EXHIBIT 51

1912_07_31 – The Morning Union

ROAD TO BE CLOSED TO BUILD BRIDGE

Concrete Structure Near the Union Hill Mine Is Now Assuming Shape.

Work of building a new concrete bridge on the county road near the Union Hill mine is progressing rapidly and tomorrow the bridge will be closed to travel. While the foundations of the concrete bridge were being put in place the wooden structure has been used as usual, but tomorrow work of building the cement arch will begin and the old wooden structure will be torn down.

The bridge when completed will last for many years and will be a much needed improvement in that section. Seven men are employed on the job and it is expected that the road will be thrown open for travel again within a week.

EXHIBIT 52

1912_09_12 – The Morning Union

GOLD POINT MINE IS NOW BEING OPENED

Local Company Headed By Alfred Onn Will Sink Mine to Great Depth.

HOISTING WORKS HAS BEEN ERECTED

Steam Plant Will Be Installed and Mine Operated on Large Scale.

The new hoisting works which has been in course of erection at the Gold Point mine in this city has been completed and work on the large gallows frame is now under way.

The Gold Point mine is situated midway between the Brunswick and Maryland mines and is an extension of the Brunswick on the west side. The Gold Point was sunk to a distance of a little over 200 feet when it was first opened up many years ago, but when the mill burned down and other difficulties arose with the company it was allowed to close down.

Alfred Onn of this city took hold of the property and interested several local people in the project and now work of reopening the mine on a large scale has been undertaken. The mine is now being opened under the company name of Onn Gold Mining Company and there is no stock for sale on the market. The new company intends to continue the shaft to a distance of 1000 feet and for this purpose a boiler and engine have been purchased and are now on the grounds. After the 1000 foot depth has been obtained it is the intention of the company to substitute the steam plant with an electric plant and continue sinking to a greater depth.

The mine is now down to a depth of 248 feet and drifting from this level has been in progress. Good ore has been encountered and the company is elated over the outlook of the property. After the gallows frame has been put in place and the steam plant in good running order nothing will then interfere with sinking and it is expected that the Gold Point will soon be placed on the list of dividend payers.

EXHIBIT 53

1913_06_21 – The Morning Union

BIG COMPRESSOR IS STARTED UP

New Machine at the Brunswick Mine Has Been Started up and Working Smooth.

The new compressor which has been added to the equipment of the Brunswick mine is now ready for compressing air and it will prove a valuable addition to the machinery on the property.

Chief Engineer H. L. Body of the company had charge of installing the compressor, which is a 64,000-pound direct acting Ingersoll and Rand machine. Power has been turned on and yesterday the compressor was working without a hitch. The unloading device is said to be the latest and reduces the loss of air to a minimum. The big machine is capable of compressing 1500 cubic feet of air per minute and is driven by electric power.

Work at the Brunswick is being pushed ahead and with a complete outfit of modern machinery it is expected that development work can be carried on extensively. A large number of men are now employed at the mine and it is hoped that the old mine will soon be on the list of dividend payers.

EXHIBIT 54

1914_08_29 – The Morning Union

RE-OPENING OF UNION HILL MINE IS ASSURED

LOCAL OWNERS GIVE BOND ON NOTED PROPERTY

Experienced Mine Operators of San Francisco Have Taken Charge.

CONSIDERABLE FORCE WILL BE EMPLOYED

New Managment Plans to Seek Greater Depths Without Any Delay.

The Union is able to announce to its readers this morning that the Union Hill mine has changed hands and within the next few days this property, which has been lying idle since Mr. Doe closed the mine down a year ago, will be started up again in full blast.

This will be pleasing news and will mean the employment in the near future of a large number of men. The Union Hill mine has been bonded by E. C. Creller and his associates to B. Del Ray and W. H. Matson of San Francisco and the new bond holders have taken charge of the property. The amount of the bond has not been made public but it is known to run into large figures. A. D. Cox of San Francisco has been placed in charge of the mine.

The Union Hill mine is one of the best equipped mines in this county. It is situated on the line of the Narrow Gauge railroad a short distance from the Brunswick mine, which declared a large dividend recently. There is a complete hoisting plant on the property capable of hoisting from a depth of 3000 feet and an excellent dumping plant. Besides the hoisting and pumping plant there is a compressor plant and twenty-stamp mill that is modern in every respect. The pumping and hoisting plant is operated by water power, a pipe line being connected with the property and the compressors and mill are run by electric power.

The shaft on the property has been put down to a depth of 600 feet, and drifts have been run at many of the levels. The mine was reopened some time ago under the management of A. K. Doe who took from the underground working about $200,000. Doe spent a very large sum of money on the surface work, improvements and failed to make the mine pay. The mine has produced heavily in former years and the new management hopes it will soon be placed on the list of dividend payers.

Mr. Matson is an attorney of San Francisco and was associated with Mr. Doe when the mine was last being operated. Mr. Del Ray is a mining engineer who has been associated with Matson for some time.

It is the intention of the new bond holders to commence active development work at once, and the shaft will be sunk to a great depth. The surface plant being complete and in excellent repair all the efforts will be directed to underground work and nothing will be left undone to put the mine on a paying basis.

PERSONAL MENTION

B. F. Hutchinson was a visitor in this city yesterday.

Rev. Father Keiley was a passenger on the incoming train last evening.

Miss Drucilla Hicks was an incoming passenger on last evening's train from San Francisco.

Miss Gladys Godat has returned from San Francisco, where she has been spending the past two weeks.

Mrs. Alice Calkins, assistant postmaster, left yesterday for Berkeley, where she will spend three weeks on her vacation.

Mrs. Alex Bunny and daughter arrived in this city last evening from Pacific Grove, where they have been spending their vacation.

Mrs. John Calvert and daughter returned to their home in this city on last evening's train, after spending several weeks in San Francisco.

A. Cook, who has been spending some time in this city in the interests of the Sacramento Bee, will return to Sacramento this morning.

Earl Taylor, Panama-Pacific Exposition commissioner for this county, takes his departure for Sacramento this morning, where he will meet with the officials of the Sacramento Valley Exposition Commission regarding matters affecting the exhibit from this county.

G. H. Stokes, who is well known in this county, but who is now in the real estate business at Richmond, was in town yesterday. He was accompanied by Mr. Wall of that city, the owner of Wall's Harbor Center tract there. A friend of the latter also accompanied them. They have been making an automobile trip of the lakes, and went into Sierra Valley on their journey. They came down by way of the Summit and Colfax. They made the trip in an automobile and had a delightful time. They continued on to Richmond, leaving during the afternoon.

DANCE TONIGHT.

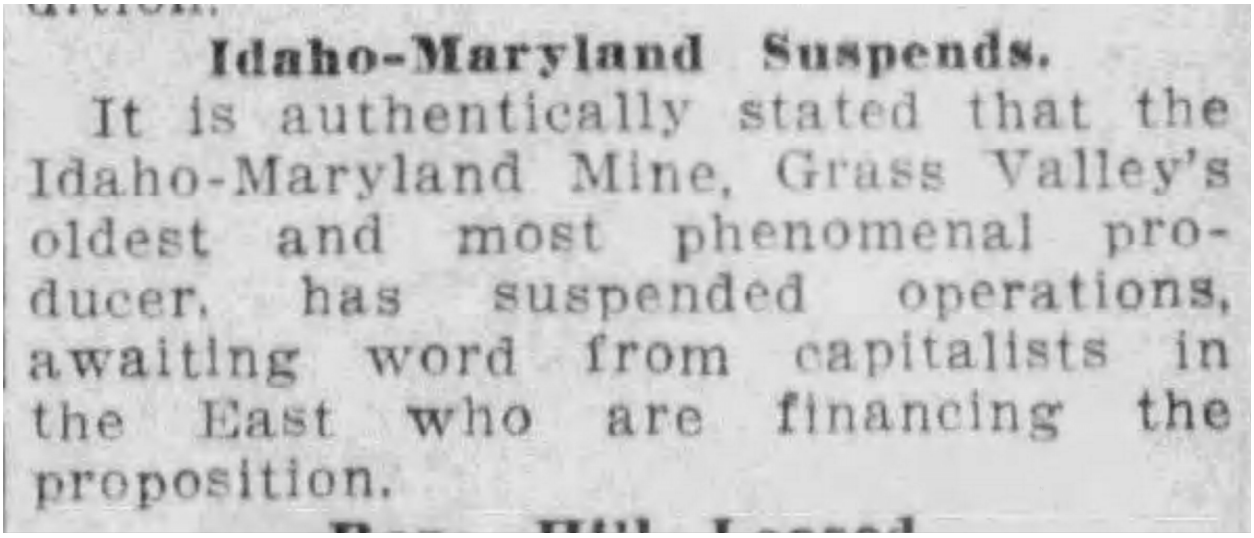
Carson and Carson announce their regular weekly social dance for tonight at Elks' hall. Accommodations will be provided for all the patrons from Nevada City to return home immediately after the last dance. Good music will be provided and the public is invited to be present.

BORN.

GRIBBEN—In Grass Valley, Nevada County, California, August 25, 1914, to Mr. and Mrs. Ed. J. Gribben, a daughter.

EXHIBIT 55

1914_01_07 – The Sacramento Bee



Idaho-Maryland Suspends.

It is authentically stated that the Idaho-Maryland Mine, Grass Valley's oldest and most phenomenal producer, has suspended operations, awaiting word from capitalists in the East who are financing the proposition.

EXHIBIT 56

1915_01_20 – The Morning Union

To the People of Grass Valley and Vicinity

Announcement

Since the organization last September of a Company, the Corporate name of which is "UNION HILL MINES", for the purpose of acquiring and operating the Union Hill Mines at Grass Valley, many requests have come to us from residents of Nevada County for information as to the Company's plans, the market price of the stock, the strength of the organization, etc.

No one knows better than you, to whom this announcement is made, the productiveness of the Grass Valley District and the profits that many of your mines have paid and are paying. When we began a few months ago to make a study of the history, present worth and future possibilities of the Grass Valley District, we were astonished at the facts. It is our belief that, considered from every angle, Grass Valley is the best Gold Mining District in America. Nearly all of you are no doubt familiar with the Union Hill Mine' and know that it has in years gone by produced some two million dollars. You are situated, in any event, that you can readily ascertain the facts if interested. You know just as much about the Union Hill Mine as we do, and no doubt are just as keenly aware of its tremendous profit possibilities as we are. Hence we need waste no time telling you of the Union Hill Mine and its merit.

Union Hill is equipped with a hoisting plant ample for all purposes to a depth of at least 2000 feet, a pumping equipment that cannot be surpassed; a twenty drill air compressor; up-to-date machine drills; a thoroughly equipped blacksmith and machine shop; office building; change house; Superintendent's residence; and a splendid twenty stamp mill.

Since the property was taken over by the present Company last September, the main working shaft, 6x18 feet in the clear, has been sunk more than 200 feet; and a station has just been established at the 800 ft. level. Drifting has commenced on this level to pick up a splendid ore shoot, which has been thoroughly proven in a winze sunk 65 feet below the 600 ft. level. We expect to see this ore shoot opened up in the 800 ft. level, and the 20 stamp mill placed in operation during the coming 30 days.

At a depth of 710 feet in the shaft, some splendid ore was passed through. This promises to develop into an important discovery, and work is now progressing with a view to opening up the downward extension of this latter ore shoot on the 800 ft. level.

The operations on the Union Hill Mine have been financed by a syndicate of capitalists of Pasadena, California, who are amply able to see the project through to complete success.

Considering the history of Grass Valley, the records of adjacent mines, and the known facts about Union Hill, it seems to us perfectly obvious that this is to be the next big producing, dividend paying, profit making mine of the district. Upon this point you are capable of judging for yourself.

The first public offering of Stock of Union Hill Mines is just being made at 25c per share.

By SPECIAL ARRANGEMENT, however, we are able to offer to citizens of Grass Valley and Nevada County a block of 25,000 shares of Union Hill Stock, at the special price of 20c per share.

Our object in arranging this special offer is two-fold. We believe there are other splendid opportunities in your vicinity, and as soon as Union Hill has been placed on a paying basis, we hope to be instrumental in financing some other Nevada County Mines. Hence our desire to become acquainted with the mining operatiors of your vicinity. It is our belief, also, that the successful operation of Union Hill will engender a feeling of greater confidence and cooperation in the vicinity, if the inhabitants thereof are given, on the best possible terms, an opportunity to participate to some extent in the profits to be derived. Hence this special offer to residents of Grass Valley and vicinity of a block of 25,000 shares of Union Hill stock at 20c per share.

We believe in Grass Valley and in Union Hill. Our confidence is being backed by sufficient money to prove its true worth.

The mine is being developed under the managemnt of Mr. A. D. Cox, a highly trained, thoroughly competent engineer of large experience.

We believe that by the end of this year 1915, Union Hill will be placed in the list of regular dividend payers of Grass Valley, and that Union Hill stock will be in eager demand at $1.00 per share or above.

If your knowledge of the Grass Valley District and the Union Hill property leads you to believe that the operating plan above outlined will develop a paying mine, we will be pleased to see you secure a block of Union Hill stock now while obtainable at the low price of 20c per share.

All orders should be placed immediately with

The G. S. Johnson Company

MINING OPERATORS

927-936 Phelan Building **San Francisco. Calif.**

EXHIBIT 57

1915_07_20 – The Morning Union

SOUTH IDAHO AND GOLD POINT MINES TO BE OPENED UP SOON; EXTENSIVE EXPLORATION WORK TO BE UNDERTAKEN

It has just been learned on good authority that the South Idaho and the Gold Point mines which are surrounded by such famous properties as the Eureka, Idaho, Maryland, Brunswick and Union Hill properties, are to be reopened in the near future and extensive exploratory work undertaken. Options which were taken on these mines last fall have recently been exercised by Errol MacBoyle, a mining engineer of San Francisco, who lately was instrumental in causing the reopening of the Nashville-Montezuma group of mines in Eldorado county by Bewick-Moreing and Co., of London and the Church-Union mines in the same county by J. A. Finch and associates of Spokane. Bonds have also been taken on patented land adjoining the South Idaho and upon a number of recently located claims, which are said to cover valuable mineral rights on the celebrated Eureka-Idaho-Maryland veins.

The present plans include the development of the South Idaho and Gold Point ledges which have only been worked to a superficial depth but which show better indications of developing pay-shoots than did the Eureka and Idaho mines at the same stage of development. It is planned to accomplish the exploration of these veins by the means of a vertical shaft which will ultimately be deepened and used in working the Eureka Idaho Maryland vein which passes under these properties. It is claimed that a number of the ablest mining lawyers have rendered the opinion that the Idaho Maryland company has practically worked the ore bodies to the limit of its holdings and that the company has no extralateral rights beyond the sidelines of its agricultural patents. It is further claimed that the South Idaho, Gold Point and the recently located claims and fractions practically control the mineral right to the Idaho-Maryland vein below a depth of 2000 feet.

The Eureka-Idaho-Maryland mines have a recorded production from 1862 to date of over $19,060,000 and have paid $7,500,000 in dividends. This large amount of gold was taken from a single ore shoot which has been worked from the western boundary of the Eureka claim, eastward for a distance of 6000 but only to a depth of 2000 feet as compared with the North Star which is working at a depth of 6300 feet on the vein and the Empire-Pennsylvania mines, which have been developed to a depth of 4600 feet. It is a well known fact that the Idaho Maryland ore-shoot was as well defined and as rich in the lowest workings as at any point above; poor management, excessive costs of mining timbering and transporting the ore to the surface, together with the fact that the limiting boundaries of the property had been reached, caused the mine to be closed down.

The wonderful developments which have lately been made in the deepest levels of the North Star mine, the Empire mine and its latest acquisition the Pennsylvania, the steady annual production of $2,500,000 from the Empire, North Star and Brunswick mines, and the successful rejuvenation of the Pennsylvania, Union Hill and Golden Center mines, have turned the attention of the mining world to the opportunities offered by the dormant mines and prospects of Nevada County. There is little doubt that this reawakening interest will in the near future result in the establishment of many new gold mining enterprises, which will, if adequately financed, and efficiently managed, cause Nevada County not only to retain its proud position as the banner gold producing county of California but will further make the foothills of the Sierra Nevada the greatest gold producing district in the world.

EXHIBIT 58

Gold Prices Adjusted for Inflation as of August 24, 2023 – 100 Year Historical Chart

Macrotrends LLC, https://www.macrotrends.net/1333/historical-gold-prices-100-year-chart

EXHIBIT 59

1916_02_29 – The Morning Union

WORK STARTS AT SOUTH IDAHO

Valuable Property East of Town to Be Worked by Company Organized by Errol MacBoyle.

STRONG ORGANIZATION BEHIND ENTERPRISE

New Machinery Will Be Installed and Active Work Will Soon Be Underway.

After a long period of idleness work was resumed yesterday at the South Idaho mine, which is located east of Grass Valley about one and one-half miles. The property was bonded many months ago to Errol MacBoyle, well known mining engineer, who has organized a company and, it is said, enlisted sufficient capital to go ahead without interruption.

The preliminary work now underway under the superintendency of **A. M. Randal, well known in Grass** Valley, is for the purpose of locating a desirable shaft site. There is now a small shaft at the west end of the property, but this has caved in and because of its location Superintendent Randal considers it inexpedient to clean it out. A new shaft will be sunk, probably on the hill above. This would be a central point and would be in close proximity to a desirable mill site.

Superintendent Randal stated last night that it would take several weeks before actual work is underway. Machinery will have to be purchased and new buildings will [illegible] to go up. It is the intention of the new company, moreover, to equip the mine with all modern appliances.

As to the personnel of the new company Mr. Randal was unable to give any enlightening information. It is rumored, however, that State Mineralogist Fletcher McN Hamilton is interested in the big project, but when asked if this were so Mr. Randal stated that he was unable to state if this were a fact.

As the name indicates, the South Idaho is located just south of the famous Idaho-Maryland, which has an enviable reputation as a gold producer and its equal, it is said, has never been known in this or any other mining district. Mr. MacBoyle holds options on several adjoining properties, including the Idaho Development, Centennial, Black Hawk Extension and several smaller claims. Centered in a vast expanse of rich mineral deposits and in close proximity to several properties that are yielding fabulous amounts of gold, the South Idaho and adjacent holdings are regarded as very valuable and promise, when properly developed, to be very remunerative.

The South Idaho was last worked some ten years ago by a company organized by Captain John E. Carter. It is said that the company organized at that time was one of the strongest ever organized in this district, but for some reason the mine was not developed.

Mr. Randal, who is representing the new company, is not a stranger in this city. He was married to a Miss Compton, who made her home in this city. Some years back he was employed by the North Star Mines Co. For the past five or six months he has been developing the Mowhawk antimony mine near Graniteville, this county. While working this property he was marooned by the heavy January snow storm and experienced a perilous trip out from the mine on snow shoes. Mr. Randal is still interested in this property.

EXHIBIT 60

1916_03_12 – The San Francisco Examiner

An Unprecedented Money-Making Opportunity

In the Heart of the Richest Gold Zone in America

Here is an opportunity so unique and so remarkable in its various aspects that it offers to every person to whose attention this announcement comes a superb chance to lay the foundation for the building of a fortune, or the tremendous enhancement of a present fortune. Read the story! Investigate the facts! You will agree that it is the greatest chance you have ever found to make a fortune from a small investment.

California Has Greatest Gold Mines

California leads the United States in the production of gold. It has some of the greatest gold mines and gold mining districts in America. The whole business and social structure of San Francisco and California generally were built originally upon the great fortunes taken from the gold mines of the State. Look around you everywhere and you will see innumerable evidences of this fact. Gold mining has been and is the great California fortune builder.

Grass Valley

Grass Valley, Nevada County, is not only the richest gold camp of California, but probably the richest gold zone in America. Within a radius of some two miles, Grass Valley has produced gold bullion of the value of $150,000,000.00. The North Star Mine has a production record of about $25,000,000.00. It is at this time producing from $1,200,000.00 to $1,500,000.00 per year, is paying tremendous dividends, has many years' ore supply blocked out in sight, and the stock is selling around $15.00 per share.

The Empire Mine, controlled by W. B. Bourn, President of the great Spring Valley Water Company, has a similar production record, and the stock cannot be bought at any price. The Idaho-Maryland Mine has a production record of some $25,000,000.00 above the 2,500 ft. level.

Golden Center of Grass Valley, in which stock sold two years ago at a few cents per share, has become a big producer, and the stock is now quoted around $3.00 per share.

Brunswick Consolidated, whose stock sold a little while ago at from 5c to 10c per share, now is producing from $30,000.00 to $40,000.00 per month. The Company has two twenty-stamp mills in operation, has been paying big dividends for considerable time, and Brunswick stock is now quoted at $2.00 per share.

The mines of Grass Valley are big mines—not million-dollar mines, but five, ten or twenty million dollar mines. The ore bodies have been proven on their dip to a depth of 6,300 feet. Grass Valley, we repeat, is the richest gold zone in America.

Union Hill Mine

Located in the very lap of this tremendously rich gold zone, the Union Hill Mine embraces about 150 acres of the richest territory in the Grass Valley District. The Union Hill property is nearly one mile in length, on the strike of four rich proven veins, which have to date a production record of some $2,000,000.00. Union Hill is admitted by all who are familiar with the facts to be one of the rich properties of Grass Valley. **It is not a prospect, but a proven mine, and there is every reason to believe that it will make a gold producer the equal of any the District has ever known.** The Union Hill Mine is splendidly equipped. The hoist is capable of sinking to a depth of 2,000 feet. The 20-drill Sullivan compressor will be equal to all demands for years to come. The pumps will handle 700 gallons of water per minute. The machine and blacksmith shops are complete. Power drills of various types for the various kinds of work are on hand. The Company has a complete assaying office, mine office and superintendent's residence. The Union Hill Mine is also equipped with a 20-stamp mill capable of handling from 50 to 60 tons of ore per day. The Company has both water and electric power. The railroad crosses the property and the Union Hill Station is within 50 yards of the mill. Physical conditions are all ideal for economical mining and milling.

The Union Hill shaft is now 800 feet deep. From the 800-foot level an ore shoot was opened up a few months ago from which a production of about $50,000.00 was made during the latter half of 1915. Fully $200,000.00 have been spent in acquiring the Union Hill Mine and bringing it up to its present state of development. The shaft is now to be sunk on down to the 1,000-foot level, and the various ore bodies opened up from that point. Union Hill should then enter upon a long era of production, and within one year should begin the payment of large dividends.

To provide the funds for sinking this shaft from the 800 to the 1,000-foot level, and to provide also a property payment of $25,000, the Union Hill Company recently levied an assessment of 5c per share. One of the very heavy stockholders finding it impossible to pay the assessment on all of his stock assigned a portion of the stock to us, to be sold for the amount of the assessment and advertising costs amounting to 5½c per share.

Your Opportunity to Make Tremendous Profits! Our Opportunity to Make New Clients and Friends!

This block of stock we are offering to our clients at exactly the amount of the assessment, 5c per share, and the advertising costs, estimated at ½c per share, a total of 5½c per share. We freely predict that Union Hill stock will be worth at least $1.00 per share one year hence. **The 1,000 shares of stock that costs $55.00 to-day should be worth $1,000.00 within twelve months. Invest $550.00 in 10,000 shares Union Hill stock now and it should give you a fortune of $10,000.00 one year hence. Invest $1,100.00 in 20 000 shares Union Hill stock now and you should have in return $20,000.00 by the time a year rolls round.** Remember, moreover, that every dollar you pay for this stock goes into the treasury of the Union Hill Mines. There is not one cent of profit in the transaction for us. Our compensation comes through the making of staunch friends and clients of everyone who secures a block of Union Hill stock now and realizes the tremendous profits that are certain to accrue.

California Gold for Californians

Here is a chance for a number of Californians to build a fortune upon a California gold basis—the basis upon which most of the great fortunes have been founded.

WILL YOU BE ONE?

Instant Action Essential

All orders for Union Hill Mines stock at 5½c per share must be in our office not later than noon Friday, March 17, 1916. Also the amount of stock that we can furnish at this price is limited. **"First come, first served."** If you fail to secure a block of this Union Hill stock at 5½c per share you will, we believe, miss the greatest money-making opportunity ever presented by the mining industry of this State. We consider it a practical certainty that Union Hill stock will be worth at least $1.00 per share one year hence, and **there is every probability that within two or three years Union Hill stock will be worth from $2.00 to $3.00 per share or above.**

Bring or forward your order to our office immediately. Any additional information desired will be gladly furnished. But act! Act now! You will probably never have another opportunity like this to make a big fortune from a small investment. Telegraphic and telephone reservations will be given preference. All orders must be accompanied by cash in full.

THE G. S. JOHNSON COMPANY

MINING INVESTMENTS

716-718 Phelan Bldg. San Francisco, Cal.

Phone Garfield 1928.

Open Monday, Tuesday, Wednesday and Thursday Evenings From 7:30 to 9 o'Clock.

EXHIBIT 61

1916_04_26 – The Sacramento Bee

NEVADA COUNTY MINING DISTRICTS SCENE OF EXTENSIVE DEVELOPMENT

Union Hill Mine, Near Grass Valley, Producer of Gold and Tungsten, Now Controlled by San Francisco Capitalists, Who Will Shortly Commence Operating the Property; Mining Development Active at Nevada City and Other Parts of County

GRASS VALLEY (Nevada Co.), April 26.—The ent're Nevada County mining is affected by the present unprecedented revival in mining operations about Grass Valley and Nevada City.

Union Hill Sold.

Rumors of the change in ownership of the Union Hill Mine have been confirmed. The ownership of the property is now in control of a group of San Francisco capitalists, headed by Frederick W. McNear. Edwin Letts Oliver, inventor and manufacturer of the Oliver Continuous Filter Company, is associated with McNear as Treasurer of the new company. Errol Macoyle, who holds a bond on the South Idaho Mine, is the new general manager.

To Sink Shaft.

The Union Hill is not only a gold mine, but is also a producer of tungsten ore. The deposit is reported to be one of the richest in the West.

The new company is preparing to sink the shaft from the 800 level to a depth of 1,200 feet.

Scramble for Holdings.

That there is lively competition for mineral holdings in the vicinity of the Union Hill and South Idaho mines is indicated by the fact that the Empire Company recently acquired 430 acres in that vicinity. It is also stated that the famous Idaho-Maryland, located in the same part of the district, will be reopened at an early date.

The Golden Center Mining Company is working directly under the townsite of Grass Valley and its success has been instrumental in attracting both science and capital to inspect and develop other properties, some of which have been idle for twenty years.

The shaft at the South Banner is going down steadily, with the ledge showing increasing width. The little mill is being rushed to capacity to handle the ore.

New York capitalists are chiefly interested. Richard Phillips is manager. The American Gold Dredging Company has been formed to take over the dredging interests of the Oro Water, Light and Power Company.

PIONEER CHIEF BUYS KANE RANCH

SAN ANDREAS (Calaveras Co.), April 26.—The Kane Ranch, consisting of 203 acres of mineralized territory, has been purchased by the Pioneer Chief Company. The ranch partly surrounds the Pioneer Chief Mine and will be comprehensively explored.

In the Pioneer Chief the shaft is down 400 feet and is expected to gain the 500-foot point by May 10th. As soon as this work is finished extensive lateral developments will be pressed.

It is planned to install a small mill during the Summer, and this will be replaced with a large plant as soon as the best method of treating the ore has been determined.

BALD MOUNTAIN SCENE OF MINING ACTIVITY

LAKEVIEW (Ore.), April 26.—Mining men have been busy staking out claims at Bald Mountain, fifty miles east of Cedarville, Cal., for several weeks.

Deposits of cinnabar have been found in the vicinity and the recent rise in the price of quicksilver has

EXHIBIT 62

1916_03_22 – The Sacramento Bee

OPERATING COST OF BRUNSWICK MINE REDUCED $1.75 A TON

GRASS VALLEY (Nevada Co.), March 22.—The management of the Brunswick Consolidated Mine is preparing to sink the shaft an additional 200 feet, giving the workings a vertical depth of 1,300 feet.

The 40-stamp mill is crushing 8,800 tons per month, and new equipment installed in 1915 reduced total operating costs from $8.45 to $6.78 per ton.

Unwatering of the Union Hill mine is proceeding steadily and the shaft will be sent to the 1000-foot point.

Additional funds have been raised to finance much new work.

EXHIBIT 63

1918_08_07 – The Sacramento Bee

Gold Point Consolidated Takes Union Hill Control

GRASS VALLEY Nevada Co.), August 7.—The Union Hill Mine Company, operating the Union Hill mine here, is now controlled by the Gold Point Consolidated Mines Company, Inc., according to announcement just made. The Gold Point Company has taken over the Gold Point, South Idaho, the properties of the Idaho Development Company and several other claims in the famous old Eureka-Idaho-Maryland section.

Steady progress is reported in the Union Hill Mine. The shaft is now down 1,250 feet and a new station has just been completed at the 1,200 level in which pumps and air compressors are installed. Ledges from which good ore was taken on the 800 to 1,000 levels are being opened.

Produces Tungsten.

The Union Hill is the only mine in Nevada County producing tungsten in commercial quantities. Special equipment was installed over two years ago and during the last year a large tonnage of tungsten concentrates was shipped to steel manufacturers in the East. The company now has about 100 tons of tungsten concentrates awaiting treatment. They carry a certain percentage of gold, which is extracted previous to shipment.

EXHIBIT 64

1918_12_25 – The Sacramento Bee

THE main buildings of the Idaho-Maryland quartz mine at Grass Valley, which has been sold at a reported price of $250,000. The deal and the forecast of an early widening of operations is creating the widest interest in mining circles.

IDAHO-MARYLAND MINE SALE CHEERS GRASS VALLEY

Engineers to Begin Work January 1st to Decide on Extensive Operations

GRASS VALLEY (Nevada Co.), December 25.—The sale and prospective reopening of the Idaho-Maryland Mine here is regarded as the most important mining development in this district in the last twenty years.

The mine is situated directly on the continuation of the famous Eureka lode, discovered in 1851 and pronounced by Lindgren, the noted Government geologist, as being one of the most remarkable ever discovered in any part of the world.

On Wonderful Lode.

Three mines have flourished upon it—the Eureka, operated from 1857 to 1873, with a production of $4,600,000; the Idaho, from 1867 to 1893, with a production of $11,370,573, and the Consolidated Idaho-Maryland for an additional ten years.

Figures agreed upon by several mining experts place the production of the lode at some $23,000,000.

Worked Out Properties.

Both the Eureka and the Idaho worked the lode up to the last inch of their holdings in the higher levels, but the deeper workings are believed to still contain large bodies of valuable quartz.

The transfer of the mine was affected by the purchase of the Dorsey stock and all other stock offered. The issue totals 500,000 shares, and it is understood that the price was about 50 cents on the dollar.

New Officers Named.

E. M. Taylor and Theodore C. Dorsey immediately resigned as President and Secretary, respectively, of the company, and were succeeded by Roy H. Elliott and Rufus Taylor, respectively, both of San Francisco.

They represent—Bulkley Wells, well-known Denver mining man, and New York and Boston capitalists. It is understood that the new enterprise is fully financed and that no stock will be offered for sale.

New Machinery Needed.

Wells and a staff of engineers and geologists are to come here about January 1st to decide upon the policy of operations. The company has a large surface plant, but the machinery is now more or less obsolete.

The 1,000-foot vertical shaft and immense incline tunnels are said not to be in good condition, and many hold to the view that a new vertical shaft will be sunk on the continuation of the lode.

Other Parcels Bought.

This view is strengthened by the fact that the numerous claims and parcels of land have been purchased by interests believed to be identical with the Wells interests.

EXHIBIT 65

1919_02_02 – The Morning Union

IDAHO-MARYLAND AND UNION HILL MERGED

Will be Operated by Gold Point Mines, Inc., of Which Bulkeley Wells is President

NEW VERTICAL SHAFT TO TAP FAMOUS LODE IN DUE TIME

New Company Controls Two Miles on Vein Systems and Plans Call for Extensive Development

The Union is able to state authoritatively this morning that the largest mine consolidation in the history of the Grass Valley district is an accomplished fact and that the famous Idaho-Maryland property, taken over a few weeks ago by Bulkeley Wells and associates, and the Union Hill and adjacent properties will henceforth be under one management. The company is to be known as the Gold Point Consolidated Mines, Incorporated, of which Bulkeley Wells has been elected president.

It is also an assured fact that the Eureka-Idaho-Maryland lode is to be reached at the earliest practicable time through an entirely new vertical shaft, to be located at some central point, yet to be determined.

Promoted by MacBoyle

This consummation is directly due to a plan of consolidation conceived some time prior to the war by Errol MacBoyle, the well known consulting mining engineer of San Francisco, who has been closely associated with the Union Hill Company for several years. To further his plan, MacBoyle formed a syndicate, the members of which are: F. W. McNear, F. W. Snoock, Edwin Letts Oliver, Roy H. Elliott, and Errol MacBoyle, to acquire and develop the Union Hill and Gold Point mines. Later the Gold Point Consolidated Mines, Inc., was formed to take over the interests of this syndicate and to purchase additional properties.

Whitney and Wells Come In.

During the year 1917 the Metals Exploration Company, with offices at 120 Broadway, New York City, of which H. P. Whitney is president and Bulkeley Wells vice president, became interested in the new company. Wells and his associates have now acquired the controlling interest in the Gold Point Company and Wells has been elected president thereof to succeed F. W. McNear. The directorate is composed of Bulkeley Wells, Errol MacBoyle, Rufus Thayer, F. W. McNear, John McCrossen, Roy H. Elliott and Edwin Letts Oliver.

Controls Two Miles of Lode

The consolidated properties include the Eureka-Idaho-Maryland, the Union Hill, the Gold Point, the South Idaho and various other properties. The company controls two miles along the strike of the renowned Eureka-Idaho-Maryland-Gold Point and the Union Hill vein systems and is reported to have already expended in excess of one million dollars in the acquisition and development of its holdings.

It is understood that the development and working of the Union Hill is to continue along present lines and that entirely new operations will be undertaken for the Idaho Maryland.

Means Great Activity

This consolidation and the type of men who have brought it about means that the Grass Valley district is to be developed as never before in its history and the outlook for Grass Valley from a mining standpoint was never brighter. The greatest credit is due to Mr. MacBoyle for his persistent efforts in bringing about this condition.

Wilson Declares Need in Near East Is Up to People

Congressional appropriations for the relief of the war-sufferers are not meant to take the place of the funds for which the American Committee for Relief in the Near East is asking throughout the country. This information was conveyed to the people of the United States in a cablegram from President Wilson. Cleveland H. Dodge, treasurer of the committee had asked the President for a statement to cover this situation. The messages exchanged between Mr. Dodge and the President are as follows:

"President Wilson
"Murat Mansion, Paris.

"The campaign for thirty million dollars for relief and rehabilitation in the near East to which you called upon the people of America to subscribe is being vigorously pushed. Your request to Congress for hundred million dollars interpreted by the public to mean that this campaign in unnecessary. If you want us to proceed, a definite urgent statement from you by cable absolutely necessary to success. Hope you can do this.

"CLEVELAND H. DODGE,
Treasurer."

"Cleveland H. Dodge, New York.

"The appropriation asked of Congress for handling food relief is not intended in any way to take the place of the subscription being asked for relief and rehabilitation in the Near East. I hope that this subscription will not in any way be interrupted or reduced. The need is immediate and very great.

"WOODROW WILSON".

Rhine-Landers in Protest Against Any Change of Rulers

COBLENZ, Feb. 1 (By Associated Press).—Mass meetings protesting against any proposed separation of the Rhine lands from Germany were held recently in Cologne under the auspices of the league of freedom for the German Rhine Districts. A resolution passed by the meeting, a copy of which has reached the American officials here, said:

"The thousands of Rhine-landers in Cologne are firmly determined to remain attached to the German nation. The residents of Rhine Cologne are bound to the nation of Germany by ties of race, education and business. Any attacks made on the union between us and the Germans is a violation of our fundamental rights. To separate any part of this province from Germany would ruin the business and social organization of the part affected.

State Treasurer to Hold By-Pass Fund

SACRAMENTO, Feb. 1.—State Treasurer Friend W. Richardson has announced that he will hold up payment of the $260,000 worth of warrants of the San Joaquin Sacramento drainage district which the State is authorized to buy in the Sutter bypass bill signed by Governor Stephens last night, until he receives an opinion from Attorney General Webb as to the liability of the treasurer personally or on his bonds for payment of the warrants.

"Litigation may result," said Richardson, "and the value of the warrants may depreciate. In such case I want to know the liability of the treasurer before paying any of the warrants."

Stampeding Sheep are Killed by Train

MARYSVILLE, Jan. 31.—Forty-eight head of sheep belonging to William Freeman of this city were killed by a Southern Pacific train when the animals escaped from their herders and stampeded in front of the fast moving train. Freeman estimates his loss at $1600.

GERMANS MAY BE GIVING AID TO BOLSHEVIKI

Suspicion Exists Gas Shells Used on Allied Forces in Russia are "Made in Germany"

WASHINGTON, Feb. 1.—The situation in the Archangel district is regarded by military officers in northern Russia as extremely critical.

Advises to the war department today made no reference to an appeal for reenforcement but it was said here that inasmuch as this was a matter for determination by the Supreme War Council in Paris a more complete report had been sent to that body, possibly with the request for additional support. Reports that the Bolsheviki forces were using gas shells was taken here by some officers to mean that this equipment has been supplied through German sources notwithstanding the terms of the armistice, and if this was established it was intimated drastic action against the Germans would be taken by Marshal Foch.

Nat Goodwin Lauded at Bier as Man of Immortal Memory

NEW YORK, Feb. 1.—Funeral services for Nat. C. Goodwin, who died here yesterday, were held today under the auspices of the Lambs Club and in the presence of hundreds of men and women who were associated with the actor during his stage career. The Lambs Club quartet sang hymns.

The Reverend Dr. Mason Scagle of St. Stevenson's Protestant Episcopal church, conducted the services and the eulogy was delivered by DeWolf Hopper.

Present also were the actor's parents and Miss Georgia Gardner, who was to have been Goodwin's sixth wife.

Hopper stood facing the casket and with his arms outstretched when he spoke, concluding with these words:

"Nat, your flesh is gone to the lambs but the remembrance of your comedies, your pathos, your altruism, will live with us forever. We are grateful to you for the lesson you have taught us."

State Butter Output Cut 9,000,000 Pounds

SACRAMENTO, Feb. 1.—The production of butter in California decreased over 9,000,000 pounds during the two years ending September 30, 1918, according to the biennial report of the State Dairy Bureau, just made public.

During the year 1917 butter produced totaled 68,347,923 pounds and in 1918 the production fell to 60,358,595 pounds, according to the report.

The production of cheese increased slightly during the two year period the 1917 production totaling 9,236,643 pounds and the 1918 production 9,795,974.

It is stated in the report that many dairies in the state have gone out of business or greatly decreased their herds, due to the high cost of feed and the difficulty in obtaining milkers.

Gambling to Be Ousted in Nevada

CARSON CITY (Nev.), Feb. 1.—Assemblyman Booher of Elko introduced a bill prohibiting all kinds of gambling and card playign for money or prizes. The bill provides for arrest and imprisonment of all professional gamblers. Penalties range from $200 to $1000 in fines and six months to one year imprisonment.

German Labor Parley Not to Be Attended

PARIS, Feb. 1.—(By Associated Press)—The American Federation of Labor delegation, headed by Samuel Gompers, decided tonight to support the Belgian Socialists and trade unionists who refused to meet the Germans at either of the Socialist and trade union congresses, which will convene simultaneously at Berne next week.

HIGHWAY PLANS BEING WORKED OUT RAPIDLY

Strong Delegation Will Go to Road Meeting to be Held at San Francisco This Month

MARYSVILLE, Feb. 1.—Plans for having every business man in Sutter, Nevada, Colusa, Lake, Mendocino and Yuba county support the movement for a third state highway bond issue are now being formulated by Secretary Charles H. Chace, of the Sutter Butte-Tahoe to Ukiah Highway Associations, which organization was organized for the purpose of boosting the construction of a road from Cisco, Nevada county to Ukiah, known as the Tahoe to Ukiah highway.

With the assurance from the state highway commission that money for the road can be provided by the bond issue, a committee from the association has been appointed by President James K. O'Brien to attend the meeting in San Francisco, February 12, for the purpose of discussing ways and means to present the bond issue to the people.

State Senator Johnson, of Santa Cruz, will preside over this meeting, which was called by members of the legislature and heads of highway associations of the state. The delegates named by O'Brien are:

A. J. Fairbanks, of Mendocino county; C. C. McMahan, of Lake county; Seth Millington of Colusa county; Lawrence Schilig, of Sutter county; Senator Ingram, of Nevada county and James K. O'Brien, of Yuba county.

The proposed Tahoe to Ukiah high way is the only cross state road for which aid is asked in the north and it will be included in the budget for the bond issue. For that reason, says O'Brien, the people of the north will be in favor of voting the bond issue.

Rumanian Delegates Seated in Supreme Council ot Nations

PARIS,d Feb. 1.—(By Associate Press)—The official communication dealing with today's session of the Supreme Council says in part:

"The conference approved the text of the provisional agreement between the Czechs and Poles proposed by the delegates of the powers regarding the Teschen district.

"The instructions to be given to the interallied commission which is to proceed to Poland were definitely decided upon and approved.

"The Rumanian delegates M. Bretiano and M. Misho were then introduced. M. Bretiano made a detailed statement of Roumania's claims.

"The next meeting will take place on Monday at eleven A. M.

E. L. Doheny on Way to Paris Conference

HALIFAX (N. S.), Feb. 1.—Edward L. Doheny of Los Angeles, head of a delegation representing American oil, mining, cattle and other interests in Mexico, arrived her to embark for Paris to set before the peace conference the situation in Mexico and demand protection of American property rights.

"British and American mining and petroleum interests will present a united front at the peace conference, demanding peace and justice in Mexico," said Doheny.

Revenue Bill Is Completed At Last

WASHINGTON, Feb. 1.—The war revenue bill, revised to raise about six billion dollars by taxation this year and four billion dollars annually thereafter, assumed final form late today when the Senate and House conferees reached a complete agreement on the measure. It will be presented to the House Wednesday.

League of Nations to Exercise Tutelage Over Enemy Colonies

PARIS, Feb. 1—(By Associated Press).—The accord reached by the Council of the Great Powers concerning the disposal of the German colonies and occupied regions of Turkey in Asia is much more definite than is generally supposed, and, besides acceptance in principle of the American plan of mandatories it embraces the following main features:

"The allied and associated powers are agreed that the German colonies shall not be returned to Germany, owing, first, to the mismanagement, cruelty and use of these colonies as submarine bases.

"The conquered regions of Armenia, Syria, Mesopotamia, Palestine and Arabia shall be detached from the Turkish empire.

"Provision is made whereby the well being and development of the backward colonial regions are regarded as the sacred trust of civilization over which the league of nations exercises supervisory care. The administration and tutelage of these regions is entrusted to the more advanced nations who will act as mandatories in behalf of the League of Nations."

Leasing Bill to be Passed; Houses in Agreement

WASHINGTON, Feb. 1.—The deadlock in congress on oil land leasing legislation was broken tonight when Senate and House conferees reached a tentative agreement on the bill which has been in dispute since last May. Chairman Pittman said particulars would be made public Monday after a final meeting of the conference.

The bill, which has been pending before congress for four years, affects the development of more than fifty million acres of public mineral land in the west. It also provides for the opening of approximately six million acres of oil land and its development, through a lease system or outright purchase, and the opening up for development of forty million acres of western coal land, and vast tracts of other land containing deposits of gas, oil shale and sodium.

NATIONAL GUARDS ASSERT FAVORITISM

WASHINGTON, Feb. 1.—Reiterating in the House today charges that National Guard officers were removed from their commands after practically continuous fighting service to make room for regulars, Representative Gallivan of Massachusetts, Democrat, read a letter signed by forty wounded officers saying investigation would prove that the medical officers had been ordered to report as unfit officers who might replace the regulars first assigned for duty.

No Dealings With Absent Ship Workers

PHILADELPHIA, Feb. 1.—Charles Piez director-general of the Emergency Fleet Corporation in a formal statement issued late tonight on the ship workers strike on the Pacific coast, said that "so long as the workers remain away from their posts the Emergency Fleet Corporation cannot treat with them.

JOHN T. MILLIKEN DEAD

ST. LOUIS, February 1.—John T. Milliken, chemist, banker, railroad director and mining and oil operator, who was reputed to be the wealthiest man in St. Louis, died at his home here last night.

Sympathy Strike Having Trouble in Getting Started

SEATTLE, Feb. 1.—Opposition to a general strike of the organized labor in Seattle in sympathy with 25,000 shipyard trade workers who left their ship yard work and contract shops January 21st, asking for higher wages than those granted by the Macy award, grew among labor unions today.

Only Two at Tacoma

TACOMA, Feb. 1.—While strike officials claim tonight that preparations were proceeding satisfactorily, there were but two more unions on record today as voting in favor of the general strike for next Tuesday.

FRENCH DREW BACK AS GERMANS NEARED

PARIS, Feb. 1.—On July 30th, 1914, the French government ordered its troops to retire eight or ten kilometers from the frontier, having heard that the German troops were moving toward it. Rene Viviani, former premier declared, in the Chamber of Deputies last night in the course of disclosures concerning the origin of the war. M. Viviani was premier when the war broke out.

Colfax Woman is Anxious About Son

COLFAX, Feb. 1.—Mrs. L. J. Black of Colfax is in San Francisco today inquiring relative to her son, Ralph C. Black, private, Company I., 28th Infantry, A. E. F. In July she received a telegram from the War department apraising her that he was missing in action. On August 12 she addressed a letter to him. It was returned with the word "wounded" written in pencil on the envelope. A number of other undecipherable words and figures on the envelope may hold the secret of the boy's fate.

Mrs. Black, who is 71 years of age, and her daughter, Mrs. P. Koenig, 1769 Indah street have asked the Red Cross to aid them in locating the boy. They cannot understand why he has not written to them.

NO LOSS OF LIFE

DEAL (England), Feb. 1.—All aboard the American steamer, Pinto wrecked off here have been accounted for. There was no loss of life.

TEN THOUSAND MEN MISSING INCIDENT TO FIGHTING

Casualty Reports Now Nearly Complete Show That 49,709 American Men Died in Battle

WASHINGTON, Feb. 1.—Official tables of the major battle casualties of the American forces in France, made public today by General March, chief of staff, show that approximately 10,000 men remain wholly unaccounted for. Nearly three months after the ending of hostilities the dead, missing and prisoners are tabulated up to January 10th, for each of the thirty combat divisions of General Pershing's army. The total is 56,592, of whom 17,474 are classified as missing or captured.

Few Prisoners in Germany

A statement shows that only 29 American military prisoners were believed to be still in Germany January 8th and that 4800 prisoners have been checked up as returned and that 118 died in captivity.

Have Probably "Gone West."

Some portion of the great body of missing may may be located as the return of the army thins out the American force in France. Indications are, however, that the majority of the 10,000 men finally will be added to the roll of honor shown in the table of those killed or died of wounds, now recorded as 29,158 men.

To that figure also must be added 1551 men of the marine brigade, figures for which are carried in the tables were obtained from official sources.

Deaths Nearly 141,000.

This brings the grand aggregate of deaths from battle up to 49,709, on returns estimated officially to be 95 percent complete.

The tables do not furnish any data as to wounded other than those resulting directly from battle.

Summary of Losses.

A summary of the casualty tables gives the losses of the 91st Division as follows:

Killed 924; died 275; missing 470; prisoners 23; total 1702.

Infantry Bore Brunt

Examination of the losses by regiments show clearly that the brunt of the fighting fell upon the infantry. In each division which got into action losses were many times greater even proportionately to the strength of the units than those of the artillery, machine gun battalions, trench mortar batteries or engineers.

GRASS VALLEY ITEMS

FEW SNOW FLAKES YESTERDAY MORNING

The cold north wind of Saturday morning at first seemed likely to develop into a snow storm. The fluffy stuff fell for several hours but it was so warm that it did not last long on the ground. Before noon the fall ceased and clouds seemed inclined to break at noon.

A heavy storm is prevailing along the coast and the prediction for today is for unsettled weather and showers in this section. Forty-two inches of snow is reported at the summit.

SERGEANT HARRIS IS TO BE MUSTERED OUT

Fred R. Harris, of Depot street, has received word from his brother Sergeant Thomas H. Harris, who is stationed at Camp Logan, Texas, stating that he expected to be mustered out of the service in a few days.

Harris is an enlisted man and has been in the service for fourteen months. Recently he had a bad attack of ptomaine poisoning which placed him in the hospital for some time and because of this, he will be mustered out two months earlier than he otherwise would.

EXHIBIT 66

CONTAMINANT ASSESSMENT
of the
BOUMA-ERICKSON-TOMS PROPERTY
GRASS VALLEY, CALIFORNIA

prepared for:

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November 1993
Job. No. 901085.01

TABLE OF CONTENTS

INTRODUCTION

This report presents the results of our subsurface investigation and engineering analysis performed on the Bouma-Erickson-Toms (BET) property, part of the former Idaho-Maryland Mine holdings in Grass Valley, California. The owners of the property wish to split and sell the property; however, potential buyers have expressed concern over the potential for the presence of hazardous levels of heavy metals and cyanide in the areas previously used as tailings ponds. Vector Engineering, Inc., (Vector) was hired by the owners to sample and analyze the site soils for the constituents of concern, to provide conclusions regarding the potential for release of contaminants, and to provide recommendations for further work or closure, as appropriate. Our scope of services was limited to evaluation of potential contamination associated with the previous mining activities only, and did not include evaluation of any other potential sources of contamination which might affect this property.

EXECUTIVE SUMMARY

Field work consisting of 19 test pits provided a thorough view of the tailings materials present on the BET property. Laboratory analysis of 30 discreet samples provided an assessment of the metals concentrations both in the tailings materials and in the native soil and bedrock. Based on our field sampling and on the laboratory analyses, we believe that the bulk of the tailings materials pose no threat of release of hazardous materials. One sample at a depth of over 16 feet deep (SA 6.17) had total arsenic present at a level above its TTLC, but no soluble arsenic when analyzed by the WET procedure. It is our opinion that this one sample represents an isolated hazardous material which, because of its insoluble nature, limited extent, and considerable depth, is unlikely to pose a threat.

SITE DESCRIPTION AND HISTORY

Site Identification

The BET property occupies a portion of Section 26, T16N, R8E, Mount Diablo Baseline & Meridian and consists of 12 legal parcels comprising 124 acres. The property is approximately bounded by East Bennett Street (also shown on maps as Union Hill Road) on the south, Centennial Drive and an un-named unimproved road on the east, Idaho Maryland Road on the north, and the Grass Valley township line on the west. The property is zoned M-1, for light industrial uses, and is surrounded to the east, west, and north by similar zones. Plate 1 shows the site's location in relation to Grass Valley and nearby developments. An assessors parcel map, showing the 12 parcels included in the BET holdings is presented on Plate 2. Historical records and air photos indicate that of the 12 parcels comprising the BET property, only APN 09-550-17, which contains approximately 50 acres, was used for the deposition of tailings from the former mining activities. Our field investigation was concentrated in these tailings areas; the description of the environmental setting and past uses of the property includes all 12 parcels.

Past and Current Site Activities

Assessors Parcel Number (APN) 09-550-17 is the large interior parcel that contains the historic tailings areas. It currently is vacant land, except for the northeastern corner, which is occupied by Hap Warneke Mill, a lumber milling operation. This operation utilizes structures shown on historical maps and photos of the mine site, and uses the northern boundary of this parcel as a parking area for large equipment. The remainder of Parcel 17 is the subject of most of this report. Historical data available indicates that none of the remaining parcels were used for the deposition of tailings materials from the mine; thus the following parcels, though part of the BET holdings, were not included in our subsurface investigation.

APN 09-550-13 and -14 have been occupied by North Star Rock since 1979. This firm is actively mining the site for construction materials. Their access road traverses the northern portion of the former tailings area, generally following a branch of the former route of the Nevada County Narrow Gauge Railroad (NCNGRR). Historical maps and records indicate that these two parcels were part of the Morehouse Quartz Mine. The remains of some prospect pits and shafts are visible in the northern portion of these parcels.

APN 09-550-19, -20, -23, and 09-220-14 are narrow strips of vacant land lying between Wolf Creek on the south and Idaho-Maryland Road on the north. Historical maps do not indicate any structures or mining activities on these parcels.

APN 09-550-29 is a very small parcel of land east of Centennial Drive, which is currently paved and provides an entrance to two businesses. On historical maps this area is north of the cyanide plant and south of the main office building, and appears to have been part of the roadway or yard.

APN 09-560-02, and -08 are vacant land lying to the south of and uphill from the main tailings area, and are bordered on the north by a line through the center of Section 26. APN 09-560-05 and -10 lie directly to the south of these parcels. They are bounded on the north by the former path of the NCNGRR and on the south by Bennett Street. All four of these parcels are currently vacant land. Historical maps show several prospect pits on -02 and -08. The South Idaho Shaft was present in the southeast corner of -08. Several buildings are noted on -05 on historical maps, but their nature is not apparent. No structures or evidence of mining activity was noted on -10.

History of the Idaho-Maryland Mine

Plate 3 is a topographic map of the site, with current property boundaries superimposed. Historical photos and topographic maps define the locations of the two tailings areas fairly accurately; we have designated these as Area A and Area B. Area A covers the newer, cyanide-treated tailings, while Area B covers the older mercury-treated tailings area, parts of which have been reworked or removed. Both of these areas are shown

on Plate 3. Plate 4 is a copy of a historical photograph of the main operating area at the Idaho-Maryland Mine. This photo shows the locations of the main shaft, both mills and the tailings disposal areas.

According to historical records, the Idaho gold claim was patented in 1863. Exploration took place over the following 4 years, but actual mining did not start until 1867 under the ownership of the Idaho Quartz Mining Company. The main Idaho shaft was located near Wolf Creek on a parcel to the east of the BET property. In 1893 the Maryland mine purchased the Idaho workings, forming the Idaho-Maryland Mining Company which was active until about 1900. In 1915 the Idaho-Maryland, the Union Hill, the Brunswick, and several smaller mines were consolidated, and the Idaho-Maryland mine was reactivated. These mines operated underground, using blasting to loosen rock which was then trammed and hoisted to the surface for transportation to the mill for processing.

A twenty-stamp mill was erected near the main Idaho shaft shortly before 1920; this is the first reference to any milling and tailings production at the Idaho-Maryland site. Rock was crushed in the stamp mill and treated with mercury to recover the gold. The resulting gold-mercury amalgam was squeezed to recover as much free mercury as possible, and the gold concentrate was treated in a retort furnace to produce "pure" gold. The remaining slurry of treated waste sand was deposited in a north-draining gully along the eastern portion of Parcel 17 (Areas B1-B3 on Plate 3). Historical records indicate that from 1868 to 1926 about 106,000 tons of ore from the Idaho-Maryland were processed.

In 1936 a new ball mill was erected near the Idaho shaft. Rock was crushed in the ball mill and treated with cyanide to recover the gold. Most of the cyanide was recovered in a "scrubber" system and was reused. The gold concentrate was treated to produce "pure" gold and the slurry of treated waste sand was deposited in a pond downslope and to the west of the older waste pond (Area A on Plate 3). Tailings from the older pond were also hauled and/or pumped into the new mill and treated to obtain a greater recovery than was possible with the old mercury treatment. These reprocessed tailings were also placed in the new pond. Historical records indicate that from 1926 through 1942 about 1 million tons of ore

from the Idaho-Maryland were processed, much of it through the ball mill and cyanide plant.

The cyanide-treated waste sands, or tailings, were placed in an unlined pond with waste rock berms adjacent to Wolf Creek in the northeastern portion of Parcel 17. These berms ranged from 10 to 20 feet high, and the areal extent of the impounded tailings is estimated to be on the order of 575,000 square feet. A very rough estimate of 200,000 cubic yards of materials were originally deposited in the old mercury-treated tailings pond, most of which was then reprocessed and added to the younger pond. The pond was periodically breached and allowed to flow into Wolf Creek, so the total volume of milled tailings was greater than our estimate of the amount in storage. According to a former employee of the mine, State inspectors were on hand during the periodic breaching to inspect the waters of Wolf Creek. The quantity and fate of the material which was allowed to enter Wolf Creek is unknown.

The main Idaho shaft, both ball mills, the mercury plant and the cyanide plant were located to the east of the current BET property (Plate 4), on sites now occupied by industrial and office buildings. Mining and processing continued until World War II, when the War Act closed the majority of the mines in the area. Although the mine reopened briefly after the war, it was never successful and closed permanently in 1956. Following its closure in 1956, the Idaho-Maryland property was sold. William Ghidotti purchased the area formerly used for tailings disposal, along with the lands extending south to Union Hill Road. This property is currently owned by Mary Bouma, Ericka Erickson, and William Toms, who inherited it from Marion Ghidotti, William's widow.

From August 1988 through April 1989, the property owners leased a 5.28 acre portion of the more easterly tailings disposal area to Argo Associates. Argo excavated 7756.2 tons of tailings materials from this area and shipped them to Homestake Mining Company near Clear Lake. The tailings were run through the process mill there to extract more gold than was possible using the crude methods of the late 1800s and early 1900s.

ENVIRONMENTAL SETTING

Topography of Site and Surrounding Areas

The site is divided into quadrants by northwesterly and northerly trending ridges. Parcel 17 occupies the northeast and northwest quadrants, which slope gently to the north. Old maps indicate that several small north-draining gullies once dissected this area, but much of the original topography has been changed by the deposition and subsequent removal of mill tailings. A northerly trending ridge separates the northeast and northwest quadrants. A drainage ditch at the base of the ridge appears to channel water to the northwest. Centennial Drive, bordering the northeast quadrant, is at grade with the site adjacent to Hap Warneke's Mill, rising to about 20 feet above the site where Centennial intersects Whispering Pines Road. An east-west trending 20 foot high waste rock berm retains the former cyanide tailings on the northwestern quadrant of the site. Several 5 to 10 foot high earth berms are present in the northeastern quadrant, and appear to channel site drainage to the northwest.

Geology and Soils

The subject property is situated within the boundaries of the Sierra Nevada geomorphic province, in an area characterized by metamorphosed sedimentary, volcanic, and intrusive rock. The geologic map included in the Mineral Lands Classification of Western Nevada County shows that the western portion of Parcel 17 is underlain by pre-Tertiary serpentinized ultramafic rocks (serpentinite), while the eastern half is underlain by plutonic rocks, primarily gabbro, of Jurassic age. Northwest-striking quartz veins were common along fractures in the gabbro and serpentine. These veins contained traces of pyrite, galena,

chalcopyrite, arsenopyrite, and sphalerite as well as gold. No active faults are mapped within any of the BET property.

Based on the Soils Map of Nevada County, prepared by the USDA Soil Conservation Service, the northwest and south central portions of Parcel 17 are covered by Rock outcrop-Dubakella complex, composed of about 40 % ultrabasic rock outcrop and 50 % Dubakella gravelly loam. These soils are shallow and well-drained, with low permeability, high shrink-swell and runoff potential, and a pH of 5.6 to 7.3. The northeast quadrant is mapped as Placer Remains, waste rock and tailings. The underlying native soil is probably Sites loam or Sites very stony loam.

Hydrology and Hydrogeology

The Grass Valley area receives approximately 55 inches of precipitation yearly. Of this amount, about 90 percent occurs as rain from November through April. Runoff and shallow subsurface flow in the southern half of the site is to the south. Runoff in the northern half of the site is channeled to the western tailings area. Concrete overflow towers and riveted cast iron pipes installed in the tailings area during the mining era allow surface water to enter Wolf Creek. Some water infiltrates through the tailings sands into fractures in the underlying bedrock. Release of harmful levels of heavy metals or cyanide to Wolf Creek has not been studied. The berm at the northern end of the tailings area appears to separate the tailings area from the 500 year flood plain. The Federal Emergency Management Agency flood plain map for this area also indicates that a portion of the tailings area is in Zone C, with a minimal potential for flooding.

There is evidence of seasonal pooling of surface water in the central portion of the northeast quadrant. Cattails and reedy vegetation present in this area suggest that the soils are wet for long periods of time. Some of the pooled water may be seeping in from the east, where a former log pond is situated. This log pond partially fills with precipitation and runoff each winter, and air photos indicate a definite stream of water flowing from the log pond across the northeastern quadrant and into the northwestern tailings area.

Well logs from nearby single family domestic wells located east and southeast of the site indicate that ground water is present at elevations from 2400 to 2500 feet above sea level in fractured bedrock. These elevations are approximately 100 feet below the ground surface of the tailings impoundment area. The underground workings of the Idaho-Maryland Mine form an intricate network under the site and the surrounding area, and water is known to be present in the workings at an elevation of approximately 2500 feet above sea level. It is believed that the wells in the area encounter water located in fracture systems of the bedrock, and that the water levels in the wells may correlate with water levels encountered in the mine workings. No studies have been made in the area to verify interconnections between surface and subsurface water, or whether water levels in the wells of the area can be correlated. Sampling of the water present in the mine workings at the New Brunswick Shaft and from two discharges near the Idaho Shaft have shown that these waters do not have metals at levels above their Maximum Contaminant Levels (MCL's) for drinking water, with the exception of iron, manganese, and arsenic. Most of the wells in the area were drilled within the past 10 years and have met drinking water standards.

SAMPLING ACTIVITIES AND REQUIREMENTS

Previous Investigations

Anderson Geotechnical (now Anderson Consulting Group) performed a limited site investigation for a potential purchaser of the property in August 1989. We believe their investigation was a "fatal flaw" study, and that they sampled a limited number of locations in the northeastern portion of Parcel 17 that appeared to have the greatest potential for hazardous concentrations of heavy metals, based on surface appearance. No report was issued, but the property owners obtained a copy of an air photo with the sampling locations indicated on it, as well as copies of the analytical results. Anderson's sampling and analysis program revealed traces of cyanide and total concentrations of six heavy metals that ranged from 6 to 139 times their Soluble Threshold Concentration Limits (STLC). Their sampling locations are shown on Plate 6, and copies of their analytical results are included in the

Appendix A at the end of our report.

In June through August of 1990, Vector performed further investigation of the site in order to provide better definition of the extent of soils that contain potentially hazardous levels of heavy metals. Drilling and core sampling took place along the axis of the northwestern tailings impoundment mapped from recent and historic photos. Backhoe test pits were excavated more or less along the axis of the northeastern tailings area, near the area previously sampled by Anderson Geotechnical. The test pits, with total depths ranging between 6 and 12 feet, did not encounter any water. Selected soil samples were analyzed for total concentrations of the 17 CAM metals. No analyses for cyanide were performed. Sampling locations are shown on Plates 5 and 6, and copies of the analyses are included in Appendix B. The following table summarizes the results from previous sampling events.

TABLE 1
SUMMARY OF ANALYTICAL RESULTS, TOTAL METALS CONCENTRATIONS
(FROM ANDERSON AND FROM EARLIER VECTOR WORK)

Sample/Analyte	As	Cr	Cu	Hg	Ni	Pb	CN
HS 1 @ 4.5'	ND[1]	218[2]	47	ND	144	ND	NA[3]
HS 2A @ 6'	292	349	69	3.8	281	115	NA
HS 2B @ 11.5'	ND	383	83	ND	222	ND	NA
HS 3 @ 10'	ND	119	170	ND	193	ND	NA
AG Comp. Ppt.	40.6	75.5	140	2.9	169	162	1.07
AG 2A-2B	132	387	158	2.35	324	91	2.01
AG 4B	254	166	1430	7.25	414	696	0.17
AG 5A-5B	128	166	639	3.85	302	364	0.45
AG 3A-3B/1A-1B	88	149	294	5.9	232	342	2.2
DH 1 @ 5.5'	16	40	14	ND	26	14	NA
DH 2 @ 15'	12	261	63	ND	205	ND	NA
DH 3 @ 6'	20	38	57	ND	49	24	NA
DH 4 @ 4'	ND	18	48	ND	23	ND	NA
DH 4 @ 11'	33	110	86	ND	269	15	NA
TTLC	500	2500	2500	20	2000	1000	NA

Notes:
1. ND = Non Detectable
2. All values in mg/kg
3. NA = Not Applicable
4. HS and DH samples obtained by Vector Engineering, AG samples by Anderson Geotechnical. Comp. Ppt. is a composite of the white precipitate found on the surface in the area of their study, exact locations unknown. Depths of Anderson's samples are also unknown.

EXHIBIT 67

IDAHO MARYLAND MINES COMPANY

HOBART BUILDING, SAN FRANCISCO

ADDRESS ALL COMMUNICATIONS TO THE COMPANY

DIRECTORS

BULKELEY WELLS, PRESIDENT ROY H. ELLIOTT, VICE-PRESIDENT
A. D. SNODGRASS, SECRETARY-TREASURER
ERROL MacBOYLE, CONSULTING ENGINEER
F. W. McNEAR, RUFUS THAYER, ROBERT ANDERSON

MINES AT GRASS VALLEY
CALIFORNIA
JOHN A. FULTON, MANAGER

Grass Valley, Calif. Feb. 19th, 1920

SUBJECT:

Mr. Fred G. Farish, General Manager,
The Metals Exploration Company,
201 Fourteenth St. Denver, Colo.

Dear Sir:

Herewith please find a report of operations of the Idaho Maryland Mines Company from the time I took charge February 1st, 1919, to December 31st, 1919.

Property Lines on Dec. 31st, 1919

The property comprised a total acreage of 676.59 acres, made up as follows:

Patented mining claims	292.25 acres
Unpatented " "	53.94 "
Patented agricultural land comprising both surface and mineral rights	253.43 "
Patented agricultural, mineral only	76.97 "
	676.59 "

During the year four parcels were acquired consisting of the Grant claim, the East Eureka Claim, the Bastian Homestead and the Vincent Homestead.

Included in the above total acreage is an area consisting of 16.51 acres on the Gold Point Claim. At the time this claim was patented it was overlaid by the Black Hawk location and the Rip Van Winkle location to the extent of the acreage as given above and the owners of the Gold Point excluded this area and deeded it to the owners of the Black Hawk and Rip Van Winkle respectively.

In addition to the above area excluded from the Gold Point Claim we have 3.5 acres excluded from the Maryland Consolidated Mine and Mill site which is also overlaid by the Black Hawk claim. Your company owns five twentyfourths of these excluded areas.

UNION HILL

Work was carried on underground through the Union Hill shaft until June 13th when a strike was called by the miners in the district and before the strike was settled the water was almost up to the 600 level so the mine was allowed to continue to fill and all operations were suspended after the collar of the shaft and drain tunnel had both been caught up and thoroughly repaired.

The development work had not revealed anything very encouraging, particularly after the price of tungsten dropped. The operations had been greatly interfered with by water troubles due to pumps giving out and to poor electric and water power service.

There was no reason to believe conditions would be much better in the future so that the work would have been costly at best, besides which the mine was full al-

most to the 600 level, all of which combined to lend force to the argument not to try to re-open it.

Attached hereto is a summary of development work done in the mine from January first to July first. Special comment is not necessary except in the case of the 1200 level.

The shaft was sunk about 10 feet and an ore pocket put in below the 1200 station. A sump and pump room were cut. Branches from the hanging-wall crosscut to the various veins were cut out and some drifting was done, but most of the work on this level was preparatory to actively working six to eight faces. This preparatory work was completed, drills, steel, etc., had been purchased when the strike came so, practically speaking, no benefit was derived from any of this work and expense except that the equipment and supplies purchased are on hand and will be available when they are needed elsewhere.

The surface equipment was practically all removed by the end of the year to the Idaho shaft.

IDAHO SHAFT - Surface

General

The surface plant at this shaft was completely wrecked with the exception of the office and change house after the property was acquired by your company. At the time this wrecking was done it was the plan to sink a new shaft and open up the property from it. This scheme was abandoned later in favor of one to re-open the mine through the Idaho shaft, sink it deeper and explore the country from it. Consequently it was necessary to erect a new surface plant. Fortunately, the plant at the Union Hill shaft was available and, as has been said before, it has been removed and has been, or will be, re-erected.

Mill, etc.

Present plans call for a 75 ton ore bin with a waste compartment in it, in the head frame into which self-dumping skips will be discharged.

The ore from this bin will be trammed by hand to a crusher station, a distance of about 200 feet. This plant was about 50% completed at the end of the year and will consist of a 75 ton ore bin, two 10" x 16" jaw crushers and a 16" belt conveyor from the crusher to the mill bins, a distance of 100 feet.

The mill bins will have a capacity of 100 tons. The mill will consist of 20 stamps of about 1050 pounds each, amalgamating plates, cone classifiers and Diester concentrators. The process after the amalgamating plates will have to be decided upon by experiment but it is hoped that concentration will bring the tailings so low that further treatment will not be necessary.

The above equipment will all be available from the Union Hill plant.

This construction work will probably be completed by the end of March 1920.

Assay Office

Was removed and re-erected at the Idaho and equipped with apparatus from the Union Hill and old Idaho offices. A 12 foot addition was added for bullion furnace, balance room and store room.

Change House

The old Idaho change house was not wrecked and is now in use for that purpose. During the coming year shower baths will be installed, otherwise the present building, etc., will be ample for some time to come.

Storeroom, etc.

One side of the change house is being used as a store room, also a portion of the second story. These will meet requirements for some time to come.

Oil House

Was removed from the Union Hill and re-erected.

Water Tank

For low pressure water for office, etc., removed from Union Hill and re-erected.

Office

The old office building was retained, shingled on the sides and roof, lined with beaver board, new floors were laid, etc. etc. It was equipped with two shower baths, two toilets, wash basins, hot water system, etc. Two concrete vaults in addition to the old original vault, and septic tank were added.

Blacksmith & Machine Shops

Were re-erected, the original equipment was re-installed in addition to which pipe cutting and threading machine to handle up to 6" pipe and a power hacksaw were added.

Compressor Plant

Consists of Union Hill building and Union Hill Sullivan compressor, which is 24 x 14½ x 18 WJ and 200 HP variable speed motor to which was added a second hand Ingersoll-Rand class P 22½ x 12½ x 18 compressor with 200 HP induction motor. These compressors were installed side by side in the above mentioned building. A new pulley was added to each machine speeding the Sullivan up to 150 r.p.m., and the Ingersoll to 184 r.p.m., giving a combined capacity of about 2200 feet of free air per minute.

Hoist & Shaft House

A building 50 x 100 feet has been erected over the shaft and hoist.

Head Frame

The Union Hill head frame was re-erected and as it stands is 74 feet vertically from the collar to the center of the sheaves. At present the old shaft cages are being used and the shaft runners have been extended up the frame high enough to allow the cars on the cages to be dumped into the bins. (when erected)

At present cars are being taken off on the landing 33 feet above the collar. When skips are put in, the head frame is high enough to allow suitable distance above the dump for overwind, etc.

A trestle has been extended to the waste dump from the landing.

Hoist

The Union Hill hoist has been transformed from a water to an electric drive, herringbone gears and a 150 HP variable speed motor added, besides a new half to each drum thus enabling the former post brakes which were only 4 inches wide to be widened to 8 inches. The operation of this hoist appears to be entirely satisfactory.

The hoist is good for 7,000 pounds rope pull at 750 feet rope speed per minute. The hoist will safely handle self-dumping skips of about 50 feet capacity.

Power

The water pipe line from the Idaho reservoir is 22 inches in diameter by about 9,000 feet long, the static head is 520 feet. The upper half is in bad repair and present plans call for a 12 inch machine banded redwood pipe to replace this upper portion. The pipe line supplies water for fire protection, one or two small water wheels and eventually for milling but its use for power purposes is limited, principally on account of shortage

of water by the power company. The repairs on the pipe will be delayed as long as possible and it may not be necessary to make them for a year or so.

Provision has been made throughout the entire plant to operate with electricity.

A bank of three Westinghouse transformers 4,000 volts to 440 volts, 200 KVA capacity each have been installed on surface.

A 4,000 volt, steel armored, three conductor cable with a capacity of about 600 HP will be run down the shaft to supply pumps, etc.

Three 150 KVA transformers have been ordered (since arrived) to take care of the Taylor pump, motor, and a hoist on the 1000 level.

In addition to these two sets of transformers we have the three 100 KVA Union Hill transformers which can be used wherever needed. The orders for both sets of new transformers were placed before the Union Hill was shut down.

The load on the surface will probably require the three 100 KVA's in addition to the three 200's.

Fire Protection

Water pipes of ample diameter have been laid in such a manner as to give protection to the buildings from all sides by means of rotating monitors, in addition to which fire hoses have been installed in all the buildings. It is also proposed to run perforated pipes through all the buildings, etc., and in case of fire which cannot be reached by means of the hoses above mentioned, high pressure water can be turned on, drenching the entire interior of any building desired. In addition, buildings and structures will all be painted on the outside and whitewashed on the inside.

UNDERGROUND

Unwatering

Preliminary to unwatering the mine the drain tunnel 23 feet below the shaft collar was re-opened and re-timbered for a distance of about 360 feet. A 25 foot air shaft connecting with this tunnel was also re-opened and re-timbered. The timbering around the collar of the main shaft itself was in a bad state of repairs. This was all rectified and put in first-class condition.

The Cornish pump equipment on the surface was overhauled and put in shape as it was thought for a time that this pumping plant would serve for sometime to come, but after the pump at the 300 level was recovered it was apparent that the cost of putting the Cornish pumps into commission again would be prohibitive and in consequence the surface plant has been wrecked and the pumps will be taken out of the shaft as soon as possible.

Finally after a thorough investigation of the possible methods of unwatering it was decided to use the airlift principle. The plan outlined was to airlift to the 400 level which is actually 411 feet vertically, install Turbine pumps at that point and then airlift from the 400 to the 800, a vertical distance of a little less than 400 feet. The first half of the scheme worked out entirely satisfactorily and indications at the end of the year were that the 800 would be reached. (This level was reached February 10th)

Up to this time the airlift has been a great success as handling the water has not interfered with the shaft repairs, etc., which would have been the case no matter what kind of pumps were used. It also has the advantage over pumps of enabling us to keep the water well below the workmen so that alignment and grade have been kept whereas with

pumps this could not have been done as a considerable amount of the shaft timber was so bad that it would not have been safe to lower pumps on the old timbers without catching them up.

The first airlift consisted of a line of 10 inch casing 686 feet long with a 4" air line lowered down inside the 10 inch pipe. The bottom end of the casing was carried on two heavy hooks fastened to 1-1/8" inch steel cables, crossheads were clamped to the casing at 100 foot intervals. The crossheads were supported by the 5 x 5 runners fastened to the shaft dividers upon which the cages formerly ran. These runners are midway between the foot-wall and hanging-wall plates. The crossheads were fastened to the two wire cables.

The airlift was started ~~Feb.~~ Sept 24th but it was a week before it was operating steadily as the impulse of air and water was too strong for the discharge facilities that had been provided. After this trouble was overcome operations continued without interruption until October 27th when the water was 460 feet below the collar on the incline. At this time one compressor was shut down as the water was well below the 400 level and work at this point was started preparatory to installing the two Turbine pumps on the 400 level. For this purpose two Cameron Turbine pumps had been purchased, capable of pumping 500 gallons per minute against a dynamic head of 585 feet at not less than 65% efficiency. These pumps are directly connected to ∅ 125 HP 400 volt motors

On account of the extremely bad condition of the timbering in the shaft a short distance above the 400 and from that level to the 500 no effort was made to lower the water in the shaft but merely to hold it until all of the old timber, as indicated above, was removed and replaced with new timber. In addition to this repair work it was necessary to open up the east drift for a distance of 50 feet to accommodate the 6,000 gallon pump tank as well as the pumps themselves. It took until the end of December to complete this work, install the pumps, and on December 31st the pumps were in and ready to operate, the air was turned down the shaft again below the 400 on January first.

These pumps are lifting against a vertical head of 389 feet and have a capacity of 750 gallons each per minute against this head.

On December 31st the water was 550 feet below the collar of the shaft on the slope, or about 10 feet below the 500 level.

The first airlift before it was abandoned was raising the water 485 feet vertically with a submergence of 23% and had a capacity of 250 gallons per minute with an air pressure of 67 pounds per square inch.

Main Shaft Timbers

The old shaft timbers were sound enough down to the 400 level to get the cages through safely by putting in new stulls and lagging on the ends of the shaft to hold the stope filling back and an occasional new set of shaft timbers. Between the 400 and 500 levels the entire shaft had to be retimbered. Below the 500 level the timber is in fair shape and undoubtedly will be found so to the bottom.

Drifts, etc.

A drift was found at about the 150 level connecting the main shaft with the pump shaft and was standing open with no timber in it.

The 300 level is all caved except about 75 feet east which is in a bad state of repair and will have to be filled because if it is allowed to cave it will allow the stope filling to move and throw undue weight on the stulls holding the fill back. No work has been done as yet on this level. The 400 level was in bad shape, extensive repairs

were necessary above the level, the station had to be entirely removed and the drift west of the pump shaft, although still open, had to be re-timbered. The drift beyond the pump shaft was closed tight and 65 feet of it were re-opened up to the end of the year.

On the east side of the main shaft the stulls had all caved down and in order to get the pump and pump tank in 50 feet in length was opened up. The distance between walls was from 10 to 12 feet, the filling above very heavy, so this work was slow and tedious. This work broke into an old drift which was open for a distance of about 50 feet but it is in very bad repair and will be allowed to cave in.

An ore pocket capable of holding 75 to 100 tons was put in the shaft at the 400 level and muck from work on this level is all handled through this pocket.

The 500 station was in very good repair and required little or no work. The drift west was entirely caved, the drift east open for 75 feet but the timber was very rotten. This has been caught up somewhat so that it cannot cave and allow the stope filling to get heavy on the ends of the shaft. As has been stated before, the water at the end of the year was 10 feet below this level.

Pump Shaft

This is the original shaft from which the property was opened up down as far as the 800 level and is situated about 150 feet west of the main shaft. The Cornish pump system was formerly used through this shaft from the 800 to the surface but it has been out of commission for many years. The shaft itself has been patched up from time to time but it is in a very dangerous condition, so that a substantial bulkhead has been put in above the 400 level and no effort will be made to hold the shaft open above this point.

East Eureka Shaft

This shaft is about 450 feet west of the Idaho shaft on surface. The collar was in bad shape so it was thoroughly repaired, as well as the ladders down the shaft. It is 288 feet deep vertically below the collar of the Idaho shaft and dips about 75 deg. Present development plans call for the 400 level west to make connection with this shaft by means of a raise, also the 700 level west will be connected with this shaft eventually.

South Idaho Shaft

This shaft is about 150 feet deep on a 75 deg., dip. The collar of this shaft was in bad repair but has been fixed. The shaft is full of water to within about 30 feet of the top.

FUTURE PLANS AND RECOMMENDATIONS

Idaho Main Shaft

Condition of the timber in this shaft renders it unsafe to figure on operating the shaft as it is so that as soon as the water is out to the bottom, or 1000 feet level, a survey and cross section will be made, a grade line will be laid down and the shaft will be re-timbered to grade and line.

Present shaft is four compartment 22 feet long by 8 feet wide outside of timbers. The shaft when re-timbered will be three compartment. The ladderway in the east end of the present shaft will be abandoned. The shaft will then be 16 feet 6 inches long by 6 feet 6 inches outside of timbers. The two hoisting compartments will be four feet five inches by five feet in the clear, the manway four feet four inches by five feet in the clear.

The timber formerly used was 12 x 12 but a careful inspection has convinced me

that this is heavier than needs be so present plans call for 10 x 10 foot-wall plates and 8 x 10 hanging-wall plates and 3 x 12 lagging.

The shaft from the 800 level to about the 200 level was run through stoped ground. The stopes were filled, this fill is held back by stulls and lagging. This section in the past was the most troublesome one as the timber was very dry and rotted rapidly. The ends of the shaft have to be stulled over and lagged to hold the old stope filling back and when the shaft is retimbered there are a number of places that considerable work will have to be done on these ends. Spruce poles will be used for stulls and 3 x 12 plank for lagging.

The old timber gave a great deal of trouble from rot so it has been decided to use Port Orford Cedar throughout. To meet the requirements will take 229,211 board feet of an average price per thousand of $50.60, but on account of lengths not being exact at least 5% will have to be added, making about 240,000 board feet. This timber has all been ordered and will be on the ground long enough before retimbering begins to be well seasoned. The timber will cost about $12,000.00, labor of retimbering about $25,000.00, allowing 10% margin on the estimates brings the total cost to about * $40,000.00.

An estimate as to the time that it will take to retimber is a very difficult matter but I should say from 3 to 4 months. The Idaho shaft when retimbered will be sunk to a vertical depth of 2500 feet below the collar to bring the bottom level well below the deepest portion of the old workings, which is 2181.7 feet vertically below the collar. The total depth of the shaft is now 973 feet vertically, 1115 feet on the incline. A second shaft was sunk about 300 feet east of the bottom of the main shaft from the so-called 1000 foot level on a flatter angle requiring about 1800 feet to obtain the vertical depth of 2181 feet. The bottom of this shaft is about 1900 feet easterly along the vein from the line of the main shaft. The general opinion is that this shaft will be hopelessly caved.

The dip of the main shaft at the bottom is 49 deg. To attain a depth of 2500 feet vertically below the collar will require about 3,000 feet of shaft, assuming the dip remains constant.

Proposed Development

The Eureka mine lying to the west of the Idaho was worked from the late 50's until about 1876. The ore was very good grade but costs were $12.00 to $15.00 per ton during most of this period and ore of this grade was left and used to fill, according to the best information available, so that it seems advisable to open up the old mine again and ascertain how true this is. If filling running $10.00 to $12.00 per ton can be found it will pay a good profit. To open this mine it is the intention to go through on the 400 and 700 levels from the Idaho shaft. The 400 will go through the heart of the old stopes, the 700 will be beneath them but within about 100 feet on the western extremity 1500 feet west of the Idaho shaft.

The East Eureka shaft was sunk into the old Eureka stope and a short level driven west at about the 250 foot point. A sample across the face of this drift went $10.33. From this and hearsay information, the chances of finding payable filling and probably some ore in place are considered good enough to warrant re-opening this mine and moving the Union Hill mill so that it will be ready when this territory is opened up for stoping.

* (Shaft below 700 will not need to be retimbered entirely, so estimates as given probably too large)

The maps show a long crosscut on the 700 level extending about 700 feet into the hanging-wall. As soon as it can be done it is proposed to extend this crosscut to the South Idaho vein which will require another 500 or 600 feet of driving, and explore this vein thoroughly. The workings to the 150 foot point on the South Idaho have produced some rich ore but my understanding of the country is that it is rather badly broken up.

Other developments are dependent on what the main shaft as it is sunk reveals but in case nothing of value is found it is proposed to open up levels at 500 foot intervals in both directions.

The cost of re-opening the old drifts will be between $5.00 and $6.00 per foot, driving of new drifts between $10.00 and $12.00 per foot, as nearly as can be estimated with the information at hand at this time.

Pumps

A five throw motor driven geared pump capable of handling about 730 gallons per minute against a vertical height of 1000 feet has been ordered. This pump will be installed at either the 800 or 1000 foot levels, probably the latter. A 250 HP, 440 volt motor has been provided to drive this pump.

The two 500 gallon 585 foot head pumps now in use for unwatering can be installed to handle water below the point of location of the five throw pump. In addition to the above we have a 250 gallon pump good for a head of 400 feet with a 50 HP motor as well as two sinking air driven pumps suitable for emergency work.

This equipment will take care of all pumping requirements for some time to come.

Water and Air Columns

10 inch standard flanged pipe now on hand and the present 12 inch Cornish pump column will be used for the pump column from the five throw pump.

The 10 inch casing airlift pipe will be used for an air column when abandoned for its present use.

Shaft Track

40 pound T rail will be used for skip tracks, one in each hoistway. 100 tons of this rail are on hand (50 tons have since been sold).

GENERAL REMARKS

The expenditures for the year have amounted to $181,955.49 as shown by the attached statement, of which $62,041.23 is for equipment, $51,583.21 for Idaho Maryland development which includes all underground work, among other things $11,834.67 for unwatering, $41,195.21 for Union Hill equipment and development and $47,135.84 for insurance, taxes, legal, administration, acquiring new property, etc.

The expenses for the coming year will run from $15,000.00 to $20,000.00 per month exclusive of the cost of ore extraction and milling.

Production should begin not later than the coming June. An estimate as to what this will be is hard to figure but on the basis of 80 tons milled per day of $10.00 ore at 85% extraction at a cost of $5.00 per ton, will net $8,400.00 for a 30-day month.

On this basis the coming year will entail a further capital expenditure of approximately $150,000.00.

Organization

An organization adequate for present needs has been built up and on the whole is satisfactory. As the enterprise enlarges, some changes will no doubt be necessary.

Labor

Last summer a strike took place in this district which made it necessary to suspend operations for about two weeks. The strike was settled by granting a 10% increase in the wages all around to every employee who worked three months continuously, by paying one-half of the time the men were out on strike and establishing a butcher shop to sell at cost. This settlement took place June 30th and the agreement is for twelve months. It is not anticipated there will be any further trouble. The labor supply is adequate and the efficiency is improving slowly. Miners receive $4.00 plus 10%, muckers receive $3.50 plus 10%, laborers $3.50 plus 10%, shaft men $4.50 plus 10%.

Conclusion

Attached hereto is a statement of expenditures in detail and a copy of Trial Balance as of December 31st, 1919.

Respectfully submitted,

JAF/c

J. A. Fullerton

Manager

IDAHO MARYLAND MINES COMPANY

Expenditures, February 1st to December 31st, 1929.

		Labor	Material	Total
BUILDINGS & EQUIPMENT				
Head Frame		2,039.98	183.84	2,223.82
Crusher Building		590.14	155.17	745.31
Blacksmith Shop Building		177.50	155.81	333.31
Office Building		2,279.69	4,155.08	6,434.77
Change House		287.30	504.18	791.48
Compressor Building		847.31	27.10	874.41
Waste Dump		363.07	166.13	529.20
Garage		24.09		24.09
Assay Office		349.27	92.86	442.13
Oil House		33.23	1.78	35.01
Shaft House		246.50	288.17	554.67
Telephone Line		43.23	33.63	76.86
Compressor Equipment		1,826.32	10,038.03	11,864.35
Hoisting Equipment		1,347.30	4,678.49	6,025.79
Blacksmith Shop Equipment		334.25	1,302.34	1,636.59
Pumping Equipment		332.99	12,724.91	13,057.90
Mill Equipment			605.20	605.20
Power Equipment		431.12	10,445.14	10,876.26
Surface Pipe Lines		460.86	604.13	1,064.99
Office Equipment			513.17	513.17
Engineering Equipment			524.09	524.09
Automobile Equipment			2,827.83	2,827.83
Total		12,014.15	50,027.08	62,041.23
DEVELOPMENT				
Drain Tunnel		1,515.47	257.40	1,772.87
Ore Chutes		174.50	160.24	334.74
Ventilation			112.50	112.50
Idaho Shaft		10,393.01	3,201.53	13,594.54
Eureka Shaft		240.00	49.99	289.99
South Idaho Shaft		40.00		40.00
400 L. West Drift		1,984.70	1,619.20	3,603.90
Unwatering- Miscellaneous		1,889.22	8,479.98	10,369.20
400 L. Pump Station		1,340.75	124.72	1,465.47
Total		17,577.65	14,005.56	31,583.21
UNION HILL MINES				
Development	41,765.82			
Equipment	4,031.70			
	45,797.52			
Credit supplies	4,602.31	21,361.63	19,833.58	41,195.21
GENERAL & ADMINISTRATIVE				
Dismantling (U.H.)		3,617.95	58.29	3,676.24
Strike Settlement		454.00		454.00
Management		8,800.00		8,800.00
Travelling Expense			465.81	465.81
Telephone, Teleg. & Postage			255.60	255.60
Watchman		508.51		508.51
Legal			2,623.11	2,623.11
Consulting Engineer		2,232.47		2,232.47
Technical Data			127.60	127.60
Geological Survey		750.00	225.71	975.71
Carried Forward		16,362.93	3,756.12	20,119.05

IDAHO MARYLAND MINES COMPANY

Expenditures, February 1st to December 31st, 1920.

	Labor	Material	Total
Brought forward	16,362.93	3,756.12	20,119.05
Prospecting	145.66	5.13	150.79
Office Expense	2,318.44	2,975.22	5,293.66
Engineering	4,203.63	1,634.82	5,838.45
Assaying		2.50	2.50
Auto Expense	44.05	1,193.69	1,237.74
Manager's Residence	174.55	1,436.38	1,610.93 - 710.1
Company House	529.17	1,153.39	1,682.56
Telephone & Lighting	33.00	16.91	49.91
First Aid		18.20	18.20
Fire Protection	191.37	400.21	591.58
Property Roads	873.90	57.36	931.26
Grounds Upkeep	3,280.82	464.40	3,745.22
Compensation Insurance		3,795.04	3,795.04
Fire Insurance		653.57	653.57
Taxes		1,365.38	1,365.38
Dues & Donations		50.00	50.00
Total	28,157.52	18,978.32	47,135.84
GRAND TOTAL	79,110.95	102,844.54	181,955.49

IDAHO MARYLAND MINES COMPANY

Trial Balance, December 31st, 1919.

		Dr.	Cr.
Accounts Receivable		170.48	
CONSTRUCTION & EQUIPMENT			
Head Frame	2223.82		
Crusher Building	745.31		
Blacksmith Shop Building	333.31		
Office Building	6434.77		
Change House	791.48		
Compressor Building	874.41		
Waste Dump	529.20		
Garage	24.09		
Assay Office	442.13		
Oil House	35.01		
Shaft House	534.67		
Telephone Line	76.86		
Compressor Equipment	11864.35		
Hoisting Equipment	6025.79		
Blacksmith Shop Equipment	1636.59		
Pumping Equipment	13057.90		
Mill Equipment	605.20		
Power Equipment	10876.26		
Pipe Lines	1064.99		
Office Equipment	513.17		
Engineering Equipment	524.09		
Automobile Equipment	2827.83	62,041.23	
Citizens Bank		435.55	
Crocker National Bank		15,840.77	
Compensation Insurance		3,795.04	
Compensation Insurance Accrued			987.85
DEVELOPMENT			
Drain Tunnel	1772.87		
Ore Chutes	334.74		
Ventilation	112.50		
Idaho Shaft	13594.54		
Eureka Shaft	289.99		
South Idaho Shaft	40.00		
West Drift 400 Level	3603.90		
Unwatering			
400 L Pump Station	1465.47		
Miscellaneous	10369.20	31,583.21	
Discounts			216.85
Dues, Donations, etc.		50.00	
Fire Insurance		653.57	
Fire Insurance Accrued		663.38	
Idaho Ditch Revenue			180.00
Investments (Market)		922.22	
Nevada County Bank		270.08	
Personal Accounts		95.86	
Property		4,300.00	
Property (~~Wood~~ Revenue)			143.50
Salvage			2,145.84
Stores		24,381.60	
Taxes		1,365.38	
Taxes Accrued			516.89
Carried Forward		146,568.37	4,190.93

	Brought Forward	146,568.37	4,190.93
Treasurer			224,844.50
UNION HILL MINES			
Development	41,765.82		
Equipment	4,031.70	45,797.52	
Cr. Supplies			4,602.31
Dismantiling (U. H.)		3,676.24	
Strike Settlement		454.00	
Management		8,800.00	
Traveling Expenses		465.81	
Telephone, Teleg. & Postage		255.60	
Watchman		508.51	
Legal		2,623.11	
Consulting Engineer		2,232.47	
Technical Data		127.60	
Geological Survey		975.71	
Prospecting		150.79	
Mine Office		5,293.66	
Engineering		5,838.45	
Assaying		2.50	
Automobile Expense		1,237.74	
Manager's Residence		1,610.93	
Company House		1,682.56	
Telephone & Lighting		49.91	
First Aid		18.20	
Fire Protection		591.58	
Property Roads		931.26	
Grounds Upkeep		3,745.22	
		233,637.74	233,637.74

SUMMARY OF DEVELOPMENT WORK 1919

WORKING PLACE	JANUARY Amount	Feet	Cost Per ft.	FEBRUARY Amount	Feet	Cost Per ft.	MARCH Amount	Feet	Cost Per ft.
DRIFTS									
Lucky 600 E & W				346.54	Cleaning out		1764.48	Cleaning out	
800 Union Hill									
800 Gold Point E & W	1841.33	136	13.58	1894.25	109	17.37			
1200 Level	86.94	4	21.73	1197.72	45	26.61	2260.67	83	27.27
Drift total	1928.27	140	13.77	3438.51	154	22.33	4025.15	83	48.25
RAISE									
1000 to 800				685.76	20	34.29	858.46	31	27.69
CROSSCUTS									
Georgia 300 F.W.				116.92	5	23.38	1039.10	39	26.64
1200 Level H.W.	2305.19	72	32.01						
Crosscut total	2305.19	72	32.01	116.92	5	23.38	1039.10	39	26.64
TOTAL	4233.46	212	19.97	4241.19	179	23.69	5922.71	153	38.71
SKIP POCKET 1200 L									
SUMP & DAMS " "	1888.28			2254.25			2622.16		
MONTHLY TOTAL	6121.74			6495.44			8544.87		

SUMMARY OF DEVELOPMENT WORK 1919

WORKING PLACE	APRIL Amount	APRIL Feet	APRIL Cost Per Ft.	MAY Amount	MAY Feet	MAY Cost Per Ft.	GRAND TOTAL Amount	GRAND TOTAL Feet	GRAND TOTAL Cost Per Ft
DRIFTS									
Lucky 600 E & W	2756.69	226	12.19	1709.91	127	13.46	6577.62	353	18.63
800 Union Hill	719.58	45	15.99	1122.45	81	13.86	1842.03	126	14.62
800 Gold Point E & W	259.52	7	37.06	1192.53	65	18.39	5187.63	317	16.36
1200 Level	3235.62	182	17.78	1203.25	74	16.27	7984.20	388	20.57
Drift Total	6971.41	460	15.15	5228.14	347	15.07	21591.48	1184	18.23
RAISE									
1000 to 800	572.17	37	15.45	613.57	36	17.04	2729.96	124	22.02
CROSSCUTS									
Georgia 300 F.W.							1156.02	44	26.27
1200 Level H.W.	883.98	50	17.68	699.71	36	19.43	3888.88	158	24.61
Crosscut Total	883.98	50	17.68	699.71	36	19.43	5044.90	202	24.97
TOTAL	8427.56	547	15.41	6541.42	419	15.61	29366.34	1510	19.44
Skip Pocket 1200 L	114.08			2084.60			2198.68		
Sumps & Dams " "							6764.69		
MONYHLY TOTAL	8541.64			8626.02			38329.71		

SUMMARY OF DEVELOPMENT WORK 1919

	JUNE			GRAND TOTAL		
WORKING PLACE	Amount	Feet	Cost Per ft.	Amount	Feet	Cost Per ft.
DRIFTS						
Lucky 600 East & West	1156.43	25	46.26	7734.05	378	20.46
Cambridge						
800 Union Hill West				1842.03	126	14.62
800 Gold Point E & W	1445.10	15	96.34	6632.82	332	19.98
1200 Level Drifts	1513.85	31	48.83	9498.05	419	22.67
Total drifts	4115.47	71	57.96	25706.95	1255	20.48
RAISES						
1000 to 800	1192.35	—	—	3922.31	124	31.06
Tungsten	19.20	—	—	19.20 Tibrg.	—	—
Total raises	1211.55	—	—	3941.51	124	31.06
CROSSCUTS						
Georgia 300 F.W.				1156.02	44	26.27
1200 Level H.W.	382.21	—	—	4271.09	158	27.03
Total crosscuts	382.21	—	—	5427.11	202	26.86
TOTAL	5709.23	71	80.41	35075.57	1581	22.19
SKIP POCKET 1200 L.	1670.91			3869.59		
SUMPS & DAMS " "				6764.69		
GRAND TOTAL	7380.14			45709.85		

EXHIBIT 68

Idaho Maryland Headframe Under Construction in 1919

– Golden Gate in background

Emperor Gold Photo Collection

EXHIBIT 69

Idaho Maryland Headframe Under Construction in 1919

Emperor Gold Photo Collection

EXHIBIT 70

Idaho Maryland Headframe

Emperor Gold Photo Collection

EXHIBIT 71

Idaho Maryland Mine

Searls Historical Library PIC 6-Ful 75

EXHIBIT 72

1919_03_26 – The Sacramento Bee

Idaho-Maryland Mine Is Unwatered

GRASS VALLEY (Nevada Co.), March 26.—The 1,000-foot perpendicular shaft of the Idaho-Maryland Mine, recently taken over by the Bulkley Wells interests, has been unwatered. No drifts or tunnels lead from this shaft and the unwatering was not difficult.

At the bottom of this shaft immense drifts radiate, and further unwatering will be a heavy task. Whether or not this is to be done has not been announced.

The work of wrecking the old plant continues.

Idaho-Maryland Deeds Show $2,900,000 Sale

NEVADA CITY (Nevada Co.), March 26.—The deed conveying the mining properties of the Gold Point Consolidated Mines near Grass Valley to the Idaho-Maryland Mines Company was placed on record in the office of County Recorder Clark yesterday. There are $2,900 worth of revenue stamps on the deed, showing that it represents a consideration of $2,900,000.

There are several claims in the transfer, and this is a part of the big consolidation of mining properties being brought about by the Idaho-Maryland Company.

EXHIBIT 73

IDAHO MARYLAND MINES COMPANY

HOBART BUILDING, SAN FRANCISCO

ADDRESS ALL COMMUNICATIONS TO THE COMPANY

DIRECTORS

BULKELEY WELLS, PRESIDENT ROY H. ELLIOTT, VICE-PRESIDENT
A. D. SNODGRASS, SECRETARY-TREASURER
ERROL MacBOYLE, CONSULTING ENGINEER
F. W. McNEAR, RUFUS THAYER, ROBERT ANDERSON

MINES AT GRASS VALLEY
CALIFORNIA
JOHN A. FULTON, MANAGER

Grass Valley, Calif. March 1st, 1921.

SUBJECT:

Fred G. Farish, Esq., General Mgr.,
The Metals Exploration Company,
1213 Hobart Bldg. San Francisco.

Dear Sir:

Herewith please find a report of operations of the Idaho Maryland Mines Company from January 1st, 1920 to December 31st, 1920, both inclusive. Attached hereto and a part of this report are the following;

Trial Balance after closing, Cash Report, Report of Expenditures, Inventory of supplies on hand, Development Report, longitudinal section map of Eureka, Idaho & Maryland mines and a claim map.

Trial Balance as of Dec. 31, 1919	$233,637.74
" " " " " " 1920	518,631.27
	$284,993.53

The capital expenditure for the year was much greater than was estimated last year owing to:-

1. Lack of payable ore in sufficient quantities to be a factor in the operations.

2. An increase of 15% in the power rates beginning July 1920.

3. An increase of 17% in wages beginning July first, an insufficient labor supply and a very low labor efficiency.

4. An increase in cost of all supplies and equipment.

Requirements

It is impossible to give an estimate as to what the monthly requirements will be, as it all depends upon the condition of the lower workings and the date contemplated development at depth can be started. It is not likely that the monthly expenses will run less than $20,000.00 per month. From present indications a small revenue can be expected from the mill from the tributors. It is hoped that substantial returns can be made on company account before the end of the year but there is no available ore in sight at this time.

Operating costs are going down slightly with the reduction in cost of supplies and this will continue during the year no doubt.

Wages may be reduced but nothing can be done until the agreement now in force expires June 30th, 1921.

My opinion is that the power rate will not be reduced much during the year if at all.

The greatest benefit in operation is due to a sufficiency of excellent labor and a marked increase in efficiency.

Property as of December 31st, 1920

25 Patented Mining Claims	293.290	acres
16 Fractional Mining Claims in process of being patented	50.289	"
Patented agricultural land comprising both surface and mineral rights	252.710	"
Patented agricultural land, mineral rights only	70.301	"
	676.590	"
5/24th interest in Patented Mining Claims	20.010	"

Property purchased during year

7.59 acres were purchased from J. H. Hansen for tailings pond at a cost of $3,000.00. This area has been included in above figures.

There are two parcels of about 13 acres contiguous to the Brunswick company's property which have been located by the Brunswick Company but subsequent to the date of location of the "Snook" claims covering these same areas. The Brunswick will, in all probability, contest the granting of a patent on these areas but I do not think the contest will be successful as the facts and surveys indicate your company has the stronger case.

In addition to the above, there are two parcels composing 14.7 acres which have been surveyed and patent applied for but which will be contested. It is thought the contestants will be successful but there is enough doubt about the title to make it worth the trial.

The patent proceedings will not be concluded before the latter part of the year, in the opinion of the Deputy Mineral Surveyor who did the work, and the claim map, etc., cannot be completed until the patent proceedings are concluded. During the year a great deal of surveying was done and the notes, etc., compiled so that the Deputy Surveyor had very little original work to do.

A self-explanatory claim map is attached showing the location, etc., of the various holdings.

UNION HILL SHAFT

The few remaining buildings, etc., were removed during the year and the Cornish pumping plant on surface wrecked and sold for scrap iron.

The garage and bungalow are the only buildings of any value left. The two boilers and the high pressure 14" water pipe line about 1200 feet in length, the only equipment left of any value.

IDAHO SHAFT - SURFACE

General

The surface plant was about completed on the end of the year and is satisfactory and adequate for all the work the mine will be capable of putting on it for some time to come.

The plant was designed on 100 tons of ore per day basis and has no unusual features worthy of especial comment, other than the fire protection system and the

tailings impounding dam which are commented on below.

Fire Protection

A system of rotating monitors has been installed and so located that every portion of every structure can be served by one or more of these monitors, in addition to which fire hoses have been installed in all buildings, etc., so that every portion of their interiors can be served by these hoses. Both of these systems are connected up with the high pressure water line.

Tailings Impounding Dam

The waste rock from the mine is being utilized for the construction of this dam, the cost of which is nominal for the reason that the waste dump proper is now large, requiring long tracks and is constantly decreasing in height as the hill rises rapidly in the direction in which the dump is being extended. $2,928.81 have been charged to the tailings dam but a large portion of this sum would have had to have been expended on the waste dump if this material had been put on that dump.

5823 cubic yards had been placed on the dam up to December 31st, 1920, creating a pond adequate for several months storage, during which time the dam can be extended rapidly enough to keep ahead of requirements.

The dam completed will impound 1,400,000 cubic yards of tailings. The proposed dam, etc., has been submitted to the Debris Commission and accepted by them as satisfactory.

Mill

The mill consists of 20 stamps with a capacity of from 2500 to 3000 tons per month. The flow sheet is as follows: Amalgamation on riffled iron chuck blocks in the mortars, through 35 mesh screens, over amalgamating plates, through two cone classifiers, overflow to waste, sands to Deister sand tables, middlings returned and reconcentrated.

Consentrates to be shipped at present but eventually to be treated by cyanide in a plant still to be installed.

The aim in the mill is to so adjust the degree of crushing of the ore that the tailings will not carry sufficient values to warrant the erection of a cyanide plant to treat them. It is somewhat problematical whether this can be done but it seems advisable to make the experiment at least.

The mill was put in commission about the end of November and up to the end of the year 555 tons were crushed, value of $6.66 per ton, tailings $0.82. The mill was not cleaned up on the end of the year as the quantity put through was small and the available ore in sight limited, requiring but a short additional time to crush it all.

UNDERGROUND

General

In the development report will be found a list of the work done in detail comprising a total of 8166 feet of openings, exclusive of shafts, stations, ore pockets, sumps, and many openings made by tributers, which were accessible on the end of the year and from which a great deal of very valuable information was obtained. Unfortunately it was of an unfavorable character, particularly that portion in the Eureka mine. Before this work was done it was assumed that the Eureka stopes

above the 400 level contained substantial tonnages of payable filling but by the end of the year it was very apparent that practically nothing was to be expected in the way of ore from this portion of the property, and it was decided to suspend all operations in this area on company account.

The old workings of the Idaho mine are not considered favorable for ore and therefore production on anything approaching a payable basis can not be expected until the lower workings are reclaimed where the former operaters left off. By referring to the small underground map attached hereto it will be seen that the so-called "East Incline" was put down to the 1900 level from the east end of the 1600 level and what is considered unusually reliable information indicates payable ore in the 1900 drift. This is the immediate objective. An estimate as to when this point can be reached is very hard to make because there is no information at hand regarding the condition of the 1600 level itself or the incline from that level, but from the experience gained elsewhere in the mine I should say not before August 1921 and this is assuming that the 1600 level and the East Incline will be found fairly open.

Unwatering

On December 31st, 1919, the water was 550 feet below the collar of the main shaft, and on February 29th, 1068 feet below the collar, or 47 feet above the 1000 level. The airlift was used down to this point after which air pumps were used and two weeks time required to reclaim this 47 feet of shaft and the 1000 level. From the time unwatering was started in September 1919 to March 31st, 1920, the cost was $20,327.51 but of this sum pipe and fittings were salvaged and used elsewhere to the value of $2,233.40, so the cost actually was $18,094.11. 89,500,000 gallons of water were handled during this period. The cost was made up as follows:

LABOR	Overhead	917.75	
	Miners	3205.54	
	Misc. shop work	1086.15	
	Pumpmen	1538.54	
	Compressor	467.46	
	Hoist	497.53	7712.97
MATERIAL	Bradley, Bruff & Labarthe, Professional services	590.00	
	Misc. lumber, timber, etc.	134.16	
	Compressing	1579.04	
	Hoisting	307.87	
	Cable, hose, etc.	245.64	
	Misc. supplies	700.88	
	Pipe & casing	3433.17	
	Misc. pipe fittings	1314.30	
	Misc. tools	410.12	
	Power	4189.36	12614.54
			20327.51
Less 4" pipe, 10" casing pipe, etc., salvaged			2233.40
			18094.11

On December 31st, 1920, the water was 632 feet below the collar of the Canyon shaft and all but 200 feet of this distance was unwatered by means of the airlift. This was done through the old 8" Cornish pump column. The most interesting feature in connection with the unwatering of this shaft is that the dip of the

shaft is flat, 40 deg., or a little over, and that the airlift was still lowering the water about 3 feet a day with but 20% submergence when it was temporarily abandoned, until the Cornish pump column could be connected past the Cornish pump below the 1200 level.

Pumping Plant

A Taylor Engineering Works five throw, 730 g.p.m., 1000 foot head, 250 HP motor driven pump is located on the 1000 foot level and delivers the water to surface through a new 10" column pipe.

The sump for this pump has a capacity of 110,250 gallons.

Plans call for an auxiliary system paralleling the above consisting of a 500 g.p.m., 585 foot head, 125 HP motor driven Cameron Turbine pump on the 1000 foot level delivering the water to the 600 level and a second similar pump on the 600 level delivering the water to the surface. These pumps were originally used for unwatering, one at the 400 and the other at the 800 level and both are on hand.

The two systems can both be operated at the same time if necessary.

In the Canyon shaft at the 1300 level a 50 HP, 300 g.p.m., 350 foot head Alberger Turbine pump throws the water to the 1000 level sump. In addition to which there is a 40 HP, 200 g.p.m., 200 foot head Taylor Engineering Works Turbine pump which is used when the submergence gets too low for the airlift on account of the water getting down near one of the old Cornish pumps. This pump is used until the Cornish pump can be unwatered and disposed of so the column pipe can be connected through and the submergence for the airlift increased.

It is the intention to install a 50 HP Byron Jackson turbine pump, 200 g.p.m., 405 foot head, which is in stock, on the 1600 level when that level is reached, which will deliver water to the 1300 pump. This will still leave the 200 g.p.m., Taylor Turbine pump mentioned above available below that level so that no new pumping equipment will be necessary for a good while.

In addition to the foregoing, the following air pumps are in stock:

1 Cameron #8 Sinker
1 Worthington Duplex 200 g.p.m., 200 foot head
1 Dow Station pump 200 g.p.m., 400 foot head

and several smaller pumps.

DEVELOPMENT

Main Shaft

The timber in this shaft was renewed and replaced where necessary and the stulls on the ends of the shaft through the stoped area repaired.

Double tracks of 40-lb. rails, 3 feet 2 inches gauge were laid in the shaft and 50 cu. ft. steel self-dumping skips installed.

Canyon Shaft

The original plans called for sinking the main shaft but investigation showed that the probability of the Canyon shaft being open was good so it was de-

eided to reopen it. On the end of the year the shaft had been reclaimed to a point about 40 feet below the 1300 level. The upper portion of the shaft was in heavy ground but as depth was attained conditions improved steadily.

The 1600 level should be reached in April at latest unless unforeseen difficulties are encountered.

The time element below the 1600 level is impossible to figure on as the shaft has not been operated below that level for 30 years and a great deal of rubbish, etc., is known to have been thrown down the shaft, besides which the stopes come to the shaft itself at the 1700 and 1800 levels and will be caved down probably. It is 800 feet on the slope from the 1600 level to the 2000 level and about 400 feet vertically.

A 75 HP electric geared hoist was purchased secondhand for this work and is installed on the 1000 level.

A large station at the collar of the shaft was made, suitable for an ore bin which will be constructed when needed. It cannot be erected at present as it would interfere with the disposal of the rotten timbers which are being removed from the shaft.

Eureka Shaft

This shaft was unwatered to a depth of 25 feet below the Eureka 600 level on the end of the year and was in excellent repair to this point so it was decided to unwater it for a distance at least. Preparations were under way to do this on the end of the year.

Eureka workings

The 400 level was put through to the Eureka shaft and raises put up to the 300. The 300 was driven east and west until it holed into open stopes. A raise 50 feet above the 300 holed into an open stope. The fills above the 400 and the 300 levels were tried out in several places but nothing of value was found.

The 700 level was extended and a raise run from it to the Eureka 600. The 600 level was found to be open to a point 150 feet west of the Eureka Main Incline, except a cave at the Incline which was cleared away. 150 feet west of the Incline a raise to the 500 level was open and about 90 feet of open drift on the 500 level was found. The ground was all stoped above the 500 and stoped to a small extent above the 600. Careful sampling revealed nothing of commercial value and all work on company account was suspended.

Idaho workings

A good many openings were found notably above the 1000 level but nothing in the way of ore in any of the workings. The tributors did some rather extensive work above the 900 level during the time the former operators were working and they are reported to have found very good ore in narrow footwall stringers. It is hoped that this country can again be opened and operated on tribute and some revenue thus be obtained.

PROPOSED DEVELOPMENT

1600 West Raise #210 to 600 level in line with pump shaft.

There appear to be good possibilities that considerable ore was left in

the neighborhood of the sump below the 800 level which will be made available by this raise. The mine drainage and ventilation will also be much simplified and a second exit made by the raise.

1000 Level East Drift

This drift was cut 1394 feet from the main shaft at the end of the year and it will be extended until ore possibilities appear futile.

1000 Level East Crosscut #2200

This crosscut will be started at a point 2200 feet east of the main shaft and run into the hangingwall 1800 to 2000 feet to investigate very promising country. The surface over this crosscut is well mineralized and has never been explored at anything but shallow depths.

1300 Level East Drift

This drift will be reopened far enough to investigate the old fills in the stopes above it.

1300 Level West Drift

This drift will be run to explore the country beneath the main shaft and will be run into the Eureka country if geological indications warrant it.

1400 & 1500 levels

Some work may be advisable when these levels are reached, just what it is impossible to say at this time.

1600 Level

An effort will be made to reopen this level as far as the East Incline with the object of getting down to the ore on the 1900 level of the incline. It may prove advisable to run a drift west on the 1600 level too.

2000 Level

The Canyon shaft will be reopened to this point and drifts run east and west.

ORE POSSIBILITIES

Tribute Shoots above 1000 level

There are ore possibilities at various places in the mine above the 1000 level but the conditions are not favorable to work them on company account except below the 800 level at the pump shaft, so that leases will be let on the basis of 50% of the free gold, all of the concentrates and the tailings to be retained by the company, 50% of free gold to go to the lessees. The company furnishes supplies and tools and hoists and mills the ore. The lessees furnish the labor of mining and tramming the ore to the main shaft pockets. These leases are verbal and no definite time or tonnage is stipulated so that the company can take over a lease at any time. Special conditions may alter the terms in exceptional cases so that definite blocks of ground may be let but this is very exceptional.

These places are more or less unknown quantities so no individual descriptions can be given here.

Ore below the 800 level at the pump shaft

This has been referred to under proposed development. No knowledge as to grade or quantity of this ore in place is available but that enough is there to repay the cost of the raise, etc., is indicated by what can be learned about it. This will be worked on company account.

1000 Level East Drift

This drift will explore a country which is entirely unknown and the possibilities of getting ore are believed to be fair.

1000 East Hanging-wall Crosscut #2200

The country that will be prospected by this crosscut is believed to be very favorable but a large amount of drifting may be necessary from the crosscut to find ore.

1100 & 1300 Levels.

When the Dorseys closed the mine down in 1900 tributors were working the old fills in these stopes and were said to be doing fairly well.

1300 Level

The east drift will be reopened to investigate the old stope fills.

The west drift will be run through virgin country. There is a good vein with good values exposed in the shaft a short distance above this level and it is hoped the orebody may extend on west sufficiently to yield some ore. This drift will be extended westward as far as the geological conditions warrant. The Ore possibilities are not considered very good in the country this drift will traverse.

1400 & 1600 East Levels

It is hoped that some ore will be found in place in these levels. When the mine filled with water tributors were working in both places and are said to have done quite well. Reference to the mine map will show unstoped ground at the shaft where these tributors were working.

1600 East Level

This level will be reclaimed if feasible to the East Incline and the Incline reclaimed to the 1900 level where ore is positively said to exist. When this point is reached it may be possible to get enough ore out to offset expenses and it is therefore the main objective.

2000 Level East & west Drifts

This work is looked upon as being favorable for developing ore, particularly the east drift.

In addition to what has been said under Ore Possibilities, the subject should not be left without calling attention to the fact that a careful study of the

geological conditions in the lower levels may reveal important facts which when applied will put the mine on a very much more substantial basis in a shorter time than seems likely from present knowledge.

On the whole I believe the situation is very favorable for the development of a profitable mine. The greatest disadvantages are that the distances to go to get to the most favorable points are great and during the time necessary to reach these points but little ore can be milled, consequently funds have to be provided to carry on the work.

CONCLUSION

The organization remained practically the same throughout the year but as the plant both underground and on top was about finished and the engineering work completed on the end of the year a number of employees will be dispensed with.

No detailed analysis has been attempted of the various reports attached hereto as they have been made out in detail and I believe are self-explanatory.

Respectfully submitted,

JAF/c

J. A. Sullivan
Manager

2 copies to Mr. Fred. G. Farish
1 copy to Mr. Roy H. Elliott

IDAHO MARYLAND MINES COMPANY

Trial Balance after closing December 31st, 1920

Debit

Buildings and Equipment	139,228.43
Nevada County Bank, Payroll Account	435.55
Compensation Insurance Accrued	500.00
Crocker National Bank	8,220.92
Development	193,463.92
Fire Insurance Accrued	537.03
Investments - Market	1,144.49
Nevada County Bank	273.24
Personal Accounts	53.31
Profit & Loss	96,049.35
Property	7,300.00
Stores	1,583.19
Suspense	19,688.65
Union Hill Mines - Development	50,153.19
	518,631.27

Credit

Property	5,000.00
Taxes Accrued	598.85
Treasurer	511,646.43
Union Hill Mines	1,385.99
	518,631.27

IDAHO MARYLAND MINES COMPANY

Development Report, January 1st, 1920 to December 31st, 1920.

	Feet	Cost per ft.
Winze		
400 West from Idaho 400 to Eureka 400 about 30 feet east of Eureka shaft	13	
Development, New Ground		
700 West Drift, 617 feet to 796 feet	179	11.68
700 West Raise	64	11.68
1000 West Crosscut # 214	6	
1000 " " # 252	2¾	
1000 " Drift, Powder magazine built at face drift	7½	12.91
1000 Hangingwall Drift for Main Shaft Ore Pocket	122	
Main Shaft sunk	4	

Stations, Ore Pockets, Sumps, etc.

1000 Canyon Shaft Hoist Room 15 x 25 x 8
1000 " " Rope Raise 42 feet
1000 " " Station for skip ore bin 25 x 25 x 25
1000 Main Shaft Ore Pocket, not completed, 20 x 30 x 16
1000 Pump Station for 250 HP, 5-throw pump 20 x 25 x 12
1000 Sump for 250 HP 5-throw pump 15 x 140 x 7

Note:

In a number of instances it will be noted that the cost per foot has been shown. These costs have only been shown when the work done consisted in actually opening up the drift anew. It will be noted that the cost of opening up through the old fills is greater than the cost of running new drifts.

The cost of every piece of work shown on this Development Report is shown in detail on the Report of Expenditures.

IDAHO MARYLAND MINES COMPANY

Cash Statement for year ending December 31st, 1920

RECEIPTS

Balance on hand January 1st, 1920	16,546.40
Treasurer	278,000.00
Personal Accounts	1,149.63
Property (Little Idaho Ditch)	5,000.00
Empire Mines, 50.82 tons 40-lb. T Rail	3,246.89
Bradley, Bruff & Labarthe, refund a/c overcharge for services	1,343.58
Misc. wood, scrap lumber, etc.,	106.44
Misc. scrap iron, castings, etc.,	1,978.90
Rent of Union Hill Bungalow	90.00
	307,461.84

DISBURSEMENTS

Payroll	149,615.60
Supplies	135,330.74
Compensation Insurance Accrued	10,186.41
Taxes Accrued	1,371.56
Fire Insurance Accrued	805.55
Investments - Market	222.27
Property (J. H. Hansen)	3,000.00
	298,532.13
Balance on hand December 31st, 1920	8,929.71 *
	307,461.84

*	Crocker National Bank	$220.92
	Nevada County Bank	273.24
	Nevada County Bank, Payroll a/c	435.55
		8929.71

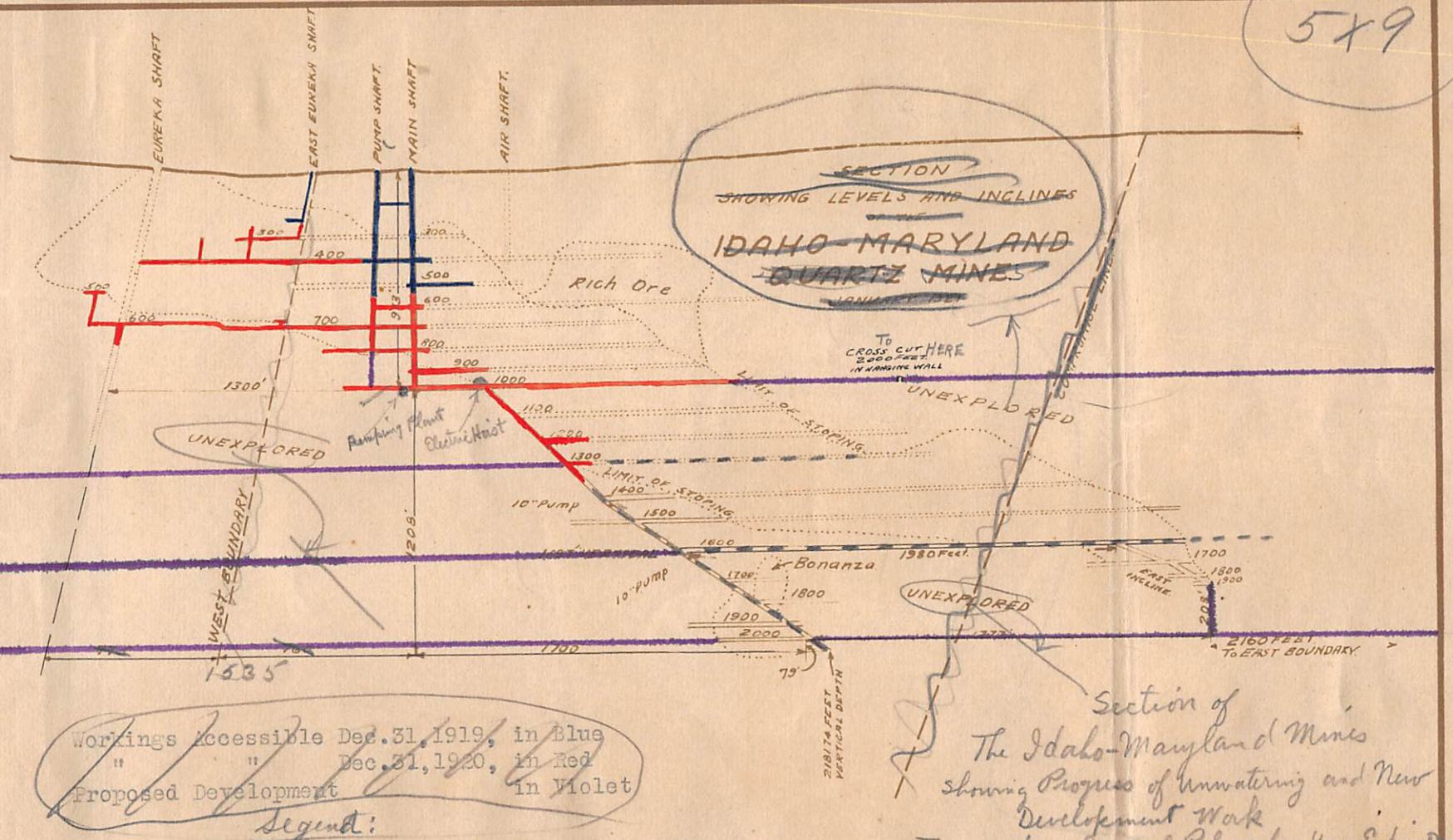
IDAHO MARYLAND MINES COMPANY

Development Report, January 1st, 1920 to December 31st, 1920

	Feet	Cost per ft.
Main Shaft, unwatered from 500 station to 14 feet below 1000	587	
Main Shaft, timbered 80 feet above 300 to 32 feet below	112	
Main Shaft, timbered 500 to 700	215	
Main Shaft, ends timbered both sides from 700 to 800 and elsewhere	230	
Main Shaft, Two hoisting compartments graded and track layed	2252	11.26
Canyon Shaft, unwatered 632 feet and retimbered	632	
Eureka Shaft, unwatered	25	
Drifts		
300 West Drift, opened and repaired	319	10.28
400 West Drift, " " "	971	12.42
500 East "	280	
600 West " Idaho was open to Pump Shaft filled February	148	
799 " " opened-repaired and track graded	617	11.68
700 East " retimbered	42	
700 Footwall drift repaired and later filled	30	
800 East Drift, retimbered	47	
800 West " "	252	
900 East "	184	
1000 West Drift, retimbered	252	
1000 East " open. Some timber and track	870	
1000 " " from main shaft station. Drift enlarged and retimbered	70	
1000 " " cleaned out and retimbered	454	14.88
1000 Footwall Drift open and later filled	90	
1000 Hoist Room Drift, cleaned out and timbered, Canyon Shaft	30	
1100 Footwall Drift, open	38	
1200 East Drift	510	
1300 " "	112	
600 Eureka Drift from Idaho West line, cleaned out	75	
600 " " to west of Eureka shaft	468	
500 " " open	93	
Crosscuts		
700 Hangingwall Crosscut open	230	
700 " " cleaned out	468	
700 Footwall Crosscut repaired and later filled	70	
900 Hangingwall " cleaned out	62	
1000 West Crosscut open and later filled	33	
1000 West Sump crosscut open	160	
1000 Transformer Crosscut open. Repaired.	85	
1000 East Crosscut, open Later filled	122	
1000 Hoist Room Crosscut open and retimbered	62	
1100 Footwall Crosscut open	58	
Raises		
East Eureka Raise from 300 to bottom of East Eureka Shaft	35	
300 Raise # 2	11	12.29
300 Raise # 726	63	11.35
400 Raise # 726	89	9.48
400 Raise # 726 Ore Chute	88	9.48
400 Raise # 937	67	11.60
Eureka 600 to 500 open	74	

1" border

579



Workings Accessible Dec. 31, 1919, in Blue
" " Dec. 31, 1920, in Red
Proposed Development in Violet

Legend:

- Old Workings
- Accessible Dec. 31, 1920
- Proposed Development

Section of
The Idaho-Maryland Mines
Showing Progress of Unwatering and New Development Work
To accompany Annual Report for Year Ending Dec. 31 1921

EXHIBIT 74

IDAHO MARYLAND MINES COMPANY

HOBART BUILDING, SAN FRANCISCO

ADDRESS ALL COMMUNICATIONS TO THE COMPANY

DIRECTORS

BULKELEY WELLS, PRESIDENT ROY H. ELLIOTT, VICE-PRESIDENT
A. D. SNODGRASS, SECRETARY-TREASURER
ERROL MacBOYLE, CONSULTING ENGINEER
F. W. McNEAR, RUFUS THAYER, C. G. BOCKUS

MINES AT GRASS VALLEY
CALIFORNIA
JOHN A. FULTON, MANAGER

Grass Valley, California. February 14, 1922.

SUBJECT:

ANNUAL REPORT FOR FISCAL YEAR ENDING DECEMBER 31ST, 1921

Fred. G. Parish, Esq., General Manager,
The Metals Exploration Company,
201 Fourteenth Street,
Denver, Colorado.

Dear Sir:

Submitted herewith are Trial Balance After Closing, Cash Report, Report of Expenditures, Operating Statement, Inventory of Supplies On Hand, Summary of Development, Footage and Cost, Summary of Milling Operations, Plan of Underground Workings of the Eureka, Idaho and Maryland mines, and a Claim Map of the property, all of which are a part of this report.

A comparative summary of expenditures for 1920 and 1921 follow:

	1920	1921
Development	$ 163,210.93	$ 196,702.96
Stoping	1,216.12	18,931.42
Milling	674.86	4,093.04
Marketing Bullion	---- --	35.97
Marketing Concentrates	---- --	477.03
General & Administrative	51,163.79	46,115.86
Buildings & Equipment	76,134.61	14,478.45
TOTAL,	$ 291,400.31	$ 280,834.73

Receipts for the year exclusive of receipts from the Treasurer were as follows:

From ore milled	$ 16,161.87
Dividend from State Compensation Insurance Fund	3,690.97
Sale of scrap iron, 40# rails, rents, etc. etc.,	7,501.76
TOTAL	$ 27,354.60

Monthly Requirements

Requirements for the coming year on the contemplated basis of exploration of about 1000 feet of development work per month, will be $25,000.00. This sum will have to be provided for several months to come but there is every reason to believe, that by the end of 1922, the mine will be in shape to contribute substantially toward the expense of operating, and with a little good fortune it might be earning a profit.

Operating Conditions

Operating conditions in 1921 over 1920 improved very much, wages were reduced by 15% in July, power rates declined 9% about the same time and supplies declined

from 12 to 15%. The coming year will see a further reduction in supplies, and possibly in labor, but the power rates will remain as fixed at present, according to the best advice on the subject.

Labor

Early in June negotiations between the Mine Workers Protective League and the operators were opened, to adjust wages and draw up a new agreement in place of the one which expired on June 30th. No satisfactory conclusions were reached, so on July 1st the men did not report for work, except pumpmen and hoistmen who were allowed to stay on until the 5th of July. Prior to the calling out of the pumpmen, arrangements were made with the United Comstock Company to send men over to operate the pumps. The Comstock men were here on time so that there was no interruption to the pumping operations.

Negotiations were still carried on with the League, until finally an agreement to arbitrate was drawn up and signed by the League and the operators. The agreement stipulated that three arbitrators were to be appointed, one by the League, one by the operators, and the third to be chosen by these two, to determine the decline in the cost of living from July 1920 to July 1921, the wages to be paid to be determined by deducting from the July 1920 wages the percentage decrease in the cost of living July 1921. The men, however, agreed to return to work for $4.25 for miners and $3.75 for muckers and carmen until the arbitration board rendered its decision. If the percentage reduction in the cost of living was not enough to bring the wages down to this scale, wages were to be raised and were to be retroactive to the first of July. The reduction in wages for the miners amounted to 75 cents per shift and for the carmen $1.00 per shift, other employees in proportion.

The League's arbitrator and the operators' arbitrator could not agree on a third man so the arbitration agreement died a natural death, and sometime in October the League approached the operators regarding a new wage agreement and one was finally signed at the wages above stated, to run until June 30th, 1922.

This agreement stipulates that time and a half shall be paid for Sunday work and overtime, with the understanding, however, that this company be exempt from the extra pay for Sunday work until such time as the mine is opened up and producing ore.

Preparations for the strike, the strike itself, and adjusting conditions, however, caused a loss of fully a month as far as reclaiming and developing operations were concerned. In other words, our footage for the year should have been fully one-twelfth more than it really was if it had not been for this labor trouble.

The labor supply was adequate during the year, and on the whole efficiency went up, although there was still plenty of room for improvement on the end of the year

Butcher Shop

The butcher shop was disposed of in October, the purchaser giving a first mortgage on the property. This company will eventually recover $333.33 provided the man raises the mortgage. The company lost in the neighborhood of $800.00 but it was well spent inasmuch as it held meat prices down and tided us over a serious time because I am satisfied if something of that sort had not been done when it was, labor complications would have been much more serious than they were.

Community House

The Grass Valley community has succeeded in establishing a very fine recreation park, as a memorial to the citizens who took part in the world war. The mines were approached as to what they would do, with the result that this company agreed to build the Community House. This was done at a cost of about $2,500.00 and is a credit both to the Park and to the donors. I believe the investment is a good one and will be returned many fold, owing to the good feeling that it will foster among the people of the community.

PROPERTY AS OF DECEMBER 31ST, 1921

25 patented mining claims	273.323	acres
16 fractional mining claims patented during the year	55.902	"
Patented agricultural land comprising both surface and underground mineral rights	262.710	"
Patented agricultural land, mineral rights only	70.301	"
Patented mineral land, mineral rights only	0.884	"
TOTAL	663.120	"
91/144ths interest in patented mining claims	20.010	"

The patent proceedings on the 16 fractional mining claims were completed as far as the Sacramento Land Office is concerned, and their final receipt was received. No complications are anticipated and we expect the patents shortly.

Surface Map

As soon as the patents to the 16 fractional claims are received the surface map can be completed.

Property Purchased or Relinquished

During the year 4.885 acres, comprising the southerly portion of Idaho # 11 Lode Claim, were purchased from Thomas B. Stuart for $350.00. This area was included in patent surveys and protest was made by Mr. Stuart, with the result that arrangements were made to purchase and patent proceedings were allowed to continue.

.884 acres of the surface of the East Eureka were deeded back to Mary J. James, as she has lived on the area for many years and could undoubtedly establish her rights.

During the year an additional interest in the so-called Black Hawk Claim was purchased for $6,250.00. The purchase of this interest was recommended and urged for the reason, that this company only owned 27/144ths previously. The area consists of 20.01 acres and lies in a very central position with regard to the rest of the company's property and has the best surface showing of any of the company's claims contiguous to it. This entire area should have been acquired at the time the rest of the property was purchased.

The only other property matter pending is the question of whether this company will grant the Brunswick Company an underground right-of-way, from their property to the east of the Union Hill, westerly to the plane bounding their extra-lateral rights. The Brunswick, for this right-of-way, agrees to deed two fractions which they claim by right of location. The question of ownership of the fractions will have to be submitted to the courts for decision, which will entail certain expense. Whether it is best to grant the right-of-way to quiet title or resort to a contest has not been definitely decided as yet, so that the entire matter is being held up.

91/27 8/18 4/9 64/144

UNION HILL

Nothing has been done on this portion of the property during the year.

IDAHO SHAFT

Surface

Timber Yard

A 60-foot derrick mast and a 50-foot boom have been erected about 60 feet east of the main shaft collar. The derrick is operated by a small compressed air hoist. Material either going down or coming up from the mine is safely and economically handled, as well as any heavy material to be loaded or unloaded from trucks. Plans call for the handling of all drill steel by the same means eventually.

The poles are hauled in on top of the waste dump and unloaded so that they will roll down hill within easy reach of the derrick.

Sawmill

About 60 feet of the building that formerly stood over the shaft collar was removed and re-erected for the sawmill. The sawmill machinery is practically all installed, except that the swing saw has to be turned around, to get it in proper position with relation to the other saws. As the mill is now, it costs $20.00 to $25.00 per thousand feet to manufacture lumber, the same lumber cannot be bought from the lumber companies for less than $60.00 a thousand.

Fire Protection System

On January 27th, 1921, a fire broke out in the change house and before the water could be turned on, the whole lower floor was blazing. The fire was put out by using two monitors, one in front of the building and one at the side. The building was very dry and nothing but very efficient fire apparatus would have saved it. Similar monitors are scattered over the surface in such a manner that every building can be reached by two or three at least. The result of the tryout on the change house was very satisfying and I believe if the water is available at the time, that it will be impossible for fire to get a serious start.

The full amount of the loss was paid by the Insurance Company.

Assay Office

The grinding room was equipped with a 3 H.P. motor, grinder, and small Chipmunk crusher. This apparatus, with the exception of the motor, were on hand.

An electric furnace was purchased for fusing and cupelling, which has been very satisfactory. The cost of operating it is very low, it is safe from fire, makes no noise, and it turns out the fusions very rapidly.

Mill

The only change made in the mill was to cut out classification and send all the pulp over the Deister sand tables and the middlings from these over a Wilfley. This change has resulted in materially lowering the tailings but another Wilfley will probably be added to the mill so that the middlings can be classified, the coarse going to one Wilfley table and the fines to the other. When this is done I think that it will reduce the tailings still more.

A complete resume of such milling as was done, will be found tabulated at the end of this report.

UNDERGROUND

General

A total of 25468 feet of workings were accessible on the end of the year, of which 15687 feet was opened during 1921, and in this latter figure 2543 feet were driven new.

The bottom level (2000) from the Canyon shaft was unwatered June 29th and the bottom level (1500) from the Bonney mine was unwatered October 9th. At both of these points substantial values were found and the future of the mine seems assured. By the end of the year explorations were well under way at both of these points and results were distinctly encouraging.

No measurable amount of ore was exposed but it is my strong conviction that by the end of 1922, there will be a measurable quantity of ore in sight, permitting an estimate of assets to be made.

Costs

The cost of both the main and Canyon shafts is given on page 24, for the entire period since unwatering started. The cost of this work per foot of vertical depth amounts to $51.23.

The cost of unwatering per foot of vertical depth is $20.50. Combining these two figures gives a total cost of $71.73 per foot of vertical depth reclaimed and unwatered. $150,633 for 2100' (55 lbs/sq in pressure)

Dividing total cost of operation to date; less cost of the Union Hill development and property cost, by the total footage accessible, gives a cost of $23.00 per foot. A few of the accessible workings were unimportant, but the large majority were very important either for geological information or for operation, and in most cases for both reasons.

The cost of drifting varies from $11.63 to $19.77 per foot, the more remote workings naturally costing more. In the case of the 1000 foot drift, it will be noted, that the cost of driving 840 feet of new drift was $17.07, whereas the cost of re-opening 279 feet of old drift was $19.32. The old drift contained a tremendous number of old stulls which were lagged over with round poles. Some very bad ground was also encountered which, combined with the timber, made this high cost.

The raises show a comparison between a simple single compartment untimbered raise and a double compartment raise through slabbing ground, thoroughly timbered with shaft sets and lagged all around.

The cost of stoping and milling for the year were in excess of the values recovered. Several places in the mine with ore possibilities were tried out, which accounts for this loss.

The cost per foot of development work hereafter should be considerably less than it has been, due to a greater monthly footage, and to the fact that work can be continued without interruption. Up to the present time it has been necessary to hang up work from time to time to re-lay shaft rails, cut out ore pockets, install pumps, etc., etc.

UNDERGROUND DEVELOPMENT

A development summary will be found on page 24, also a tabulation of the cost per foot of the more important workings.

The condition of the lower workings was found to be very good, particularly in the Canyon shaft and Dorsey winze.

It will not be necessary to discuss all the points at which work was done in detail so only the more important ones will be referred to.

Eureka Shaft

The old Eureka incline was reclaimed to a total depth of 165 feet below the Eureka 600 level. A strong vein was found extending to a depth of about 100 feet down the shaft, but at this point the vein flattens out and becomes frozen to the hanging-wall and so continues as far as unwatered. From its appearance it seemed more than likely that an unfavorable ore condition exists for a considerable depth, so all operations in this part of the mine were abandoned and exploration of the Eureka area will be made at greater depth, from the main shaft.

The Eureka shaft was abandoned by the Eureka Company in 1877 when the mine was shut down. The portion that was recently unwatered has stood full of water, since that time, because there was no drainage into the Idaho mine below that level. The old shaft timbers were found to be in perfect condition.

1000 Level West Raise #210

A double compartment raise was run from a point 210 feet west of the main shaft to the sump at the bottom of the old pump shaft. This raise was run for the following purposes;

First. To explore possible ore which was said to have been left in the sump.

Second. To give a second exit from the 1000 level to the pump shaft which goes through to surface.

Third. To facilitate the mine drainage and allow the heavy flow of surface water from the Eureka mine to be conveyed to the main sump on the 1000 level without having to pipe it down the main shaft.

Fourth. To facilitate ventilation.

Although a thorough search was made, practically no ore of payable value was found, but in spite of this fact, the other advantages justify the expense of this raise.

Second Exit

The above raise gives a second exit from the 1000 to the 800 level, the old pump shaft was retimbered, etc., from the 800 to 400 and this work will be carried through to surface, thus giving a ready and safe second exit from the 1000 to surface.

At present the second exit is through the East Eureka shaft and along the 800 and 400 levels, but this ground is very heavy and maintenance cost will be too great to warrant its use indefinitely.

Below the 1000 the two exits will be through the Canyon shaft and the main shaft as soon as the latter is connected with the 2000 level.

1000 Level East Drift

Total length 2498 feet from the main shaft. Nothing was found in the way of ore and the drift was stopped until a more favorable time from the financial standpoint arrives.

1000 Level Hangingwall Crosscut #2250

Total length 508 feet. This crosscut is being driven to get out under the Black Hawk country and to intersect veins showing on the surface both east and west of the line of the crosscut. The ground was very hard to drill and break but a distinct improvement was noticeable about the end of the year, and conditions should improve much more when the crosscut reaches the vicinity of the veins, which is estimated at from 800 to 1000 feet more.

Canyon Shaft

A double compartment bin was erected at the collar of this shaft and a double track of 20-lb. T rails was laid from the top to the bottom, a total distance of 2059 feet.

1300 Level West Drift

Total length 210 feet. This work was stopped early in the year as the results were discouraging and it was believed the horison was too high to find favorable ore conditions.

1600 Level

This level was reclaimed from the Canyon shaft to the Dorsey winze, a total distance of 1995 feet.

Many of the old workings in the Dorsey winze country were open, as well as on the 1500 level above.

2000 Level East Drift

Total length 231 feet. A very good showing of quartz was exposed which, although very erratic as to size and value, gives strong evidence of ore possibilities below this level. The discovery of a vein with the substantial gold values found at this point, was somewhat unexpected.

2000 Level West Drift

Total length reclaimed 305 feet. A strong fissure was found and in places the vein formation opened up to 8 feet in width, but on the whole the vein is very erratic and very low grade. The gangue minerals consist entirely of calcite, dolomite, and allied minerals, but no quartz.

At 189 feet a fault dipping steeply southwest throws the vein northwest 8 to 10 feet, and at this point some values were found. A seam of gouge on the fault plane assayed about $100.00 per ton. It is believed that this is the same fault plane which is exposed in the 1800 west drift 50 feet from the Canyon shaft and along which a

bonanza shoot of ore mined by the old Idaho Mining Company, was found. This shoot extended from a point about 50 feet above the 1700 level to within about 50 feet of the 1900 level and was very rich.

Canyon Shaft below the 2000 level

The vein is exposed in the north end of the shaft and at 60 feet down values came in. This vein averages 2 inches wide and assays $229.00 per ton for a distance of 60 feet, or a total depth of 120 feet below the level, which was the bottom at the end of the year.

Dorsey Winze

The so-called 1900 level from this winze is a drift running southwesterly about 60 feet long. A good vein was found in this level which averaged 15 inches wide and $20.00 per ton. In the face the vein was 38 inches wide and assayed $36.00 per ton. It is interesting to note that this is the only place in the mine where hearsay evidence about ore conditions was verified.

PROPOSED DEVELOPMENT

Main Shaft

The main shaft will be sunk and connected up with the 2000 foot level west drift from the Canyon shaft. The object of this is to give a second exit from the bottom of the mine, to facilitate handling ore, men, and supplies, to permit proper ventilation and to prospect the ground between the 1000 foot level and the 2000 foot level.

1000 East Drift

This drift will be extended far enough to ascertain whether the favorable geological conditions found in the Dorsey winze country extend upward to this horizon. The distance necessary to determine this fact is estimated at from 500 to 600 feet more.

1000 East Hangingwall Crosscut #2260

This crosscut will be extended due south to intersect the South Idaho, Brunswick, and Union Hill series of veins. These veins will be developed from this crosscut. It is estimated that the crosscut will have to be driven 1500 feet, or an additional 1000 feet from the face on the end of the year, to reach this fissured region.

1500 West Drift from the Main Shaft

At this level a drift will be run westerly to explore the Eureka vein at depth. This horizon will be well below the old Eureka workings and thus avoid any drainage complications, which would arise if the old Eureka workings were broken into. It will also be far enough below the reversed dip condition on the 1000 level to expect to find the dip of the vein again normal.

1600 East Drift from the Canyon Shaft

At a point about 1250 feet east of the Canyon shaft the vein branches off into the hangingwall. A drift will be run on this branch with the hope of finding a parallel vein in the hangingwall. It is believed that about 300 feet will be necessary to determine this fact.

Dorsey Winze 1900 Level

The east drift on this level will be run to the limit of the favorable vein showing. Just how far this will be, it is hard to say.

The west drift will be run to a point of juncture with the main Idaho fissure, an estimated distance of 500 feet. This work is contingent, however, upon the continuance of the orebody, which the drift was in, on the end of the year.

Dorsey Winze

This winze will be sunk probably to the horizon of the 2000 level and to do this will require about 400 feet of sinking. When the 2000 level is reached, drifts will be started east and west.

2000 Level East Drift Canyon Shaft

This drift will be extended and connection made with the Dorsey winze. The distance is estimated at 2100 feet. By driving west from the Dorsey winze to meet this drift, a connection should be made about the end of 1922.

The Dorsey vein should branch from the main Idaho vein at a point about 1750 feet east of the Canyon shaft, and if ore conditions warrant it a raise will be run to connect with the 1900 west drift from the Dorsey winze. This connection should be through by the end of 1923.

2000 West Drift from the Canyon Shaft

This drift will be run westerly on the vein to the line of the main shaft, a distance of about 1250 feet from the face on December 31st, 1922, then possibly westerly from the shaft, depending upon vein conditions.

A raise will be put up to connect with the main shaft. By the end of the year this connection should be through.

A crosscut will probably be run southerly along the fault plane which cuts the vein at a point 189 feet west of the Canyon shaft. It is thought likely that this vein may be a connecting link between the main vein and one in the hangingwall. The fault vein itself may develop ore, as there are good values where it is exposed on this level now.

Canyon Shaft

This shaft will be sunk to a point 100 feet vertically below the 2000 level, equivalent to 155 feet on the slope. At this point drifts will be run east and west. The length of these drifts is indeterminate at this time, and will depend on vein conditions found.

Footage

It is estimated that the work as outlined will result in from 500 to 1000 feet of development work per month.

STOPING

700 West Stope

122 tons of very low grade ore were mined in a stope, on the line between the Idaho and Eureka mines. From hearsay evidence it was believed payable ore could be opened up at this point, but this proved to be a disappointment, so the stoping was abandoned.

855' West Stope

This stope was opened up from the 1000 West Raise #210. Although some fair samples were obtained, the ore mined as a whole was very low grade. 1683 tons were sent to the mill, assay value $2.00 per ton.

1000 Level East Drift

142 tons of $5.00 ore were found in opening the old level and were sent to the mill.

1400 Level East Drift

215 tons of $6.00 ore were found in the old fill and sent to the mill.

1500 Level East Drift

442 tons of $2.00 ore were sent to the mill. There is some good ore known to exist in the upper part of this stope, but it cannot be reached without a good deal of work. This work was therefore stopped until conditions were more favorable for continuing.

There were several small lots of ore, all very low grade, sent to the mill from other places but they were not important enough to warrant individual mention.

TRIBUTERS

Eureka Surface

A little work was done on small stringers near the surface but the ore recovered was very low grade, and after milling 87 tons this work was abandoned.

400 Level West

A persistent effort was made to find something of payable value in the old fill, but without success with the exception of 20 tons of $20.00 ore found above the 300 level.

1000 Level East

A branch vein at about the 900 level went off very flat into the footwall and for a time it was hoped that it would develop sufficiently to supply substantial revenue, but as work continued it petered out and the work was abandoned.

EQUIPMENT

New equipment added during the year consisted of

2400 feet steel armored 4000 volt, 3 conductor, electric cable for the Canyon shaft
35 tons new 20-lb. T rail for the Canyon shaft
1 Cameron 4-stage turbine pump and motor, capacity 125 HP, 500 gallons per minute, 620 feet head
1 250 HP, 440 volt, motor for the Sullivan compressor
2 5 HP motor driven direct connected Sirocco ventilating fans
Several hundred feet of galvanized iron and cloth ventilating tubing
16 Mine cars
4 Turbo machine drills
4000 feet 5" black pipe
800 feet 4" black pipe
600 feet 3" black pipe
Several thousand feet of smaller sizes of pipe, electric wire, hoses, etc.
1 Mule

PUMPING PLANT

Main Shaft

A Taylor Engineering Works, 750 gallons per minute, 1000 foot head, 250 HP, five throw pump installed on the 1000 foot level was operated steadily during the year. Since the mine was unwatered, this pump was slowed down to about 600 gallons per minute capacity.

Main Shaft Auxiliary Pumps

400 Level 1 Cameron turbine, 500 gallons per minute capacity pumping to surface
700 Level 1 Alberger turbine 350 gallons per minute capacity pumping to the 400
1000 Level 1 Byron-Jackson turbine 200 gallons per minute capacity pumping to the 700
1000 Level 1 Dow air pump, 150 gallons per minute capacity pumping to the 700

In the event of a breakdown with the Taylor five throw pump, the auxiliary system can be used, or in the event of flooding the Taylor pump, the auxiliary system can be run in parallel.

Canyon Shaft

1500 Level 1 125 HP, 500 gallons per minute, 668 foot head, Cameron turbine pump pumping to 1000
The west drift on this level was dammed at its entrance and is now used as a sump for this pump. Capacity about 7500 gallons.

2000 Level 1 125 HP 500 gallons per minute, 620 foot head, Cameron turbine pump pumping to 1500 level
A new sump in the hangingwall on the 2000 level was excavated, capacity 25000 gallons.

Below the 2000 Level

To handle the water below this level, water coming from the 1500 level is piped down the shaft and is utilized as an ejector to raise the water from the bottom of the shaft into the sump on the 2000 foot level.

Jersey Mine

A small air pump on the 1600 level pumps the water to the 1600 level.

The water in the bottom of the mine is raised to the 1600 level pump with a second small air sinking pump.

The above pumping equipment will be adequate until such time as extensive workings are opened up below the 3000 foot level.

ORE POSSIBILITIES

1000 Level East Drift

This drift will prospect a vein in a country about which absolutely nothing is known, but if the Dorsey vein extends to the horizon of this level, the chances for ore are quite good.

1000 Level East Hangingwall Crosscut #2250

The chance of developing ore, on the veins this crosscut will intersect, is considered excellent. The crosscut should reach the vein country in May 1922, and ore developments are possible any time after that.

Main Shaft from the 1000 Level to the 2000 level

An unknown country will be traversed by this work.

1500 Level West Drift from the Main Shaft

A substantial vein of low grade ore ($7.00 to $8.00) is said to exist in the bottom of the old Eureka main incline shaft. This shaft is said to be from 1200 to 1500 feet deep. This information was obtained from what is considered a very reliable source. The possibilities of the 1500 level west drift developing ore are considered fair.

The fact that all of the information, regarding the existence of ore in the mine, obtained before the property was acquired was false; with the exception of the 1900 Dorsey and the bottom of the Canyon shaft, must not be overlooked. Even so, I think the driving of this drift under the circumstances is justified.

Dorsey Winze and 1900 Level East and West Drifts

There is a strong vein from 12 to 48 inches wide in these workings, with good values in the 1900 west drift. The possibility of developing a substantial tonnage of fair ore on the Dorsey vein is considered very good.

2000 Level East Drift

The ore possibilities in this drift are considered very good.

2000 Level West Drift

The ore possibilities here are of an entirely unknown quantity but there does not appear to be any geological reason, so far as is known, why ore cannot exist.

2100 Level East and West Drifts

Good values have been found in the Canyon shaft and in the 2000 level east drift. The vein in both of these places is small and erratic, but there are good possibilities of sufficient improvement in depth, to make payable ore.

At 132 feet in the Canyon shaft, which was the bottom on the date this report was written, the vein looked better than it has at any other place in the shaft, below the 2000 level. It is only 4 inches wide but contains sufficient visible gold to make it interesting. Heretofore, the values have been confined almost exclusively to the narrow gouge streak in the vein, but in this case there is still one-half inch of gouge and the rich quarts besides.

OTHER PLACES

There are some other places which eventually may lead to important developments, but at present their principal value will be in giving geological information, upon which to base future work.

CONCLUSION

The opinion that a successful mine will be developed, appears amply justified from the evidence at hand. The time element is hard to gauge, but if developments during 1922 do not prove sufficiently successful to warrant the above classification, the work in 1923 will either do so or prove that the property is not worth going on with. I consider this latter contingency very remote, but on the contrary, I consider the likelihood excellent of the mine developing a sufficient quantity of good ore during 1922, to take it out of the speculative class, entirely.

Respectfully submitted,

JAF/c

J. A. Sullivan

Manager

IDAHO MARYLAND MINES COMPANY

Trial Balance after closing December 31st, 1921

DEBIT

Buildings & Equipment	153,706.88
Crocker National Bank	9,873.76
Development	393,702.60
Fire Insurance Accrued	533.03
INVESTMENTS - Market	1,144.49
Livestock	125.00
Nevada County Bank, General Account	571.16
Nevada County Bank, Payroll Account	435.55
Personal Accounts	89.51
Profit & Loss	146,320.54
Property	8,637.67
Stores	482.88
Suspense	14,001.79
Union Hill Mines - Development	50,153.19
	779,778.05

CREDIT

Compensation Insurance Accrued	1,858.29
Property Sales	5,000.00
Taxes Accrued	640.31
Treasurer	770,893.46
Union Hill Mines	1,385.99
	779,778.05

IDAHO MARYLAND MINES COMPANY

Cash Statement for year 1921.

RECEIPTS

Balance on hand January 1st, 1921	8,929.71
Treasurer	269,500.00
Bullion	6,658.37
Concentrates	1,775.19
Empire Mines, 4244' of 40# T Rails	1,873.26
Personal Accounts	963.02
Adjustment of loss from fire January 27th, 1921	1,672.45
State Comp. Insurance Fund, ref. 1920-1921 contract	3,690.97
State Comp. Insurance Fund, ref. of deposit	500.00
Castings, scrap iron, etc.	2,156.84
Nevada County NGRR, claims, freight overcharges, etc.	82.88
Rental of cottages	200.00
Rental of ground	5.00
Old hoisting cable	204.00
Wood	18.34
Miscellaneous	325.97
	298,556.00

DISBURSEMENTS

Payroll, company	150,683.37
Payroll, tributers	4,165.90
Supplies	120,030.27
Compensation Insurance	9,012.52
Taxes	1,540.85
Fire Insurance	846.95
Property	1,397.67
	287,675.53
Balance on hand December 31st, 1921	10,880.47 *
	298,556.00

* Crocker National Bank 9873.76
Nevada County Bank, Gen. a/c 571.16
Nevada County Bank, P/R a/c 435.55
10880.47

IDAHO MARYLAND MINES COMPANY
Expenditures for year 1921

Sheet #1

	Labor	Material	Power	Total
DEVELOPMENT				
Main Shaft Repair	319.25	50.45	4.06	373.76
Main Shaft Sinking	2,541.74	1,210.57	157.84	3,910.15
400 Level West Drift, repair	8.50			8.50
400 Level West Footwall Crosscut	112.35	5.97	7.07	125.39
700 Level West Raise between 700 Idaho & 600 Eureka levels	27.50	5.60		33.10
700 Level West Drift	131.07	5.37	2.34	138.78
Second Exit 400 to 700 levels	1,594.42	394.68	39.74	2,028.84
Eureka Shaft Repair	1,400.39	474.87	124.79	2,000.05
800 Level West Drift repair	22.36			22.36
800 Level East Drift	56.30	6.80		63.10
855' Level from West Raise #210	1,086.00	553.28	16.39	1,655.67
855' Level Raise 85' E of "	602.68	215.27	59.10	877.05
855' " " 37' W of "	228.23	134.12		362.35
900 Level East Drift repair	59.05	11.27		70.32
1000 Level West Raise # 210	3,827.07	1,663.20	425.78	5,916.05
1000 Level West Drift repair	59.50	3.72		63.22
1000 Level Main Shaft Station & Ore Pocket	2,874.15	1,054.83	40.98	3,969.96
1000 Level Mule Barn	432.84	354.57	16.24	803.65
1000 Level Canyon Shaft Station & Ore Pocket	752.95	527.90	20.24	1,301.09
1000 Level East Drift (old)	4,451.07	629.07	306.48	5,386.62
1000 Level East Drift (new)	9,453.16	3,502.57	1,379.00	14,334.73
1000 Level East Drift, repair	544.17	173.34	7.24	724.75
1000 Level E.F. W. Crosscut1673	972.57	352.57	97.58	1,422.72
1000 " " " " " #2250	447.58	225.25	119.75	792.58
1000 " " H.W. " "	5,814.46	3,849.65	1,249.74	10,913.85
Canyon Shaft Repair	25,965.97	9,853.36	1,928.31	37,747.64
Canyon Shaft Sinking	154.38	15.93	31.84	202.15
1200 Level Station & Ore Pocket	37.20	5.97		43.17
1300 " " " " "	670.93	167.00	58.13	896.06
1300 " East Drift	697.69	50.49	10.99	759.17
1300 " West "	2,378.38	945.90	382.81	3,707.09
1400 " Station & Ore Pocket	611.78	108.18		719.96
1400 " East Drift	1,552.79	187.81	77.13	1,817.73
1500 " Station & Ore Pocket	287.00	118.81		405.81
1500 " East Drift	1,248.36	310.75	61.58	1,620.69
1500 " West Drift	375.16	49.55		424.71
1600 " Transformer Station	164.11	9.99		174.10
1600 " Station & Ore Pocket	649.00	253.97	6.07	909.04
1600 " East Drift repair	10,981.10	3,117.60	703.54	14,802.24
1600 " " Raise #1400	226.93	11.14		238.07
1600 " " H.W.Raise #1950	108.01	16.34		124.35
1600 " Dorsey Stat.& Ore P.	866.69	287.98	16.88	1,171.55
1600 " Dorsey Winze Repair	3,918.34	1,218.52	93.03	5,229.89
1600 " Dorsey Winze Sinking	118.11	11.33		129.44
1700 " " Stat. & Ore P.	62.69			62.69
1800 " " Pump Station	41.09			41.09
1900 " " Stat. & Ore P.	229.98	39.20	21.87	291.05
1900 " " East Drift	225.72	52.95	57.49	336.16
1900 " " West "	252.73	75.44	15.93	344.10
1900 " " Stat.& Ore P.	67.49			67.49
Carried forward	89,710.99	32,313.13	7,539.96	129,564.08

IDAHO MARYLAND MINES COMPANY
Expenditures for year 1921

Sheet # 2

	Labor	Material	Power	Total
DEVELOPMENT, Cont'd. Forward	89,710.99	32,313.13	7,539.96	129,564.08
2000 Level Stat.& Ore P.	3,584.59	1,500.27	395.77	5,480.63
1800 " " " "	63.56	17.70		81.26
1900 " West Drift	36.75			36.75
2000 " Pump Station	2,446.30	533.79	268.38	3,248.47
2000 " East Drift	2,291.50	941.37	503.21	3,736.08
2000 " West "	2,699.37	460.77	280.63	3,440.77
Pumping	11,866.00	3,379.41	10,592.79	25,838.20
Unwatering	8,491.80	4,398.75	6,032.83	18,923.38
Ventilation	1,370.26	2,833.51	2,149.57	6,353.34
Total	122,561.12	46,378.70	27,763.14	196,702.96
STOPING				
Eureka Surface Tribute	87.65	10.25		97.90
300 & 400 Level "	3,031.23	220.79	50.76	3,302.78
700 Level Company	497.80	88.60	23.45	609.85
700 " Tribute	201.91	183.94	35.87	421.72
800 " Company	3,919.46	1,912.07	651.24	6,482.77
1000 " Tribute	2,031.23	453.08	202.03	2,686.34
1000 " Company	418.64	96.55	21.10	536.29
1400 " "	898.51	188.69	96.23	1,183.43
1500 " "	1,891.98	1,010.36	250.35	3,152.69
1900 " Drosey company	356.93	63.09	37.63	457.65
Total	13,335.34	4,227.42	1,368.66	18,931.42
MILLING				
Crushing company a/c	347.34	27.19	82.69	457.22
" tributors "	222.41	48.12	3.30	273.83
Milling company "	1,668.72	346.22	358.88	2,373.82
" tributors "	698.33	136.14	153.70	988.17
Total	2,936.80	557.67	598.57	4,093.04
MARKETING BULLION				
Express		9.18		9.18
Treatment		26.79		26.79
Total		35.97		35.97
MARKETING CONCENTRATES				
Loading for shipment	41.05			41.05
Freight		237.02		237.02
Treatment		186.96		186.96
Assaying & Sampling		12.00		12.00
Total	41.05	435.98		477.03
GENERAL & ADMINISTRATIVE				
Assaying & Sampling	1,995.00	340.38		2,335.38
Automobile Expense	408.40	1,786.24		2,194.64
Compensation Insurance		6,510.93		6,510.93
Consulting Engineering		2,311.86		2,311.86
Dues & Donations	12.35	1,365.45		1,377.80
Engineering	1,577.00	71.94		1,648.94
Fire Insurance		831.25		831.25
Fire Protection	3.00			3.00
First Aid	60.30	118.88		179.18
Geological Survey		1,868.13		1,868.13
Legal Expense		1,651.11		1,651.11
Management	9,466.65			9,466.65
Manager's residence	424.52	956.58		1,381.10
Carried forward	13,947.22	17,812.75		31,759.97

IDAHO MARYLAND MINES COMPANY
Expenditures for year 1921

Sheet # 3

	Labor	Material	Power	Total
GENERAL & ADMINISTRATIVE, Cont'd.				
Brought forward,	13,947.22	17,812.75	.	31,759.97
Memorial Park Serv. House	122.25	2,298.40		2,420.65
Miscellaneous	762.39	520.74		1,283.13
Office Expense	3,696.70	209.19		3,905.89
Property Roads	49.80	416.75		466.55
San Francisco Office		1,605.78		1,605.78
Taxes		1,582.31		1,582.31
Telephones & Lighting	79.85	70.22	267.42	417.49
Tel. Teleg. & Postage		419.66		419.66
Travelling Expense		870.13		870.13
Watchmen	1,384.30			1,384.30
Total	20,042.51	25,805.93	267.42	46,115.86
BUILDINGS & EQUIPMENT				
Assay Office Building	182.95	139.58		322.53
Change House	215.38			215.38
Crusher Building	15.90	22.12		38.02
Crusher Tramway	11.50	2.25		13.75
Electric Shop	5.65			5.65
Mill Building	165.30	129.33		294.63
Mill Tailings Trestle	130.30	68.92		199.22
Sawmill Building	822.75	330.55		1,153.30
Tailings Dam	1,044.25	3.45		1,047.70
Timber Derrick	208.05	104.19		312.24
Assaying Equipment	67.60	370.61		438.21
Automobile Equipment		198.25		198.25
Blacksmith Shop Equipment		150.00		150.00
Compressing Equipment		2,109.16		2,109.16
Conveying Equipment		17.90		17.90
Hoisting Equipment		691.13		691.13
Mill Equipment	653.20	521.23		1,174.43
Miscellaneous Equipment		76.15		76.15
Sawmill Equipment		42.04		42.04
U.G.Equip - Cars & Skips	189.60	1,604.24		1,793.84
Drilling		1,515.17		1,515.17
Power	186.20	2,530.93		2,717.13
Pumping	85.10	3,523.12		3,608.22
Ventilating Equipment		3,535.72		3,535.72
Total	3,983.73	10,494.72		14,478.45
Grand Total	162,900.55	87,936.39	29,997.79	280,834.73

IDAHO MARYLAND MINES COMPANY

Operating Statement for year 1921.

EXPENSES

Development	196,702.96
Stoping	18,931.42
Milling	4,093.04
Marketing Bullion	35.97
Marketing Concentrates	477.03
General & Administrative	46,115.86
Buildings & Equipment	14,478.45
	280,834.73

RECEIPTS

Bullion	13,047.84
Concentrates	2,191.28 ✓
Discounts	525.07
Rent of cottages	176.20 -
Rent of Equipment	650.00 -
Rent of Ground	17.00 -
Sale of castings (Union Hill)	1,624.17 }
Sale of castings (Idaho Maryland)	485.82 }
Miscellaneous	64.75 -
Excess expenses over receipts	261,452.60
	280,834.73

IDAHO MARYLAND MINES COMPANY

Summary of Inventories.

December 31st, 1921

SUSPENSE

Mill Supplies	172.72	
Wood	105.89	
Blacksmith Coal	106.25	
Lumber	1,425.55	
Poles	9,637.43	
Lagging	26.70	
Carbide	46.20	
Drill Steel	2,058.19	
Rails	161.28	
Explosives	281.58	14,001.79

STORES

Drill parts	284.43	
Electrical Supplies	91.47	
Miscellaneous (boots,lamps,etc)	106.98	482.88
TOTAL		14,484.67

CONTENTS

Copies to

Fred. G. Parish, Esquire,
Bulkeley Wells, Esquire,
Roy H. Elliott, Esquire,

IDAHO MARYLAND MINES COMPANY

Milling Analysis for year 1921

Average Heads,	Company	$ 2.96
" "	Tributers	15.24
Average Tails,	Company	.44
" "	Tributers	1.39
Tons Ore Milled,	Company	3180
" " "	Tributers	1152
	Total tons ore milled	4332
Ore crushed per stamp for 24 hours		5.65 Tons
Amalgam recovered,	Company	918.16 Ozs.
" "	Tributers	1512.975 "
	Total amalgam recovered	2431.135 "
Value of amalgam,	Company	$ 5174.50
" " "	Tributers	8796.15
	Total gross value (bullion)	$ 13970.65
Average value amalgam per ounce		$ 5.79
Total ounces bullion produced		863.85 ozs.
Average value bullion per ounce		16.17 +
Percentage of gold amalgamated		55%
Concentrates produced	Dry tons	18.865
	Gross Value Per Ton	116.03
	Net " " "	94.00
	Freight & Treatment Per Ton	22.03
Cost per ton of ore milled		94¼¢ ✓

Recovery	Gross value	Charges & Deductions	Net value
Free gold	$13,970.65 ✓	$ 61.66	$13,908.99
Concentrates	2,191.22 ✓	416.03	1,775.19 ✓
	$16,161.87	477.69	15,684.18

On the end of the year there were ten to twelve tons of concentrates on hand but no effort was made to ascertain this accurately as there was not enough involved to make it worth while.

13908.99
- 97
13873.02

EXHIBIT 75

1922_02_22 – The Sacramento Bee

DRIVE FOR ORE TO BE CARRIED TO DEPTH

Decision Reached for New Work at Idaho-Maryland Mine After Visit of Bulkley Wells

GRASS VALLEY (Nevada Co.), February 22.—After expending sums reputed to be in excess of $1,000,000 in reopening the Idaho-Maryland mine here and before any ore of consequence has been extracted, the formidable undertaking of sinking a shaft 1,400 feet has been decided upon.

This is according to J. A. Fulton, the general manager, who states that the present vertical shaft of 1,000 foot depth is to be sunk to a total depth of approximately 2,-4000 feet, work to start immediately. Bulkley Wels, President of the Idaso-Maryland Company and several engineers, were here a few days ago and decision to sink was reached at that time.

New Operating Shaft.

The proposed development will go completely under all existing shafts and drifts of the mine, but will be connected with the present system by upraises. The canyon shaft, an immense incline extending from the bottom of the 1,000-foot shaft into the Maryland ground, will cease to be the operating avenue of the mine.

The Idaho-Maryland was purchased by the present company slightly over three years ago, and has been in process of reopening constantly since. According to current reports, more than $1,000,000 has been expended. No estimate is given of the cost of the new shaft.

Prospects Held Satisfactory.

According to recent statements, no sensational discoveries have been made in the mine, but the general outlook is highly satisfactory. It is known that the famous Eureka-Idaho-Maryland loge has been recovered in what is known as the Dorsey winze and that a strike has also been made in the deeper workings. These and other indications have convinced the owners that deep shaft is justified, and it is to be sunk as rapidly as possible.