Mine Managers**

**George Daly** - 4/19/1881- 8/19/1881 [4 months, but only at Lake Valley 2 ½ months] He left Lake Valley the last week of April and did not return until the second week of June. Bernard MacDonald was assistant superintendent or foreman and in charge during Daly's absence.

**Bernard MacDonald** - 8/19/1881 - 1/1882 [3 ½ months] Wright, who was at Lake Valley in August may have appointed him superintendent, but he at least acted in that capacity from Daly's death to Jackson's arrival in late December.

**D. H. Jackson:** - 1/1882 - 9/1/1882 [8 months] Gillette took charge of operation when he arrived with the English syndicate in early August, but Jackson was officially in charge until September 1st.

**Col. D. B. Gillette:** - 9/1/1882 - 4/1/1883 [7 months]

**Robert Bunsen:** - 4/1/1883 – 8/15/1883 [4 months] Cope probably named his assistant Endlich manager at the directors meeting in July, but the official date he left office was on 8/15/1883. He was the last of the J.W. Wright managers.

**Dr. F. (Fredric) M. Endlich:** - 8/15/1883 - 6/1/1886 [almost 3 years] He was assistant manager for at least three months prior to becoming manager. He was the first manager not subservient to a stock promoter. Robert C. Canby, a graduate of the Pennsylvania Univ. School of Mines was assayer.

**Walter C. Hadley:** - 6/1/1886 – after 9/1890 [Over 3 years] The Silver Mining Company of Lake Valley officially took over the property on June 1, 1887 and Hadley was filed as designated agent for them as late as 1888. The EMJ (9/14/1889) discussed his work there during the summer of 1889. The caption on an undated Henry A. Schmidt photo (Museum of NM # 56237) shows him in front of the manager's house.

**Unknown:** - post 9/1890 - 1891 Hadley or Clark

**Ellis Clark:** - 1891 – post 9/1893 - [2 years plus] Ellis Clark implies he was manager for at least a year prior to 1893. He is listed in Robin (1893) as one of the two people from Lake Valley on the Colombian Exposition committee and his tenure probably continued past 1893.

**Robert Eastburn and Henry A. Schmidt:** - circa 1894 - circa 1900 - Jones (1904, p. 90) lists the other managers in proper sequence. Thus it is assumed that Robert Eastburn preceded Henry Schmidt. Eastburn was the accountant and Schmidt the assayer under Hadley and they apparently took over the operation after 1893 when the mines were only worked by leasees.

Lucius Fisher acquired the property by deed on 3/12/1900 from John B. Mellor. Mellor had been the president of SMCLV and at some point acquired title to the entire company. Fisher incorporated the Lake Valley Mines, Inc. a year later. Fisher's office was in Chicago with the following New Mexico agents listed in corporation commission filings who were also probably the managers.

**E H. Bickford:** Prior to 10/26/1901 - 10/20/1915 at Lake Valley.

**J. B. Nelson:** From 10/20/1915 - 1/25/1918 residing at Lake Valley.

**A. W. Pollard:** 1/25/1918 -? His office was in Deming.

**W. P. Keil:** - 1947 - ? His office was in Deming.

## **Section IV The Lake Valley Rustler War**

The earliest photo of Lake Valley located was made into an engraving and published in late 1882 or early 1883.<sup>13</sup> By the time this photo was taken in late 1882, Lake Valley had grown from its modest beginnings that summer into a small town with 30 frame houses and a dozen stores in the center of town. One house on the East Side of town had a very large fenced area or corral behind it. The town was not just a mining camp and transportation center for the Black Range. From 1881 to 1883 it was also the geographic center and major home of the cattle rustling industry in New Mexico. The magnitude of hatred by cattlemen against the rustlers resulted in what the territorial press of the time titled "The Rustler War." It was more of a War than the Lincoln County War of 1880 as the combatants on one side were the Territorial Militia. All the people killed by the militia in the war in New Mexico were killed at Lake Valley. The only other person killed in the war was shot in Texas by Major Albert Fountain and his son. The militia's orders from Governor Sheldon clearly stated that the men they were to fight were not common criminals, but "armed marauders or banditti."

Governor Sheldon's orders said that though he would like to see these men arrested and "punished by the courts, you must treat the case as the manifestation requires and as public security demands." Governor Sheldon's order of February 12, 1883 to Major Fountain, the leader of the Las Cruces militia, made it clear that his militia had *carte blanche* to skirt the law if not ignore it. "I assure you that it will be a case presenting extraordinary features which will cause me to treat your command or any member thereof otherwise than as you recommend." In other words the Governor said that unless Fountain or his militia did something totally outrageous he would approve anything they did.

Only two articles about the rustler war were located. Ashcroft (1988)<sup>14</sup> deals mainly with events in 1882 at places other than Lake Valley but recognized the article by Rasch (1964)<sup>15</sup> as the most extensive and detailed on the war. Rasch's article (1964) "The Rustler War" does deal with many events including those at Lake Valley and is the source for general observations and contemporary newspaper comments. A great deal more information than Rasch presents on the raid on Lake Valley is found in the official reports written by Major Fountain and his superior (Bartlett, 1884)<sup>16</sup>. Rasch had written many articles on the Lincoln County War and his introductory paragraph stresses that the famous Lincoln County rustlers Jessie J. Evans and Billy the Kid were small time operators when compared to the Kinney ring operating out of Lake Valley, Rincon and Kingston. In spite of the international fame of the Lincoln County story those rustlers were easily put away in 1880 when citizens decided to act. (Rasch, 1964, p. 257) After the Lincoln County War, the center of rustling moved west, concentrating around mining camps with their demand for fresh meat. In 1881 the centers of the industry were in White Oakes in western Lincoln County and Lake Valley in Dona Ana County. In 1882 operations spread to the new mining camp, Kingston and to Rincon, which was a railroad junction in Dona Ana County. Lake Valley was the center of operations in 1881, but by 1883 Rincon became famous as the railroad shipping center for beef. The wholesale marketing of stolen cattle continued for at least two years, from 1881 to 1883. The Rustler War in and around Lake Valley saw business as usual during most of this period except for the occasional raid by militia troops from Las Cruces.

The opening round of the Lake Valley Rustler War was a request in December 1881 from Lt. Colonel George A. Forsyth who was the commander of Fort Cummings, twenty miles southwest of Lake Valley. Forsyth wrote to his superiors that the area around Lake Valley was infested with cattle thieves and requested permission to use his troops to capture them. General MacKenzie, commander of the Military District of New Mexico replied that the law did not permit the use of federal troops to fight or capture civilians. General MacKenzie said he would forward the information about the Lake Valley rustlers to the Territorial Governor, Lionel A. Sheldon. Six months later in June 1882 Governor Sheldon issued General Order 14, authorizing the volunteer militia to furnish military assistance to county or city officials requesting assistance. The Dona Ana County Sheriff requested help from the Las Cruces militia battalion and they went on several expeditions. The various expeditions of the militia in 1882 captured only one rustler with 26 cows near Fort Fillmore. However, the militia made great claims that they had scared the rustlers out of southern New Mexico. (Rasch, 1964, Bartlett, 1884) If this was true at all, it was so only for very short periods of time.

By January 1883 rustling was reported as worse than ever. Civil authorities, if they were not in cahoots with them at least made no progress in arresting them. The press reported that the rustlers

consist of thirty or forty men who operated in bands of three or four men and that John Kinney headed the business. Kinney was the most noted individual in the press, probably due to his having a slaughterhouse in Rincon, which was the Santa Fe Railroad junction 25 miles southeast of Lake Valley. Kinney was accused of shipping whole carloads of meat from Rincon to El Paso. (Rasch, p. 259) The Santa Fe *Daily New Mexican* (3/10/1883) even published short biographies of what were believed to be the major leaders of the rustler gangs. Gangs would steal the cattle from ranches and take them to Rincon or Lake Valley and sell them to another gang who in turn would sell them to others for final butchering and sale as meat. Bills of sale for the stolen cattle were signed and witnessed just as they were for legitimate cattle sales. It was a well-organized and openly conducted business. The operators of the mining camp butcher shops were considered rustlers by the militia as they bought the cows intact with brands and had to know that the bills of sale for the cows were meaningless. Probably everyone in the mining camps knew stolen cattle were a major source of their meat. One newspaper claimed that in January 1883 the rustlers sold 10,000 head. Though that must have been a gross exaggeration it indicates that these rustling rings dwarfed in size similar earlier operations in Lincoln County.

Governor Sheldon's order of February 12, 1883 in essence said that the rustlers were in open rebellion against the citizens and government of the Territory and that they should be dealt with by whatever means were necessary to restore order. "Fountain, ambitious and something of a swashbuckler, had no intention of letting this golden opportunity for fame and glory slip away unused." (Rasch, 1964, p. 260)

The bands you are in pursuit of are in combinations and constitute armed marauders or banditti. They are armed against society, and their acts and crimes are numerous and are calculated to set at defiance all law and government. They must be treated not as individual criminals, but as foes of the public. While I wish them arrested, tried, convicted and punished by the courts, you must treat the case as the manifestation requires and as public security demands. As I have before written, I put great confidence in you and in your officers and men, and I assure you that it will be a case presenting extraordinary features which will cause me to treat your command or any member thereof otherwise than as you recommend." (Santa Fe, New Mexican, 2/16/1883, Rasch, p. 260).

The Governor in essence told Fountain that unless he or his militia did something totally outrageous he would approve their actions and back them up. The Albuquerque *Morning Journal* (2/23/1883) said that calling out the militia caused more harm than good as it caused Easterners to think that the whole territory was in danger of falling into the hands of rustlers. The Silver City *Southwest-Sentinel* carried a similar story (Rasch, p. 261). Governor Sheldon responded to criticism for calling out the militia with a statement that he would "make New Mexico safe for honest and industrious people, or depopulate the whole d \_ \_ \_ [damn] Territory." (Albuquerque *Morning Journal*, 2/24/1883, Rasch, p. 261) Sheldon ordered out the Laguna militia and a few others that spring, but the only successful expeditions occurred in March.

Albert Fountain learned that one of the men he was after, Doroteo Sains, was in Concordia, Texas. He went there and with the assistance of Texas Rangers arrested him on March 2, 1883. The following morning Major Fountain and his son Lieutenant Alberto Fountain got on the train with Sains to bring him back to New Mexico. Major Fountain reported that Sains leaped from the train and that he and his son jumped off after him. Fountain reported that by the time they picked

themselves up Sains was "about a hundred yards" away but that he brought him down with one shot. Sains was dead. Kinney closed his butchering operation at Rincon and his wife reportedly sold what she could and closed out his bank accounts in February and then she also disappeared. The Shakespear Guard got word that John Kinney was camped up on the Gila River and went looking for him. They captured him without incident, along with his wife, brother-in-law and others on March 7th. They brought them to Lordsburg where the justice of the peace released several of them. When the governor heard of these releases he sent a stern command not to let any more go and sent Fountain and 13 men to get the prisoners and take them to Las Cruces. The Governor, Territorial commander of the militia, Bartlett, and the U. S. Marshal soon went to Las Cruces to interview the famous gang leader, John Kinney. Fountain presented the spoils of war to the Governor, the revolver, belt, and knife he had take from Sains in Texas. All of these events Rasch described as "mere preliminaries to what proved to be the most controversial action of the entire war." (Rasch, 1964, p. 264). That action was the March 22, 1883 raid on Lake Valley.

Lake Valley had its own militia unit, the Lake Valley Guard, which is not mentioned by Rasch (1964) or Ashcroft (1988). They probably still existed in March 1883, but if so were not trusted. No mention of them was found in the official reports and apparently they never saw action in the Rustler War. The Lake Valley militia gave shooting demonstrations for the Sierra Company officials during their big syndicate trip to Lake Valley in June, 1882. Both Wright and Roberts awarded prizes to the best shots the same week that Territorial Governor Sheldon issued General Order No. 14, which authorized militia units to fight civilians. "Wherever any rustler, cowboys, or other desperadoes shall commit depredations upon the person or property of citizens, such commanding officers will at once pursue and capture such offenders, at any cost." This order gave militias unusual police powers authorizing them to pursue and capture rustlers, cowboys, or other desperadoes at any cost. (Ashcroft, 1988, p. 113) In effect they were legally sanctioned vigilantes. The Lake Valley Guard did nothing to interfere with the town's second or third largest business. In 1882 the Lake Valley paper reported that the "Lake Valley Guards were the best militia in the Territory. This was probably not true, but they were a force to be reckoned with. Some of them were veterans of the eight-hour gun battle with the Apaches in August 1881 before they were formally organized. Miners were the local market for stolen cattle and probably felt that without them their cost of living would increase. Thus they were indifferent to the rustling problem of the ranching industry. The only record of a mining town's militia being called up during the Rustler War was that of Shakespear which included a number of area ranchers. Members of the rustling rings were accepted members of the Lake Valley community. Militia killings were confined to Lake Valley and its actions were more reasonable elsewhere.

### Militia Raid on Lake Valley

The little remembered raid by the Territorial militia with its immediate 'justice' was in some respects similar to the vigilante 'justice' of the '49ers and a few other early western mining camps except at Lake Valley even the pretense of a ten-minute trial did not occur. The Lake Valley Guards was formed to defend the town against Apaches and were not interested in fighting butcher shop owners and cattle rustlers. However, the managers of the Sierra Grande Mining Company looked upon this lawless element of local society as a threat and played an active roll in their destruction. Edward L. Bartlett (1884), the Adjutant General of the Territorial Militia described the situation at Lake Valley



and Kingston in 1883 as follows:

There was an organized band of thieves, outlaws and robbers, whose operations extended over hundreds of miles of country, and whose robberies were conducted with the system and order of a legitimate business enterprise. Whole herds of cattle were driven from Dona Ana to Texas and sold to agents there, and other herds were slaughtered in the woods and dressed meat shipped by car-load lots. People were terrorized by this combination, and no one dared to make a complaint or testify against any of the gang, until the militia had broken their strength and had the ringleaders actually in custody, when plenty of testimony could be had. (Bartlett, 1884, pp. 75-76)

Bartlett included in his official report those reports sent him by Major A. J. Fountain, commander of the 1st Regiment, New Mexico Volunteer Militia. Fountain was commander of the Las Cruces area militia and commanding officer of the expedition against Lake Valley and Kingston. Major Fountain and forty-four men with their horses and pack mules left Las Cruces by special train on the evening of March 21, 1883. They got off the train at Nutt, twelve miles from Lake Valley at 10:30 PM. Major Fountain wrote that his final objective was Johnson's ranch, a mile from Kingston, where stolen cattle were openly slaughtered for the meat markets in Kingston. "I had positive information about [where] fifteen notorious rustlers were congregated, and my detectives informed me that they were fully resolved to resist arrest. I had warrants for most of these men, including P. Johnson, alias "Topy" Johnson; and Tom Cooper, alias Tom Kelley, who has a large number of indictments pending against him in Lincoln county; John Watts, Tom Grady, Charles Thomas, James Colville, Hank Brophy, William Leland- alias "Butch," Nat. Irwin, "Tex" and several others whose names I do not wish to disclose at present." According to Fountain's report only two men joined the militia at Nutt. Two Sierra Grande employees, Cartwright and Forsythe who were sent by the company to guide them to the houses in Lake Valley where the outlaws lived. They told Major Fountain that five of the men he was looking for were at Lake Valley, John Watts, "Butch" [William Leland], "Tex" and two others.

Rasch wrote from unknown sources other that Fountain's official report that Dona Ana Deputy Sheriff Arthur Jilson and four guides meet the train at Nutt. Rasch identifies only one of the four guides as "the notorious gunman Jim Courtwright, soon to be a fugitive from an indictment for murder in the infamous American Valley affair." (Rasch, pp. 264-265) Thus the only person ever indicted for murder that night rode with the militia. The other three guides not identified by Rasch were the two guides sent by the Sierra company and the fourth was probably Margarito Sierra that Fountain brought from Las Cruces to guide them to the ranch north of Daly's Ranch where he had sold stolen cattle. Rasch does not give a reference for "Jim Cortright's being with Fountain, but phonetically the name is almost identical with "Cartwright," the name Fountain gave for one of the two guides sent by the Sierra Grande.

The militia left Nutt before midnight and got to Lake Valley about 2 A.M. Fountain sent Captain Salazar with Company B and Captain Van Patten with Company A to surround the town. These troops were to catch anyone who tried to escape Lake Valley. A little after two AM on the morning of March 22, 1883 Major Fountain led a detachment of troops guided by the Sierra Grande Company men into Lake Valley. Fountain found and arrested "Butch" without any trouble, but John Watts, "Tex" and the other two escaped. Only Watts was intercepted as he tried to flee town on horseback. The others may have hidden in town. Fountain reported the capture of John Watts by Company A

troops as follows.

He was ordered to halt, when he drew his Winchester on Captain Van Patten; a dozen carbines were at once pointed at him and he surrendered. He was brought into town and turned over to me. I then informed Watts and "Butch" that I had warrants for their arrest on the charge of cattle stealing. I took them formally into custody, and told each of them that if he would go along quietly I would deliver him safely to the sheriff of Dona Ana County: that if he resisted or attempted to escape, my men had orders to shoot, and that they would certainly obey those orders. (A. J. Fountain, Major 1st Regiment, N. M. Vol. Militia, Commanding Forces in Field, March 25, 1883, in Bartlett, 1884, p. 68)

Fountain was afraid that Tex had escaped the encircling troops and gone to Kingston to warn the outlaws of his approach. Fountain reported that he loaded his two prisoners onto one horse and headed north on the road to Hillsboro about 3 A.M.

At about 4:30 a.m., after the moon had gone down, and before day-light the command [arrived] at the Cienega [marsh or lake], known as Daily's [sic. Daly's], formerly McEver's ranch. There I halted the command and ordered the men to dismount, unsaddle and prepare coffee. It was then still dark. I had the prisoners dismount and asked Watts how he was getting along, he replied: "I want a drink, bad." I told him the men would have coffee in a few minutes; he answered that he didn't want any coffee, he wanted a drink of whisky, and asked me to allow him to go to a tavern in the vicinity to get some, I told him he could not, and rode off and dismounted. The men were still bustling about unsaddling the horses and unpacking the mules when I heard one of the men exclaim: "Where are the prisoners!" Almost instantly a shot was fired; the men seized their carbines and ran in that direction. The man who fired the shot shouted: "There they go up the road!" A volley was fired in that direction, probably between thirty and forty shots. I directed Captain Salazar to take a sufficient detail and follow the fugitives; he took six or seven men and proceeded up the road about two hundred yards and came upon the bodies of Watts and "Butch" lying in the road; they were both dead. (A. J. Fountain, Major 1st Regiment, N. M. Vol. Militia, Commanding Forces in Field, Report to E. L. Bartlett, Adjutant-General, March 25, 1883 in Bartlett, 1884, pp. 69-70)

Fountain had the bodies covered with a little dirt to prevent the coyotes from molesting them and used the telephone, probably at Daly's Ranch, to call back to Lake Valley for someone to come and get the bodies so that their friends could give them a proper burial. At 5:30 the militia went on down the road to Hillsboro to Irwin's ranch. Margarito Sierra in his affidavit said that he sold stolen cattle there in January and Fountain brought him from Las Cruces to identify the ranch. Irwin's ranch was deserted, but fresh tracks indicated it had been very recently abandoned. In the afternoon about eight miles from Kingston, one of Fountain's informants came out and met the militia. He said the rustlers had heard about what happened at Lake Valley and had assembled at Johnson's butcher pen, about a mile from Kingston to make their stand. "That they were resolved to avenge the deaths of their late associates Watts and 'Butch'." As Tex or the other wanted men who fled Lake Valley before dawn would not have known of the killings, someone in Lake Valley had phoned or telegraphed the news to Hillsboro or Kingston by afternoon. When the militia got to Johnson's corral at 5 P.M., it was deserted. The militia went on into Kingston, but found only one person named in a warrant, James Colville, who ran a butcher shop in town. Colville probably had not fled when news reached Kingston of the militia due to his not thinking they would be after him. By the time the militia got to Kingston everyone knew about the killing of the prisoners taken at Lake Valley. It was probably easy for Fountain to use this to persuade Colville that unless he told everything he knew about the rustling business and signed a confession, he would also be shot. He confessed. Forays were made

around Kingston, but none of the wanted men were found. Fountain wrote that "I left Kingston at 10 p. m., and made night raids on several ranches between that point and Hillsboro." (Bartlett, 1884, p. 71)

About midnight I received a message from Mr. Bunsen, the superintendent of the Sierra Mining Company at Lake Valley, informing me that serious disturbances were threatened by the friends and sympathizers of Watts and "Butch" at that place, and requesting me to send a detachment of men for the protection of life and property. I immediately dispatched Sergeant Leandro Garcia, and four men of Captain Salazar's company, with orders to report to Superintendent Bunsen. I subsequently learned that they arrived at Lake Valley the following day and were directed to guard three prisoners who had been taken by the officers of the mining company. One of these prisoners, a man named John Shannon, had, it is alleged, endeavored to incite a mob to attack the militia; that, armed with pistols and rifles, he paraded the town calling upon the friends of Watts and "Butch" to join him and "clean out" my command. Upon being arrested he was placed under guard of Sergeant Garcia and his squad. He repeatedly announced his intention to escape, and was as often warned by his fellow prisoners and by his friends not to make the attempt; he foolishly persisted, however, and broke and ran from the guard, who fired upon him when he was about one hundred yards distant-he was instantly killed. This occurred about 7 o'clock p. m., on the 23d, (ibid., pp. 71-72)

The bodies of William Leland and John Watts were brought into Lake Valley. What details the residents of Lake Valley had were very scanty. Probably all they knew was that two men had been taken out of their beds by armed men from Las Cruces in the middle of the night and shot before morning. A general outrage at this action is understandable. Even if Leland and Watts were rustlers, rustling was not a capital offense, except in the opinion of ranchers. Rasch (1964, p. 266) makes the comment that "Some of the rustler's friends claimed that there were powder burns on Leland and Watts' faces and hair, indicating that they had been shot at close range." Rasch does not give a reference for this statement, but it may have come from testimony in a later Grand Jury Investigation. What it does tell is that they were shot in the head, a very unlikely event if Fountain was telling the truth that they were shot in almost total darkness between the setting of the moon and sunrise. The probability of bringing down two men with head shots at a distance of "about 200 yards" in almost total darkness is essentially zero. Even *la ley de fuga* (the law of escape) seem like a poor explanation for their deaths. Would two men on foot even try to run away from 45 men on horseback?

Probably most Lake Valley residents were outraged at what had happened and felt that some type of protest should be made to officials. How many openly spoke of taking up arms or calling out the Lake Valley Guard to fight the Las Cruces militia will probably remain unknown. Fountain's report names only one man, but says that the Sierra Company seized at least three men. Based on Fountains reported times of travel from Lake Valley to Kingston it was about a ten hour trip. As the Sierra Company's messenger found Fountain less than a two hours ride from Kingston at midnight on the 22<sup>nd</sup>, he must have left Lake Valley before 3 or 4 in the afternoon. The only information on what happened at Lake Valley during the day are the words of Fountain. Fountain even qualified his description, as he was not there and probably got much of the story from Sierra Company officials. Even a dozen or more armed men would not be a threat to the 45 members of the Las Cruces militia. Therefore either John Shannon had considerable success in getting volunteers to fight the Las Cruces militia or the Sierra Company officials felt he would do so. If Shannon was going around asking men to join him to "clean out" the Las Cruces militia, he knew he needed a large force. He

may even have been trying to raise the Lake Valley Guard since a small "mob" would have been of little use against 45 armed men. Bloodshed on a large scale would attract national bad press. Lake Valley would be labeled a lawless town that openly attacked the Territorial militia. Such additional bad press could devastate already falling stock prices. Endlich and even more so Bunsen were good lieutenants of Whitaker Wright. It would have been a difficult decision to openly side with Fountain and his men who the community felt had committed a crime against them. By early afternoon at the latest the prospect of armed conflict with the militia became so strong that action had to be taken. How many armed men the company got together before they went into town to seize the protest leaders is not known. All that is known is that they captured John Shannon and at least two other men and held them under guard. There is no indication that either side fired any shots. Tensions must have been high even after these men were seized. There must have been a concern that others would arm themselves and come to rescue the three leaders held prisoner at the mill or in a mine. The company officials were at least afraid enough of this possibility by four in the afternoon to send a messenger to find Fountain and tell him to send troops back to Lake Valley. The next day when the troops sent by Fountain killed John Shannon, the community must have felt an even greater sense of injustice and outrage. John Shannon was probably a miner and was never accused of being a cattle rustler. A Silver City newspaper described him as follows.

John Shannon, who was known by almost every miner and prospector in Southern New Mexico, was also arrested and placed under arrest. He was riddled with bullets, under the mere pretense that he attempted to escape. His body was left where it fell, until found by the citizens. Shannon has been in this section of the country for twelve years, and has always been known as a peaceable, honorable and hard working man. (The Silver City Enterprise, 4/6/1883)

His execution by *ley de fuga* was the worst atrocity of the Lake Valley Rustler War. Fountain stated in his report that he had no warrant for Shannon and had never heard of the man until he returned to Lake Valley.

Fountain and the militia continued to search the ranches between Kingston and Hillsboro, but turned up only one wanted man, Nat Irwin. Fountain and his command returned to Lake Valley at noon on the 24<sup>th</sup> and got news from an informant that Johnson and other wanted men had recently been there and gone south towards Mexico. Fountain makes no comments about the community attitudes and wrote only that "The entire command was generously entertained by Superintendent Bunsen and the officers of the Sierra Mining Company." (Fountain in Bartlett, 1884, p. 74) Who Fountain was referring to as the officers of the company is not known. Fountain may only have been referring to Gillette, who besides being the mine manager was also a member of the board of directors. Several other New Mexico directors of the company also lived in Lake Valley. However none of the powerful directors, officers, or Wright are known to have been there at that time. Cope was in Philadelphia that week, but some company officers may have been at Lake Valley for Bunsen's official replacement of Gillette as superintendent the following week, on April 1st. Fountain had been on good terms with Sierra Grande managers and was one of the few local people given a grand tour in the spring of 1882. Fountain (1882) wrote a glowing report of his tour of the mines repeating all the exaggerations he was told about their wealth. Gillette must have been the person who coordinated and made arrangements with Fountain for the Lake Valley raid. Bunsen had only arrived a few days before the raid and was not yet officially in charge. Fountain consistently misspelled Bunsen's name as Brunson, which was corrected in the quotes. Fountain had only met

Bunsen at the party at Lake Valley on March 24th the day before he wrote his report. Fountain summarized the expedition as follows: "I feel confident that this raid has broken the back-bone of the most dangerous if not the most extensive combination of thieves in the Territory." Many of the rustlers that escaped the March raid returned to the area and a second militia raid occurred in June 1883. However, the second raid arrested only three men in Kingston, was generally peaceful and no one was shot. Though cattle rustling probably remained a major source of meat for miners, it was something done more or less in secret.

"The application of *la ley de fuga* at Daily's [sic.] ranch and at Lake Valley, however, raised some doubts." (Rasch, p. 266) 'The law of escape' was often used as a means of punishing suspected criminals in the old west. Especially if there was some doubt that a jury would convict them. Fountain or his men used this three times in two separate incidents in a 32-hour period at Lake Valley. Even on the wild frontier this caused newspapers in mining towns to attack the injustice of what had happened at Lake Valley.

The killing of these three men has caused considerable excitement in Lake Valley, as it is thought by the people there that the killing was altogether unnecessary. Even if it was necessary, there is no excuse for the militia to leave the bodies of the victims lying where they fell, without burial. This is barbarous, and it would be far better to do away with the militia altogether than to have citizens murdered under the cloak of their authority. (The Silver City Enterprise, 4/6/1883)

The Silver City *Southwest-Sentinel*, the Lake Valley *Herald*, and the Kingston *Tribune* intimated that the militia had used the occasion to get rid of personal enemies without fear of the consequences, and a whispering campaign hinted that Sains had been pushed off the train so that he could be shot. (Rasch, 1964, p. 266)

Many newspapers protested the abuse of authority by the Las Cruces militia. The Las Cruces militia was deactivated on April 6th, but arrests by civil authorities continued. Kinney's trial started on April 12, 1883 and of the 17 counts originally brought against him he was tried on only one; the purchase and sale of sixteen cattle stolen from Victoriano Sanchez's ranch at Dona Ana on January 16, 1883. These cattle had been later recovered at Lake Valley. Margarito Sierra who went as a guide on the expedition to Lake Valley and Kingston testified that he, Kinney, Bernal and another man stole the 16 cattle. He then testified that they drove the cows to Rincon where they were sold to Bob Keesee who drove them to Lake Valley. (Rasch, 1964, p. 267). Sierra's testimony held up in spite of two hours cross-examination. However, Sierra's testimony indicates at best he only told part of the truth. Fountain's report published 10 months after the trial said that he took Sierra with him to identify Irwin's ranch, which is about five miles north of Lake Valley, as the place the cattle stolen at Dona Ana were sold. (Bartlett, 1884, p. 70). Thus Fountain's report shows that Sierra's affidavit said the cattle were not sold at Rincon which is what he testified later in the trial. "Margarito Sierra, who was brought along, identified this [Irwin's Ranch] as the place mentioned in his affidavit where [the] cattle stolen from Dona Ana had been sold." (Bartlett, 1864, p. 70) Thus Sierra sold the 16 cattle at Irwin's ranch not at Rincon, and probably they were sold to Keesee rather than to Kinney. After Kinney's trial all charges against Margarito Sierra were dropped. (Rasch, p. 272). Another man testified that he saw the cows in Kinney's corral at Rincon and was a witness on the bill of sale of the cattle to Keesee, but that Kinney was not present when the cattle were sold. Another government witness by accident gave Kinney an alibi of being in El Paso at the time. Governor

Sheldon stayed in Las Cruces to push officials for a quick conviction. Needless to say Kinney was convicted. Kinney finally got a rehearing three years later, when the charges against him were dropped and he was released from prison. Many people at the time realized that it was not a fair trial and the editor of the *Southwest-Sentinel* wrote that Kinney was “found guilty ... against evidence, law and justice.” (4/18/1883, Rasch, p. 268) Many others accused of rustling were speedily brought to trial and convicted in 1883, but they also served fairly short terms. One rancher expressed the sentiments of the ranchers about the raid on Lake Valley in the *Silver City Enterprise*: “Now I, as an owner of stock, do not care who kills or arrests, so long as these thieves are convicted and sent to prison.” (5/4/1883, Rasch, p. 268)

Edward L. Bartlett the Adjutant General of the Territorial Militia in his report for 1883 wrote. “On the 16th of April, a special order was issued convening a Court of Inquiry to meet at Lake Valley, for the purpose of investigating the conduct of Major Fountain in connection with the killing of the three men named in his report, but the order was revoked upon learning that the grand jury of Dona Ana County had fully investigated all the circumstances and found no cause for accusing Maj. Fountain or any one connected with the raid.” (1884, p. 75) The press reported that it was Fountain who demanded a Court of Inquiry to investigate his actions at Lake Valley. For a short time this call for a Court of Inquiry gave the public appearance of a search for the truth about the Lake Valley Raid. Probably Fountain, Bartlett and the Governor knew on April 16th that the Grand Jury meeting in Las Cruces would acquit the militia of wrongdoing and complete their investigation of the Lake Valley Raid before the Court of Inquiry would start at Lake Valley. They probably could even control when the Court of Inquiry would start, thus assuring that the Grand Jury would be finished before it started. The Grand Jury summoned friends of Shannon and asked them what they knew “of the charges of cruelty and murder made against the militia.” (Rasch, p. 269) They took testimony from thirty witnesses. The Las Cruces Grand Jury did not bring any indictments against their militia and issued a report thanking the governor for calling out the militia. They did however, recommend that in the future a civil officer be in charge of militia going to make arrests. Governor Sheldon dissolved the call for a Court of Inquiry at Lake Valley, on the grounds that since the Grand Jury had found that no crime had been committed, any further investigation “would be a work of supererogation.” The *El Paso Lone Star* (4/25/1883) pointed out that the governor had dismissed the Court of Inquiry before it started “without even a reasonable excuse for his actions.” A few days later possibly in response to this type of criticism the Governor issued General Order No. 18. It thanked and highly praised Fountain and his men and gave a type of general justification for the militia actions at Lake Valley. Order 18 was printed in the *Santa Fe New Mexican* (4/28/1883) and other newspapers. In essence the Governor wrote that it was proper to observe legal niceties when dealing with law-abiding citizens, but not with rascals.

The Lake Valley War, or the Lake Valley Raid of the Rustler War, was fought by Territorial Troops against suspected criminals and potentially dangerous protestors. There were no gunfights by civilians with civil authorities to glamorize. The exciting action of the war was at Lake Valley and the killings by the troops were deplorable even by the standards of the time. Thus the story was not suitable for promotion in the 19th Century as a Great Tale of the American West and since then has been largely forgotten.

Rasch concluded his article with the sentence “It is odd that the ‘war’ which broke the back of these

gangsters and those who waged it are now all but forgotten." If anyone has ever written a pulp novel or even a story about the Lake Valley Raid or War it was not located. The Lake Valley war was a lopsided one with the Territorial troops executing all prisoners within hours of capture. Even Apaches received fairer treatment than Lake Valley residents did in 1883. There was some reluctance to include the War in the history of the Lake Valley Mining District because of the fear that it would become like Tombstone, known to Americans only as the location of a gunfight at a corral rather than for its silver mining history. Though Territorial or State militias were often called into mining towns during strikes, there is no other incident in American history where they executed the prisoners taken in the mining camp. The raid on Lake Valley was novel in American history and should be remembered for its interesting twist on vigilante justice in the West.

## ENDNOTES FOR THE HISTORY SECTION APPENDICIES

1. Some references for the battle with the Apaches west of Lake Valley and George Daly's Death. Stephen H. Lekson, *Nana's Raid: Apache Warfare in Southern New Mexico*, 1881, El Paso: Texas Western Press, University of Texas at El Paso, 1987.  
Sheridan, Lieutenant General P. H., Commanding, *U. S. War Department Military Division of the Missouri, Record of Engagement with Hostile Indians Within the Military Division of the Missouri, From 1868 to 1882*, Chicago, 1882, p. 115.  
Sonnichsen, C. L., *The Mescalero Apaches*, Norman: University of Oklahoma Press, second edition, 1973, p. 215  
McKenna, James A., *Black Range Tales: Chronicling Sixty Years of Life and Adventure in the Southwest*, New York: Wilson- Erickson Inc., 1936, pp. 181-185.  
Billington, Monroe Lee, *New Mexico's Buffalo Soldiers, 1866-1900*, Niwot: University Press of Colorado, 1991, pp. 106-107.  
Miller, Harold, "Nana's Raid of 1881," *Password*, Vol. 19 (Summer 1974), pp. 51-70.

<sup>2</sup> In a telephone and written exchange with Ada Powell who is the leading biographer of Marcus Daly, this possibility was examined. Ada Powell, *The Dalys of the Bitter Roots*, 1989, published by Ada Powell, 142 Kurtz Ln., Hamilton, MT, 59840. Marcus was born in County Cavan, Ireland in 1841, the youngest of 11 children. The local church later burned and all church records were destroyed thus there is no record of the names of his siblings. If George Daly were a brother, he would have been born in 1840 or earlier and 38 or older in 1878. If George Daly was a brother of Marcus he would have been older than seems likely for a man with four young children in 1878. Marcus' father was a farmer and only some of his children immigrated to the United States. Marcus came to US on his own in 1856 and after a few years went to California via Panama where he had a sister. Ada Powell has visited Ireland and photographed Marcus's mothers grave, but of the 11 siblings she has confirmed the identity of only three and another possible two. Possible names have been located for others and there may have been one named George. A reported descendant of one of Marcus Daly's brothers in New York did not respond to letters I sent him in 1997 asking for information about a possible George Daly. If Marcus had a brother in mining he would have probably employed him at some point and there is no mention of a George Daly being involved with Marcus in Montana. Thus the results are not conclusive, but it seems unlikely that George Daly was a brother of Marcus Daly.

<sup>3</sup> Genth, F. A. and Gerhard Von Rath, "On the Vanadates and Iodyrite from Lake Valley, Sierra County, New Mexico," *American Philosophical Society Proceedings*, v. 2, pp. 363-375, 1885.



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Endlichite is a Arsenatian Vanadite. Stuart Northrop (Minerals of New Mexico, 1959 revised ed., p. 226) quotes from the above publication that the mineral was named for Fredric M. Endlich, manager of the Sierra Mines.

<sup>4</sup> Percy F. Martin, *Mexico's Treasure-House (Guanajuato), An Illustrated and Descriptive Account of The Mines and Their Operations in 1906*, The Cheltenham Press, New York, 1906.

<sup>5</sup> Stanley Dempsey and James E. Fell, *Mining the Summit: Colorado's Ten Mile District, 1860-1960*, University of Oklahoma Press, Norman, 1986.

6. Lucier, Paul, (p.249-250) "Commercial Interests and Scientific Disinterestedness, Consulting Geologists in Antebellum America," *Isis*, vol. 86, pp. 245-267, 1995. Like most historians in the 20th Century Lucier ignored or skirted Benjamin Silliman Jr.'s compromises with greed probably out of deference to his contributions to American Science. George Ernest Webb in "The Mines in Northwestern Arizona in 1864, A Report by Benjamin Silliman, Jr.," *Arizona and the West*, vol. 16, pp. 247-270, 1974, note 7 and elsewhere lists many of the favorable articles and books on Silliman Jr. George E. Webb in "The Chemist as Consultant in Gilded Age America," *Bulletin for the History of Chemistry*, No. 15/16, pp. 9-14, American Chemical Society, 1994 is one of the few who has dealt with Silliman's demise as an honest consultant after the Civil War. Webb's impending book, *Science in the American Southwest: Historical Perspectives*, according to personal communications (1998) will give a more critical evaluation of Benjamin Silliman Jr.'s reports on the southwest.

7. Silliman, Benjamin, Jr., *Report on the Rock Oil, or Petroleum, from Venango Co., Pennsylvania, with Special Reference to its Use for Illumination and Other Purposes*, New Haven, 1855.

8. Spence, Clark C., *Mining Engineers and the American West: The Lace-Boot Brigade, 1849-1933*, Yale Univ. Press, New Haven, 1970, p. 133.

9. Silliman, B., *Report on the "Los Cerrillos" Mining District in New Mexico, with a More Particular Notice of the Grand Central Tunnel in the Cerro Del Oso Mountain*, Santa Fe, March 23, 1880. Reprinted in the prospectus of *The Grand Central Tunnel Mining Company of New Mexico*, Culver, Page, Hoyne & Co., Printers, Chicago, 1881. Assays on pages 18-19. The blatant lies are in the report he did for the New Mexico Surveyor General's gold placer company in the Rio Grande Gorge near Taos. Silliman wrote that nothing "since the discovery of California and Australia, is comparable for its measurable reserves of gold, available by the hydraulic process, in these deep placers of the Rio Grande." (*Report on the Newly Discovered Auriferous Gravels of the Upper Rio Grande del Norte, in the Counties of Taos and Rio Arriba, New Mexico*, Omaha Herald Publishing House, Omaha, 1880, p. 7) These placers were so marginal in their gold content the company went broke in months and they have never been profitably mined hydraulically to this day.

10. Box 24, folder 101A-B, "New Mexico mines: letters to Benjamin Silliman, Jr. relating to his work as a mining consultant, 1870-71, 1880-83," Silliman Family Papers, Yale University, Sterling Memorial Library Manuscript Group Number 450.

<sup>11</sup> George Smith, *The Dictionary of National Biography* [England], volume 3, pp. 711-713,

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Oxford University Press, Oxford, 1920.

<sup>12</sup> Ibid., p. 711

<sup>13</sup> Ritch, Hon. William G., *Illustrated New Mexico*, Bureau of Immigration, Santa Fe, Third Edition, 1883, "Town of Lake Valley," opposite p. 34.

<sup>14</sup> Ashcroft, Bruce, "Miners and Merchant in Socorro's Boom Town Economy, 1880 to 1893," v. 63, n. 2, (April) 1988, *New Mexico Historical Review*.

<sup>15</sup> Rasch, Philip J., "The Rustler War," v. 39, n. 4, pp. 257-273, (October) 1964, *New Mexico Historical Review*.

<sup>16</sup> Bartlett, Edward L., "Report of Edward L. Bartlett, Adjutant General of the Territory of New Mexico from March 1, 1882, to January 1, 1884," pp. 59-114 of *Official Reports of the Territory of New Mexico for the years 1882 and 1883*, Bureau of Immigration, New Mexico Printing Company, Santa Fe, 1884.